**Performance Impact Analysis**
**Relocation of DAEP Classrooms**
**Revised August 2, 2022**

## I. Proposed Action.

The District must move one of the two DAEP classrooms at the Southwest Educational Center[1] to a different location, pursuant to an order of the District Court dated March 24, 2022. The District proposes to move the high school classroom from the Southwest Educational Center to the former Menlo Park school,[2] much closer to the principal referring high schools on in the west and central regions of the District (Cholla, Pueblo, and Tucson High). The high school classroom at Southwest Education Center has operated substantially under capacity since at least SY2018.

The District also proposes to locate the DAEP high school classroom from its former location at Project MORE to available space at Palo Verde High School, further east, and much closer to referring high schools on the south and east side of the District.[3] The high school classroom at Project MORE has at times been at or above the 1:10 teacher to student ratios prescribed by the Court for this program, and the move, in combination with the move of the other DAEP high school classroom to the Menlo School, is anticipated to (a) improve access to high school DAEP programs across the District, and (b) better balance demand between the two high school DAEP classrooms as a result of improved location.

Finally, the District proposes to relocate the two middle school classrooms at

[1] The Southwest Education Center is a former District elementary school, now closed, located at 6855 S. Mark Road in Tucson. A number of other District programs currently operate from this District property.
[2] The Menlo Park school is a former District elementary school, now closed, located at 1100 W. Fresno.
[3] Palo Verde High School is located at 1302 S Avenida Vega.

Magee and Doolen to available space at Catalina High School, to improve access, facilities and flexibility. The Magee classroom had relatively high enrollment, and the Doolen classroom has consistently operated under capacity. At least two classrooms are available to DAEP at Catalina, and the District will initially operate one classroom, and open a second as DAEP enrollment reaches its peak each year in the spring.

In each instance, the DAEP classrooms will be located in large school buildings, in schools which either have been closed or have significant available space due to decreased enrollment over the last several years.

The District proposes to implement the proposed locations for the high school classrooms (at Menlo School and Palo Verde) at start of the 2022-23 school year. Because of recent court orders, the District will begin the school year with middle school classrooms at their former locations, at Doolen Middle School and Southwest Educational Center. If the Governing Board approves the changes discussed in this PIA during the 2022-23 school year, the District will move the middle school classrooms at Doolen to the proposed facility at Catalina.

## II. Anticipated Issues.

Because these changes in DAEP classroom locations do not alter DAEP's referral systems, teaching model, program availability, or the resources available to any DAEP classroom, the District does not anticipate significant issues as a result of the change.

## III. Objectives.

The District's objectives for this change are (a) to improve access to DAEP by moving DAEP classroom locations closer to the principal referring schools, (b) to balance demand across classroom locations, and (c) to improve flexibility in available space for

classrooms so that DAEP classrooms can be dynamically adjusted to meet changing enrollment conditions.

The rationale for each proposed move is as follows:

**A. <u>Moving the High School Classroom at Southwest Education Center to Menlo Park School</u>.**

As noted above, the Court ordered the District to move one of the two classrooms at the Southwest Educational Center. The District tracks the home schools of each student in each DAEP classroom. The Southwest Educational Center is far south and west of any of the District high schools, including the principal referring high schools (Cholla, Pueblo and Tucson High); by contrast, the SWEC is much closer to the primary referring middle schools (Valencia, Pistor, Lawrence). Finally, the high school classroom had somewhat smaller enrollment than the middle school classroom. Accordingly, the decision was made to move the high school classroom rather than the middle school classroom.

The best available location for the new high school classroom is at the Menlo Park School, which is much closer to Cholla, Pueblo and Tucson High. The Menlo Park school is a closed former elementary school which housed other District programs. There is classroom space available, and room to expand if needed. The location is much closer to the principal referring high schools. Given the available space, no existing program would be displaced or affected by the move.

**B. <u>Moving the High School Classroom at Project MORE to Palo Verde High School</u>.**

The high school DAEP classroom at Project MORE has had enrollment closer to, and sometimes slightly above, the 1:10 ratio. This is largely a result of its location in south

central Tucson – though it is far away from the high schools on the east side, it is much closer to all high schools than the only other alternative, the high school DAEP classroom at the Southwest Education Center. Given the move of one high school classroom to the Menlo Park school, there is a strong need to move the other high school DAEP classroom further east, to balance enrollment and improve access.

Palo Verde fits the bill. The campus at Palo Verde is substantially larger than Project MORE. Enrollment at Palo Verde has dropped from over 1200 in SY16-17 to under 700 in SY21-22, so it has plenty of available classroom space. Other programs also operate at Palo Verde, taking advantage of the available space, but there is enough space that the DAEP classroom will not reduce or impact the space available to other programs (specifically, it will not reduce or impact space available to the FRC). The location on the east side balances the Menlo Park school on the west side, providing substantially better access to a DAEP high school classroom across the District.

**C. Moving the middle school classrooms at Magee and Doolen to Catalina.**

For many months during SY18-19, the combined enrollment in the two middle school DAEP classrooms at Magee and Doolen was less than 10. Indeed, the DAEP classroom at Doolen did not operate at all in SY19-20 and SY20-21. Further, Magee is on the far east side of the District, and the only other middle school DAEP classroom is in the far southwest of the District at Southwest Education Center. This made access difficult for students at many schools in the denser central part of the District.

The District proposes to move these middle school DAEP classrooms to the campus at Catalina High School. The location is more centralized, and will be significantly more accessible to students as many middle schools that either Magee or Southwest. As

at Palo Verde, there are plenty of classrooms available at Catalina (enrollment has also dropped at Catalina over the last five years). Other programs also operate at Catalina, taking advantage of the available space, but there is enough space that the DAEP classrooms will not reduce or impact the space available to other programs. DAEP staff intends to operate one middle school DAEP classroom at Catalina at the start, and has already identified the expansion classroom, which will operate whenever needed to keep enrollment at the 1:10 target student-teacher ratio.

## IV. USP Program Background.

The District Alternative Education Program, which has become known by its acronym DAEP, was established in SY2015-16, as part of a multi-faceted, comprehensive effort under the USP to reduce the number of days a student is removed from classroom instruction through disciplinary suspension. The overall effort included strategies (a) to reduce the number of long-term suspensions, through more inclusive school environments, positive behavioral interventions and supports (PBIS), restorative practices, in-school interventions, professional learning, and data monitoring and analysis, and (b) to provide fewer days away from classroom instruction once infractions occurred, through revisions to the Code of Conduct, DAEP and abeyance contracts.

DAEP offers an option for students to continue instruction after committing a violation of the Code of Conduct that requires a long-term suspension away from school as a consequence. The program is voluntary: the student and family make the election to enter DAEP as an alternative consequence to a traditional long-term suspension. Hearing officers are trained to offer the DAEP option to every eligible student. The program is designed to continue the curriculum offered in the student's home classroom, with as little

instructional interruption as practicable in the circumstances, until the student is permitted to return to the home classroom under the terms of the disciplinary consequence.

The proposed move of classroom locations does not change the instructional model, which remains as it was originally designed. DAEP students work individually on lessons provided by the home school teacher, and the DAEP teacher supervises, supports and facilitates when there are questions from a student. Specifically, the student's work is designed, assigned, and graded by his or her home teacher. DAEP teachers assist through a guided-practice teaching model, where teachers circulate the classroom and support students as they complete assigned work. DAEP is limited to core subjects, as it has been from the start. The DAEP classroom affords a supervised setting to continue lessons from the home teacher, with Wi-Fi, technology and other equipment needed for DAEP's small group guided practice model. Students receive individual or small-group support as they work on their assignments.

The target classroom enrollment will not change, operating on a 1:10 teacher to student ratio.

Students are provided breakfast and lunch every day. DAEP periods run from 9:00 a.m. until 3:00 p.m. (with the exception of Wednesday, where DAEP students are released at 2:00 p.m. to allow for teacher collaboration), actually a small increase in daily program length over past years. The District continues to provide transportation for all students in DAEP.

Students also receive social emotional learning ("SEL") lessons and a behavioral support component in a group setting for at least forty-five minutes per day, to teach DAEP students appropriate behaviors to assist as they re-acclimate into their home

school. One exceptional education teacher is assigned exclusively to serve DAEP students.

In SY2018-19, the District operated five DAEP classrooms:[4]

(a) a high school classroom at Project MORE,[5] which served an average of 8 students at any given time during that school year, with a low of 2 students, and a high of 14 students (on 3 days of the school year);

(b) a high school classroom at the Southwest Education Center, which served an average of 3 students at any given time during that school year, with a low of zero students, and a high of 8 students;

(c) a middle school classroom at Southwest Education Center, which served an average of 4 students at any given time during that school year, with a low of 1 students, and a high of 9 students;

(d) a middle school classroom at Magee Middle School,[6] which served an average of 6 students at any given time during that school year, with a low of 1 student, and a high of 14 students (on 2 days of the school year); and

(e) a middle school classroom at Doolen Middle School,[7] which served an average of 4 students at any given time during that school year, with a low of zero students, and a high of 12 students (on 3 days if the school year).

In SY2019-20, the District did not operate the middle school classroom at Doolen.

[4] The District is using SY18-19 as the baseline year for comparison, as this was the last full in-person school year before the pandemic.
[5] Project MORE is a comprehensive alternative high school for students who face outside challenges in getting a diploma at a traditional high school. Teachers work with students at an accelerated pace to help them fill in learning gaps, complete their high school education and prepare them for college and careers. Project MORE is located at 440 S. Park Avenue in Tucson.
[6] Magee Middle School is located at 2400 N Country Club Road.
[7] Doolen Middle School is located at 8300 E Speedway Blvd.

Enrollment in DAEP over the course of the school year varies widely, from very low in the early fall, rising as the fall progresses, dropping again in winter, and rising to its annual peak in March or April each year. SY2018-19 was typical of this pattern: enrollment at the beginning of September was less than 10 students across all five classrooms; by the beginning of March, program enrollment was around 35, and then dropped by the end of the school year in May. The District saw the same general pattern and numbers this past year, SY2021-22.

## V. Impact Analysis: Impact on Protected Classes (AA, LatinX, including EL students).

### A. Impact on Effectiveness of Program.

The 2018-19 school year was the last full year of in-person instruction prior to the pandemic.[8] After the close of the 2018-19 school year, the District conducted a comprehensive evaluation of the efficacy of DAEP, reported in the District Annual Report for that year as Appendix VI-17, appearing in the record as ECF 2305-2, pp. 52-95. A copy of that report is attached hereto as Exhibit A and incorporated by reference.

Pursuant to the Court's recent order, the District has returned to its pre-COVID operational model. Accordingly, the District evaluates impact of any proposed change from operations for that baseline year.

The proposed change in locations does not involve any change to the DAEP teaching model, curriculum or staffing from the 2018-19 baseline year. All of the new

[8] District instruction in the final quarter of the 2019-20 school year was fully remote on-line instruction. The District continued with fully remote instruction throughout the first three quarters of the 2020-21 school year. In the final quarter of the 2020-21 school year, the District offered both in-person and remote instruction. In the 2021-22 school year, the instruction was primarily in person, with on-line instruction offered through various District programs, including Project MORE, Catalina Online Learning Experience (COLE), and the Tucson Unified Virtual Academy (TUVA).

classrooms are fully equipped, with capacity for students significantly in excess of the program's target 1:10 teacher-student ratio.

The DAEP classrooms at Catalina are located in a building immediately west of the main high school building on the Catalina campus. There are no regular high school classrooms in the building. Other district programs also operate in that building (just as was the case at Magee, Doolen, Project MORE and the Southwest Educational Center), but any contact between DAEP middle school students and the general population at Catalina will be infrequent. The Catalina building also contains separate restrooms available for use by DAEP students and staff.

The DAEP classrooms at Catalina are an appropriate size to meet DAEP's needs. The DAEP classrooms at Catalina contain regular student desks, a large Promethean white board, bulletin board, projector, printer, bookshelves, as well as ample classroom supplies.

All DAEP sites receive supplies and equipment from one common supply room. Equipment such as paper, printer cartridges, pens, pencils, pencil sharpeners, and other classroom supplies are supplied to all DAEP sites, including Catalina, from this common supply source. The District has used this exact supply procedure in past years, and the same two District staff members continue to manage this equipment. There are copiers in adjacent offices.

The Palo Verde DAEP classrooms provides an effective, ample space for DAEP students to perform their assigned work. The classrooms are located in the main high school building at Palo Verde, in which there are other classrooms, multi-purpose rooms, offices, and restrooms available to DAEP students and staff. Palo Verde's DAEP

classrooms contains regular desks, a large white board, bulletin board, projector and bookshelves, as well as ample classroom supplies.[9] These classrooms are more than adequate to serve students assigned to DAEP at Palo Verde.

Similarly, the DAEP classroom at Menlo Park is large enough to accommodate more than ten students, and is fully equipped for the DAEP teaching model.

Accordingly, the District does not anticipate any impact to the effectiveness of DAEP attributable to the change in locations.

## B. Analysis of Impact on District Obligations under the USP

### *1. Compliance*

The internal compliance monitoring system regarding USP requirements and Court orders within the District will not be altered. There is no impact on the Compliance requirements under the USP.

### *2. Student Assignment*

The proposed change in DAEP classroom locations will not impact attendance boundaries, magnet school programs, mandated integrations plans, or academic achievement plans for magnet or non-magnet schools. Students remain formally enrolled at their home school, and return to the home school after completing their assignment to DAEP. Accordingly, there is no anticipated effect on the Student Assignment requirements under the USP.

[9] The DAEP classrooms are used full time during DAEP program hours for DAEP classroom instruction. They are is not part of any other program's assigned space during those hours. However, like most classrooms across the District, when school is not in session (i.e., evenings), classrooms may be used by other groups and programs.

*3. Transportation*

The District will continue to provide transportation for students to each of the proposed DAEP classroom locations, as it did in SY2018–19. The average number of students needing transportation to DAEP classrooms will likely remain the same, and in any event is so tiny in comparison to the District's overall transportation effort as to render even a significant increase in DAEP transportation needs absorbable into the system without measurable impact. The change in locations does not conflict with any requirement under the District's Transportation Plan (last revised in March 2021). [ECF 2517-6].

Because DAEP classrooms will be more centrally located under this PIA, there will be a decreased need for public transportation of at-risk DAEP students. As explained in § III(A), the bulk of the current DAEP referrals for high school students on the west side of the District arise largely from Pueblo, Cholla and Tucson High Schools, which are near Menlo Park Elementary (which will serve as the high school DAEP location). Similarly, the move of middle school classrooms from Magee and Doolen to Catalina will reduce transportation times for all but the farthest east part of the District.

As has always been the case throughout the life of the program, the District provides SunTrans passes for students to use public transportation to attend DAEP classes. Students who have received a long-term suspension are not permitted to use District school buses (for safety reasons, given that other students in the general population would also be on the buses) as part of the suspension, and the DAEP program does not change this long-standing practice. The new locations are more centrally located, and will reduce the difficulty and time of access for most DAEP students.

*4. Admin/Certified Staff*

The proposed change in DAEP classroom locations will not remove, eliminate, or otherwise impact obligations relating to administrators and certificated staff under the USP. DAEP is not a school, but rather a program, and thus does not have separate school-based requirements under the USP, but, in any event, the change in locations proposed in this PIA does not affect staffing for the program, only the location of the classrooms. The District will continue to comply with all USP requirements for recruiting, hiring, and retention for program staff. Accordingly, there is no anticipated effect on Admin/Certified Staff programs or obligations under the USP.

*5. Quality of Education*

The District does not anticipate that the change in DAEP classroom locations will impact any of its programs or obligations under Section V of the USP. The change in locations will not require additional funding that might impact other programs under Section V.

*6. Discipline*

As set forth above, DAEP remains a part of the District's multi-pronged effort to reduce the impact of exclusionary discipline on target subgroups. Every student facing a long-term suspension will be offered the opportunity to attend DAEP; hearing officers will continue to be trained accordingly. Additionally, as set forth above, the instructional model within DAEP will also not be altered by changing the DAEP classroom locations.

*7. Family and Community Engagement*

The change in DAEP locations will also not alter or affect the District's compliance with the Family and Community Engagement requirements under the USP. The DAEP classrooms have co-existed peacefully together with the FACE Family Resource Center at the Southwest Educational Center for years, with no adverse effects. Although Family Resource Centers ("FRCs") are also located on the campus at Palo Verde, Catalina, and Menlo Park schools, there is adequate space for both (and also for other programs that are located on these campuses too). The DAEP classrooms will not share equipment or supplies with the FRCS. The DAEP classrooms will not share or reduce the space available to the FRCs. These FRCs operate completely independently of the DAEP classrooms, and will continue to provide the same outreach and engagement services to District families, including the provisions of necessary supplies such as backpacks, school supplies, and food boxes. And the expansion of DAEP will not affect FRC staff from communicating regularly with families, staff, and the community, and partnering with community stakeholders to provide services to families within the District, including classes and workshops. Accordingly, all community outreach efforts will remain unchanged; the change in DAEP locations does not alter the District's compliance with Family and Community Engagement requirements under the USP.

*8. Extracurricular Activities*

The change in DAEP locations will have no impact on the Extracurricular Activities requirements under the USP.

*9. Facilities and Technology*

The change in DAEP locations will not affect the District's programs and commitments in the area of facilities or technology. There will be no impact on the DAEP students regarding the quality of facilities or technology. These locations all have classroom settings, with Wi-Fi, computers, projectors, technology and equipment that is equivalent to prior locations. The DAEP classrooms are an appropriate size to meet the needs of the program, with ample desks, large tables, white boards, bookshelves, and ample classroom supplies. As with SY2018–19, all DAEP sites receive supplies and equipment from one common supply room, which includes (but is not limited to) paper, printer cartridges, pens, pencils, pencil sharpener, and other classroom supplies.

*10. Accountability and Transparency*

The change in DAEP locations will have no impact on the Accountability and Transparency reporting requirements under the USP.

**C. Data Sources**

The District tracks attendance at each DAEP classroom, including the name of the student, the dates of attendance at DAEP and the home school of the student. This was the primary data used to assess class size, number of students attending each class on any given day, the need for the proposed change in locations, and referral patterns in each classroom. In addition, the District assessed the locations and distances of schools and DAEP classrooms using Google maps.

In addition, the District has reported data on long-term suspensions and DAEP enrollment in its annual report each year, from which the following data is taken:[10]

| **School Year** | **16–17** | **17–18** | **18–19** | **19–20** |
|---|---|---|---|---|
| Total Long Term Suspensions[11] | 415 | 387 | 286 | 226 |
| DAEP Enrollment | 266 (64%) | 233 (60%) | 177 (62%) | 138 (61%) |
| Traditional Suspensions | 41 | 81 | 84 | 18 |
| Abeyance Contracts | 108 | 73 | 25 | 70 |

As shown above, students who have received a long-term suspension continue to enroll in the program in approximately the same frequency as in prior years (between 50–60%). It is important to emphasize that the change in locations of DAEP classrooms does not limit DAEP's availability or increase the number of students serving an out-of-school suspensions.

### D. Assumptions

The foregoing analysis assumes that District enrollment in DAEP will continue to operate at or around the same frequency as prior, pre-pandemic years. However, if for any reason DAEP enrollment increases above past years, the District will expand DAEP to cover additional classrooms at the four proposed DAEP Classroom locations or open additional DAEP classroom locations at other school sites in the District. Additionally, the foregoing analysis assumes that DAEP referral trends will continue to support these four District locations. For example, as explained above, the current DAEP referrals for high school students on the west side of the District arise largely from Pueblo, Cholla and Tucson High Schools, which are near Menlo Park Elementary (which serves as the high school DAEP location). In the event that other schools within the District begin to produce

[10] DAEP has always only been offered as an alternative to a long-term suspension; it has never been offered as an alternative for a short-term suspension.

[11] This number includes all students who received a long-term suspension, including those who elected to enter DAEP and those who entered into abeyance contracts.

disproportionally more referrals, the District will be re-evaluate these proposed DAEP classroom locations. The District has not identified any other impacts that require mitigation.

### E. Research-Based Sources

The District reviewed available research for any studies or best practices sources addressing the placement of classrooms for middle school programs similar to DAEP on the same campus, but generally separated from, a regular high school. The District was unable to find any research or best practices materials addressing this issue.[12] However, numerous national educational policy associations and researchers have more generally determined that students benefit from 6–12th grade configurations.[13]

Further, the District has not found any research-based or best practices authority suggesting that there is any risk to students by locating a middle school program such DAEP on a high school campus, particularly given the mitigations arising from the separation and location of the DAEP classrooms from the main campus, the limited

[12] There are a number of studies of alternative education programs, but the District was unable to find any that address the location of a middle school program on a regular high school campus. See Review of Educational Research Literature, TUSD Assessment and Evaluation Department, August 2, 2022 (copy attached as Exhibit B). Examples of studies addressing alternative education programs, but not the specific issue of a middle school program located on a high school campus include: J. Owen, J. Wettach and K. Hoffman, *Instead of Suspension: Alternative Strategies for Effective School Discipline*, Duke Center for Child and Family Policy and Duke Law School (2015)(noting successful programs that combine middle school and high school alternative education programs on the same campus); M. Quinn and J. Poirier. *Study of Effective Alternative Education Programs: Final Grant Report*, American Institutes for Research (revised June, 2007)(addressing alternative education programs but not location or combination of particular grates). Copies of these two articles are attached as Exhibit C.

[13] E.g., L. Darling-Hammond, L. Flook, C. Cook-Harvey, B. Barron, and D. Osher, *Implications for Educational Practice of the Science of Learning and Development*, Applied Developmental Science, Vol. 24, No. 2, 97-140 (2020). In 2011, the Tulsa Public School system collected research related to grades 7-12 school configurations in a paper available at *https://www.sgdsb.on.ca/upload/documents/june-28-12-post-arc-research-7-12-school.pdf.* Based on data from 2015-16, the National Teacher and Principal Survey, conducted by the National Center for Education Statistics of the U.S. Department of Education, determined that there were about 8,200 combined middle/high schools across the country (available at https://nces.ed.gov/surveys/ntps/tables/ ms_hs_start_time_082817.asp). Copies of the materials cited in this footnote are attached as Exhibit D.

access from the rest of the campus, separate available restrooms, and the infrequent need for non-DAEP high school students to be in the same hallway, given the functions of other programs in that hallway.

### F. District Experience

Though not based on a formal study or research, the District's own experience with some of the issues raised in this Performance Impact Analysis is relevant to the decision whether to implement District staff's recommendation.

In particular, the District actually operated a DAEP classroom for middle school students on the campus at Catalina, at the proposed location on that campus, during the 2021-22 school year. There were no incidents between middle school DAEP students and regular Catalina high school students during the year that would indicate a risk to either group of students.

## VI. Conclusion.

Based on the foregoing, the District concludes that the proposed change in DAEP classroom locations will not negatively impact the performance of DAEP or its role and efficacy in the District's overall effort to reduce the impact of exclusionary discipline on target student subgroups.

Date: August 2, 2022
Prepared at the direction of: *Yolanda Nunez, Director of Alternative Education*
Reviewed and Approved: *Kinasha Brown, Assistant Superintendent for EDI*

# EXHIBIT A

# An Evaluation of the District Alternative Education Program or DAEP over Four Years, 2015-16 to 2018-19

## Overview

In 2013, as part of the Unitary Status Plan (USP), Tucson Unified School District agreed to monitor disciplinary data to ensure that school sites were not imposing discipline in a racially or ethnically disproportionate manner or otherwise contrary to District policy. The District also agreed to revise its Guidelines for Student Rights and Responsibilities handbook and to strengthen its implementation of Restorative Practices and the Positive Behavior Interventions and Supports (PBIS) system. Restorative Practices and PBIS are strategies designed to reduce conflict and create supportive school environments. Along with these initiatives, two new programs were introduced in 2015-16, the Disciplinary Alternative Education Program or DAEP and the In School Intervention Program or ISI program.

As evidenced by these initiatives, the District is committed to reduce disparities wherever they exist in our schools. Achieving equity in student discipline is a cornerstone of the USP and a top TUSD priority. Students cannot learn well if they do not feel safe, if they do not feel they belong, and if they do not attend school. TUSD's goal is to provide to all students fair, equitable, and successful educational experiences.

This evaluation will review the impact of DAEP during its first four years of implementation by examining the following variables of the TUSD students who attended the program:

A. Student groups served, including overrepresentation of students from economically disadvantaged families, with ethnic and racial representations, and with a disability who receive special education and limited English proficiency services, grade level
B. Number of DAEP assignments
C. Recidivism rates in discipline
D. Reasons for DAEP assignments
E. Attendance rates
F. Pre- and Post-Tests in ELA and Math
G. Higher Ground's Grit Survey
H. DAEP Exit Student Survey

# Program Design

DAEP provides students in grades 6-12 who have committed a level 4 or level 5 violation with an alternative to suspension so that they can continue their education. A level 4 or 5 violation occurs when a student commits an action that puts other students or staff in potential harm or worse. Some examples of a level 4 violation are:

- Assault: causing any physical injury to another person or the apprehension of imminent physical injury
- Alcohol, tobacco, and other drug violations – possession or use
- Arson of a structure or property
- Fire alarm misuse
- Sexual offenses including harassment with contact, indecency
- Theft such as burglary, robbery, or extortion
- Weapons possession such as billy club, brass knuckles, knives, etc.

Some examples of a level 5 violation are:

- Aggravated assault to cause serious physical injury to another
- Alcohol, tobacco, and other drug violations – sale or share
- Arson of an occupied structure
- School threat (bomb, chemical, etc.)
- Theft such as armed robbery, burglary with weapon
- Firearms such as handgun, pistol, revolver, rifle, etc.

With the introduction of DAEP, a student who commits a level 4 or 5 violation, becomes suspended, and subsequently goes through the long-term hearing process will be given the conventional consequence of long-term suspension at home or the alternative, to attend DAEP. To be eligible for DAEP, the long-term suspension must be 20 days or longer but no more than 45 days. Beginning January 2018, any days suspended per incident were counted in calculating the DAEP placement. When a student enrolls in DAEP, the suspension status will be reassigned from long-term and the student's time in DAEP will be recorded as a "DAEP" disposition in TUSD's student information system. If a student refuses to enroll in DAEP, s/he is recorded as a long-term suspension. The student may return to their school after the allotted suspension period.

If a student chooses to attend DAEP, s/he will continue core courses in small structured environments with certified teachers to stay on track academically and be current with assignments, etc. when s/he returns to his/her home school. Please see Appendix 1 for the program criteria and Appendix 2 for the program mission and vision. A primary function of DAEP teachers is the academic articulation with the home school teachers to facilitate a smooth transition from the suspending school, to DAEP, and back to the home school after the suspension period. Additionally, a support team is provided to ensure that

each student feels valued, underscore that their success matters, and address the constraints inhibiting their school success.

Students who enroll in DAEP receive additional benefits that are denied to students who declined enrollment such as:

- Continuation of services: Students with an IEP, 504 plan, or English Language Learner (ELL) status will continue to receive services during DAEP.
- No need to serve time in a detention center: About half of the enrolled students each year were arrested because they committed Level 4 and 5 offenses and were placed on probation. Without DAEP, these students would be considered in violation of their probation and would need to serve time in a detention facility.
- AzMERIT: DAEP follows the State Assessment calendar and assures that students complete the State Standardized AzMERIT or other mandated testing while enrolled in DAEP.

## Staffing and Location of the Programs

Arizona has been struggling with a significant teacher shortage over the last six years or more and TUSD is no exception. Teacher vacancies have remained unfilled across the District, especially in core subjects such as science and math. This lack of certified teachers has also affected DAEP. Over the last four years, DAEP had several teacher and staff vacancies that went unfilled for the entire year including several high school positions. To compensate for the lack of certified teachers, support staff who normally offered wrap-around services, served as substitute teachers in these positions. The lack of certified teachers not only affected the ability to provide academically rigorous and aligned material to students, but may have also had the unintended effect of consigning the wrap-around support services to a lesser function.

Another staffing challenge over the last four years was to the ability to retain the Behavior Intervention Monitors (BIM) once they became trained through DAEP. Other opportunities in the District have attracted BIMs away from DAEP because of higher salaries or other personal reasons.

DAEP sites are located throughout the district, with one on the east side, one central, and one on the west side. Some changes were made to the program staffing in 2018-19 and are noted below. The locations of the DAEP sites with the full time staffing allocations are:

Programs:

A. Middle School Programs
   - Southwest Ed. Center - *was fully staffed with 1 teacher and 1 BIM all year. From January to April 2019, the BIM split her time between the middle and high schools. This BIM remained at the high school and a new BIM was hired for the middle school in April.*
   - Magee, MS Portable 24 - *1 Teacher and 1 BIM – fully staffed all year*
   - Doolen, MS One Classroom – *1 Teacher and 1 BIM – fully staffed all year*

B. High School Program, DAEP
   - Southwest Ed. Center, DAEP – *2 teachers, 1 BIM – fully staffed. From January to April 2019, the BIM split her time between the middle and high schools. This BIM remained at the high school and a new BIM was hired for the middle school in April.*
   - Project MORE, DAEP - *3 teachers, I BIM – fully staffed until January 2019 when 1 teacher left and was replaced by a long term substitute.*

## Results

Multiple variables were examined to assess the impact of DAEP on students who completed the program. This section is divided into demographics, attendance, academics, and discipline.

**A. Student groups served – Counts include total participation**

- **2015-16:** A total of 250 students were referred to DAEP from grades 6 - 12. Of those students, 157 enrolled into the program and 93 declined their enrollment. Middle School shows a slightly greater number of students who declined (N=52) when compared to high school (N=41).

- **2016-17:** A total of 365 students were referred to DAEP from grades 6 - 12, a 46% increase in referrals from the last year. Of those students, 266 enrolled into the program and 99 declined their enrollment. Not only did referrals increase in 2016-17, enrollment into DAEP showed with an increase of 69%. Middle School shows a slightly greater number of students who declined (N=52) when compared to high school (N=47).

- **2017-18**: A total of 397 students were referred to DAEP from grades 6 - 12, a 59% increase in referrals since 2015-16. Of those students, 286 enrolled into the program and 111 declined their enrollment. Not only did referrals increase in 2017-18, enrollment into DAEP showed with an

increase of 8% from last year and 82% overall since 2015-16. Middle School shows a slightly lower number of students who declined (N=51) when compared to high school (N=60).

- **2018-19**: A total of 303 students were referred to DAEP from grades 6 - 12, a 21% increase in referrals since 2015-16. Of those students, 203 enrolled into the program and 100 declined their enrollment. Both referrals and enrollment decreased this year, in large part due to the modifications of the Code of Conduct beginning SY2018-19 for level 4 fighting and Possession or use of drugs/alcohol. Please refer to Char 1 below. Middle School and K-8 (grades 6-8) shows a slightly higher number of students who declined (N=59) when compared to high school (N=41).

Chart 1. Changes to the TUSD Code of Conduct in SY 2018-19 for Levels 4 and 5.

| | |
|---|---|
| **Level 4** | Any Action from the prior level(s) **may** also be imposed.<br>• **Restorative Conference and/or Restorative Circle** (upon re-entry to school) (see page 2).<br>• **Out-of-School Suspension and/or Abeyance – Long-term (11-30 Days)** (except for violations listed below)<br>**Fighting**<br>*First offense*–Three day suspension with two days waived if student participates in mediation.<br>*Second offense*–Eleven day suspension with eight days held in abeyance if student participates in mediation.<br>**Possession or Use of Drugs or Alcohol**<br>*First offense*–Three day suspension with two days waived if student agrees to attend substance abuse workshop and, upon return to school, an intake interview and to be searched for drugs or alcohol.<br>*Second offense*–Eleven day suspension with eight days held in abeyance if student agrees to attend drug or alcohol use workshop and, upon return to school, an intake interview, and to be searched for drugs or alcohol. |
| **Level 5** | Any Action from the prior level(s) **may** also be imposed.<br>• **Out-of-School Suspension and/or Abeyance – Long-term (11-180 Days)**<br>• **Restorative Conference and/or Restorative Circle (upon re-entry to school)** (see page 2).<br>• Expulsion |

Over the last four years, African American students were more likely to decline DAEP enrollment proportionately when compared to the other ethnicities across the District. Please refer to Table 1 for the breakdown by ethnicity of students who declined enrollment into DAEP.

| Table 1. USP Ethnic Breakdown of Students who Declined Enrollment into DAEP compared to the USP District Ethnicity Enrollment Average. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *A student is counted each time s/he is referred* | | | | | | | | |
| USP Ethnicity | 2015-16 (N=93) | | 2016-17 (N=99) | | 2017-18 (N=111) | | 2018-19 (N=100) | |
| | Percent who declined | *District Average (40th Day)* | Percent who declined | *District Average (40th Day)* | Percent who declined | *District Average (40th Day)* | Percent who declined | *District Average (40th Day)* |
| White | 19% | *21%* | 13% | *20%* | 21% | *20%* | 22% | *20%* |
| African Am | 14% | *9%* | 22% | *9%* | 22% | *9%* | 20% | *9%* |
| Hispanic | 60% | *61%* | 46% | *62%* | 44% | *62%* | 44% | *61%* |
| Native Am | 2% | *4%* | 9% | *4%* | 4% | *4%* | 7% | *4%* |
| Asian-PI | 2% | *2%* | 0% | *2%* | 0% | *2%* | 2% | *2%* |
| Multi-Racial | 2% | *3%* | 7% | *3%* | 8% | *3%* | 4% | *4%* |
| Unknown | 1% | *0%* | 3% | *0%* | 1% | *0%* | 0% | *0%* |

Students in grades 6 – 8 who chose to enroll in DAEP received services at Magee Middle School, Southwest Education Center, and Doolen Middle School. Additionally, Project MORE Alternative High School provided services to high school students. When compared to 2017-18, enrollment decreased at all sites except Southwest Alternative Middle School. Table 2 shows the distribution of students who enrolled in DAEP by site.

| Table 2. Number and Percent of Students Enrolled in DAEP in TUSD | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| *A student is counted each time s/he participates* | | | | | | | | |
| DAEP Site | 2015-16 | | 2016-17 | | 2017-18 | | 2018-19 | |
| | N Size | Percent | N Size | Percent | N Size | Percent | N Size | Percent |
| Doolen | 28 | 18% | 13 | 5% | 51 | 18% | 38 | 19% |
| Magee | 35 | 22% | 68 | 26% | 74 | 26% | 53 | 26% |
| SW Alt MS | 35 | 22% | 44 | 16% | 27 | 9% | 31 | 15% |
| SW Alt HS | | | | | 44 | 15% | 25 | 12% |
| Project MORE | 59 | 38% | 141 | 53% | 90 | 32% | 56 | 28% |
| Total | 157 | 100% | 266 | 100% | 286 | 100% | 203 | 100% |

The ethnic breakdown of students enrolled in DAEP reveal that over the past four years, African American students are somewhat over-represented when compared to the District's overall ethnic distribution. Additionally, students enrolled in DAEP revealed a similar profile as the students who did not enroll in DAEP in terms of ethnic affiliation. In other words, the decision to participate or not in DAEP did not appear to be dependent upon ethnic or racial identification. Also, African American student referrals increased somewhat over the last 4 years, resulting in a higher disproportionality in both the declines to enroll as well as actual enrollment. Conversely, Hispanic student referrals decreased somewhat over the last 4 years, resulting in a lower proportionality in both the declines to enroll as well as actual enrollment.

Table 3. Number of Students Enrolled in DAEP by USP Ethnicity

*A student who participates more than once is counted each time s/he participates*

| | 2015-16 | | | 2016-17 | | | 2017-18 | | | 2018-19 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USP Ethnicity | N Size | % (Missing not included) | % District (40th Day) | N Size | % (Missing not included) | % District (40th Day) | N Size | % (Missing not included) | % District (40th Day) | N Size | % (Missing not included) | % District (40th Day) |
| White | 24 | 15% | 21% | 44 | 17% | 20% | 55 | 19% | 20% | 31 | 15% | 20% |
| African American | 21 | 14% | 9% | 44 | 17% | 9% | 53 | 19% | 9% | 32 | 16% | 9% |
| Hispanic | 92 | 59% | 61% | 147 | 55% | 62% | 147 | 52% | 62% | 115 | 57% | 61% |
| Native American | 10 | 7% | 4% | 17 | 6% | 4% | 13 | 5% | 4% | 13 | 6% | 4% |
| Asian-PI | 1 | 0% | 2% | 1 | 0% | 2% | 2 | 0% | 2% | 3 | 2% | 2% |
| Multi-Racial | 7 | 5% | 3% | 12 | 5% | 3% | 13 | 5% | 3% | 9 | 4% | 4% |
| Total | 156 | 100% | 100% | 265 | 100% | 100% | 283 | 100% | 100% | 203 | 100% | 100% |
| | | | | | | | | | | | | |
| Missing | 1 | | | 1 | | | 3 | | | 0 | | |

Students in Exceptional Education and with 504 plans were also over-represented in program participation. Across the District, ExEd students make up almost 17% of the District's total population.

- **2015-16:** Students in DAEP requiring specialized services such as the ExEd/504 students made up 36% of the total DAEP enrollment and ELL students added another 3%. Of these students, Hispanic and African American students made up the majority at 80% in 2015-16.

- **2016-17:** Students in DAEP requiring specialized services such as the ExEd/504 decreased to 21% and ELL students added another 2%. Students in ExEd or having a 504 were also more distributed

across ethnicities than the year prior because Native American students, and to a lesser degree Multi-Racial students, showed a higher representation.

- **2017-18:** Students in DAEP requiring specialized services such as the ExEd/504 increased slightly from last year to 23% and ELL students added another 2%. Students in ExEd or having a 504 were distributed across all the ethnicities, although Hispanic students did reveal a decline over the last three years. Conversely, Native American ExEd/504 students showed an increase over three years. African American ExEd/504 students were relatively stable enrollment over the last years. Both Native American and African American students were overrepresented in comparison to the district ethnic breakdowns. Finally White and Multi-Racial ExEd/504 students showed a gradual increase over the last three years.

- **2018-19:** Students in DAEP requiring specialized services such as the ExEd/504 increased slightly from last year to 30% and ELL students added another 1%. Students in ExEd or having a 504 were distributed across all the ethnicities, although White and Hispanic students did reveal a decline over the last four years. Conversely, Native American ExEd/504 students showed an increase over four years. African American and Multi-Racial ExEd/504 students were relatively stable in their enrollment over the last four years. Both Native American and African American students were overrepresented in comparison to the district ethnic breakdowns. .

Please refer to Table 4 to see the number and percent of students requiring specialized services by ethnicity. In terms of program participation over the last four years, the ethnic distribution of the students who receive specialized services is representative of the overall student DAEP enrollment with the exception of Native American students who were over-represented over the last four years.

Table 4. Number and Percent of DAEP Enrolled Exceptional Education Students, 504 Plan Students, and English Language Learner Students by USP Ethnicity

*A student who participates more than once is counted each time s/he participates*

| USP Ethnicity | 2015-16 | | | 2016-17 | | | 2017-18 | | | 2018-19 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | N Size | ExEd and 504 | ELL | N Size | ExEd and 504 Plans | ELL | N Size | ExEd and 504 Plans | ELL | N Size | ExEd and 504 Plans | ELL |
| White | 9 | 15% | | 8 | 13% | | 16 | 19% | 3% | 7 | 12% | |
| African American | 10 | 16% | | 7 | 10% | 1% | 11 | 15% | | 10 | 17% | |
| Hispanic | 39 | 57% | 7% | 34 | 51% | 5% | 30 | 36% | 6% | 32 | 53% | 1% |
| Native American | 2 | 3% | | 8 | 13% | | 8 | 11% | | 7 | 11% | |
| Asian-Pacific Islander | 0 | 0 | | 0 | 0 | | 1 | 1% | | 3 | 5% | |
| Multi-Racial | 1 | 2% | | 4 | 7% | | 5 | 7% | | 1 | 1% | |
| Total | 61 | | | 61 | | | 72 | | | 60 | | |

When examining the home school from which the referrals originated, the five top referring schools in rank order were:

- **2015-16:** Utterback, Palo Verde, Valencia, Doolen, and Vail. Grades 6 – 8 from the middle schools and K-8 schools made up 60% of participants while 40% of participants came from the high schools.
- **2016-17:** THMS, Pueblo, Palo Verde, Doolen and (tie) Secrist/Utterback. Grades 6 – 8 from the middle schools and K-8 schools made up 47% of participants while 53% of participants came from high schools.
- **2017-18**: Secrist, Doolen, Pueblo, Sahuaro and (tie) Santa Rita/THMS. Grades 6 – 8 from the middle schools and K-8 schools made up 53% of participants while 47% of participants came from the high schools.
- **2018-19**: Pueblo, Gridley, Doolen, and (tie) Secrists and Tucson High. Grades 6 – 8 from the middle schools and K-8 schools made up 61% of participants while 39% of participants came from the high schools.

This data indicates that the DAEP program established itself as a viable resource for suspended students across middle and high school by 2016-17 and has continued to be an important district service into 2018-19. All school levels (K-8, Middle, and High Schools) have taken advantage of the program from 2015-16 to 2017-18 with an increase in referrals. Changes to the Code of Conduct implemented in SY 2018-19 channeled Level 4 students into mediation for fighting violations and substance abuse workshops for drugs and alcohol violations rather than into DAEP, effectively reducing the number of referrals into the program. Please see Table 5 for a breakdown of participation by school over four years.

Table 5. Number of Students Enrolled to DAEP by Home School

*(ISI) = In School Intervention Program Original Schools. Available now in all Middle and High Schools and large K-8's*

*A student who participates more than once is counted each time s/he participates*

| Type | Referring School | 2015-16 | | 2016-17 | | 2017-18 | | 2018-19 | |
|---|---|---|---|---|---|---|---|---|---|
| | | Students | | Students | | Students | | Students | |
| | | Count | % | Count | % | Count | % | Count | % |
| Middle School | Dodge | | | | | 2 | 1% | 2 | 1% |
| | Doolen (ISI) | 13 | 8% | 21 | 8% | 30 | 10% | 18 | 9% |
| | Gridley (ISI) | 1 | 1% | 9 | 4% | 14 | 5% | 19 | 9% |
| 2015-16 (N=83) | Magee (ISI) | 5 | 3% | 7 | 3% | 10 | 3% | 11 | 5% |
| | Mansfeld (ISI) | 3 | 2% | 5 | 2% | 1 | 0% | 1 | 0% |
| 2016-17 (N=103) | Pistor (ISI) | 7 | 4% | 8 | 3% | 10 | 3% | 8 | 4% |
| | Secrist (ISI) | 4 | 3% | 15 | 6% | 30 | 10% | 12 | 6% |
| 2017-18 (N=123) | Utterback (ISI) | 29 | 18% | 15 | 6% | 3 | 1% | 6 | 3% |
| | Vail (ISI) | 11 | 7% | 9 | 3% | 11 | 4% | 9 | 5% |
| 2018-19 (N=92) | | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Valencia (ISI) | 13 | 8% | 14 | 5% | 12 | 4% | 6 | 3% |
| K-8 School<br><br>2015-16 (N=10)<br><br>2016-17 (N=22)<br><br>2017-18 (N=29)<br><br>2018-19 (N=31) | C.E. Rose | | | | | | | 3 | 2% |
| | Dietz (ISI) | 4 | 3% | | | 2 | 1% | | |
| | Fickett (ISI) | 2 | 1% | 8 | 3% | 12 | 4% | 9 | 5% |
| | Hollinger (ISI) | 1 | 1% | 1 | 0% | | | 2 | 1% |
| | Lawrence | | | | | | | 4 | 2% |
| | M. Maxwell | 1 | 1% | | | | | | |
| | McCorkle | | | | | 2 | 1% | 1 | 0% |
| | Pueblo Gardens | | | | | | | 1 | 0% |
| | Robert-Naylor (ISI) | | | 1 | 0% | 7 | 2% | 3 | 2% |
| | Roskruge | | | | | | | 1 | 0% |
| | Safford (ISI) | 3 | 2% | 12 | 4% | 6 | 2% | 7 | 4% |
| High School<br><br>2015-16 (N=54)<br><br>2016-17 (N=141)<br><br>2017-18 (N=134)<br><br>2018-19 (N=80) | Catalina (ISI) | 9 | 6% | 12 | 4% | 5 | 2% | 4 | 2% |
| | Cholla (ISI) | 8 | 5% | 13 | 5% | 14 | 5% | 4 | 2% |
| | Palo Verde (ISI) | 15 | 10% | 22 | 8% | 8 | 3% | 7 | 4% |
| | Project MORE | | | 1 | 0% | 2 | 1% | 1 | 0% |
| | Pueblo (ISI) | 8 | 5% | 28 | 11% | 27 | 9% | 20 | 10% |
| | Rincon (ISI) | 5 | 3% | 12 | 4% | 6 | 2% | 10 | 5% |
| | Sabino | 6 | 4% | 4 | 2% | 11 | 4% | 10 | 5% |
| | Sahuaro (ISI) | 4 | 3% | 10 | 4% | 19 | 7% | 11 | 5% |
| | Santa Rita (ISI) | | | 7 | 3% | 18 | 6% | | |
| | THMS (ISI) | 3 | 2% | 31 | 12% | 18 | 6% | 12 | 6% |
| | University | 0 | 0% | 1 | 0% | 5 | 2% | 1 | 0% |
| | *Missing (UK)* | *2* | *1%* | | | *1* | *1%* | | |

Table 5 shows the distribution of referring schools and Tables 6a, 6b, and 6c show the same information by school and ethnicity. These tables also indicate the original ISI schools, formalized in 2015-16. The program has expanded over the last four years so that currently it is housed in all middle and high schools and also in the larger K-8 schools. This information reveals that individual schools generally referred a low but consistent number of students from each ethnicity into DAEP with some exceptions:

- **2015-16:** Utterback, Valencia, and Pistor referred the largest group of Hispanic students and Palo Verde that referred the largest group of White students.

- **2016-17:** THMS, Pueblo, Palo Verde, and Utterback referred the largest group of Hispanic students. Doolen referred the largest group of African American students, and Secrist referred the largest group of White students.

- **2017-18**: Pueblo referred the largest group of Hispanic students. Secrist and Doolen referred the largest group of African American students, and Santa Rita and Sabino referred the largest group of White students.

- **2018-19**: Pueblo referred the largest group of Hispanic students. Doolen referred the largest group of African American students, and Gridley referred the largest group of White students.

In summary, over the last four years of the DAEP program, the referrals to DAEP by school by ethnicity tended to be dispersed across the 29 schools in relatively low numbers (generally less than 6 or 7 by ethnicity). Over the last three years, pockets of schools referred higher numbers of Hispanics which may be a reflection of proportionally of their school representation, followed by one or two schools that referred higher numbers of African American and White students.

Table 6a. Number of students enrolled to DAEP by USP ethnicity and home school 2015-16

*A student who participates more than once is counted each time s/he participates*

| Referring School | 2015-16 USP Ethnicity | | | | | | |
|---|---|---|---|---|---|---|---|
| | White | African American | Hispanic | Native American | Asian P/I | Multi-Racial | Total |
| Catalina (ISI) | 0 | 4 | 5 | 0 | 0 | 0 | 9 |
| Cholla (ISI) | 1 | 1 | 4 | 1 | 0 | 0 | 7 |
| Dietz | 1 | 1 | 1 | 0 | 0 | 0 | 3 |
| Doolen (ISI) | 3 | 3 | 4 | 1 | 1 | 0 | 12 |
| Fickett (ISI) | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Gridley (ISI) | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Hollinger | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Magee (ISI) | 1 | 1 | 2 | 0 | 0 | 0 | 4 |
| Mansfeld (ISI) | 0 | 0 | 2 | 0 | 0 | 1 | 3 |
| Maxwell | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Palo Verde (ISI) | 6 | 3 | 5 | 1 | 0 | 0 | 15 |
| Pistor (ISI) | 1 | 0 | 6 | 0 | 0 | 0 | 7 |
| Pueblo (ISI) | 0 | 2 | 4 | 1 | 0 | 0 | 7 |
| Rincon (ISI) | 1 | 0 | 3 | 0 | 0 | 1 | 5 |
| Sabino | 2 | 1 | 2 | 0 | 0 | 0 | 5 |
| Safford (ISI) | 0 | 0 | 1 | 2 | 0 | 0 | 3 |
| Sahuaro (ISI) | 1 | 0 | 3 | 0 | 0 | 0 | 4 |
| Secrist (ISI) | 0 | 1 | 3 | 0 | 0 | 0 | 4 |
| THMS (ISI) | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Utterback (ISI) | 1 | 1 | 22 | 4 | 0 | 1 | 29 |
| Vail (ISI) | 2 | 1 | 5 | 0 | 0 | 2 | 10 |
| Valencia (ISI) | 2 | 0 | 11 | 0 | 0 | 0 | 13 |
| All Schools | 23 | 20 | 87 | 10 | 1 | 5 | 147 |
| *Missing Data N=10* | | | | | | | |

| Table 6b. Number of students enrolled to DAEP by USP ethnicity and home school 2016-17 | | | | | | | |
|---|---|---|---|---|---|---|---|
| *A student who participates more than once is counted each time s/he participates* | | | | | | | |
| Referring School | 2016-17 USP Ethnicity | | | | | | |
| | White | African American | Hispanic | Native American | Asian P/I | Multi-Racial | Total |
| Catalina (ISI) | 3 | 1 | 4 | 0 | 1 | 3 | 12 |
| Cholla (ISI) | 3 | 1 | 8 | 1 | 0 | 0 | 13 |
| Doolen (ISI) | 2 | 7 | 9 | 1 | 0 | 2 | 21 |
| Fickett (ISI) | 0 | 4 | 4 | 0 | 0 | 0 | 8 |
| Gridley (ISI) | 4 | 4 | 1 | 0 | 0 | 0 | 9 |
| Hollinger (ISI) | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Magee (ISI) | 1 | 4 | 2 | 0 | 0 | 0 | 7 |
| Mansfeld (ISI) | 2 | 0 | 0 | 3 | 0 | 0 | 5 |
| Naylor (ISI) | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Palo Verde (ISI) | 3 | 3 | 14 | 0 | 0 | 2 | 22 |
| Pistor (ISI) | 0 | 0 | 5 | 1 | 0 | 1 | 7 |
| PMORE | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Pueblo (ISI) | 1 | 1 | 22 | 4 | 0 | 0 | 28 |
| Rincon (ISI) | 1 | 5 | 6 | 0 | 0 | 0 | 12 |
| Sabino | 3 | 0 | 1 | 0 | 0 | 0 | 4 |
| Safford (ISI) | 0 | 0 | 9 | 3 | 0 | 0 | 12 |
| Sahuaro (ISI) | 4 | 1 | 5 | 0 | 0 | 0 | 10 |
| Santa Rita (ISI) | 5 | 1 | 1 | 0 | 0 | 0 | 7 |
| Secrist (ISI) | 6 | 2 | 5 | 0 | 0 | 2 | 15 |
| THMS (ISI) | 2 | 4 | 23 | 0 | 0 | 2 | 31 |
| University | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Utterback (ISI) | 0 | 0 | 14 | 1 | 0 | 0 | 15 |
| Vail (ISI) | 1 | 4 | 4 | 0 | 0 | 0 | 9 |
| Valencia (ISI) | 2 | 0 | 9 | 3 | 0 | 0 | 14 |
| All Schools | 44 | 44 | 147 | 17 | 1 | 12 | 265 |
| *Missing Data N=1* | | | | | | | |

| Table 6c. Number of students enrolled to DAEP by USP ethnicity and home school 2017-18 | | | | | | | |
|---|---|---|---|---|---|---|---|
| *A student who participates more than once is counted each time s/he participates* | | | | | | | |
| Referring School | 2017-18 USP Ethnicity | | | | | | |
| | White | African American | Hispanic | Native American | Asian P/I | Multi-Racial | Total |
| Catalina (ISI) | 1 | 2 | 2 | 0 | 0 | 0 | 5 |
| Cholla (ISI) | 2 | 2 | 9 | 1 | 0 | 0 | 14 |
| Dietz (ISI) | 1 | 0 | 0 | 0 | 0 | 1 | 2 |
| Dodge | 0 | 0 | 1 | 1 | 0 | 0 | 2 |
| Doolen (ISI) | 5 | 8 | 12 | 3 | 0 | 2 | 30 |
| Fickett (ISI) | 2 | 3 | 6 | 0 | 0 | 1 | 12 |
| Gridley (ISI) | 4 | 3 | 7 | 0 | 0 | 0 | 14 |
| Magee (ISI) | 3 | 1 | 6 | 0 | 0 | 0 | 10 |
| Mansfeld (ISI) | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| McCorkle | 0 | 0 | 2 | 0 | 0 | 0 | 2 |
| Naylor (ISI) | 1 | 1 | 4 | 0 | 0 | 1 | 7 |
| Palo Verde (ISI) | 2 | 4 | 2 | 0 | 0 | 0 | 8 |
| Pistor (ISI) | 0 | 0 | 9 | 1 | 0 | 0 | 10 |
| PMORE | 1 | 0 | 1 | 0 | 0 | 0 | 2 |
| Pueblo (ISI) | 0 | 4 | 21 | 0 | 0 | 2 | 27 |
| Rincon (ISI) | 1 | 2 | 3 | 0 | 0 | 0 | 6 |
| Sabino | 7 | 2 | 2 | 0 | 0 | 0 | 11 |
| Safford (ISI) | 0 | 1 | 4 | 1 | 0 | 0 | 6 |
| Sahuaro (ISI) | 6 | 4 | 8 | 0 | 1 | 0 | 19 |
| Santa Rita (ISI) | 8 | 0 | 6 | 1 | 0 | 0 | 15 |
| Secrist (ISI) | 6 | 9 | 12 | 0 | 0 | 3 | 30 |
| TAP | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| THMS (ISI) | 0 | 2 | 12 | 1 | 0 | 2 | 17 |
| University | 1 | 1 | 2 | 0 | 0 | 1 | 5 |
| Utterback (ISI) | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Vail (ISI) | 4 | 1 | 5 | 0 | 1 | 0 | 11 |
| Valencia (ISI) | 0 | 1 | 6 | 4 | 0 | 0 | 11 |
| All Schools | 55 | 53 | 147 | 13 | 2 | 13 | 283 |
| *Missing Data N=3* | | | | | | | |

| Table 6d. Number of students enrolled to DAEP by USP ethnicity and home school 2018-19 | | | | | | | |
|---|---|---|---|---|---|---|---|
| *A student who participates more than once is counted each time s/he participates* | | | | | | | |
| Referring School | 2018-19 USP Ethnicity | | | | | | |
| | White | African American | Hispanic | Native American | Asian P/I | Multi-Racial | Total |
| Catalina (ISI) | 0 | 2 | 2 | 0 | 0 | 0 | 4 |
| Cholla (ISI) | 1 | 0 | 3 | 0 | 0 | 0 | 4 |
| Dietz (ISI) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dodge | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Doolen (ISI) | 2 | 7 | 9 | 0 | 0 | 0 | 18 |
| Fickett (ISI) | 2 | 2 | 4 | 0 | 0 | 1 | 9 |
| Gridley (ISI) | 6 | 4 | 6 | 0 | 0 | 3 | 19 |
| Magee (ISI) | 0 | 3 | 5 | 2 | 0 | 1 | 11 |
| Mansfeld (ISI) | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| McCorkle | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| Naylor (ISI) | 0 | 0 | 3 | 0 | 0 | 0 | 3 |
| Palo Verde (ISI) | 2 | 1 | 3 | 0 | 1 | 0 | 7 |
| Pistor (ISI) | 2 | 1 | 5 | 0 | 0 | 0 | 8 |
| PMORE | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Pueblo (ISI) | 0 | 0 | 14 | 5 | 1 | 0 | 20 |
| Rincon (ISI) | 1 | 4 | 4 | 0 | 0 | 1 | 10 |
| Sabino | 3 | 2 | 4 | 1 | 0 | 0 | 10 |
| Safford (ISI) | 0 | 0 | 4 | 3 | 0 | 0 | 7 |
| Sahuaro (ISI) | 4 | 3 | 4 | 0 | 0 | 0 | 11 |
| Santa Rita (ISI) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Secrist (ISI) | 3 | 1 | 8 | 0 | 0 | 0 | 12 |
| TAP | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| THMS (ISI) | 2 | 0 | 9 | 0 | 0 | 1 | 12 |
| University | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| Utterback (ISI) | 0 | 0 | 6 | 0 | 0 | 0 | 6 |
| Vail (ISI) | 2 | 1 | 6 | 0 | 0 | 0 | 9 |
| Valencia (ISI) | 0 | 0 | 5 | 0 | 1 | 0 | 6 |
| All Schools | **31** | **32** | **115** | **13** | **3** | **9** | **203** |
| *Missing Data N=0* | | | | | | | |

**B. Number of assignments**

- **2015-16:** Of the 157 students who were assigned to DAEP, 89% successfully completed DAEP and 10% did not. Two students (or 1%) will continue their DAEP enrollment into the 2016-17 school year before returning to their home school. Additionally, 13 students or 8% were enrolled more than once to the program in 2015-16. Only 1 student from the 13 who were enrolled twice did not complete the program.

- **2016-17:** Of the 266 students who were assigned to DAEP, 87% successfully completed DAEP and 13% did not. One student continued their DAEP enrollment into the 2017-18 school year before returning to their home school. Additionally, 23 students or 9% were enrolled more than once to the program in 2016-17. Of those students, 9 did not complete the program largely because they broke the behavior contract that marshaled the program, or to a lesser degree did not show up to participate, withdrew, or became incarcerated.

- **2017-18:** Of the 286 students who were assigned to DAEP, 89% successfully completed DAEP and 10% did not. Two students (or 1%) will continue their DAEP enrollment into the 2018-19 school year before returning to their home school. Additionally, 31 students or 11% were enrolled more than once to the program in 2017-18. Of those students, 5 did not complete the program largely because they broke the behavior contract that marshaled the program, or to a lesser degree did not show up to participate, withdrew, or became incarcerated.

- **2018-19:** Of the 203 students who were assigned to DAEP, 91% successfully completed DAEP and 9% did not. Five students will continue their DAEP enrollment into the 2019-20 school year before returning to their home school and 24 students will start their fall semester in 2019 at DAEP because of incidents that occurred at the end of the 2018-19 school year. Additionally, 6 students or 3% were enrolled more than once in 2018-19 and completed the program both times.

Reasons for not completing the program were varied and complex. For example, some reasons included: student breaking the behavior contract, parent withdrawing student from program early, transportation issues, instability of housing (run away, group home, kicked out of parental home), drug use/rehab etc. Even with the added individualized support from DAEP, some students must contend with significant challenges both inside and outside of school. Because of these challenges, the students were not able to complete the program.

### C. Recidivism rates in discipline

Students enrolled in DAEP had repeated discipline incidences throughout the school year which included both in-school consequences and out-of-school suspensions. This data reveals that:

- **2015-16:** Almost half (46%) of students got in trouble just once or twice at their home school, attended DAEP and completed the year without any further discipline incidents. About 29% of students continued to get into trouble 3 or 4 times during the year at their home school resulting in both in school and out of school suspensions. Finally, about a quarter of students repeatedly got into trouble 5 or more times and attended DAEP one or two times.

- **2016-17:** More than half (58%) of students got in trouble just once or twice at their home school, attended DAEP and completed the year without any further discipline incidents. About 26% of students continued to get into trouble 3 or 4 times during the year at their home school resulting

in both in school and out of school suspensions. Finally, about 15% of students repeatedly got into trouble 5 or more times and attended DAEP one or two times.

- **2017-18:** More than half (54%) of students got in trouble just once or twice at their home school, attended DAEP and completed the year without any further discipline incidents. About 37% of students continued to get into trouble 3 or 4 times during the year at their home school resulting in both in school and out of school suspensions. Finally, about 9% of students repeatedly got into trouble 5 or more times and attended DAEP one or two times.

- **2018-19:** More than half (63%) of students got in trouble just once or twice at their home school, attended DAEP and completed the year without any further discipline incidents. About 29% of students continued to get into trouble 3 or 4 times during the year at their home school resulting in both in school and out of school suspensions. Finally, about 8% of students repeatedly got into trouble 5 or more times and attended DAEP one or two times.

This data suggests that students who completed DAEP in 2018-19 were less likely to be involved in 4 or more incidents when compared to the three prior years. Table 7a shows the distribution of the total discipline (in school and out of school) of individual students enrolled in DAEP:

Table 7a. Percent of students who had one or more discipline incident (both in-school consequences and out-of-school suspensions)

| Number of Incidents by Student | 2015-16 | 2016-17 | 2017-18 | 2018-19 |
|---|---|---|---|---|
| 1 Incident | 27% | 35% | 27% | 38% |
| 2 Incidents | 19% | 23% | 27% | 25% |
| 3 Incidents | 12% | 16% | 26% | 20% |
| 4 Incidents | 17% | 10% | 11% | 9% |
| 5 or more Incidents | 25% | 16% | 9% | 8% |

This data suggests that more than half of students who attended DAEP were infrequent offenders who got in trouble once or twice during the school year and went on to attend DAEP at least one time. The other half of students had a longer discipline incident history which included both in-school and out-of-school consequences including DAEP. Additionally, incident and suspension data of the most frequent offending DAEP students with 4 or more incidents and/or suspensions decreased from 42% in 2015-16 to 26% in 2016-17, 20% in 2017-18 to 17% in 2018-19. This data suggests that involvement in DAEP may help to reduce the number of discipline incidents of repeated offenders.

### D. Reasons for DAEP assignment

To be invited to participate in DAEP, a student needed to have committed an offense that resulted in a long-term suspension of 20 days or more. Most frequently, these offenses are considered a level 4 or 5 violation according to the Guidelines for Student Rights and Responsibilities (GSRR). Please refer this link to view the entire revised handbook: http://www.tusd1.org/Information/Resources/Student-Guidelines.

- **2015-16:** 6% of enrolled students had level 3 violations (disorderly conduct), 67% had level 4 violations, and 27% had level 5 violations.
- **2016-17:** 9% of enrolled students had level 3 violations (disorderly conduct), 62% had level 4 violations, and 29% had level 5 violations.
- **2017-18:** <1% of enrolled students had level 3 violations (vandalism), 62% had level 4 violations, and 37% had level 5 violations.
- **2018-19:** 2% of enrolled students had level 3 violations (e.g. broken abeyance contract), 51% had level 4 violations, and 36% had level 5 violations and 1% was unknown.

Table 8 shows the type and distribution of infractions that students were involved in. The data indicates that over the last four years, aggression was the most common violation followed by marijuana use and to a lesser degree, other drug use.

Table 8. Number of students by infraction
**Infractions listed are not exhaustive but are the most common ones*

| Infraction* | 2015-16 | | 2016-17 | | 2017-18 | | 2018-19 | |
|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % |
| Aggression | 59 | 38% | 92 | 35% | 126 | 44% | 179 | 44% |
| Drugs | 11 | 7% | 59 | 22% | 20 | 7% | 33 | 8% |
| Marijuana | 43 | 27% | 67 | 25% | 77 | 27% | 76 | 19% |
| Sexual Misconduct | 5 | 3% | 10 | 4% | 14 | 5% | 19 | 5% |
| Arson | 5 | 3% | 6 | 2% | 3 | 1% | 4 | 1% |
| Theft | 1 | 1% | 6 | 2% | 3 | 1% | 6 | 2% |
| Weapons | 5 | 3% | 6 | 2% | 11 | 4% | 17 | 4% |
| Fire Alarm | 2 | 1% | 4 | 2% | | | | |
| *Other or Missing* | *26* | *17%* | *16* | *6%* | *32* | *11%* | *71* | *17%* |

**2015-16:** When the infractions were broken down by site, some patterns were revealed and were consistent from year to year. For example in 2015-16, Utterback had the greatest problem with aggression, followed by Valencia and Vail. This data suggests that middle schools need additional PBIS and other positive discipline policies to mediate aggression. This finding aligns to the findings from the *2015-16 Learning supports Coordinator (LSC) Annual Report* where only a quarter of middle schools

teachers felt that positive discipline strategies were effective in reducing conflict at their schools. These results suggest that middle schools may need additional training in restoratives and a wider set of complementary strategies to encourage positive student behavior. On the other hand, drugs and marijuana appear to be more evident at the high school level in 2015-16 such as Palo Verde, Cholla, and Pueblo suggesting that student engagement in high interest in-school and after-school activities are needed to provide alternatives to using drugs. Please see Table 9a for a breakdown of the number of students in 2015-16 by infraction and school.

Table 9a. 2015-16 Number of Individual Students by Infraction and Home School
***ISI original schools in Bold and Italicized***
**Infractions listed are not exhaustive but are the most common ones*

| Referring School | 2015-16 Infraction* | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Agression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Totals |
| ***Catalina*** | 4 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 8 |
| ***Cholla*** | 0 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 7 |
| ***Dietz*** | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 3 |
| ***Doolen*** | 3 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 8 |
| ***Fickett*** | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 |
| ***Gridley*** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Hollinger*** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Magee*** | 1 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 4 |
| ***Mansfeld*** | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| Maxwell | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Palo Verde*** | 3 | 0 | 9 | 0 | 1 | 1 | 1 | 0 | 15 |
| ***Pistor*** | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| ***Pueblo*** | 0 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 6 |
| ***Rincon*** | 2 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 5 |
| Sabino | 1 | 2 | 0 | 1 | 0 | 0 | 1 | 0 | 5 |
| ***Safford*** | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 3 |
| ***Sahuaro*** | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 4 |
| ***Secrist*** | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 4 |
| ***THMS*** | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| ***Utterback*** | 16 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 23 |
| ***Vail*** | 7 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 8 |
| ***Valencia*** | 8 | 0 | 3 | 0 | 0 | 0 | 0 | 1 | 12 |
| **All Schls** | **59** | **11** | **43** | **5** | **5** | **1** | **5** | **2** | **131** |

**In 2016-17**, Doolen had the greatest problem with assaults, followed by Vail. Similar to last year, this data suggests that middle schools need additional PBIS and other positive discipline policies to mediate

aggression. Again, similar to last year, drugs and marijuana appear to be more evident at the high school level such as Pueblo and Tucson High. Drugs showed an increase from 2015-16 at 7% to 22% in 2016-17.

Table 9b. 2016-17 Number of Individual Students by Infraction and Home School
***ISI original schools in Bold and Italicized***
**Infractions listed are not exhaustive but are the most common ones*

| Referring School | 2016-17 Infraction* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| ***Catalina*** | 6 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 12 |
| ***Cholla*** | 3 | 3 | 3 | 2 | 0 | 0 | 1 | 1 | 0 | 13 |
| ***Doolen*** | 11 | 1 | 4 | 0 | 3 | 0 | 1 | 0 | 1 | 21 |
| ***Fickett*** | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| ***Gridley*** | 4 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 9 |
| ***Hollinger*** | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Magee*** | 3 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 7 |
| ***Mansfeld*** | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| ***Naylor*** | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Palo Verde*** | 6 | 9 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 22 |
| ***Pistor*** | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| PMORE | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Pueblo*** | 2 | 10 | 11 | 1 | 0 | 1 | 0 | 0 | 3 | 28 |
| ***Rincon*** | 4 | 4 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 12 |
| Sabino | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 |
| ***Safford*** | 6 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 3 | 12 |
| ***Sahuaro*** | 2 | 1 | 4 | 1 | 0 | 1 | 0 | 0 | 1 | 10 |
| ***Santa Rita*** | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 7 |
| ***Secrist*** | 6 | 3 | 2 | 2 | 1 | 0 | 0 | 0 | 1 | 15 |
| ***THMS*** | 4 | 7 | 16 | 1 | 1 | 2 | 0 | 0 | 0 | 31 |
| University | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| ***Utterback*** | 3 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 2 | 15 |
| ***Vail*** | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 9 |
| ***Valencia*** | 6 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| **All Schools** | **92** | **59** | **67** | **10** | **6** | **6** | **6** | **4** | **16** | **266** |

**In 2017-18,** Doolen continued to have the greatest problem with assaults, followed by Secrist. Similar to the data for all three years, this data suggests that middle schools need additional PBIS and other positive discipline policies to mediate aggression. Again, similar to the last three years, drugs and marijuana appear to be more evident at the high school level such as Pueblo and Tucson High. This data suggests that student engagement in high interest in-school and after-school supports and intervention are needed to provide alternatives to using drugs. Additionally, students with behavioral or emotional issues may need access to outside services as an additional support to what is provided in school. Please see Table 9c for a breakdown of the number of students in 2017-18 by infraction and school.

Table 9c. 2017-18 Number of Individual Students by Infraction and Home School
***ISI original schools in Bold and Italicized***
**Infractions listed are not exhaustive but are the most common ones*

| Referring School | 2017-18 Infraction* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| ***Catalina*** | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 | 5 |
| ***Cholla*** | 6 | 0 | 3 | 1 | 0 | 0 | 0 | 1 | 1 | 12 |
| ***Dietz*** | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| Dodge | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| ***Doolen*** | 14 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 0 | 23 |
| ***Fickett*** | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 2 | 3 | 9 |
| ***Gridley*** | 8 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| McCorkle | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| ***Magee*** | 1 | 1 | 1 | 2 | 0 | 0 | 2 | 0 | 3 | 10 |
| ***Mansfeld*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| ***Naylor*** | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 7 |
| ***Palo Verde*** | 3 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 5 |
| ***Pistor*** | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| PMORE | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Pueblo*** | 0 | 4 | 13 | 1 | 0 | 1 | 2 | 0 | 3 | 24 |
| ***Rincon*** | 2 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 5 |
| Sabino | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 9 |
| ***Safford*** | 1 | 0 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 6 |
| ***Sahuaro*** | 3 | 2 | 6 | 0 | 0 | 0 | 4 | 1 | 1 | 17 |
| ***Santa Rita*** | 6 | 3 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 14 |
| ***Secrist*** | 12 | 2 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 24 |
| TAP | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| ***THMS*** | 3 | 1 | 8 | 0 | 0 | 0 | 1 | 0 | 2 | 15 |
| University | 0 | 1 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 5 |
| ***Utterback*** | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| ***Vail*** | 5 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 | 9 |
| ***Valencia*** | 3 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 1 | 10 |
| **All Schools** | **80** | **20** | **82** | **14** | **2** | **1** | **11** | **6** | **25** | **241** |

**In 2018-19,** Gridley showed a jump in Assaults this year. Meanwhile, Doolen has continued to show elevated assaults when compared to the other schools. Similar to the trend for all four years, this data suggests that middle schools need additional PBIS and other positive discipline policies to mediate aggression. Again, similar to the last four years, drugs and marijuana appear to be more evident at the high school level such as Pueblo and Tucson High. This data suggests that student engagement in high interest in-school and after-school supports and intervention are needed to provide alternatives to using drugs. Additionally, students with behavioral or emotional issues may need access to outside services as

an additional support to what is provided in school. Please see Table 9c for a breakdown of the number of students in 2018-19 by infraction and school.

Table 9d. 2018-19 Number of Individual Students by Infraction and Home School
***ISI original schools in Bold and Italicized***
**Infractions listed are not exhaustive but are the most common ones*

| Referring School | 2018-19 Infraction* | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| ***Catalina*** | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 1 | 6 |
| ***Cholla*** | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| ***Dietz*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Dodge | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 |
| ***Doolen*** | 23 | 2 | 5 | 4 | 2 | 0 | 1 | 0 | 7 | 44 |
| ***Fickett*** | 10 | 3 | 1 | 0 | 0 | 0 | 2 | 0 | 12 | 28 |
| ***Gridley*** | 33 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 4 | 40 |
| Hollinger | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 6 |
| Lawrence | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| ***Magee*** | 13 | 0 | 1 | 4 | 0 | 0 | 1 | 1 | 12 | 32 |
| ***Mansfeld*** | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| McCorkle | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ***Naylor*** | 2 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 5 |
| ***Palo Verde*** | 6 | 0 | 2 | 0 | 0 | 3 | 1 | 1 | 0 | 13 |
| ***Pistor*** | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| PMORE | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 2 |
| ***Pueblo*** | 6 | 9 | 13 | 0 | 0 | 1 | 0 | 1 | 0 | 30 |
| Pueblo Gardens | 0 | 0 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| ***Rincon*** | 4 | 2 | 5 | 0 | 0 | 0 | 2 | 0 | 1 | 14 |
| Rose | 1 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Roskruge | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Sabino | 7 | 2 | 3 | 1 | 0 | 0 | 2 | 2 | 1 | 18 |
| ***Safford*** | 10 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 2 | 19 |
| ***Sahuaro*** | 8 | 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 14 |
| ***Santa Rita*** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ***Secrist*** | 9 | 0 | 1 | 3 | 0 | 0 | 4 | 0 | 8 | 25 |
| TAP | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ***THMS*** | 4 | 4 | 14 | 1 | 0 | 0 | 3 | 0 | 1 | 27 |
| University | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| ***Utterback*** | 4 | 0 | 2 | 1 | 2 | 1 | 0 | 0 | 3 | 13 |
| ***Vail*** | 6 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 3 | 14 |
| ***Valencia*** | 7 | 2 | 3 | 0 | 0 | 0 | 1 | 0 | 4 | 17 |
| **All Schools** | **179** | **33** | **76** | **19** | **4** | **6** | **17** | **7** | **64** | **405** |

When the infractions were broken out by ethnicity, all subgroups were represented in aggression and marijuana categories with the exception of Asian–Pacific Islander students across the last four years. This data shows that students across ethnicities were committing similar level 4 and level 5 violation infractions. Please see Table 10a (2015-16), Table 10b (2016-17), Table 10c (2017-18), and Table 10d (2018-19) for a view of the number of student by infraction and ethnicity.

| Table 10a. 2015-16 Number of Individual Students by Infraction and USP Ethnicity | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Infractions listed are not exhaustive* | | | | | | | | | |
| USP Ethnicity | 2015-16 Infraction* | | | | | | | | |
| | Agression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Totals |
| White | 7 | 1 | 10 | 1 | 0 | 0 | 2 | 0 | 21 |
| | 34% | 5% | 48% | 5% | 0% | 0% | 10% | 0% | |
| Afr. Am | 9 | 2 | 3 | 1 | 1 | 1 | 0 | 0 | 17 |
| | 53% | 12% | 18% | 6% | 6% | 6% | 0% | 0% | |
| Hispanic | 34 | 8 | 24 | 3 | 2 | 0 | 3 | 2 | 76 |
| | 45% | 11% | 32% | 4% | 3% | 0% | 4% | 3% | |
| Nat. Am. | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 10 |
| | 50% | 0% | 50% | 0% | 0% | 0% | 0% | 0% | |
| Asian-PI | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | 0% | 0% | 0% | 0% | 100% | 0% | 0% | 0% | |
| MultiR | 4 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 6 |
| | 67% | 0% | 17% | 0% | 17% | 0% | 0% | 0% | |
| All | 59 | 11 | 43 | 5 | 5 | 1 | 5 | 2 | 131 |

| Table 10b. 2016-17 Number of Individual Students by Infraction and USP Ethnicity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Infractions listed are not exhaustive* | | | | | | | | | | |
| USP Ethnicity | 2016-17 Infraction* | | | | | | | | | |
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| White | 16 | 6 | 12 | 2 | 0 | 0 | 1 | 2 | 5 | 44 |
| | 36% | 14% | 27% | 5% | 0% | 0% | 2% | 5% | 11% | |
| Afr. Am | 21 | 9 | 2 | 2 | 0 | 4 | 3 | 1 | 2 | 44 |
| | 48% | 20% | 5% | 5% | 0% | 9% | 7% | 2% | 5% | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Hispanic | 43 | 39 | 44 | 6 | 4 | 2 | 2 | 1 | 3 | 147 |
| | 29% | 27% | 30% | 4% | 3% | 1% | 0% | 1% | 4% | |
| Nat. Am. | 4 | 4 | 5 | 0 | 1 | 0 | 0 | 0 | 3 | 17 |
| | 24% | 24% | 29% | 0% | 5% | 0% | 0% | 0% | 18% | |
| Asian-PI | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 100% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% | |
| MultiR | 7 | 1 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 12 |
| | 58% | 8% | 25% | 0% | 8% | 0% | 0% | 0% | 0% | |
| All | 92 | 59 | 66 | 10 | 6 | 6 | 6 | 4 | 16 | 265 |

| Table 10c. 2017-18 Number of Individual Students by Infraction and USP Ethnicity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Infractions listed are not exhaustive* | | | | | | | | | | |
| USP Ethnicity | 2017-18 Infraction* | | | | | | | | | |
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| White | 12 | 7 | 17 | 1 | 1 | 0 | 2 | 1 | 5 | 46 |
| | 26% | 15% | 37% | 2% | 2% | 0% | 4% | 2% | 11% | |
| Afr. Am | 17 | 1 | 12 | 5 | 0 | 0 | 2 | 0 | 5 | 42 |
| | 40% | 2% | 29% | 12% | 0% | 0% | 5% | 0% | 12% | |
| Hispanic | 41 | 8 | 47 | 6 | 1 | 1 | 7 | 5 | 13 | 129 |
| | 32% | 6% | 36% | 5% | 1% | 1% | 5% | 4% | 10% | |
| Nat. Am. | 6 | 2 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | 50% | 17% | 33% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Asian-PI | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 50% | 0% | 0% | 50% | 0% | 0% | 0% | 0% | 0% | |
| MultiR | 3 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 2 | 10 |
| | 30% | 20% | 20% | 10% | 0% | 0% | 0% | 0% | 20% | |
| All | 80 | 20 | 82 | 14 | 2 | 1 | 11 | 6 | 25 | 241 |

| Table 10d. 2018-19 Number of Individual Students by Infraction and USP Ethnicity | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Infractions listed are not exhaustive* | | | | | | | | | | |
| USP Ethnicity | 2018-19 Infraction* | | | | | | | | | |
| | Aggression | Drugs | Marijuana | Sexual | Arson | Theft | Weapons | Alarm/ Sch Threat | Other | Totals |
| White | 11 | 2 | 4 | 1 | 0 | 2 | 1 | 2 | 4 | 25 |
| | 44% | 8% | 16% | 4% | 0% | 8% | 4% | 8% | 16% | |
| Afr. Am | 18 | 2 | 3 | 0 | 2 | 0 | 2 | 0 | 0 | 27 |
| | 67% | 8% | 11% | 0% | 7% | 0% | 7% | 0% | 0% | |
| Hispanic | 51 | 10 | 26 | 7 | 0 | 0 | 3 | 2 | 5 | 104 |
| | 49% | 9% | 25% | 7% | 0% | 0% | 3% | 2% | 5% | |
| Nat. Am. | 8 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | 67% | 0% | 33% | 0% | 0% | 0% | 0% | 0% | 0% | |
| Asian-PI | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 3 |
| | 0% | 0% | 34% | 0% | 0% | 33% | 0% | 33% | 0% | |
| MultiR | 6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 8 |
| | 75% | 0% | 13% | 0% | 0% | 0% | 0% | 0% | 12% | |
| All | 94 | 14 | 39 | 8 | 2 | 3 | 6 | 5 | 10 | 179 |

### E. Attendance rates

Table 11 shows that the attendance rate across the different DAEP campuses.

- **2015-16:** Attendance rates were consistent with all sites showing an average of 78.5% except for SW Alternative Middle School with was slightly lower at 76.91%. Regardless if the student attended middle school or high school, the average attendance overall was low. Although DAEP already required both students and parents to sign a contract agreeing to report absences and not to be tardy, students tended to accumulate consecutive absences more frequently at the end of their allotted time, according to DAEP personnel. Please refer to Appendix 4 to review a copy of the Middle School Contract.

- **2016-17:** Attendance rates showed more variability ranging from 79.67% (Magee) to 84.09% (Project MORE). Nonetheless, attendance improved this year with about a 5% increase. A possible reason for the increase in attendance might be the introduction of a new program called Higher Ground, a program that provided skills to students through engaging social-emotional learning activities.

- **2017-18:** Attendance rates have steadily improved each year. This year showed variability ranging from 78.85% (Southwest Alternative High School) to 89.19% (Southwest Alternative Middle School). Nonetheless, attendance improved this year with almost a 2% increase from the year prior and 6% increase over the last three years. Higher Ground, a program that provides skills to students through engaging social-emotional learning activities was offered again in 2017-18 and it continued to be a desired activity for many DAEP students.

- **2018-19:** Attendance rates showed some variability ranging from 79.77% (Project More) to 86.15% (Magee). Also, attendance showed a small decrease from 2017-18 which was due, in large part, to the attendance at Project More. Overall, attendance has remained relatively stable since 2016-17, ranging from 82.42% to 84.22%.

Table 11. Attendance Rates by DAEP site

| DAEP Site | 2015-16 Attendance | | 2016-17 Attendance | | 2017-18 Attendance | | 2018-19 Attendance | |
|---|---|---|---|---|---|---|---|---|
| | Means | N | Means | N | Means | N | Means | N |
| Doolen | 78.79% | 28 | 80.31% | 13 | 84.43% | 51 | 83.24% | 37 |
| Magee | 78.52% | 31 | 79.67% | 64 | 86.79% | 71 | 86.15% | 53 |
| Project MORE | 78.40% | 53 | 84.09% | 138 | 82.84% | 82 | 79.77% | 53 |
| SW Alt MS | 76.91% | 34 | 81.86% | 44 | 89.19% | 27 | 81.46% | 28 |
| SW Alt HS | | | | | 78.85% | 40 | 85.57% | 23 |
| All Sites | 78.15% | 146 | 82.43% | 259 | 84.22% | 271 | 83.11% | 194 |

### F. Pre- and post-assessment results

Students enrolled in DAEP were graded in four core areas: Math, English Language Arts, Social Studies, Science. In addition, a 5th class elective was scheduled. DAEP reported student attendance and grades to their home school. Credit was issued only by the home school utilizing grades sent by DAEP teachers. At the high school level, credit recovery was also offered. Upon enrolling into DAEP, students were given a grade level pre-test in English Language Arts (ELA) and Math. The same assessment was given as a posttest when they completed their time. These pre-post tests were intended to measure academic growth of students while enrolled in DAEP. Because of the number of students who did not attend regularly during their final week of DAEP enrollment, the matched results represented a little more than half of participants each year:

- **2015-16:** 62% of students in ELA and 57% of students in math had pre-post results
- **2016-17:** 49% of students in ELA and 49% of students in math had pre-post results
- **2017-18:** 41% of students in ELA and 40% of students in math had pre-post results
- **2018-19:** 71% of students in ELA and 70% of students in math had pre-post results

In the fall 2015, the math pre-post test for grades 6 – 9 was made up of a TUSD math inventory assessment that covered grade level standards. For grades 10-12, DAEP teachers developed an in-house assessment that covered high school grade level math standards. The ELA pre-post for grades 6-8 was a combination of the McDougal-Little grade level placement test and a reading fluency passage that tracked words read and errors made. The ELA pre-post test for grades 9 – 12 was a placement test from Touchstone Applied Science Associates. To streamline these different assessments, all the DAEP sites transitioned to the District's 4th quarter year-end on-line assessment in ELA and math as the pre-post assessment for all grades in the spring 2016 and into 2016-17. The results were:

- **2015-16:** Matched results from the various ELA assessments showed that students did not demonstrate change greater than 1 point more or less than their pre-test scores at Magee, Project MORE, Southwest Alternative Middle School. However, at the Doolen site, students exhibited a significant gain with an average increase of 6 questions from pre to post test. Please see Table 12a for the mean pre and post test score for ELA by DAEP site.

Table 12a. 2015-16 DAEP Pretest – Posttest results by site for ELA (matched students)

| DAEP Site | ELA Pre-test | | ELA Post-test | | ELA Gain | |
|---|---|---|---|---|---|---|
| | Means | N | Means | N | Means | N |
| Doolen | 54.24 | 21 | 60.48 | 21 | 6.238 | 21 |
| Magee | 73.16 | 19 | 74.00 | 19 | .842 | 19 |
| Project MORE | 67.80 | 30 | 66.90 | 30 | -.900 | 30 |
| SW Alt MS | 75.86 | 28 | 76.07 | 28 | .214 | 28 |
| **All Sites** | **68.23** | **98** | **69.52** | **98** | **1.286** | **98** |

- **2016-17:** Matched results from DAEP's end of quarter on-line assessment in ELA assessments showed that DAEP students did demonstrate measurable change in their pre-post test scores at Magee, Project MORE, and Southwest Alternative Middle School. Also at the Magee site, students exhibited a significant gain with an average increase of 19 questions from pre to post test. Please see Table 12b for the mean pre and post test score for ELA by DAEP site.

Table 12b. 2016-17 DAEP Pretest – Posttest results by site for ELA (matched students)

| DAEP Site | ELA Pre test | | ELA Post test | | ELA Gain | |
|---|---|---|---|---|---|---|
| | Means | N | Means | N | Means | N |
| Doolen | 15.60 | 1 | | 0 | | 0 |
| Magee | 30.43 | 46 | 50.78 | 41 | 19.38 | 41 |
| Project MORE | 34.84 | 112 | 40.97 | 73 | 5.63 | 72 |
| SW Alt MS | 23.49 | 28 | 30.81 | 18 | 6.27 | 18 |
| **All Sites** | **31.95** | **187** | **42.63** | **132** | **10.02** | **131** |

- **2017-18:** Matched results from the DAEP's end of quarter assessment in ELA assessments showed that DAEP students did demonstrate measurable change in their pre-post test scores at Doolen, Magee, Project MORE, and Southwest Alternative Middle School. The only school that did not show an increase was Southwest Alternative High School. Also at the Magee site, students exhibited a significant gain with an average increase of 23 questions from pre to post test. Please see Table 12c for the mean pre and post test score for ELA by DAEP site.

Table 12c. 2017-18 DAEP Pretest – Posttest results by site for ELA (matched students)

| DAEP Site | ELA Pre test | | ELA Post test | | ELA Gain | |
|---|---|---|---|---|---|---|
| | Means | N | Means | N | Means | N |
| Doolen | 30.33% | 15 | 36.33% | 15 | 6.00% | 15 |
| Magee | 30.58% | 32 | 51.82% | 32 | 22.53% | 32 |
| Project MORE | 41.07% | 42 | 51.67% | 42 | 10.60% | 42 |
| SW Alt MS | 25.00% | 6 | 29.17% | 6 | 5.00% | 6 |
| SW Alt HS | 37.43% | 21 | 35.14% | 21 | -2.29% | 21 |
| All Sites | **35.00%** | **116** | **45.62%** | **116** | **10.67%** | **116** |

- **2018-19:** Matched results from the DAEP's end of quarter assessment in ELA assessments showed that DAEP students did demonstrate measurable change in their pre-post test scores at all of the schools. Students across schools exhibited a significant gain with an average increase of 16 questions from pre to post test. Please see Table 12d for the mean pre and post test score for ELA by DAEP site.

Table 12d. 2018-19 DAEP Pretest – Posttest results by site for ELA (matched students)

| DAEP Site | ELA Pre test | | ELA Post test | | ELA Gain | |
|---|---|---|---|---|---|---|
| | Means | N | Means | N | Means | N |
| Doolen | 28.7% | 31 | 46.8% | 30 | 18.7% | 30 |
| Magee | 33.8% | 43 | 52.4% | 40 | 18.0% | 40 |
| Project MORE | 36.7% | 44 | 48.9% | 34 | 11.1% | 34 |
| SW Alt MS | 33.8% | 28 | 52.6% | 23 | 20.3% | 23 |
| SW Alt HS | 33.8% | 18 | 46.2% | 18 | 12.4% | 18 |
| All Sites | **33.6%** | **164** | **49.7%** | **145** | **16.2%** | **145** |

- **2015-16:** In math, the matched gains were more substantial than in ELA. All sites except Southwest Alternative Middle School showed significant gains from pre to post test. At Magee, the students gained, on average about 7 points, at Doolen, the gain was, on average, about 6 points, and at Project MORE, the gain was impressive with about a 9 point increase.

| Table 13a. 2015-16 DAEP Pretest – Posttest results by site for Math (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | Math Pre-test | | Math Post-test | | Math Gain | |
| | Means | N | Means | N | Means | N |
| Doolen | 35.64 | 22 | 41.77 | 22 | 6.136 | 22 |
| Magee | 35.91 | 11 | 43.45 | 11 | 7.545 | 11 |
| Project MORE | 44.09 | 32 | 52.88 | 32 | 8.781 | 32 |
| SW Alt MS | 36.56 | 25 | 36.12 | 25 | -.440 | 25 |
| **All Sites** | **38.93** | **90** | **44.36** | **90** | **5.422** | **90** |

**2016-17:** In math, the matched gains were equivalent to ELA. At Southwest Alternative Middle School students gained about 7 points, at Project MORE students showed about a 3 point increase, and at Magee, an impressive gain of about 22 points was achieved.

| Table 13b. 2016-17 DAEP Pretest – Posttest results by site for Math (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | Math Pre test | | Math Post test | | Math Gain | |
| | Means | N | Means | N | Means | N |
| Doolen | 21.90 | 1 | | 0 | | 0 |
| Magee | 26.78 | 46 | 48.56 | 40 | 21.87 | 40 |
| Project MORE | 22.07 | 106 | 25.77 | 72 | 2.95 | 68 |
| SW Alt MS | 23.66 | 31 | 30.12 | 22 | 6.52 | 22 |
| All Sites | **23.51** | **184** | **33.28** | **134** | **9.38** | **130** |

**2017-18:** In math, the matched gains were equivalent to ELA. At Southwest Alternative Middle School students gained about 17 points, at Project MORE students showed about a 6 point increase, and at Magee, similar to last year, an impressive gain of about 25 points was achieved.

| Table 13c. 2017-18 DAEP Pretest – Posttest results by site for Math (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | Math Pre test | | Math Post test | | Math Gain | |
| | Means | N | Means | N | Means | N |
| Doolen | 24.00% | 13 | 23.08% | 13 | -0.38% | 13 |
| Magee | 29.97% | 32 | 53.79% | 32 | 24.88% | 32 |
| Project MORE | 28.05% | 41 | 33.69% | 41 | 5.73% | 41 |
| SW Alt MS | 27.22% | 8 | 42.50% | 8 | 16.88% | 8 |
| SW Alt HS | 25.25% | 20 | 25.48% | 20 | 0.50 | 20 |
| All Sites | **27.51%** | **114** | **37.31%** | **114** | **10.27%** | **114** |

**2018-19:** In math, the matched gains were almost equivalent to ELA with an average gain across schools of 14%.

| Table 13d. 2018-19 DAEP Pretest – Posttest results by site for Math (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | Math Pre test | | Math Post test | | Math Gain | |
| | Means | N | Means | N | Means | N |
| Doolen | 26.7% | 31 | 44.4% | 30 | 17.6% | 30 |
| Magee | 27.5% | 42 | 50.9% | 39 | 22.9% | 39 |
| Project MORE | 29.9% | 43 | 33.7% | 35 | 2.9% | 34 |
| SW Alt MS | 26.9% | 28 | 44.2% | 22 | 17.3% | 22 |
| SW Alt HS | 21.1% | 17 | 27.1% | 17 | 5.9% | 17 |
| All Sites | **27.2%** | **161** | **41.4%** | **143** | **14.1%** | **142** |

This academic pre-post data is evidence that students who completed DAEP demonstrated tangible gains in math and ELA, especially after the data collection was streamlined through the use of quarterly benchmarks. Benchmark gains were higher in general throughout the program in 2018-19 than the prior years. The incremental improvement each year indicates that the DAEP program has refined its processes and protocols in targeted academic support to students. The model of small structured academic environments appears to have had a beneficial academic impact on DAEP students.

### G. Social and Emotional Learning (SEL)

Social and emotional learning (SEL) is the process through which children and adults acquire and apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions.

The SEL curriculum at DAEP provided a dedicated time during the school day when the SEL skills were taught. At the Middle School sites, the lessons were taught a minimum of 2 days per week; at the High School level they were taught daily. DAEP leadership selected a 40-item Locus of Control (N-SLOC) assessment for adults and youth. (Nowicki, S. & Strickland, B. (1973) "A locus of control scale for children", *Journal of Consulting and Clinical Psychological 40(1), 148-154*). Please refer to Appendix 5 to review the survey questions. Those students with a high internal locus of control exhibit better control of their behavior than those with a high external locus of control. Because of the scoring methodology, a gain in internal locus of control requires a reduction in the mean value from pre to posttest.

- **2015-16:** The results from this assessment were slight and showed only a gain or loss of about a point at all sites except for Magee that showed a reduced perception of control. Project MORE and Doolen were the only two program sites that displayed a small increase in an internal locus of control. Please see Table 14a for a summary by DAEP site of the pre-post test results.

| Table 14a. 2015-16 DAEP Pretest – Posttest results by site for SEL (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | SEL Pre-test | | SEL Post-test | | SEL Gain | |
| | Means | N | Means | N | Means | N |
| Magee | 59.78 | 18 | 63.50 | 18 | 3.722 | 18 |
| Project MORE | 69.37 | 40 | 69.23 | 40 | -.150 | 40 |
| SW Alt MS | 64.54 | 26 | 65.62 | 26 | 1.077 | 26 |
| Doolen | 62.27 | 22 | 62.09 | 22 | -.182 | 22 |
| **All Sites** | **65.08** | **106** | **65.89** | **106** | **.802** | **106** |

- **2016-17:** The results from this assessment were slight and showed only a gain or loss of about a point at all sites except for Magee that showed a reduced perception of control. These results are similar to 2015-16. Southwest Alternative Middle School was the only program site that displayed an increase in an internal locus of control in the last two years. Please see Table 14b for a summary by DAEP site of the pre-post test results.

| Table 14b. 2016-17 DAEP Pretest – Posttest results by site for SEL (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | SEL Pre test | | SEL Post test | | SEL Gain | |
| | Means | N | Means | N | Means | N |
| Magee | 61.27 | 48 | 64.38 | 44 | 4.30 | 44 |
| Project MORE | 66.55 | 119 | 69.37 | 79 | 1.09 | 78 |
| SW Alt MS | 45.83 | 9 | 39.58 | 6 | -5.00 | 6 |
| Doolen | 59.81 | 13 | 65.50 | 5 | -.50 | 5 |
| **All Sites** | **63.76** | **189** | **66.25** | **134** | **1.82** | **133** |

- **2017-18:** The results from this assessment were negative and showed only a loss of about 4 points at all sites. Magee showed strong feelings of reduced perception of control with a loss of almost 7 points. Please see Table 14c for a summary by DAEP site of the pre-post test results.

| Table 14c. 2017-18 DAEP Pretest – Posttest results by site for SEL (matched students) | | | | | | |
|---|---|---|---|---|---|---|
| DAEP Site | SEL Pre test | | SEL Post test | | SEL Gain | |
| | Means | N | Means | N | Means | N |
| Doolen | 40.60 | 15 | 35.33 | 15 | -0.69 | 15 |
| Magee | 36.22 | 37 | 28.46 | 37 | -6.58 | 37 |
| Project MORE | 34.00 | 42 | 31.93 | 42 | -0.29 | 42 |
| SW Alt MS | 30.44 | 9 | 28.56 | 9 | -2.83 | 9 |
| SW Alt HS | 33.10 | 21 | 23.24 | 21 | -7.84 | 21 |
| **All Sites** | **35.05** | **125** | **29.59** | **125** | **-3.74** | **125** |

One reason that this data has consistently shown inconclusive or negative results may be that DAEP enrollment is not long enough in duration to alter a student's state of mind. Other reasons may be that students actually do not have much control over their lives at this juncture. New since 2017-18, the days that students spend waiting for a hearing are now counted as part of the overall suspension time. This change to the program structure effectively reduces the number of days that many students participate in DAEP. The Locus of Control N-SLOC survey may no longer be relevant to the shortened services provided by DAEP. The Grit Survey administered by Higher Ground has replaced the N-SLOC survey in 2018-19.

This year, students in DAEP were given several pre and post assessments to ensure that the goals are being met and that SEL classes effectively influence youth. Grit Surveys are comprised of a pre and post assessment that Higher Ground utilized. They include:

- High School: Social Competence for Teenagers survey, and Self-Control and Self Efficacy and Decision Making Skills for High School survey.
- Middle School: Social Competence Scale for Teenagers survey, and Questionnaire on Self Regulation and Misconduct Scale.

The goal is to help students cope with interpersonal conflicts, develop self-control and contribute to a positive classroom atmosphere. However, we continued to administer the survey along with Higher Ground's assessments to gather multiple data points.

### H. Higher Ground's Grit Survey and Behavioral Self-Assessment Survey

Higher Ground administered two pre-post surveys each semester, a Grit Survey and a behavioral self-assessment survey. The Grit survey is based on research by Dr. Angela Lee Duckworth and measures perceptions of success. The behavioral self-assessment survey (source: Goldstein et al, 1980. Skill Streaming the Adolescent) assesses interpersonal conflict and self-control.

**2017-18:** Higher Ground provided 32 sessions at Magee and Southwest, 15 sessions at Doolen and 29 sessions at Project More during the fall semester. Of the 81 students who participated in DAEP with an exit date of 12/19/17 or before, 45 students participated. Students did not participate because they either left the program or were not enrolled long enough to complete the program (N=36). Results from the survey revealed that:

- 53% improved grit score
- 60% improved their behavioral self-assessment scores
- 98% attended a minimum of 4 sessions

Higher Ground provided 35 sessions at Magee and Southwest, 32 sessions at Doolen and Project More during the spring semester. Of the 177 students who participated in DAEP with an exit date of 5/18/18 or before, 99 students participated. Students did not participate because they either left the program or were not enrolled long enough to complete the program (N=78). Results from the survey revealed that:

- 51% improved grit score
- 58% improved their behavioral self-assessment scores
- 100% attended a minimum of 4 sessions

**2018-19:** Higher Ground provided 35 sessions at Magee and Southwest, 33 sessions at Doolen and Project More during the fall semester. Of the 116 students who participated in DAEP during the second semester, 100 students participated and completed the pre-post assessment. Students did not participate because they either left the program or were not enrolled long enough to complete the program (N=16). Results from the survey revealed that:

- 55% improved grit score
- 40% improved on social competence
- 38% improved on ability to regulate emotions
- 42% improved on stronger decision making
- 100% attended a minimum of 4 sessions

Higher Ground supported students to reflect and to write about their own behaviors and decision-making. For example, Higher Ground modeled how behaviors can be replaced by thinking about actions before acting. Students reported that strategies such as walking away, talking to a trusted adult or finding an outlet like art and sports (Judo/basketball) are positive alternatives. As one student stated after being involved in the program, 'I have [become] more of a critical thinker and I have been thinking more rationally, but it's hard'.

### I. DAEP Student Exit Survey Results

When students completed DAEP, they were asked to fill out a survey about their experiences. A Total of 62 students filled out the survey in 2015-16, 110 students in 2016-17, 110 in 2017-18 and 73 in 2018-19. The results from this survey overall revealed that the best place for these students is enrolled in a school with a structured and supportive environment.

The survey revealed consistent results over the last four years. When students were asked, if they did not have the option to enroll in DAEP, what would they do; the majority stated that they would just hang out at home or with friends (2015-16 = 82%, 2016-17 = 84%, 2017-18 = 80%, 2018-19 = 78%). The remaining students would leave the district altogether either to a charter school (2015-16 = 16%, 2016-17 = 15%, 2017-18 = 16%, 2018-19 = 7%) or simply drop out of school (2015-16 = 2%, 2016-17 = 1%, 2017-18 = 4%,

2018-19 = 3%). Students felt that they benefitted from the DAEP experience and that the life skills that they were exposed to would help them to avoid future suspensions. Additionally, 84% in 2015-16, 70% in 2016-17, 71% in 2017-18, and 90% in 2018-19 of students agreed that they found their experience in DAEP to be either satisfying or outstanding. The remaining 16%, 30%, 29%, and 10% respectively were more ambivalent about their experiences, with their responses ranging from somewhat satisfied to unsatisfied.

When asked about the program, students appreciated most the respect from the staff (2015-16 = 84%, 2016-17 = 72%, 2017-18 = 61%, 2018-19 = 88%), the small class sizes (2015-16 = 83%, 2016-17 = 83%, 2017-18 = 73%, 2018-19 = 85%), and the information about college and career options/guest speakers (2015-16 = 80%, 2016-17 = 45%, 2017-18 = 57%, and 2018-19 = 63%). For some of these students, it may have been the first time in a while that an adult spent time with them to discuss their future in a positive framework. Additionally, because these students may have a reputation at their home school for being troublesome, the opportunity to develop a respectful relationship with an adult and feel a sense of belongingness was a powerful outcome of the program, and one that is challenging to measure with conventional evaluation tools.

Student responses were mixed about enrolling in a transition program before returning their home school. About half of students in 2015-16 (54%) and more than two-thirds in 2016-17 (67%), 2017-18 (73%), and 2018-19 (62%) felt ready to go back to their home school and their old routines. The remaining students (2015-16 = 46%, 2016-17 = 33%, 2017-18 = 27%, 2018-19 = 38%) were open to the idea because they felt successful in DAEP with the smaller class sizes and responsive teachers. Finally, the majority of students (2015-16 = 86%, 2016-17 = 66%, 2017-18 = 85%, 2018-19 = 90%) felt that their experiences in DAEP would help them avoid further suspensions.

## Discussion

Students are re-assigned to DAEP for 20, 30, or 45 days. About half of the enrolled students (N=77 in 2015-16, N=121 in 2016-17, N=160 in 2017-18, and N=74 in 2018-19) were most likely arrested because they committed Level 4 and 5 offenses including drug use, sexual offenses, aggravated assault, etc. and were subsequently placed on probation. Without DAEP, these students would be in violation of their probation and would need to serve time in a detention facility. DAEP, therefore, served as a safe haven for troubled students who otherwise would spend the time at home, in a detention facility, or out on the streets.

The results of data from the DAEP evaluation over the last four years has been very consistent even though program referrals showed a 59% increase between the SY 2015-16 and 2017-18. Additionally, in 2016-17 and 2017-18, the higher number of referrals may have been influenced by a district wide effort from to address the frequency of fighting. In 2018-19, the lower number of referrals may have been influence by the new policies to channel students into mediation or substance abuse workshops in the Student Code

of Conduct, especially with Level 4 violations involving fighting and possession of use of drugs or alcohol. It states:

- Fighting - *first offence*: three day suspension with two days waived if students participates in mediation
- Possession or use of drugs or alcohol - *first offense*: three day suspension with two days waived if student agrees to attend substance abuse workshop, and , upon return to school, an intake interview and to be searched for drugs or alcohol

That DAEP maintained the moderately high level of student attendance and completion rates in 2018-19. The results of data have demonstrated that the profile of students who attended DAEP, the services they received, and the benefits of participation were very similar from 2015-16 to 2018-19. The student profile at DAEP revealed a population in need of full academic support and wrap-around behavioral services. Student needs were both varied and complex: some were deep-rooted from exposure to trauma or instability, some contended with mental or behavior health issues that have been neglected or underserved, some suffered from chemical dependency, some had language and/or cultural barriers, and some did not fit comfortably into the structure of mainstream schooling. Because of these issues, most DAEP students had substantial academic learning gaps.

Despite these challenges, the majority of students complete their DAEP assignment.

- 2015-16: Of the 157 students who enrolled in DAEP in 2015-16, 89% successfully completed the program and the rest either terminated early (10%) or became continuing students (1%) into the 2016-17 school year.
- 2016-17: DAEP expanded its program to 266 participants. Of those students, 87% successfully completed DAEP and 13% did not. One student continued their DAEP enrollment into the 2017-18 school year before returning to their home school.
- 2017-18: DAEP expanded its program again to 286 participants. Of those students, 89% successfully completed DAEP and 10% did not. Two students (or 1%) will continue their DAEP enrollment into the 2018-19 school year. Additionally, 31 students or 11% were enrolled more than once to the program in 2017-18. Of those students, 5 did not complete the program largely because they broke the behavior contract that marshaled the program, or to a lesser degree did not show up to participate, withdrew, or became incarcerated.
- 2018-19: DAEP's enrolled decreased from the year prior to 203. Of those students, 91% successfully completed DAEP and 9% did not. Five students (or 1%) will continue their DAEP enrollment and an additional 24 students will start their school year at DAEP into the SY 2019-20. Additionally, 6 students or 3% were enrolled more than once to the program in 2018-19.

This data underscores that students were invested in completing the program to be able to return to their home school as smoothly as possible. Student demographics from DAEP included:

- **Ethnicity:** The USP ethnic breakdown of students enrolled in DAEP revealed that African American students were consistently over-represented and increasing each year (14% in 2015-16, 17% in 2016-17, 19% in 2017-18, and 16% in 2018-19) when compared to the District's overall ethnic distribution (9%). Conversely, Hispanic students were under-represented and decreasing each year (59% in 2015-16, 55% in 2016-17, 52% in 2017-18, and 57% in 2018-19) when compared to the District's overall ethnic distribution (62%). The other ethnic groups were representational of the larger District average.

- **Attendance:** The average attendance rate in the program was about 78.15% in 2015-16, 82.43% in 2016-17, 84.22% in 2017-18, and 83.11% in 2018-19 from program attendance ranging between 16 to 35 days. The program exposure was therefore relatively limited which challenged the program to be able to show sustained change in student behavior. For example, the Social and Emotional Learning Scale (SEL) provided largely inconclusive results from pre to post-test each year from 2015-16 to 2017-18. Altering student's perception of how much control they felt could be exerted over their environment may require more time and services than what DAEP is currently able to offer.

- **Grade Levels:**
    - Middle School: Aggression (assault, disorderly conduct) was the most common violation over the last four years. This data suggests that middle schools may need additional training in restoratives and a wider set of complementary strategies to encourage positive student behavior to mediate aggression.

    - High Schools: Drugs and marijuana were the most common violation over the last four years suggesting that student engagement in high interest in-school and after-school activities are needed to provide alternatives to using drugs. Additionally, increased collaboration with outside behavioral service agencies and TUSD high schools may be desirable to provide strategies to students at-risk to decrease drug dependency.

- **Students with Specialized Needs**: More than a third of students (39%) were classified as ExEd, had a 504 plan, or were English Language Learners in 2015-16. During 2016-17 to 2018-19, students who were classified as ExEd, had a 504 plan, or were English Language Learners decreased to about a quarter (23%, 25% and 30%, respectively) of the participants although a 5% increase was evident in 2018-19 . Without enrollment into DAEP, these students would not have received the school-based services that they and their families rely upon.

- **ELA and Math Pre-Post Assessment Results:** Assessment protocol was formalized in 2016-17 by using grade level comprehensive year-end on-line district benchmark assessment as a pre-post-test. In 2017-18, these assessments were further refined to reflect quarterly academic priorities.

Results indicated that students showed measurable growth in both ELA and math. This growth serves as evidence that students were supported academically in ELA and math during their time at DAEP, especially at the middle school level. Thus, the model of small structured academic environments has had a beneficial academic impact on DAEP students, especially in the last two years.

Students enrolled in DAEP fell into 3 broad categories in terms of their discipline history across the last three years: (1) about half of students got in trouble just once or twice at their home school, attended DAEP and completed the year without any further discipline incidents; (2) about a quarter of students had a longer history of trouble, amounting to 3 or 4 incidents during the year at their home school which resulted in both in-school and out-of-school suspensions and possibility being referred to DAEP more than once; and (3) the remaining students repeatedly got into trouble 5 or more times and attended DAEP one or two times. Additionally, when the four years are compared, incident and suspension data of DAEP students in 2018-19 showed about a 22% overall reduction among students with 4 or more incidents and/or suspensions.

In summary, despite the challenges of unfilled certified teacher vacancies and the turnover of the Behavior Intervention Monitors each year, DAEP provided essential services to high-risk students who otherwise would languish at home or might even drop out of school altogether. Students were largely satisfied with their experience and felt that they received needed support in a respectful environment. Most students (2015-16 = 86%, 2016-17 = 66%, 2017-18 = 85%, 2018-19 = 90%) concurred that their experience in DAEP will also help them avoid further suspensions. Academically, the students who completed the program showed growth, especially in middle school (Magee and SW Alt MS). The smaller learning environments with more individualized attention appear to have improved their learning capabilities. Over the last four years, about a third of students (2015-16 = 46%, 2016-17 = 33%, 2017-18 = 27%, 2018-19 = 38%) requested an extension to DAEP ostensibly because they felt successful in the smaller environment. The results of this evaluation revealed that DAEP was successful in supporting long-term suspended students both academically and behaviorally until they were able to return to their home school.

## Recommendations

These recommendations were initially provided in the 2015-16 report and are still relevant to the 2018-19 report. Small inroads have been made in areas such as synchronizing data and alignment to TUSD's infrastructure, but are not complete enough to be removed from this list. The remaining recommendations call for increased resources, planning, training for DAEP and a more structured system of support for DAEP students.

**Staffing:** Certified Teachers and BIMs: Similar to other high profile programs in TUSD such as magnet programs or other 'hard to fill' positions in TUSD's at-risk schools, DAEP should receive hiring priorities and/or hiring incentives to recruit and retain teachers.

**Alignment to TUSD's infrastructure:** In the past four years, most infrastructure issues have been resolved. Addressing academic articulation and grading will continue to be a focus during the 2018-19 school year.

**Professional Development:** PD for all staff in DAEP should reflect the specific needs of the student population with an emphasis on SEL strategies. Funded differentiated professional development is recommended during the summer months to prepare DAEP staff for the upcoming school year.

**DAEP data in Synergy:** Create a flag system within Synergy to facility district departments' abilities to analyze short term and longitudinal trends regarding DAEP students.

**Measurable outcomes of DAEP:** All stakeholders should agree on what specific criteria will be used to measure the impact of DEAP. The average attendance rate in the program was about 78.15% in 2015-16, 82.43% in 2016-17, 84.22% in 2017-18 and 83.11% in 2018-19 which is translated into program attendance ranging between 16 to 35 days. Using longer term measures such as increased attendance rates, increased performance on the standardized test, increased graduation rates, or decreased drop-out rates may not be appropriate to assess DAEP's impact.

**Follow up support for students who complete DAEP:** Communication between DAEP and the home school should be institutionalized and documented. For example, in preparation for a returning student who has completed DAEP, middle and high schools need a plan in place with recommendations from the DAEP staff. This plan would help to reintegrate the student and provide continued academic and behavioral support. Schools should be highly encouraged to assist Higher Ground with follow up and check-in processes for students who have transitioned from DAEP back to their respective school. Returning students should be included in their schools MTSS processes. Finally, PBIS and Restorative Justice practices should be available at all TUSD schools. These practices would provide both a common experience and language for students who leave DAEP to return to their home schools.

**Training of DAEP services to TUSD personnel:** Training school personnel regarding DAEP services at the beginning of each school year needs to be prioritized and provided on a continual bases. Training will impact the speed at which referrals and parent orientations are processed. Training and collaboration with MTSS (Multi-Tier System of Supports) Facilitators at the schools need to be emphasized to align academic articulation efforts of DAEP students.

# Appendix 1

Program criteria are:

- A student is eligible for DAEP if they commit a level 4 or level 5 offense and found to be in violation.
- The long-term hearing officer would assign the student into DAEP for a total of 20, 30 or 45 days depending on the severity of the offense.
- A student who chooses to participate in DAEP would be required to attend an orientation with their parents, and sign a contract agreeing to the rules, adhere to a dress code and the attendance requirements of the program.
- A total of 75 seats for grades 9-12 students in Project MORE DAEP

A. A student who violates their contract by committing GSR infractions while enrolled at DAEP will be held accountable.
   - If the violation is deemed minor, level one, two or three, there may be an extension of their assignment at DAEP. If there are repeated violations of level one, two or three, the principal at DAEP may petition to raise the violation to a level 4.
   - If the violation is a level 4 violation, a long term hearing may be held which may disqualify the student from DAEP and they would then serve the concurrent suspensions at home.
   - A student may only be assigned to DAEP no more than twice per school year.

B. Students in DAEP for a level 4 violation who adhere to the rules, thrive, and demonstrate model student behaviors will be rewarded as follows:
   - A student who exceeds behavioral and curriculum expectations may have their suspension reduced and returned to their home school. This determination would be made by DAEP principal and staff recommendation.
   - A model student shall have their Mojave record reflect they were excellent students.

C. Students assigned to DAEP will have an opportunity to participate in a counseling program. Each student, with the aid of the counselor, will develop:
   - A responsible behavior plan to facilitate success at school.
   - Decision-making, goal setting, behavioral skills, anger management, peer interaction compliance, authority figure coping
   - May provide some drug and alcohol education. The counselor, in conjunction with staff and parents, may help determine the need for any additional referrals.

Services Available are:

A. Juvenile Court:
   - DAEP representative meets with Education Consultant Coordinator (court representative).
   - When appropriate Education Consultant Coordinator will schedule a meeting with judge.

B. Support for child/teen trauma, homeless support, drug/ substance abuse or Medicaid:
   - DAEP Social Worker or counselor in collaboration with TUSD Student Services will make contact/recommend appropriate social service agency.

C. Identify Mentor Networks:
   - DAEP Social Worker or Counselor works with Drop Out Prevention staff to identify and assign mentors.

D. Transportation:
   - Bus passes will be available for students who qualify.
   - Ex Ed services will be provided as they would normally.

# Appendix 2

Our mission is to provide a Fair, Equitable, and Successful Educational Experience to long-term suspended middle and high school students throughout the district.

## DAEP Vision

Every student matters in TUSD. We have an obligation to reduce disparities wherever they exist in our District. Achieving equity in matters of student discipline is our District's moral calling. TUSD's culture and climate must be rooted in effective and positive relationships with each student. Students cannot learn if they are not in school. Providing students a continuing education is in line with our vision and values. We can and must work with every student to ensure a fair, equitable and successful educational experience.

## DAEP Values/Collective Commitments:

Because we, educators and support staff, VALUE equitable access to education for all students, we make a COLLECTIVE COMMITMENT to:

1. Ensure that each student and parent/guardian feels valued in TUSD.
2. Encourage each student to recognize and achieve his/her potential.
3. Address the constraints to each student's home school success.
4. Uphold professional standards.
5. Be loyal to our purpose.
6. Provide consistent supervision of our students to ensure appropriate behavior in and out of the classroom.
7. Deliver a rigorous curriculum, build relationships with students, and give emotional and academic support.
8. Keep open lines of communication between student, parent, home school, and outside agencies.
9. Implement the Wrap Around Concept with follow-up on our part.
10. Apply PBIS and Restorative Practices toward redirection of student behavior and choices.

## DAEP Goals

Our goals are below for each student who attends the DAEP Program. Because the students attending the Program are on an individual timeline, the steps toward each goal will be implemented throughout the course of each student's timeline.

- We ensure that each student and parent/guardian feels valued in TUSD.
    1. Daily implementation of Point Sheets as a communication tool, with a 100% return rate.
    2. Weekly parent/guardian contact regarding student success/concerns.
- We support each student in recognizing and achieving his/her potential.
    1. Administration of pre- and post-tests to help guide instruction.
    2. Communication with the home school to coordinate educational standards/materials.
    3. Daily tailored instruction with adherence to IEP's and support for diverse learners in the classroom.
    4. Twice per week SEL focused curriculum provided by Higher Ground. As needed, providing access to support programs, such as counseling.
- We strive to address the constraints to each student's home school success.
    1. Emailed "heads-up" to home school teachers, MTSS Facilitator, Counselor, etc. 3 days prior to student's return.
    2. Completion/email of Academic and Behavioral MTSS plans to LSC within 1 day of student's return to home school.
    3. Emailed exit reports to home school teachers within 1 day of student's return to home school.
    4. Re-entry meeting at home school prior to student's return.
    5. Transition day in home school ISI program
    6. Follow-up with home school and student within 2 weeks of student's return.

# Appendix 3

Addressing the Social Emotional Learning Needs of DAEP Students

Social and emotional learning (SEL) is the process through which children and adults acquire and effectively apply the knowledge, attitudes, and skills necessary to understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. The SEL curriculum at the District Alternative Education Program (DAEP) sites is provided by Higher Ground who visit each site twice per week to deliver their curriculum and emphasize their key concepts of Honor and Respect. These concepts incorporate the CASEL competencies of Self-Awareness and Self-Management. The focus on these two competencies is to develop young people's abilities to be self-aware, to handle both positive and challenging emotions, and to develop the capacity to take action, sustain motivation, and persevere through challenges and work toward an identified goal.

Appendix 4

TUSD

## District Alternative Education Program (MS)

Welcome to the District Alternative Education Program! This program will provide you with an opportunity to continue you're education and reflect on the behaviors and circumstances that brought you here. We will assist you in learning appropriate behaviors, and making better choices so that when you return to your home school you can be a successful student.

Our teachers have chosen to work with students who have had difficulty in traditional school programs and are excited to be helping improve student's academic and social success.

Students are graded in five core areas: Math, English Language Arts, Social Studies, Science, and Reading. In addition, we offer a grade in Health. We do not offer elective credits. DAEP will report each student's attendance and grades to their home school. Final grades will be issued only by the home school utilizing grades sent by DAEP teachers. At the high school level, credit recovery may be offered.

Some of our science and social studies classes may take place in the community, as this allows the students to experience real-life applications to the study of these subjects. An example of this is the study of Orienteering, Riparian habitats, and Ecosystems at Agua Caliente Park. Additionally, we may invite guest speakers to address students about a particular skill or hobby they possess, but also to speak about real experiences they have had with violence, crime, drugs, or difficulty in school.

Please be aware of the TUSD retention policy. According to Board Policy IKE-R1: your child must receive a final passing grade in LA, Math, either Science OR Social Studies, AND receive final passing grades in at least four subjects.

**We ask that you:**

- Come to school with a positive attitude.
- Be here every day, and on time.
- Complete all assigned work without argument.
- Wear appropriate clothing: no hats, gang or drug related apparel, sunglasses, etc.
- Be respectful at all times to, the teachers, guests and other students.
- Behave appropriately when out in the community with the class.
- Respect and be responsible for our electronic equipment.
- Refrain from using profanity or any type of disrespectful behavior.
- Follow TUSD and site rules and policies.

**We will provide you with:**

- An opportunity to continue your education in a positive environment.
- Curriculum that may be adapted to meet your particular educational needs.
- School Counseling services with an emphasis on goal setting, problem solving, anger management, and life skills.
- An awareness and appreciation of other cultures.
- Open and ongoing communication with your parents/guardians, PO's when applicable via daily behavior point sheets and weekly telephone calls. Parents/guardians may contact the teacher with any concerns they may have.
- Food services will provide breakfast (where scheduling allows) and lunch on a daily basis. Free and reduced lunch status will be honored. No outside food or drink is allowed. Arrangements may be made for students who bring sack lunches.

Teacher's name(s) and School Phone Number: _____

The best time to call: _____

**School Hours**: **Monday, Tuesday, Thursday, Friday**: _____ **Wednesday: _____**

TUSD

**District Alternative Education Program**

Student Name _____ Date of Registration_____ Grade: _____

Address: _____ Date of Birth: _____Home School_____

Home Phone: _____ Special Education? _____

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**Parent Permission**

My son/daughter, _____, has my permission to participate in the following school activities and/or services:

- School sponsored trips to include TUSD vehicle and/or staff vehicles
- Talk with school counselor, Transition Specialist, and other support staff
- Attend scheduled academic classes and activities in the community
- Guest speaker events that may be of a mildly graphic nature (i.e. straight talk about drugs and violence)
- I hereby give permission for DAEP staff to contact my student's Probation Officer: _____ (parent initials)

_____ _____

Parent Signature Date

**Student Contract**

Student Contract For: _____

1. I agree that I must attend school daily and on time. My school hours are: Monday, Tuesday, Thursday, and Friday from _____to _____, and Wednesday from _____to _____. I understand that there is a tardy policy in place, which may require me to stay after school to make-up time/work missed. Parents will be notified by student or staff.

2. If for any reason, I will be absent or tardy, my parent or legal guardian will call the teacher by _____a.m.

3. I understand that the DAEP follows all **TUSD's policies** in regard to appropriate behavior, language, attire, and destruction of school property. Violation of these policies may result in **removal from the program**.

4. The DAEP program does not allow **backpacks.** . If a student brings a backpack to school, it will be confiscated, searched and returned at the end of the day. Repeat occurrences will result in discipline consequences.

5. **We strongly discourage students bringing any electronic devices** to school. We will **not be responsible for loss or theft** of these items, even if staff confiscates them or stores them. Girls are only allowed to bring a small, wallet-sized purse and it will be checked daily.

6. I will come to school with a positive attitude and make every effort to complete all assignments in a timely manner to the best of my ability.

7. I recognize that my parent/guardian and/or **probation officer** will be notified immediately if I fail to make progress; am excessively tardy and/or absent. They will also be notified when I am making good progress and following all the rules. Excessive tardiness may lead to removal from the program.

8. **Search Policy**. As per TUSD Policy, searches occur only if there is reasonable suspicion to believe that the student is under the influence of an unknown substance or that he/she may have something they should not have. Searches by the program Director or designee. ____ Parent Initials

Student Signature _____Date _____

Parent/Guardian Signature _____Date _____

# EXHIBIT B

# Review of Educational Research Literature to Understand the Impact of Middle School and High School Students Sharing the Same Campus

This report summarizes a review of extant research literature related to the effects of co-locating K-12 programs serving students of different ages and/or distinct behavioral needs and histories. This literature review focused on finding related peer-reviewed research to provide insight and guidance related to the potential impact of Tucson Unified School District's Disciplinary Alternative Education Program or DAEP Middle School program being located at Catalina High School. This review was intended to address the question, "what are the risks, if any, associated with DAEP's 6 – 8 grade middle school students sharing the Catalina campus with the 9 – 12 grade high school students?" Implicit in the question is an effort to evaluate the potential risk to Catalina's high school students from having the DAEP students nearby, and the potential risk to the DAEP middle school students from having older high school students nearby.

The literature search was limited to publications appearing from 1973 through June 2022 and summarizes tentative patterns based on common features of 27 reports. The literature was grouped into three major themes showing similarities in research priorities, methods, and/or findings.

## School Within a School Model:

One cluster of research focuses on School-within-a-School (SWAS) models and their related effects. Much of this research is 30 to 40 years old and includes the work of Bilderback, 1990; Dain, 2001; Matthews & Kitchen, 2007; Moffett, 1981; Ramos, 1993; Whittington-Manning, 2001. Limitations of the SWAS model research are that it is old, relies on small sample sizes, uses methods that make generalizing unlikely, and/or is based upon unpublished non-peer-reviewed research (Bilderback, 1990; Moffett, 1981; Ramos, 1993; Shelmire, 2011; Whittington-Manning, 2001). Indeed, 6 of the 7 distinct research pieces focusing on SWAS models appear as unpublished doctoral dissertations. The only research evidence involving SWAS and published is already 15 years old but does include a relatively large if non-random data sample of gifted students who were located within the general school population. (Matthews & Kitchen, 2007)

## Multi-Age Learner Model:

The second cluster of research that appeared to offer potential relevance for TUSD focuses on multi-age learner models (Broome, 2009; Followwell, 2021; Stuart et al., 2007). This model features the purposeful grouping of students from two or more grade levels to form communities of learners (Broome, 2009). Ultimately, the model itself has little relevance for TUSD because the model (1) typically involves two or three consecutive grade levels that remain together over time and (2) offers little insight into the effect of wider grade and age interaction concerns.

# Review of Educational Research Literature to Understand the Impact of Middle School and High School Students Sharing the Same Campus

School Environments and Student Outcomes:

A third research cluster with potential applicability to TUSD is loosely grouped around the connections between the physical learning and teaching environment, disciplinary actions, and student outcomes (Cosmovici et al., 2009; Fisher, 2016; Hughes et al., 2019; Kariippanon et al., 2019; Novak, 2019, Ogundokun, 2011; Tanner, 2008). Unfortunately, this research suffers from a lack of methodological rigor generally, including an over-reliance on vaguely defined concepts and theoretical connections (Cosmovici et al., 2009; Ogundokun, 2011; Tanner, 2008).

In conclusion, a review of these 27 articles offers little to no evidence of a positive or negative impact on middle school students and high school students who share the same campus in different programs. Additionally, this review did not undercover any relevant best practice information about how to organize a successful program where middle school students are located on the same campus as high school students. Finally, this review of the literature did not indicate that discipline incidents increase or decrease when multi-age students are located on the same campus.

# Review of Educational Research Literature to Understand the Impact of Middle School and High School Students Sharing the Same Campus

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# EXHIBIT C

# INSTEAD OF SUSPENSION:

## Alternative Strategies for Effective School Discipline

Duke
CENTER for CHILD and FAMILY POLICY

Children's Law Clinic
A legal project of Duke Law School focused on protecting children

## About the Authors

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# Instead of Suspension: Alternative Strategies for Effective School Discipline

## Table of Contents

# Foreword

Across North Carolina and the country, school boards and superintendents, school administrators and teachers, parents and community leaders have acknowledged that suspending children from school for violations of school rules should be a last resort. Many districts are reconsidering their approaches to student discipline.

The reasons for this are many. Among them is compelling evidence that a zero tolerance approach - and suspension generally - is not only less effective than had been hoped, but potentially harmful not only to the students receiving the suspension but to the broader school community. A wide array of education leaders is looking carefully at the research on suspension, which confirms the correlations between suspension and poor outcomes for students. Indeed, since 2011, North Carolina has prohibited mandatory long-term suspensions and expulsions except when required by state or federal law.

Many school districts are striving to implement and embrace alternatives to suspension. They are particularly focused on alternatives that will respond appropriately and effectively when students misbehave, while keeping the students in school and moving forward educationally and behaviorally.

This report includes a compendium of alternatives to suspension and brief profiles of examples of where those alternatives are in place. It is a unique and valuable resource for school boards, school administrators, teachers, and others who are rethinking their approaches to school discipline without compromising the learning opportunities or safety of the school community as a whole. The report will acquaint school districts with a range of approaches to school discipline. Some are proven, others are promising. All have the potential to foster better school climates and better student outcomes.

We invite a wide readership in North Carolina and hope our counterparts in other states will join us in sharing this resource with school districts throughout their states. It is not only educational and informative, but also can serve as a starting point for action or as a source of guidance for policy change. Whether you are in a district that is considering making changes to school discipline, in one that already has committed to or implemented changes, or perhaps a state policymaker considering the important issue of school discipline and suspension, we recommend this resource to you and look forward to the improved outcomes that it will help support.

Edwin E. Dunlap, Jr.
Executive Director
North Carolina School Boards Association

# Executive Summary

During the 2013-14 school year, North Carolina students missed more than 650,000 school days due to suspension.[1] Nationally, more than 3.8 million students, about nine percent of the school-age population, are suspended annually.[2] Although suspension is one of the most widely used school discipline techniques, school officials and education experts increasingly criticize suspension and its negative effects on both suspended students and schools as a whole. Fortunately, alternatives exist that can improve student behavior, maintain school safety, and enhance academic achievement. This report describes 11 effective approaches to student misconduct that minimize exclusion of children from school. Many of these approaches are already used in North Carolina schools; others are used in communities around the country. Many have been rigorously studied and shown to have positive results.

Given the strong system of local control of education in North Carolina, individual school boards and administrators have tremendous power to facilitate changes in the approach to school discipline in their districts. With leadership from the top, school discipline can change from a system of punishment to a system of student development. Well-chosen alternatives to suspension can simultaneously diminish the negative outcomes of harmful discipline policies, boost student achievement, reduce student misconduct, and maintain safe and orderly schools.

The approaches described in this report fall into three categories. First are programs that seek to improve the culture within an entire school. They rely on professional development to allow all staff to work together to implement positive behavioral interventions and instructional strategies to replace more punitive measures. The best-known and most thoroughly researched of these programs are Positive Behavioral Interventions and Support (PBIS) and Safe and Responsive Schools (SRS).

Second are programs that teach individual professionals better skills in behavior management and student discipline. These include research-based programs, such as My Teaching Partner, that target teachers, training them in adolescent development and effective student-teacher interactions. Other programs focus on School Resource Officers, likewise training them in adolescent development and conflict resolution. Yet another program, Objective Threat Assessment, teaches school administrators to better assess purported threats in order to avoid suspending students who do not pose real safety risks.

Third are approaches that change the response of schools to misbehavior by individual students. These approaches either replace school suspension with another type of response to misconduct or offer alternative activities to students during times of suspension. Most aim to help students avoid future misconduct, and some rely on community partners. Examples are Restorative Justice, Substance Abuse Treatment, Community Service, Community-School Partnerships, and Alternative Schools.

The final strategy highlighted in this report, Policies Reducing the Use of Suspension as a Discipline Tool, can complement any of the above approaches. With leadership from the local board of education, often in collaboration with community groups, school districts can rethink the appropriateness of school suspension as the default response to misconduct. Approaches taken by several large metropolitan school districts are described herein.

In selecting programs and strategies to highlight, we considered both costs and whether the program is supported by evidence. While we recognize that funding is always limited, districts may be able to secure support through private philanthropy or find free community support for some programs. Moreover, and particularly important in the context of this report, decision-makers should realize that replacing suspension with other strategies can ultimately yield cost savings while also accomplishing the goal of reducing the reliance on suspensions as a disciplinary practice. Using more effective approaches to problem behaviors can reduce the likelihood of unemployment, court involvement and other negative outcomes with high societal price tags.

Policymakers, practitioners, and funders alike are increasingly asking for "evidence of what works." In compiling this report, we have noted instances where evidence exists about a particular program or approach. As district leaders and others consider which strategies to pursue, we encourage them to consider the evidence of effectiveness as well as the experience of other school districts and the resources needed to implement a particular strategy. Asking the three following questions may be useful:

1. Do the stakeholders of the school and/or school district fully support the strategy or strategies under consideration?
2. Do the experiences of other similar schools and school districts suggest that the strategies will be effective in this school or district?
3. Does the school/district have (or can it secure) adequate resources to support effective and consistent implementation of the strategy or strategies?

This report introduces school board members, school and school district administrators, and other education stakeholders to a range of options for addressing discipline challenges. Identifying alternatives to suspension is a critical step in preventing and reducing suspensions, but it is only a first step. We hope the information and guidance included here will motivate practitioners and policymakers from across the political spectrum to pursue strategies that keep schools and communities safe while also providing all students with the support they need.

- **Jane Wettach, Jenni Owen, and Katie Claire Hoffman**

# Introduction

Though suspension is a widely used disciplinary technique in both general and special education, research has raised serious questions about its effects.[3] Frequent use of suspension has many undesirable and unintended outcomes, including a less healthy school environment, lower academic achievement, higher levels of disruptive or antisocial behavior, and higher school dropout rates.[4]

Particularly troubling is the disproportionate imposition of school suspension on African-American students and students with disabilities. National and state data reveal that African-American students are three to four times more likely to be suspended for school misconduct than are white students.[5] Students with disabilities are suspended at nearly twice their proportion in the overall population. Despite laws that prohibit discrimination against racial minorities and people with disabilities, these patterns have existed for many years.[6] Also of urgent concern is the criminalization of students; in North Carolina nearly half of all referrals to the juvenile system come from schools.[7]

The problem of an overuse of school suspension has garnered the attention of state and national leaders. In 2011, the North Carolina General Assembly passed a new school discipline law stating that

> …removal of students from school, while sometimes necessary, can exacerbate behavioral problems, diminish academic achievement, and hasten school dropout.[8]

The law also encourages school officials

> … to use a full range of responses to violations of disciplinary rules, such as conferences, counseling, peer, mediation, behavior contracts, instruction in conflict resolution and anger management, detention, academic interventions, community service and other similar tools that do not remove a student from the classroom or school building.[9]

In early 2014, the U.S. Department of Justice and the U.S. Department of Education issued policy guidance to assist public schools in meeting their obligations to administer student discipline without discriminating on the basis of race. In the guidance, the departments praised schools that "incorporate a wide range of strategies to reduce misbehavior and maintain a safe learning environment, including conflict resolution, restorative practices, counseling, and structured systems of positive interventions."[10] A 2014 Council of State Governments report likewise strongly supports the use of alternatives to suspension.[11]

This report presents 11 alternatives to suspension. The following chart summarizes each alternative. The report then provides details of each program, and when possible, contact information for individuals who have implemented the approach. Finally, we have included two appendices, one outlining national research on the negative effects of aggressively using suspension as a disciplinary tool, and a second reporting the statistical data on suspensions in North Carolina.

One important cautionary note: When schools and school systems implement suspension alternatives, implementation may be weak and fidelity to the program model may be low.[12] Rigorous, faithful program implementation is critical to successful outcomes. Therefore, whenever possible, this report spotlights schools and districts that have adhered closely to program models by paying careful attention to implementation.

Overuse of suspension is a problem individual schools and districts can address by replacing suspension with alternatives backed by research.[13] When implemented with fidelity to the program model, these alternatives can simultaneously diminish the negative outcomes of harmful discipline policies, boost student achievement, and improve school discipline.[14] When schools and school districts pursue alternatives to suspension with seriousness and rigor, the results can be dramatically positive, both for individual students and for the school community. For schools and districts interested in investigating alternatives, we hope this report serves as a useful starting point.

| School-wide Programs That Seek to Improve the Overall Culture Within a School | | | |
|---|---|---|---|
| **Program/Approach** | **Overall Objectives** | **Description** | **Resources Needed** |
| **Positive Behavior Intervention and Support (PBIS)**<br><br>**More information starts on page 13.** | • Create school-wide, positive behavior change<br>• Foster improved school climate<br>• Reduce student misconduct | PBIS is a set of strategies and techniques based in behavioral psychology and implemented by all staff throughout a school. A positive approach is taken to create specific behavioral expectations for all students, and desired behaviors are explicitly taught. More intensive strategies are used for the children who need the most support. Data are kept and monitored to allow for more effective and targeted implementation. | Initially, a team of educators, parents, and community members develop a school's plan. All school staff must be trained and continuously encouraged to employ the chosen strategies. A school-based PBIS team is responsible for day-to-day implementation and data collection.<br><br>In North Carolina, DPI provides training and support to interested schools. |
| **Safe and Responsive Schools (SRS)**<br><br>**More information starts on page 16.** | • Improve student behavior<br>• Reduce school violence<br>• Improve overall school climate | SRS relies on an instructional rather than a punitive approach to addressing discipline issues. A structured needs assessment helps schools select among various programmatic elements. Students learn problem-solving skills, such as conflict resolution. Students at particular risk receive more intensive support. Schools use alternatives to office referrals, such as behavior support classrooms. | An interested school establishes a school-based team comprised of educators, parents, community members and students. The team is responsible for a data-driven assessment and planning process. All staff and community members must be trained. Day-to-day implementation requires participation from all school staff. |

| Professional Development Programs | | | |
|---|---|---|---|
| **Program/Approach** | **Overall Objectives** | **Description** | **Resources Needed** |
| **Professional Development and Support for Teachers**<br><br>**More information starts on page 19.** | • Improve capacity of teachers to manage behavior and discipline within their classrooms and on the school campus<br>• Enhance teachers' cultural understanding<br>• Reduce student misbehavior and improve classroom and school climate | Many national professional development programs offer teachers training and support in behavior management. The My Teaching Partner program pairs a teacher with a coach for an entire school year. The teacher is videotaped, and the coach and teacher jointly reflect on the teacher's classroom interactions. The Classroom Assessment Scoring System can be used to keep data and foster improvement. | Trained coaches and instructional materials are needed to implement the MTP program. Teachers need time and institutional support to participate in the program. Financial resources are needed to implement teacher development programs. |
| **Limiting the Role of School Resource Officers (SROs)**<br><br>**More information starts on page 21.** | • Improve capacity of SROs to differentiate school misconduct from criminal conduct<br>• Improve SRO knowledge about adolescent behavior<br>• Reduce referrals from school to juvenile and criminal court | A variety of national programs and curricula offer SRO training. The Denver Public Schools implemented a program to reduce court referrals by SROs. Strategies for Youth, a nonprofit organization that focuses on interaction between youth and law enforcement, offers information on this approach. | School boards, school staff, SROs, and juvenile court practitioners must jointly develop a plan for training and implementation of this strategy. |
| **Objective Threat Assessment**<br><br>**More information starts on page 25.** | • Differentiate serious threats from threats that are unlikely to be carried out<br>• Limit school exclusion to students who pose a serious threat<br>• Allow school administrators a flexible approach to deal with threats, rather than a zero-tolerance approach | Within a school or district, a team is identified and trained to engage in threat assessment. Upon report of a threat, staff undertake a multi-step process to make a well-informed assessment of the likelihood that a threat will be carried out. Students whose threats are not likely to be carried out are not excluded. | Threat assessment team members, typically a school counselor, school psychologist, and School Resource Officer, need training. Team members also need time and support on an ongoing basis to carry out the threat assessment process. |

| Programs Targeting Individual Students Engaged in Misbehavior | | | |
|---|---|---|---|
| **Program/Approach** | **Overall Objectives** | **Description** | **Resources Needed** |
| **Restorative Justice**<br><br>**More information starts on page 27.** | • Hold offenders accountable for their actions<br>• Offer an alternative to suspension that provides the offender an opportunity to learn from the misconduct and make reparations to the victim<br>• Provide community involvement in responding to individual misconduct<br>• Foster the mending of relationships | Restorative justice refers to a group of practices that aim to hold an offender accountable for his or her actions, often by requiring the offender to face the victim and engage in restoration of what was lost. Some programs utilize trained "restorative justice practitioners." Others involve peer juries or student restorative circles. The Juvenile Justice Project at Campbell Law School, serving seven schools in Wake County, incorporates restorative justice principles. | If an outside organization runs the project, restorative justice can be free to schools and require only a minimal time and space commitment by school administrators. Programs that are run by school staff can require staff training and support for implementation. |
| **Community Service Programs**<br><br>**More information starts on page 29.** | • Limit out of school time for school offenders<br>• Offer a more meaningful consequence for misconduct<br>• Provide supervision and support during suspension | Community service programs allow students to engage in meaningful community activities, either in lieu of suspension from school or during periods of suspension. Programs often offer students a chance to develop skills. | Frequently, local non-profits work with schools to provide service opportunities. Philanthropies and government grants may fund community service programs. |
| **Community-school Partnerships**<br><br>**More information starts on page 31.** | • Provide at-risk students and their families with support to improve school-family engagement, student learning, student behavior, and overall student outcomes | Partnerships between schools and communities deliver educational, medical, and social support services in an integrated way to high-needs students and their families. A "community school" is both a location and a set of partnerships with local organizations. The partnerships can include programs to deliver mental health care, behavioral, social, and academic support to students. | These partnerships typically involve school personnel, community organizations, and volunteers. Grants are sometimes available to support the partnerships. In N.C., Juvenile Crime Prevention Councils and other community partners provide funding. Community-school partnerships require time and effort from all partners. |

| | | | |
|---|---|---|---|
| **Substance Abuse Interventions**<br><br>**More information starts on page 34.** | • Limit school suspension as a consequence of drug use<br>• Intervene before substance use becomes a serious problem<br>• Treat substance abuse to reduce future student use of illegal and harmful substances | Programs provide substance abuse counseling and treatment for students whose misconduct includes use of illegal drugs or alcohol. Often, outside contractors agree to work with students either in lieu of a student suspension or during a student suspension. Some programs reduce the length of suspension upon successful completion of the program or remove the suspension from the student's record. | Programs are typically offered by contracted vendors, not school district personnel. Students/families are usually responsible for payment of services, although Medicaid may cover the costs. Students/families must typically provide their own transportation, although transportation may be provided by the district. |
| **Alternative Schools**<br><br>**More information starts on page 36.** | • Provide supportive and structured school programming for students who are suspended from their regular schools<br>• Offer behavioral instruction to chronic rule breakers to help them develop better behavioral skills | Alternative schools usually enroll students who are suspended from their regular school, are at risk of suspension, or have been suspended in the past. They offer additional services, such as counseling and behavior support. Students return to traditional schools either at the end of the suspension or when staff determines their skills warrant re-enrollment. | Class sizes in alternative schools are typically smaller than in traditional schools. These schools therefore require physical settings that can accommodate smaller classes. Resources are necessary for teachers, counselors, and administrative staff. |

| School Board Policy Changes | | | |
|---|---|---|---|
| **Program/Approach** | **Overall Objectives** | **Description** | **Resources Needed** |
| **School District Policies Reducing the Use of Suspension as a Discipline Tool**<br><br>**More information starts on page 39.** | • Create a new culture in which exclusion from school is no longer the default response to most student misbehavior | School board policy changes may provide alternative responses to suspension or may limit the use of suspension for certain misbehaviors. | Political will is needed to make a significant change. Collaboration with school administrators, teachers, parents, and students is important. Funding for teacher training and additional staff may be needed. |

# 1. Positive Behavior Intervention and Support

## Description

Positive Behavior Intervention and Support (PBIS), used in North Carolina and in many other states, is a program based on proven behavioral change strategies.[15] Rooted in behavioral psychology, a positive behavior support approach was first used in special education classes and has since expanded into general education classrooms. At its core, PBIS is a behavior management system that recognizes the function of misbehavior and develops interventions to discourage such misbehavior and encourage desired behavior.[16]

A school-wide PBIS program puts the teaching of appropriate student behaviors on par with the teaching of academic subjects. A plan typically is created and implemented by a team comprised of educators, community members, and family members who review the school's discipline policies and data to identify areas of concern.[17] The team then develops positive and support-focused interventions. Schools generally focus on a small number of behavioral expectations, such as "respect yourself, respect others, and respect property," "be safe, be responsible, be respectful," and "respect relationships and respect responsibilities."

After settling on the desired focus behaviors, team members ensure that staff buys into the expectations. Consistency across classrooms is important for effective implementation of PBIS. The PBIS team also creates a matrix that enables tracking of the effects of behavioral expectations on school-wide discipline by documenting decreases in the rate of office referrals, suspensions, expulsions, as well as improvements in school climate and a decrease of administrative time spent on discipline.[18]

The PBIS initiative in North Carolina has grown substantially since its inception in 2005. At the end of the 2011-12 school year, 1,154 schools statewide were trained in or implementing PBIS, representing 46% of the state's 2,512 schools.[19] Most have shown good fidelity to the program model.[20]

In North Carolina, schools implementing PBIS have lower out-of-school suspension rates than other schools.[21] At PBIS "Exemplar" schools – those that have completed all the training modules and met other criteria – the suspension rate is less than half of what it is at other schools.[22] The largest difference is found in middle schools.[23]

PBIS schools also have higher academic performance than non-PBIS schools. Schools with Exemplar status have exceeded the state average on statewide tests for three years in a row. Graduation rates from PBIS schools also exceeded the state average in

2010-11.[24] Schools that implement PBIS with higher fidelity demonstrate more positive behavior and academic outcomes.[25]

One example of a school that experienced dramatic results using PBIS is Bald Creek Elementary School in Yancey County. After implementing PBIS in 2003, Bald Creek saw office referrals decrease by 60% in the next two years, from 161 in 2003-04, to 147 in 2004-05, to 64 in 2005-06. In-school suspensions at Bald Creek also fell by 72%.[26]

The longer students are exposed to PBIS, the more their behavior is positively affected. For example, at Bald Creek students who had been in a PBIS environment the longest had the fewest office referrals for misbehavior. In addition, the school's overall academic performance improved after implementing PBIS.[27]

## Where implemented

PBIS is a national program. North Carolina uses PBIS widely, with 1,154 schools participating at some level in the 2011-12 school year. About 80 of those schools earned Exemplar status by completing all the training modules, scoring well on implementation assessments, and providing data on behavior, attendance, and academics for at least two consecutive years. Most (63) of the schools in the Exemplar category are elementary schools; 16 are middle schools and one (Northern Nash) is a high school.

## Types of organizations involved

A school-wide PBIS plan is typically created and implemented by a team comprised of educators and family members who review the school's discipline policy and data to identify areas of concern.[28] The team then develops positive and support-focused interventions. After settling on the desired focus behaviors, team members take them to school staff to ensure that they support the expectations.[29]

North Carolina offers training to school systems interested in implementing PBIS programs through the N.C. State Improvement Project, which is funded with federal special education grants.

## Types of students involved

PBIS is a school-wide program that affects the entire student body.

## Resources needed

PBIS implementation requires an upfront investment of time and effort from the school team and staff. However, costs for PBIS training are generally low. A few hundred dollars are required to post new school rules and to provide substitutes for teachers attending training sessions.[30] Additionally, many schools form partnerships with local businesses, receive grant funding, or collaborate with their PTAs to develop financial support.[31]

## Evidence-based?

Yes. A number of studies have found that PBIS programs reduce discipline problems including vandalism, substance abuse, and disruptive behaviors.[32]

## Responsible parties

Individual schools and the state of North Carolina. North Carolina provides training to schools interested in PBIS. The program is widely used in North Carolina schools, with 46 percent of the state's 2,512 schools participating in some fashion in 2011-12.

## Contacts

Heather Reynolds is the state PBIS consultant. She can be reached at the N.C. Department of Public Instruction, (919) 807-3313 and heather.reynolds@dpi.nc.gov. Information is available at the following website: www.dpi.state.nc.us/positivebehavior/. An additional resource is www.pbis.org.

# 2. Safe and Responsive Schools

## Description

The Safe and Responsive Schools (SRS) Project assists schools in developing a comprehensive and preventive process for addressing school violence and improving student behavior.[33] The program, initially developed with funding from the U.S. Department of Education's Office of Special Programs, rests upon the premise that an instructional approach to school discipline is more effective than a punitive approach. The SRS program focuses on students who require explicit instruction and structure to learn their school's expected behavioral practices. SRS also involves parents and community members and stresses comprehensive planning to design a program that is individualized for a particular school.

Comprehensive SRS plans include three components.[34] First, programmatic prevention efforts, such as conflict resolution, help to establish a violence-free environment by equipping students with alternative ways to resolve problems. Second, screening and assessment processes allow schools to identify at-risk students early and to provide them with support before their problems escalate into violence. Third, schools develop and implement specific responses to disruptive behaviors.[35]

To implement an SRS program, a school must engage in a strategic planning process. This typically takes an entire school year with the programming going into effect the following year. The strategic planning process begins with the formation of a team comprised of professionals, parents, and students. The team gathers data on the strengths and needs of the school, then develops the mission of the project. With an eye on evidence-based best practices in violence prevention and intervention, the team develops a plan that best addresses the safety needs of the school.[36]

Following are examples of the types of SRS programming used at participating schools.[37]

### Elementary schools

- Life skills: faculty generated list of 10 key life skills taught once a week during class; rewards provided for students who display life skills of the week.
- Mentoring program: high school students paired with elementary students who may benefit from a mentoring relationship; support and training provided to mentors.
- Bullying prevention: distributed bullying survey; bullying prevention and awareness week at each school.

### Middle schools

- Safe schools TV show: videotaped role-plays based on Second Step, a violence prevention curriculum; lessons broadcast over school's closed circuit TV system; topics include anger management, drugs, and conflict resolution.
- Parent newsletter: newsletter sent home once a month detailing activities and events, especially those relevant to school safety.
- Civility code: four principles to guide student behavior; students exhibiting code-following behavior receive school-wide recognition, including postcard sent home and writing their name on "Wall of Fame."
- Civility curriculum: curriculum taught to all students during home economics, developed to uphold principles of the code.

### High schools

- Classroom management training: workshop before the start of the school year for all faculty members featuring presentations on national school discipline strategies.
- Beatrice After School Education (BASE): behavior management program for students who chronically violate school rules.
- Out-of-classroom Intervention (OCI): cool-down time for students instead of office referral; students complete problem-solving form.

## Where implemented

The SRS project was developed as a model project in schools in Indiana and Nebraska. http://www.indiana.edu/~safeschl/about.html

## Types of organizations involved

The SRS program uses a team approach involving schools, community members, parents and students. The interventions are primarily school-wide, and are mediated by SRS teams.

## Types of students involved

SRS prioritizes using an instructional rather than a punitive approach to school discipline issues. Therefore, the SRS program focuses on students who require explicit instruction and structure to learn the school's expected behavioral norms.

## Resources needed

Costs and resources vary depending upon how the SRS components are implemented. Planning, implementing the program, collecting data, and meeting to develop the program require an upfront investment of time, effort and commitment from participating parties.

## Evidence-based?

Yes. The SRS project was a model demonstration and technical assistance project funded by the U.S. Department of Education Office of Special Education, Office of Special Education Programs. The project worked with 16 schools in two states to expand the array of options available to schools in preventing and addressing disruptive behaviors.[38] Among four schools studied, the number of suspensions declined by an average of 44% over a period of four years.[39] Among students with disabilities, the decrease in suspensions was even more striking; the average decline was 63%.[40]

## Responsible parties

A school-based team of professionals, parents, community members and students develop and implement the school plan.

## Contacts

Dr. Russell Skiba, Director, The Equity Project, Indiana University, (812) 855-4438, equity@indiana.edu

# 3. Professional Development and Support for Teachers

## Description

Professional development for teachers can help improve academic instruction and reduce suspension through behavioral interventions.[41] As students become adolescents and move from elementary school to middle school, suspension rates dramatically increase. A wealth of research links effective classroom management with improved outcomes, suggesting that providing support and training for teachers could help reduce suspension rates. Because many behaviors that violate school rules are rooted in adolescent development, teachers working with middle and high school students may need specialized training in this area. Large disparities in suspension rates for minorities and students with disabilities suggest that teacher training on multicultural sensitivity could positively affect the classroom environment and reduce misbehavior.[42]

Two professional development programs developed at the Curry School of Advanced Study of Teaching and Learning at the University of Virginia have been shown to improve teacher effectiveness and improved student outcomes. The My Teacher Partner Program (MTP) relies on a web-mediated coaching cycle in which teachers reflect on interactions with students and meet one-on-one with coaches to develop an action plan to build on strengths and address challenges.[43] As a sustained program – distinguished from one-time workshops – MTP applies a focused and rigorous approach to teacher improvement. The program also offers a video library of best practices and a college course.

Aligned with MTP is the Classroom Assessment Scoring System (CLASS), an observational tool that defines and measures effective interactions in school classrooms. The tool both effectively measures teacher behaviors linked to student academic gains and offers teachers resources for strengthening the types of interactions that result in positive outcomes.[44]

## Where implemented

My Teaching Partner and CLASS have been implemented in schools and Head Start preschool programs across the country.[45]

## Types of organizations involved

My Teaching Partner works with schools to provide professional development. The Center for Advanced Study of Teaching and Learning at the University of Virginia's Curry School of Education provides a video library of examples of best practices, offers a college course, and offers web-mediated coaching.

## Types of students involved

This alternative affects all students, but particularly those affected by exclusionary discipline practices. Research indicates that in classrooms in which MTP was not used, African-American students were twice as likely to be suspended or expelled than in classrooms where it was used.[46]

## Resources needed

The biggest cost associated with the MTP program is payment of mentors. In addition, MTP and CLASS employ manuals, guides, online programs, print resources, score sheets, toolkits and other resources. These resources range widely in cost, from $19.95 to $990.00. For more information, visit http://store.teachstone.org/toolkits/.

## Evidence-based?

Yes. Research of both programs showed positive results. A study of MTP involving 78 secondary school teachers with 2,237 teachers showed that improved teacher-student interactions associated with participation in MTP resulted in moving the average student from the 50th to the 59th percentile in achievement test scores.[47] A smaller study showed that teachers in the MTP program suspended students less often than teachers in the control group, and that the MTP teachers who did suspend students suspended African-American students and white students at the same rate.[48] The reduction of racial disparity in discipline was attributed to higher quality teacher-student interactions nurtured by the MTP program.

Research on the CLASS observational tool found that the tool was able to identify teacher characteristics that resulted in higher student achievement.[49] The study isolated a number of teacher characteristics that fostered higher test scores, including the teacher's ability to establish a positive emotional climate, to structure the classroom and meet the needs of adolescents to have a sense or autonomy and control, to allow for active learning, and to provide opportunities for peer interaction. While the study did not report on lower suspension rates, it identified effective methods of encouraging desirable behavior and preventing misbehavior.[50]

## Responsible parties

To participate in My Teaching Partner, teachers must agree to be observed, to reflect on interactions with students, and to meet with coaches for an entire school year.[51] In addition, principals must allow staff the necessary time to participate.

## Contacts

For more information, visit: http://curry.virginia.edu/research/centers/castl/mtp and http://curry.virginia.edu/research/centers/castl/class.

# 4. Limiting the Role of School Resource Officers

## Description

Some school districts have addressed suspensions and expulsions by working with School Resource Officers (SROs) to change interactions between students and law enforcement in schools. SROs, law enforcement personnel assigned to schools, are increasingly used by schools to respond to student misconduct. After experiencing dramatic increases in referrals to juvenile court for school-based offenses, some districts have rethought how SROs are used in the schools.

One such district is the Denver Public Schools. After the Columbine school shooting in 2000, Denver Public Schools (DPS) increased the presence of SROs in its schools. However, by 2004, the number of students referred to the court system by DPS had increased by over 70%. Forty-two percent of referrals were for minor offenses such as use of obscene language or disruptive appearance. Clayton County, Georgia, a school district of 50,000, had a similar experience. The district started an SRO program in 1995. By 2003, Clayton County courts had experienced a 1,248% increase in referrals from school. Ninety percent of these referrals, according to court officials, were for infractions traditionally handled by school administrators.[52]

Both school districts have since sought to curb the flow of students into the court system by changing their relationship with SROs. Denver Public Schools has placed limits on the role of School Resource Officers and implemented training to increase their effectiveness in these roles. After a campaign by Padres y Jovenes Unidos, a local parent and student-led community organization, and the Advancement Project, a national civil rights organization, DPS collaborated with stakeholders to revise its district-wide discipline code. This collaboration culminated in two intergovernmental agreements, an initial one in 2007 and a subsequent one in 2013, which focus on resolving discipline issues without criminal punishment and on using restorative justice strategies in lieu of harsh punishments.[53] These agreements allow School Resource Officers to intervene with an arrest or citation only when absolutely necessary. Instead, most disciplinary problems are resolved by educators, who can respond with consequences that do not involve suspension or expulsion. The role of SROs is to distinguish between disciplinary and criminal issues and to de-escalate school-based incidents whenever possible. If they do ticket or arrest students, SROs must notify parents and principals as soon as possible. Additionally, SROs are alerted to students' disabilities and are provided with copies of their Individualized Education Plans (IEPs) so that they can make necessary accommodations.

SROs are not precluded from arresting students for severe misconduct, such as drug offenses and assaults. Nevertheless, the goal is to provide holistic support for students and prevent relatively minor or unthreatening student behavior from resulting in criminal sanctions.[54]
School Resource Officers are trained multiple times each year on when to intervene in school-based offenses. Officers are trained on topics such as cultural competence, teenage psychology, age-appropriate responses, restorative justice techniques, special accommodations for disabled students, and the creation of safe environments for lesbian, gay, bisexual and transgender students.[55] DPS also requires SROs to meet with community members at least once a semester and to participate in meetings with school administrators when requested.[56]

After the first intergovernmental agreement was signed, law enforcement referrals dropped from 1,399 in the 2003-04 school year to 512 in 2011-12, despite a 12% increase in enrollment during the same time period.[57] Referrals for African-American students reached their second lowest rate in 10 years and the rate was half that seen in 2012-13, the peak year for referrals.[58] Among Latino students, referrals declined by nearly 75 percent. Referrals of white students also decreased. Since implementing the code revision, DPS reduced its suspension rate by 33% and its expulsion rate by 54%. Furthermore, DPS's four-year graduation rates improved district-wide, from 49% in 2007-08 to 59% in 2010-11.[59] The dropout rate also fell 50% over a six-year period.[60]

In Georgia, the Clayton County School District worked with School Resource Officers to decrease suspension and expulsion.[61] In collaboration with community members, law enforcement, juvenile court officials, and mental health providers, the Clayton County School District developed a "School Offense Protocol" (SOP) to reduce reliance upon law enforcement and court referrals for typical adolescent behaviors.[62] The SOP distinguished between disciplinary incidents that could be effectively handled by school officials and those meriting the involvement of law enforcement. After implementing the SOP in 2005, Clayton County experienced a 68% drop in court referrals from school, an 8% drop in middle school suspensions, and a 73% decrease in possession of serious weapons on campus. The graduation rate increased by 20%. Additionally, after implementing the SOP, Clayton County greatly reduced the number of referrals for African-American students, who previously were referred to court almost three times as frequently as white students.[63] By 2011, the risk of referral for African-American and white students was the same.[64]

The Waco Independent School District (ISD) (student enrollment 15,251)[65] drew upon the Clayton County model. During the 2011-12 school year, Waco ISD implemented a three-tiered system providing school-wide prevention programs, targeted interventions for students who did not respond to the school-wide programs, and more intensive interventions for students requiring additional supports.[66] As part of its program, Suspending Kids to School, Waco ISD also amended its policy to limit the use of ticketing by SROs unless the student posed a threat. Specifically, the policy requires alternatives in lieu of ticketing for disorderly conduct violations unless the student's behavior poses a threat or represents a willful violation after the student had been warned. Limitations on the SRO role are part of a larger program that incorporates a range of alternatives to school suspension.[67] Though this program has only been active for two years, early data analysis by the Texas A&M University Public Policy Research

Institute indicates that suspensions dropped by more than 25% and ticketing dropped by 77%.[68]

## Where implemented

Many school districts have recently reexamined the role of SROs, including districts in Denver, Colorado; Waco, Texas; Clayton County, Georgia; Birmingham, Alabama; Wichita, Kansas; Rapides Parish, Louisiana; Columbus, Ohio; Sioux City, Iowa; Broward County, Florida; Bibb County, Georgia; Middlesex County, Massachusetts; Los Angeles County, California; and several jurisdictions in Connecticut.[69] Similar efforts are underway in Charlotte, North Carolina, led by Judge Louis Trosch.

## Types of organizations involved

These programs can differ significantly. Typically the juvenile justice system, courts, school district authorities, community members, parents, and School Resource Officers are involved.

## Types of students involved

Students most strongly affected are those most disproportionately affected by suspensions and juvenile justice system involvement. However, reforming the SRO role also can affect the entire student population.

## Resources needed

Costs will vary. This approach requires an upfront investment of time and effort.

## Evidence-based?

Many school districts are collecting data on the impact of this alternative on discipline practices. As reported above, court referrals have declined significantly in school districts with these programs.

## Responsible parties

Responsible parties include school officials, law enforcement, community members, School Resource Officers, and court personnel.

## Contacts

- Strategies for Youth (www.strategiesforyouth.org) is a national organization focused on improving interactions between police and youth. It can be hired to provide training workshops for SROs within a school district. Examples of police training courses include “Policing the Teen Brain in School” and “Policing Youth Chronically Exposed to Trauma and Violence.” Strategies for Youth recently provided training for law enforcement personnel in Charlotte, N.C.
- The Annie E. Casey Foundation’s Juvenile Detention Alternatives Initiative (http://www.aecf.org/work/juvenile-justice/jdai) provides a “Help Desk” with support and materials for jurisdictions interested in pursuing approaches similar to the Clayton County, Ga., model.[70]

- The National Council of Juvenile and Family Court Judges' School Pathways Project (http://www.ncjfcj.org/ncjfcj-selects-16-court-sites-participate-its-school-pathways-juvenile-justice-system-project) is developing a "toolkit" on school offense protocols, and provides training to interested districts.[71]
- The National Association of School Resource Officers (https://nasro.org/) provides training to SROs.[72]

# 5. Objective Threat Assessment

## Description

Objective threat assessment is a process that allows school administrators to distinguish between students who make threats and students who are likely to carry out their threats.[73] Threat assessment also includes efforts to prevent threats from being carried out. Thus, carefully assessing student threats ensures that the educational environment is safe and that exclusion is used only in cases where it is truly appropriate. In a study of 600 schools that used threat assessment protocols, 15 percent fewer students received short-term suspensions and 25 percent fewer students received long-term suspensions.[74]

The Youth Violence Project (http://curry.virginia.edu/research/labs/youth-violence-project) at the University of Virginia developed and field-tested a comprehensive set of threat assessment guidelines. At each participating school, the principal or associate principal led a threat assessment team, which included a school counselor, a school psychologist, and a School Resource Officer.[75]

A trained threat assessment team follows a prescribed seven-step process whenever a threat is made. Initially, interviews of the accused, the person threatened, and any witnesses are conducted. From those, the principal categorizes the threat as either a "transient threat" or a "substantive threat." Transient threats are those determined not to post any continuing risk of danger. Students who have engaged in transient threats are required to apologize to those affected by the threat or take other actions to make amends. The student may also be disciplined if the threat was particularly disruptive. If a transient threat was sparked by an argument or conflict, the principal can involve other team members in helping to address or resolve the problem.[76]

If a threat is a serious substantive threat, the team takes actions to protect potential victims by notifying them of the threat. The student who made the threat is cautioned about the consequences of carrying out the threat and his or her parents are contacted.[77] In very serious situations, the team takes immediate action to ensure that the threat is not carried out. The student is suspended from school pending a complete assessment of the threat and determination of the most appropriate school placement. The team conducts a more comprehensive safety evaluation that includes both a mental health and law enforcement component. Ultimately, the principal decides whether the student can return to school or should be placed in an alternative setting. If the student is permitted to return to school, a plan is developed including conditions that must be met and procedures that must be in place to monitor the student upon his or her return.[78]

Threat assessment allows school authorities to respond to threats with flexibility. In the field test performed by the Virginia researchers, 70% of the threats were easily resolved as transient threats.[79] Under a zero tolerance policy, almost all of the students in the field test would have been suspended or expelled.

Objective threat assessment is a promising component of a comprehensive approach toward maintaining safe schools. Threat assessment strategies help identify students who may be in need of extra supports and services. They also help develop a school environment in which discipline is reliable and consistent and where students feel connected to the staff and teachers.[80]

## Where implemented

Threat assessment has been implemented in 2,700 schools in 14 states. In 2013, Virginia mandated the formation of threat assessment teams in all of the state's schools.[81]

## Types of organizations involved

Threat assessment is conducted by a school team. The team generally includes a school administrator, a school counselor, a school psychologist and a School Resource Officer.[82]

## Types of students involved

Any student who makes a threat receives a threat assessment from the team.

## Resources needed

To implement this alternative, a school district must provide training to team members and time and support for team meetings. The Virginia Youth Violence Project offers one-day training workshops on threat assessment. The cost is $5,000 for the workshop, plus travel expenses for the trainer, and $50 per participant for training materials.

## Evidence-based?

Yes. The Youth Violence Project at the University of Virginia developed, field-tested, and evaluated this program.[83]

## Responsible parties

The team, consisting of the principal, a school counselor, school psychologist and School Resource Officer, is responsible for assessing threats. Teachers and other school staff must refer students who make threats for an assessment by the team.

## Contacts

Dewey Cornell, Professor of Education, University of Virginia, Curry School of Education, (434) 924-0793, dcornell@virginia.edu; The Virginia Model for Student Threat Assessment, http://curry.virginia.edu/resource-library/the-virginia-model-for-student-threat-assessment

For further information http://www.indiana.edu/~atlantic/briefing-papers/
http://curry.virginia.edu/research/projects/threat-assessment

# 6. Restorative Justice

## Description

Restorative justice practices originate from a criminal justice technique in which people convicted of crimes are held accountable, in part, by facing the people who have been harmed by their actions. In schools, these programs aim to hold students accountable and to change their behavior. Research shows that when implemented on a larger, school-wide scale, use of restorative justice techniques can decrease misbehavior and suspension rates. Furthermore, restorative justice practices can be used in many different situations and can be tweaked to fit the students involved or the behavior targeted.

There are many restorative justice techniques. The peer jury is among the most common. In Davidson Middle School in San Rafael, California, school suspensions dropped from 300 in the 2009-10 school year to 27 in 2011-12 after implementation of a peer court and other restorative justice practices.[84] When Davidson students break the rules, they have a choice between suspension and being disciplined by their classmates. In peer court, students face a panel of five or six students who have been trained to listen and ask questions. Davidson Middle School also employs restorative circles, where students meet to repair their relationships after conflict. When a student returns to school after suspension, the school convenes a re-entry circle including the student and anyone else involved in the incident that led to suspension.

Restorative justice sometimes can be used as an alternative to suspension. In other cases, a child is referred to the restorative justice program upon his or her return to school after the suspension has already occurred. Because so many school-based offenses involve student conflict, hurt feelings and fear of retribution, restorative justice sessions often resolve many of the issues at hand. Victims of the offense may benefit as well, finding healing in the expression of remorse by the offender. This can limit further animosity among those involved, reducing the likelihood of additional offenses[85].

## Where implemented

Restorative justice programs have been implemented in many schools around the nation, including schools in Baltimore, Chicago, and Oakland. There are several programs in North Carolina. The Juvenile Justice Project at Campbell Law School offers conflict resolution services that include restorative justice practices in seven Wake County middle and high schools. In some N.C. counties, Juvenile Crime Prevention Councils offer state-funded mediation and conflict resolution services. For example, the Dispute Settlement Center in Carrboro offers student conflict mediation services, as does the Elna B. Spaulding Conflict Resolution Center in Durham.

## Types of organizations involved

Generally, the parties involved are school officials and trained restorative justice practitioners.

## Types of students involved

Restorative justice can be used in a variety of discipline settings but it is likely most effective for students being disciplined for behavior arising from interpersonal conflicts.

## Resources needed

Those implementing restorative justice techniques must receive training, which multiple organizations around the country provide (for example, the International Institute for Restorative Practices in Bethlehem, Pennsylvania). Expertise in restorative justice is available in North Carolina as well through the Campbell Law School Juvenile Justice Project. The Campbell project provides a free restorative justice program, which includes trained facilitators who run the program on site at participating N.C. schools, at no charge. Participating schools need only provide a meeting room and permit students to miss class time, if necessary, to participate.

## Evidence-based?

Yes. Although restorative justice practices differ program to program, studies indicate that restorative justice is a useful method of keeping students in school while promoting positive relationships. Research on restorative justice techniques has analyzed individual schools, the types of practices used, and the effect on discipline rates over time. Both anecdotal and qualitative data suggest that restorative justice results in better outcomes for students. In Wake County, data show that students who attended a victim-offender face-to-face meeting were three times less likely to have future conflicts than students who did not have such meetings. For a summary of research on restorative justice practices in the U.S. and internationally, see "Dignity, Disparity and Desistance: Effective Restorative Justice Strategies to Plug the School-to-Prison Pipeline," by Maria Schiff: http://goo.gl/ieLlKU and "Restorative Practices in Schools: Research Reveals Power of Restorative Approach, Part II," International Institute for Restorative Practices, retrieved from http://www.iirp.edu/article_detail.php?article_id=NTUz

## Responsible parties

Generally, schools establish partnerships with facilitators and take responsibility for alerting the facilitators when their services are needed to run sessions.

## Contacts

Jon Powell, Director, Juvenile Justice Project at Campbell Law School, (919) 865-4692, JPowell@law.campbell.edu.

# 7. Community Service Programs

## Description

Community service programs offer a structured experience for students during long-term suspensions. The programs often incorporate community service experiences, skills training, counseling, mentoring, parental involvement, and reflection. Community service programs were expanded in 2002 when Congress appropriated funding for the Community Service Program Initiative to serve students suspended or expelled from school. With its federal money, the N.C. Department of Public Instruction offered grants to fund activities that used community volunteers to provide instruction, support, and deterrence from delinquency for suspended and expelled students. These programs also offered structure, safe environments, and non-academic learning opportunities for excluded students.[86]

## Where implemented

In North Carolina, the initial districts funded were: Beaufort, Carteret, Cumberland, Guilford, McDowell, Rutherford, Wake, and Winston-Salem/Forsyth. In those districts, students who were suspended or expelled partnered with nonprofit and government organizations such as mental health agencies and congregations. Due to eliminated funding, only one of the initial programs remains, The Phoenix Project in McDowell County (now called Phoenix Academy). This program initially provided long-term suspended and expelled students with meaningful activities enabling them to give back to the community and develop skills through volunteering. Now entirely funded by the McDowell County Schools, Phoenix Academy is an alternative school for long-term suspended students with a community service component, allowing students to volunteer at the food pantry and an animal shelter.

## Types of organizations involved

Community service programs require partnerships between schools and local organizations. These organizations are typically nonprofit but may also include government organizations.

## Types of students involved

Participating students are generally those who have been expelled or are on long-term suspension.

## Resources needed

Program costs vary widely depending on the types of services and supervision provided. In North Carolina, many community service projects were funded by a federal grant program, the Community Service Program initiative, administered by the Department of Public Instruction. Currently, DPI is unable to award grants, thus many of the programs initially funded are no longer in operation.

## Evidence-based?

There has not been a formal research study of N.C.'s community service programs. The North Carolina Department of Public Instruction's 2006 report, "Community Service Programs for Long-Term Suspended Students, Final Report on Best Practices," is available here: http://www.dpi.state.nc.us/communityservice/practices/

## Responsible parties

Schools and community organizations typically share responsibility for these programs, with possible additional oversight from the Department of Public Instruction.

## Contacts

Becky Scott, North Carolina Department of Public Instruction, bescott@dpi.state.nc.us, (919) 807-4011; Phoenix Academy in McDowell County, (828) 652-1040.

# 8. Community-school Partnerships

## Description

Community-school partnerships, such as community schools, and the organization Communities in Schools, http://www.communitiesinschools.org/, allow schools to provide a broad range of behavioral, health, and family support to help students' improve their success.[87] Schools and community partners work together to combine resources to support children in a holistic learning experience that helps ensure positive academic and non-academic outcomes.[88] The schools form the hub of the community, connecting students with needed resources and support. Schools that have pursued these partnerships have been successful in increasing family engagement and improving student learning, attendance, behavior and development.[89] Community schools work to create five conditions: (1) core instructional curriculum; (2) motivated, engaged youth; (3) services to address youth and families' physical, emotional and mental health needs; (4) respect and collaboration between school and families; and (5) community engagement that connects youth to the community.[90]

A prominent example of community-school partnerships is the Elev8 Initiative, a community school organization partnering with middle schools in Albuquerque, Baltimore, Chicago, and Oakland. Elev8 provides participating schools with resources for the integrated delivery of learning, health, and family support services, as well as resources for family and community engagement.[91] Elev8 is tapped the moment a situation arises that might result in a suspension or other disciplinary consequence. In a Chicago school partnering with Elev8, suspensions dropped 80% in the 2009-10 school year.[92] In Wilson Middle School in Albuquerque, New Mexico, 50 students were arrested on the school campus and in the neighboring community the year before Elev8 was implemented. The following year, just four students were arrested.[93]

Another highly regarded program is Communities in Schools (CIS), a national dropout prevention model with local affiliate programs. The goal of each CIS affiliate is to provide the "Five Basics" to students. The "Five Basics" are: a one-on-one relationship with a caring adult, a safe place to learn and grow, a healthy start and a healthy future, a marketable skill to use upon graduation, and a chance to give back to peers and community. CIS performs an annual needs assessment to determine what services students need most and how the organization can best deliver them.[94]

Local CIS affiliates provide "Level 1" resources to all students in a school, such as clothing, school supplies, field trips, and health screenings. More intensive "Level 2" services are tailored to specific students and require an assessment and plan developed by a school site coordinator and team. Level 2 services may include counseling, mentoring, free or low-cost health and dental care, finding the student a safe place to live, or ensuring the student has transportation to and from school. These services can last weeks, months or an entire school year.[95]

Part of the national CIS network, Communities in Schools of North Carolina (CISNC) (http://www.cisnc.org/) offers support to school districts interested in developing community-school partnerships.[96] Based in Raleigh, CISNC currently provides assistance to 37 local affiliates serving 44 counties. It serves students from kindergarten to twelfth grade and strives to reach the most vulnerable students in North Carolina's most dropout-prone school districts. In the 2011-12 school year, CISNC worked with 469 schools across the state, providing Level 1 services to more than 180,000 North Carolina students, and Level 2 individualized services to 21,000 students. In the districts participating, more than 10,000 parents, families and guardians participated in the programming and more than 12,000 volunteers served CISNC students. Of the students served, 99% stayed in school, 94% were promoted to the next grade, and of the seniors eligible to graduate, 95% graduated with a high school diploma.[97]

Individual school districts have also developed their own successful community partnerships. One example is a partnership between the Clinton City Schools and the local First Baptist Church. Known as Structured Day, the program allows students to serve out-of-school suspensions at the church.[98] Church staff provides one-on-one support for students and assist them with their school work. A parent involvement coordinator also meets with parents and students and discusses the student's behavior, makes home visits, and helps parents make connections with local agencies and social workers. Terrace Miller, director of student services at the Clinton City Schools, attributes many positive changes to the partnership. Statistics show that the Clinton City Schools had large decreases in crimes, suspensions, and dropouts in the 2011-12 school year, the year after the program was implemented.[99] All program costs are covered by First Baptist Church or by the Juvenile Crime Prevention Council. The program has been operating for about five years and serves students from the Sampson County School District as well. A similar program operates in Wayne County.

## Where implemented

Community-school partnerships are in place around the country (Chicago, Baltimore, New Mexico) and in counties throughout North Carolina. CISNC currently provides assistance to 37 local affiliates serving 44 North Carolina counties. In the 2011-12 school year, CISNC had a presence in 469 schools across the state.

## Types of organizations involved

Generally, school officials, parents, and community organizations form a community-school partnership. In North Carolina, CISNC offers assistance with forming the partnerships.

## Types of students involved

Community-school partnerships can affect the entire school community, suspended or expelled students, or targeted student groups.

## Resources needed

Partnerships for learning and community schools require collaborative strategies. Partners must have a shared vision of learning, shared leadership and governance, effective communication, regular and consistent sharing of information about youth progress, family engagement, and collaborative staffing models.[100] All partners must share ownership for the work and must commit to a cohesive and explicit set of common goals. For example, Elev8 Baltimore created a "set of values" at the outset of its partnership to ensure that all partners clearly understood the larger vision.[101]

Successful partnerships dedicate time and effort to communicating and identifying structures and strategies at the outset of their partnership. For instance, Chicago Elev8 schools hold monthly meetings to update partners and keep staff informed.[102]

Community-school partnerships also rely on data, both at the beginning of the process and later, to track progress. Elev8 New Mexico uses a data specialist.[103] Community schools, such as Oakland Elev8, promote family engagement by reaching out to parents and organizing parent events.[104]

## Evidence-based?

Research is forthcoming regarding the Elev8 initiative, which is undergoing evaluation at local sites and nationally.[105]

Regarding CISNC, a national five-year evaluation released in October 2010, which included randomized controlled trials and an economic impact study, found that CIS schools that implemented the model with high fidelity reduced dropout rates and increased graduation rates. There were also improvements in academic performance and attendance. For more information, visit: http://www.communitiesinschools.org/about/publications/.

## Responsible parties

Generally, schools, community partners, and parents are necessary parties to a partnership. Organizations, such as CISNC can assist with forming and maintaining these partnerships. CIS becomes involved in a school only at the invitation of the school or school district.

CISNC uses a model of integrated student services. The organization positions a dedicated staff member to serve as a school-based site coordinator, working with school staff to identify students at risk of falling behind or not graduating, and assessing their individual needs. Site coordinators serve on the school's management team, collaborate with staff to identify at-risk students, work to forge community partnerships, and connect students and families with community resources.

## Contacts

For further information: contact Arlene Wouters, CISNC Director of Developing Communities at awouters@cisnc.org.

# 9. Substance Abuse Interventions

## Description

Rather than using school suspension to address student substance abuse issues, some school districts offer substance abuse treatment. Without such an alternative, students typically face a "zero tolerance" response to possessing drugs at school or being under the influence of drugs or alcohol at school. "Zero tolerance" policies typically result in long periods of exclusion from school. However, there is little evidence that they are effective. The pediatric and psychological communities recommend that drug and alcohol offenders be offered treatment rather than school suspension or expulsion.[106] Treatment rather than suspension can result in thousands of days spent in the classroom rather than at home.

The Substance Abuse Intervention/Family Strengthening (SAIFS) is one successful model. A six-week program for high school and middle school adolescents, it provides an alternative to suspension for drug-related infractions. Groups are highly structured and psychoeducational in nature. They are designed to provide an early intervention level of care, with students needing more extensive treatment referred to community programs. The content of the groups encourages students to analyze how their substance use may cause problems for themselves, their family, health, and education.[107] The six-week duration allows facilitators to assign homework, lead discussions between the student and his or her parent, and allows the student time to process and apply the information learned.

Several North Carolina counties are using substance abuse classes as an alternative to suspension. In Wake County, for example, students caught in violation of school drug and alcohol policies may be referred to the Alternative Counseling Education (ACE) program. The ACE program is a school board-approved alternative to long-term suspension for first-time infractions that do not involve the distribution or sale of substances.[108] Under the ACE program, the student receives a five-day suspension, instead of a long-term (11 days or longer) suspension, and must attend a 12-hour program offered by a provider approved by the Office of Student Due Process along with a parent or guardian. Durham Public Schools and Chatham County Schools are among other North Carolina districts that offer substance abuse counseling as an alternative to suspension.

Several limitations should be noted in regard to substance abuse treatment. Some programs charge a fee, which can be prohibitive to low-income families. Transportation also can be a challenge. Furthermore, these programs can be both over- and under-inclusive. Some students who could benefit are not offered the option of participating, often for technical reasons; students who are not appropriate candidates may at times be required to participate in order to avoid long-term suspension, despite the lack of a drug abuse problem.

## Where implemented

In North Carolina, Chatham, Durham, Charlotte-Mecklenburg, and Wake County school districts are among those that provide the option of substance abuse treatment for students who violate the code of conduct. Many districts around the country offer this alternative.

## Types of organizations involved

Schools must identify and partner with substance abuse treatment providers. Many schools will also accept treatment from other providers, with advance permission and approval.

## Types of students involved

Students affected are those suspended or expelled for offenses involving substances. In many cases, students are not eligible for participation after their first offense.

## Resources needed

Most treatment providers require a fixed fee, paid by the student and/or parents in order for the student to participate. The cost may be covered by private insurance or Medicaid. Additionally, students usually must get transportation to and from the classes. Wake County offers a free option for first-time offenders who have not been charged with distribution; second-time offenders or those charged with sale or distribution must pay for the program.

## Evidence-based?

Yes. A recent study of students from a Colorado school district supports the effectiveness of the SAIFS program. Among students who participated in a district-provided alcohol and drug education class, 78% of students and 70% of parents reported that the students' substance use had decreased since beginning the groups. In addition, 65% of the parents reported that they had changed parenting strategies as a result of the program, mostly by improving their communication and increasing supervision. A majority of students reported that they improved their ability to consider consequences when considering using drugs.[109]

## Responsible parties

While the programs are typically offered by private vendors, school districts select approved programs to be offered to students. Substance abuse treatment requires a commitment by the students and the students' parents, who frequently must pay for the classes, provide transportation, and participate in some or all of the sessions.

## Contacts

Office of Student Due Process, Wake County Public School System, (919) 413-7303, studentdueprocess@wcpss.net.

# 10. Alternative Schools

## Description

Well-designed and well-implemented alternative schools and in-school suspension programs can be productive alternatives to out-of-school suspension. A careful approach with an eye toward meaningful behavioral reform can result in a significant reduction in recidivism. While assigning non-instructional personnel to oversee suspended students is unlikely to produce positive results, using certified teachers and trained behavior specialists to work with suspended students has been shown to be an effective tool.[110] Successful alternative schools are those with a full day of school, small student bodies, small classes, a student-centered atmosphere, alignment of curriculum and assessment, availability of special education services, training and support for teachers, and connections with multiple external agencies.[111]

Effective alternative schools exist in a number of school districts in North Carolina and across the country. For example, the Alternative Education Center (AEC) in McDowell County, N.C., is a successful alternative school with many of the characteristics identified by experts as important. Serving middle and high school students, most of whom have been suspended long-term from regular public school and are involved in the juvenile justice system, AEC limits classes to a maximum of 12 students. It offers a full day of school and all students have a Personal Education Plan that identifies academic needs. The school provides at-risk case management services, working to connect each student with community agencies. The teachers use positive behavior interventions and employ the Circle of Courage model from the Native American tradition in an attempt to break cycles of poverty and drug use. The school also embeds a strong community service component into the program, through which the students are placed either at the local animal shelter or food pantry. Of the 100 students assigned there in the 2012-13 school year, only two returned for similar offenses the following year.[112]

Edenton-Chowan Schools in N.C. also offer an alternative center for suspended students that includes small classes. Students may also take self-paced computerized classes to allow them to recover missing credits. Local officials attribute much of the district's success in decreasing school crime, suspension, and drop-out rates in the 2011-12 school year to the alternative center.[113]

Beyond North Carolina, examples of well-designed alternative schools include Success Academy in Baltimore (http://www.baltimorecityschools.org/Domain/4891). Success Academy is a school-based discipline option for the most serious student offenders - those who have assaulted classmates or staff members or are charged with possessing or distributing guns or wielding weapons. Class sizes are small, just five or six students per class. The cost is high – around $1.2 million for a program that serves about 100 students a year – but the district staff believes it is far less costly in the long-term than the alternative of suspension.[114]

Students attend Success Academy voluntarily and are separated by gender and age. All students must take a behavior-management course as well as academic subjects ranging from remedial instruction to International Baccalaureate classes. Success Academy provides a full day of instruction, counseling, wraparound services, and a safe and structured environment for students who would otherwise be out of school and without school-provided supervision.[115] Before students leave Success Academy, they must present a self-reflective project to peers and school administrators and write a detailed report in which they identify the catalyst for their negative behavior.[116]

## Where implemented

Alternative schools and alternative classrooms have been used in lieu of suspension in districts throughout the state and nation. Baltimore and Los Angeles school districts have prominent programs, and many districts in North Carolina also have successful alternative school programs.

## Types of organizations involved

Organizations involved can vary. In Baltimore's Success Academy, the district office partners with teachers to provide an alternative setting. In North Carolina, some school districts work with their own teachers and staff members to provide alternative activities for excluded students.

## Types of students involved

Students who would otherwise be facing exclusion from school are the primary beneficiaries of these approaches.

## Resources needed

The resources needed vary greatly. Success Academy in Baltimore costs around $1.2 million dollars a year, while Eagle Ridge Junior High School in Savage, Minnesota, operated a program for $20,000 a year. North Carolina schools have operated programs by hiring additional staff members and by utilizing existing staff members.

## Evidence-based?

Studies of effective alternative programs include The American Institutes for Research "Study of Effective Alternative Education Programs: Final Grant Report" in June 2007.[117] The report identifies eight components of a successful alternative program, most of which involve the philosophical approach of the program administrators and staff. In addition, the report suggests that teachers in such programs need specialized training to work with students who do not succeed in traditional educational settings, and that a low adult-student ratio in the classroom is necessary. Other research on the effectiveness of alternative programs is limited, but growing.[118]

## Responsible parties

Development of alternative programs is generally authorized by the school board, to be implemented by district-level staff. Typically, program managers, teachers, and administrators are responsible for the success of these programs.

## Contacts

Tracey Widmann, Director, Alternative Education Center, McDowell County Schools, (828) 652-1040, tracey.widmann@mcdowell.k12.nc.us.

# 11. School District Policies Reducing the Use of Suspension as a Discipline Tool

## Description

School district policies that limit the use of suspension as a discipline tool have taken hold across the nation. These policies forbid administrators from suspending students in particular situations, requiring alternative responses. Typically, the policies eliminate the use of suspension for less severe disciplinary issues that do not pose a serious threat to the safety of others. To be successful, the policies prohibiting suspension must dovetail with alternatives to suspension - and additional resources to fund them – so that teachers and principals are not left without tools to hold students accountable for misbehavior.

This strategy has recently been employed in Los Angeles, Baltimore, Buffalo, and Denver. In May 2013, the Los Angeles Unified School District (LAUSD) school board voted to ban suspensions of students for acts of "willful defiance," directing officials to use alternative disciplinary practices instead.[119] The term "willful defiance" encompasses infractions such as talking back to teachers, using cell phones in class, public displays of affection or repeated tardiness.[120] Of the 700,000 suspensions that were doled out in California during the 2011-12 school year, half were for willful defiance.[121] The LAUSD school board was particularly concerned by the growing number of minority and disabled students who were receiving suspensions for "willful defiance," and were thus on the fast-track to falling behind their classmates, dropping out of school or even ending up in jail.[122]

In the Baltimore, Buffalo, and Denver Public Schools, the school boards eliminated suspensions for less severe infractions.[123] Baltimore's and Denver's new codes, both implemented in 2008, minimize out-of-school suspensions and expulsions, especially for offenses such as disrespect, insubordination, and classroom disruption.[124] Denver's new code limits out-of-school suspensions and expulsions to incidents that pose a "serious and credible threat to the safety of pupils and staff."[125] Baltimore's new code includes graduated consequences that increase with the age of the child, incidents of misbehavior and the nature of the offense.[126] In both districts, principals must take intermediate steps before resorting to out-of-school suspension as punishment.[127] In Buffalo, the school board adopted a new code of conduct in 2013 that eliminated suspension for minor misbehaviors such as truancy, cheating, cutting class, running in the halls, smoking, and dress code violations. The code requires schools to use intervention and prevention strategies that have proven successful, including restorative justice, conflict resolution, and referrals to support staff.[128]

The result of these reforms has been a dramatic reduction in total suspensions. In Baltimore schools, suspensions fell from 16,739 in 2006-07 to 8,620 in 2012-13.[129] Dropout rates for African-American boys decreased by 59%; graduation rates for that group increased by 16 %.[130] In Denver, the district reported a 38% drop in suspensions from 2010-11 to 2012-13.[131]

Examples of individual schools eliminating suspension exist as well. When Jose Huerta became the principal of Garfield High School in East Los Angeles in 2010, he told his team that there would be no more suspensions.[132] Accordingly, suspensions plummeted from 510 in 2008-09 to just two in 2010-12.[133] For Huerta, the key has been to avoid suspending students for behavior that could be better addressed by other means.[134] Teachers and administrators reinvigorated student governance, brought parents into the school as extra hands and eyes, and instituted after-school detention, drug counseling and conflict-resolution training.[135] Huerta also created teacher and staff buy-in at the beginning of the process by meeting with small groups of teachers, allowing them to vote on certain aspects of the new plan, and allotting new professional collaboration time.[136]

Policies to reduce suspensions must be designed and implemented with care to ensure positive impacts on the students and school communities involved and to ensure that the teachers, administrators, and other responsible parties have the training and support they need to be effective. In Denver, teachers have expressed concerns about the burdensome requirements in using a "tiered approach" to student infractions along with too much paperwork and uneven distribution of resources for teachers and students.[137] In many of the affected districts, the message to the board of education is that eliminating suspension alone is not a workable solution.[138] In Los Angeles, training is supported by outside funding. Nevertheless, teachers and administrators have raised questions about whether they have the resources, training, and time to use alternative practices.[139] At Augustus Hawkins High School in South L.A., where a practice of restorative justice has replaced many suspensions, Principal Tony Terry said each mediation takes 45 minutes or more, at a time of major cuts to support staff such as counselors and assistant principals.[140]

## Where implemented

In school districts and individual schools around the country.

## Types of organizations involved

School boards, local activists, parent groups, and school and district officials are involved in policy advocacy and reform. School and district officials as well as trained practitioners are involved in implementing alternatives to suspension.

## Types of students involved

Eliminating suspension can take place district- or school-wide, affecting the entire student body. This strategy especially affects students who commit non-violent behavior code infractions.

## Resources needed

Costs and resources vary depending on the approach taken and the alternatives implemented.

## Evidence-based?

Some alternatives to suspension that are used in coordination with anti-suspension policies are evidence-based and are described elsewhere in this report.

## Responsible parties

Typically, school boards, local activists, parent groups, and school and district officials are responsible for policy advocacy and formation.

## Contacts

Ending the Schoolhouse to Jailhouse Track, a program of the Advancement Project: http://safequalityschools.org.

# Appendix 1: Research on the Effects of Suspension

Despite the wide use of suspension as a disciplinary technique, research has raised serious questions about its effects. This section summarizes four key research findings about suspension as a tool for responding to student misconduct. First, suspensions make the learning environment less safe and less productive. Second, for the suspended student, out-of-school suspension significantly increases the likelihood of negative life outcomes. Third, suspension disproportionately affects male, African-American students and students with disabilities. Fourth, suspensions are not reserved solely for the most serious violations and offenses.

## Suspensions make the learning environment less safe and less productive.

Contrary to expectations, suspensions can make schools less safe. "Research has demonstrated … that schools with higher rates of out-of-school suspension and expulsion are not safer for students or faculty," notes the American Academy of Pediatrics, which has issued a policy statement calling for pediatricians to discourage out-of-school suspensions and expulsions. Punishing students by excluding them from school does not deter future misbehavior, and may in fact increase it, making the overall educational environment less safe. For example, students suspended in early middle school are more likely to be suspended again by the eighth grade, suggesting an increase in misbehavior. Overall, schools with higher suspension rates tend to have lower ratings in academic quality and school climate. Additionally, even when controlling for race and poverty, research has found that high-suspending districts have worse outcomes on standardized tests.

Suspensions do little for the broader community. They are not only an ineffective way of engaging students, but also ineffective at engaging parents. This is particularly true for low-income or single parents.

## For the suspended student, out-of-school suspension significantly increases the likelihood of negative life outcomes.

Suspensions diminish academic achievement in students. As would be expected, the more time the student is in school and engaged with learning, the higher that student's academic achievement. The more time the student spends suspended from school, the less time the student will be engaged in the academic endeavor.

For many children, one suspension leads to the next. Thirty to 50% of suspended students are repeat offenders, indicating that suspension does little to discourage misbehavior and may in fact encourage it. Researchers have found strong connections between suspension and the likelihood of dropping out of school and future involvement with the juvenile or criminal justice systems. In fact, the disconnection with school that occurs when a student is suspended is one of the strongest predictors of delinquency. A recent Council of State Governments study, "Breaking School Rules," found that among students from similar demographic, achievement, and socioeconomic backgrounds those with one or more suspensions or expulsions were five times more likely to drop out of school and six times more likely to repeat a grade level than students with no suspensions or expulsions. Furthermore, even students with minimal disciplinary histories – those with just one disciplinary action for a relatively minor offense - were nearly three times more likely to have contact with the juvenile justice system within the year following a suspension.

During the suspension itself, students are often unsupervised. The lack of supervision increases the likelihood that the student will engage in further misbehavior during their exclusion from school. Among children whose parents can provide supervision, suspension can have harmful consequences for the whole family because parents must miss work to watch them.

## Suspension disproportionately affects male, African-American students and students with disabilities.

National as well as state-level data show that suspension disproportionately impacts African-American students and students with disabilities. According to the United States Department of Education Office of Civil Rights, African-American students are more than three times as likely as their white peers to be expelled or suspended. Although African-American students represent 15% of students in the public schools sampled, they make up 35% of students suspended once, 44% of those suspended more than once, and 36% of students expelled. Further, over 50% of students who were involved in school-related arrests or referred to law enforcement are Hispanic or African-American. Office of Civil Rights data also reveals that black male middle school students were suspended at three times the rate of white males, and black females are suspended more than four times as frequently as white females. Nationally, 36% of all black male students with disabilities enrolled in middle and high schools were suspended at least once in the 2009-10 school year. In the last forty years, K-12 suspension rates have more than doubled for all non-white students, while the gap between suspension rates of black and white students has more than tripled, rising from a difference of three percentage points in the 1970s to over 10 percentage points in 2006.

Disproportionality also can be attributed to socio-economic status. Students who receive free lunch are at a greater risk of suspension, as are students whose fathers do not have a full-time job.

Research shows that racial disparities in school discipline cannot be explained through higher rates of misbehavior among African-American students. In one study, white

students had a higher rate of misbehavior than black students, yet black students' misbehavior was more likely to be punished. Another study showed that black students often received disciplinary consequences for less serious infractions requiring more subjective judgment from teachers and administrators. Still another study demonstrated that black students are more likely to be sent to the office than white students. In North Carolina, a study of Wake County practices showed that black first-time offenders were far more likely than white first-time offenders to receive suspensions for minor offenses, including cell-phone use, disruption, disrespect, and public displays of affection.

## Suspensions are used for many minor offenses.

Rather than being reserved for the most dangerous behaviors, most suspensions result from less serious offenses, such as minor physical aggression, attendance issues, abusive language, disrespectful behavior, and general classroom disruption. In fact, only 5% of all out-of-school suspensions result from offenses typically considered serious or dangerous, such as possession of weapons or drugs. The remaining 95% of suspensions stem from disruptive behavior and other rule violations.[141]

Use of suspension is also extremely inconsistent from school to school, suggesting that student behavior is just one factor leading to high suspension rates. Other factors that contribute to a school's overall suspension rate include teacher attitudes, administrative centralization, school governance, perceptions of achievements, socioeconomic status and racial status. In short, school and non-behavioral student characteristics, particularly race, influence the use of suspension more than do student behavior and attitude.[142]

From one point of view, this conclusion can be seen as empowering. Principals' and administrators' attitudes toward the disciplinary process can influence rates of suspension. At schools where principals do not view suspension as a default consequence, rates of out-of-school suspension are lower and the use of preventive measures is more common.

# Appendix 2: Suspensions in North Carolina

In the 2013-14 school year, North Carolina reported a total of 198,254 short-term suspensions and 1,088 long-term suspensions. The suspension rate for high school students was 1.91 suspensions per 10 students. These figures represent a decline in the number and rate of suspensions compared with past years; the suspension rate for high school students was 3.48 in 2008-09. Nevertheless, suspension remains a very common discipline tool in North Carolina.

North Carolina was reported to have among the highest suspension rates for males in the country based on federal data from 2011-12. State figures from 2013-14 show North Carolina to be consistent with the nation in suspending African Americans and students with disabilities disproportionately to their percentage of the school population. Black students comprise 22.5% of the total school population of North Carolina, but received the majority of suspensions: 57% of all short-term suspensions and 55% of all long-term suspensions. Students with special needs represent only 13% of the state's school population, yet they received 22% of total short-term suspensions and 17% of the total long-term suspensions across the state.

## Short-term suspensions

The following charts reflect information regarding suspensions in North Carolina contained in the 2013-14 Consolidated Data Report published annually by the N.C. Department of Public Instruction. It is noteworthy that the figures reflect the number of suspensions, not the number of students suspended. Because some students are suspended multiple times, the number of students suspended is lower than the number of suspensions. Students who received short-term suspensions were suspended an average of 1.8 times. The average length of a short-term suspension was five and a half days.

High school students account for a large share of North Carolina's suspended students, representing almost half of all short-term suspensions in the state in 2013-14.

| Short-Term Suspensions by Gender [143] | | |
|---|---|---|
| | Female | Male |
| 2013-14 | 52,464 | 145,034 |
| 2012-13 | 66,172 | 181,623 |
| 2011-12 | 69,123 | 189,073 |
| 2010-11 | 71,852 | 194,636 |
| 2009-10 | 74,540 | 201,089 |
| 2008-09 | 80,784 | 211,841 |

| Short-Term Suspensions by Race/ Ethnicity [144] | | | | | | | |
|---|---|---|---|---|---|---|---|
| | American Indian | Asian | Black | Hispanic | Multi-Racial | White | Pacific |
| 2013-14 | 5,330 | 716 | 113,853 | 18,562 | 7,616 | 51,267 | 154 |
| 2012-13 | 6,242 | 972 | 142,869 | 23,244 | 9,181 | 65,133 | 15 |
| 2011-12 | 6,383 | 1,043 | 146,639 | 23,569 | 9,510 | 70,925 | 18 |
| 2010-11 | 6,387 | 1,305 | 149,654 | 22,654 | 9,892 | 76,308 | 211 |
| 2009-10 | 6,433 | 1,293 | 156,411 | 20,679 | 9,979 | 80,635 | |
| 2008-09 | 7,503 | 1,346 | 166,844 | 20,698 | 9,096 | 85,897 | |

| Short-Term Suspensions by Race/ Ethnicity (Number of Suspensions per 10 Enrolled) [145] | | | | | | | |
|---|---|---|---|---|---|---|---|
| | American Indian | Asian | Black | Hispanic | Multi-Racial | White | Pacific |
| 2013-14 | 2.59 | .17 | 2.91 | 0.85 | 1.34 | .67 | .88 |
| 2012-13 | 3.03 | .25 | 3.67 | 1.11 | 1.71 | .84 | .12 |
| 2011-12 | 3.07 | .28 | 3.78 | 1.20 | 1.75 | .91 | .16 |
| 2010-11 | 2.94 | .36 | 3.86 | 1.24 | 1.80 | .98 | 1.93 |
| 2009-10 | 3.14 | .35 | 3.97 | 1.30 | 1.70 | 1.02 | |
| 2008-09 | 3.61 | .38 | 4.15 | 1.34 | 1.67 | 1.08 | |

| Short-Term Suspensions by Special Education or Exceptional Children (EC) Status [146] | | | | | |
|---|---|---|---|---|---|
| | Serious Emotional Disability (SED) | Intellectual Disability-Mild (IDMI) | Specific Learning Disability (SLD) | Speech/ Language Impairment (SLI) | Other Health Impairment (OHI) |
| 2013-14 | 6,972 | 3,745 | 15,920 | 1,157 | 11,574 |
| 2012-13 | 7,336 | 5,735 | 21,486 | 8,493 | 14,647 |
| 2011-12 | 8,601 | 6,559 | 22,426 | 7,326 | 14,918 |
| 2010-11 | 11,029 | 7,842 | 22,195 | 6,282 | 16,294 |
| 2009-10 | 11,769 | 8,438 | 22,069 | 5,066 | 15,442 |
| 2008-09 | 12,070 | 8,438 | 21,380 | 4,473 | 14,633 |

## Long-term suspensions

High school students are more likely than other students to be suspended long-term (longer than 10 days); they accounted for 66 percent of the state's long-term suspensions in 2013-14. The suspensions lasted an average of 63 school days. [147] Students receiving long-term suspension missed 68,055 days in the 2013-14 school year.[148]

| Number of Long-Term Suspensions by Gender [149] | | |
|---|---|---|
| | Female | Male |
| 2013-14 | 176 | 869 |
| 2012-13 | 277 | 1,142 |
| 2011-12 | 311 | 1,298 |
| 2010-11 | 521 | 2,100 |
| 2009-10 | 765 | 2,562 |
| 2008-09 | 807 | 2,772 |

| Long-Term Suspension Rates by Gender (Number of Suspensions per 100,000 Enrolled) [150] | | |
|---|---|---|
| | Female | Male |
| 2013-14 | 24 | 113 |
| 2012-13 | 38 | 150 |
| 2011-12 | 43 | 172 |
| 2010-11 | 73 | 281 |
| 2009-10 | 107 | 345 |
| 2008-09 | 112 | 371 |

| Number of Long-Term Suspensions by Race/ Ethnicity [151] | | | | | | | |
|---|---|---|---|---|---|---|---|
| | American Indian | Asian | Black | Hispanic | Multi-Racial | White | Pacific |
| 2013-14 | 19 | 5 | 595 | 102 | 51 | 271 | 1 |
| 2012-13 | 28 | 5 | 772 | 185 | 60 | 368 | 0 |
| 2011-12 | 29 | 9 | 871 | 206 | 64 | 430 | 0 |
| 2010-11 | 28 | 19 | 1397 | 279 | 80 | 809 | 7 |
| 2009-10 | 97 | 14 | 1869 | 327 | 103 | 914 | |
| 2008-09 | 76 | 22 | 2062 | 331 | 99 | 973 | |

| Rates of Long-Term Suspension by Race/ Ethnicity (Number of Long-Term Suspensions per 100,000 Students)[152] | | | | | | | |
|---|---|---|---|---|---|---|---|
| | American Indian | Asian | Black | Hispanic | Multi-Racial | White | Pacific |
| 2013-14 | 92 | 12 | 152 | 47 | 90 | 35 | 57 |
| 2012-13 | 136 | 13 | 199 | 89 | 112 | 47 | 0 |
| 2011-12 | 139 | 24 | 225 | 105 | 118 | 55 | 0 |
| 2010-11 | 129 | 53 | 360 | 153 | 146 | 103 | 639 |
| 2009-10 | 473 | 38 | 475 | 206 | 175 | 116 | |
| 2008-09 | 366 | 61 | 513 | 215 | 182 | 122 | |

Rates calculated by dividing number of suspensions in race/ethnicity category by membership in that race/ethnicity category and multiplying by 100,000.

| Male Rates of Long-Term Suspension by Race/ Ethnicity (Number of Long-Term Suspensions per 100,000 Students)[153] | | | | | | | |
|---|---|---|---|---|---|---|---|
| | American Indian | Asian | Black | Hispanic | Multi-Racial | White | Pacific |
| 2013-14 | 144 | 24 | 245 | 79 | 150 | 58 | 0 |
| 2012-13 | 230 | 15 | 303 | 153 | 167 | 76 | 0 |
| 2011-12 | 208 | 37 | 352 | 175 | 199 | 86 | 0 |
| 2010-11 | 182 | 106 | 567 | 246 | 224 | 162 | 923 |
| 2009-10 | 576 | 54 | 717 | 320 | 273 | 179 | |
| 2008-09 | 577 | 100 | 784 | 346 | 268 | 183 | |

Rates calculated by dividing number of suspensions in race/ethnicity category by membership in that race/ ethnicity/gender category and multiplying by 100,000.

| Number of Long-Term Suspensions by Special Education or Exceptional Children (EC) Status[154] | | | | | |
|---|---|---|---|---|---|
| | Serious Emotional Disability (SED) | Intellectual Disability-Mild (IDMI) | Specific Learning Disability (SLD) | Speech/ Language Impairment (SLI) | Other Health Impairment (OHI) |
| 2013-14 | 32 | 18 | 69 | 5 | 43 |
| 2012-13 | 34 | 23 | 86 | 32 | 54 |
| 2011-12 | 33 | 16 | 71 | 20 | 49 |
| 2010-11 | 83 | 35 | 123 | 24 | 102 |
| 2009-10 | 135 | 66 | 146 | 27 | 164 |
| 2008-09 | 133 | 65 | 122 | 25 | 151 |

# Endnotes

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[6] Gregory, Skiba & Noguera, *The Achievement Gap and the Discipline Gap: Two Sides of the Same Coin?* (2010). Retrieved from http://edr.sagepub.com/content/39/1/59.
[7] North Carolina Department of Public Safety. (2011). *North Carolina Division of Juvenile Justice Annual Report*. 13. Retrieved from https://www.ncdps.gov/div/JJ/annual_report_2011.pdf.
[8] N.C. Gen. Stat. § 115C-390.1.
[9] N.C. Gen. Stat. § 115C-390.2(k).
[10] U.S Department of Justice Civil Rights Division and U.S. Department of Education Office of Civil Rights. *Dear Colleague Letter: Nondiscriminatory Administration of School Discipline*, January 8, 2014. Retrieved from http://www2.ed.gov/about/offices/list/ocr/letters/colleague-201401-title-vi.html.
[11] The Justice Center and The Council of State Governments. *School Discipline Consensus Report*. Retrieved from http://csgjusticecenter.org/youth/school-discipline-consensus-report/.
[12] Skiba, et al. *The Safe and Responsive Schools Project*, 632.
[13] Losen, Daniel J. & Skiba, Russell. *Suspended Education*, *Urban Middle Schools in Crisis*. 10. Retrieved from http://www.splcenter.org/get-informed/publications/suspended-education.
[14] As a reference point for this report, these purposes are: punishment and school exclusion, ensuring the safety of students and teachers, creating a climate conducive to learning, teaching students needed skills for successful interaction in school and society, and reducing the rates of future misbehavior.
R. Skiba & M. Rausch, "Zero Tolerance, Suspension, and Expulsion: Questions of Equity and Effectiveness," in *Handbook of Classroom Management (*Everston & Weinstein, eds.) p. 1064; Children's Needs III: Development, Prevention, and Intervention, eds. Bear and Minke 87.
[15] Safe and Civil Schools. *Positive Behavior Support (PBS)—A Discussion*. Retrieved from http://www.safeandcivilschools.com/research/papers/pbs.php.
[16] Cohn, Andrea, "Positive Behavioral Support: Information for Educators." Retrieved from http://www.nasponline.org/resources/factsheets/pbs_fs.aspx.
[17] Office of Special Education Programs Technical Assistance Center. Retrieved from https://www.pbis.org/school
[18] *Id.*
[19] North Carolina Positive Behavior Intervention and *Support 11-12 Evaluation Report*. Retrieved from http://www.ncpublicschools.org/docs/positivebehavior/data/evaluation/2011-12/2012-eval-report.pdf
[20] *Id.* 4.
[21] *Id.* 6.
[22] *Id.*
[23] *Id.*
[24] *Id.*
[25] *Id.* 7.
[26] North Carolina State Board of Education and Department of Public Instruction. *Positive Behavior Intervention and Support*. Retrieved from http://www.ncpublicschools.org/positivebehavior/background/practices/.
[27] *Id.*
[28] Skiba & Rausch, *Handbook of Classroom Management*, 1080-81.

[29] *Id.*
[30] North Carolina State Board of Education and Department of Public Instruction. *Positive Behavior Interventions and Support, Frequently Asked Questions*. Retrieved from http://www.ncpublicschools.org/positivebehavior/faq/.
[31] *Id.*
[32] Luiselli, Putnam, and Sunderland, "Longitudinal Evaluation of Behavior Support Intervention in a Public Middle School," Journal of Positive Behavior Interventions, July 2002, Vol. 4 no.3, pp. 184-190; Hawken and Horner, "Evaluation of a Targeted Intervention Within a Schoolwide System of Behavior Support," Journal of Behavioral Education, Sept. 2003, Vol. 12, No. 3.
[33] Skiba, Ritter, & Simmons, *The Safe and Responsive Schools Project: A School Reform Model for Implementing Best Practices in Violence Prevention.* Retrieved from http://www.indiana.edu/~equity/docs/A_School_Reform_Model.pdf.
[34] *Id.* 631.
[35] *Id.* 633.
[36] *Id.* 635-39.
[37] *Id.* 636.
[38] *Id.* 633.
[39] *Id.* 643. The declines over the four years for the four schools were as follows: School A: -26%; School B: -77%; School D: -44%; School E; -28%.
[40] *Id.* For students with disabilities, the declines over the four years for the four schools were as follows: School A: -49%; School B: -100%; School D: -75%; School E; -29%.
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[42] *Id.*
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[45] *Id.* See also http://curry.virginia.edu/research/centers/castl/mtp ; See, e.g., California Cares Plus initiative, described at https://www.childdevelopment.org/cs/cdtc/print/htdocs/caresplus/teachingpartner.htm; and http://opinionator.blogs.nytimes.com/2014/04/30/teach-the-teachers-well/?_php=true&_type=blogs&_php=true&_type=blogs&_php=true&_type=blogs&smid=fb-share&_r=2&.
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[50] *Id.*
[51] Gregory, et al. (2013).
[52] "Less Discriminatory Alternatives." Retrieved from http://www.youthlaw.org/fileadmin/ncyl/youthlaw/litigation/bryan/Appendix-H-Less-Discriminatory-Alternatives.pdf; Teske, Steven and Huff, Brian, The Court's Role in Dismantling the School-to-Prison Pipeline, Juvenile and Family Justice Today (Winter 2011). Retrieved from http://www.ncjfcj.org/sites/default/files/Today%20Winter%202011Feature%20%282%29.pdf.
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[56] *Id.*
[57] "Less Discriminatory Alternatives" 5
[58] *Id.*
[59] *Id.* 6-7.
[60] *Id.*
[61] Teske, Huff & Graves, "Collaborative Role of Courts in Promoting Outcomes for Students: The Relationship between Arrests, Graduation Rates and School Safety," Retrieved from http://safequalityschools.org/pages/clayton-county-ga; included in *Keeping Kids in School and out of Courts, A Collection of Reports to Inform the National Leadership Summit on School-Justice Partnerships.* Retrieved from http://tinyurl.com/school-justice-partnerships.
[62] "Cooperative Agreement Between the Juvenile Court of Clayton County, the Clayton County Public School System, the Clayton County Police Department, the Riverdale Police Department, the Jonesboro Police Department, the Forest Park Police Department, the Clayton County Department of Family and Children Services, the Clayton Center for Behavioral Health Services, Robert E. Keller, District Attorney and the Georgia Department of Juvenile Justice," Retrieved from http://www.jdaihelpdesk.org/collmodagree/Clayton%20County%20GA%20School%20Referral%20Cooperative%20Agreement.pdf.
[63]Teske, Steven. "A Study of Zero Tolerance Policies in Schools: A Multi-Integrated Systems Approach to Improve Outcomes for Adolescents" 24 *J. of Child & Adolescent Psychiatric Nursing* 88, 93 (2011). Retrieved from http://www.ncjfcj.org/sites/default/files/Zero%20Tolerance%20Policies%20in%20Schools%20%282%29.pdf. This program was also described in court documents filed in an OCR Complaint filed with the U.S. Department of Education regarding alleged discriminatory ticketing practices in the Bryan Independent School District. "See Less Discriminatory Alternatives" p. 2.
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# Study of Effective Alternative Education Programs: Final Grant Report

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# EXECUTIVE SUMMARY

This report provides the design and findings of probably the first methodical investigation of the essential characteristics of alternative programs that effectively meet the diverse, ever changing needs of children with disabilities for whom traditional school settings do not work. Field experts and members of the study's Expert Panel assisted with identifying alternative programs recognized as exemplary in terms of their effectiveness in working with at-risk students. In addition to expert opinions about exemplary programs, an important selection criterion was the availability of data on program effectiveness. Using this process, three alternative education systems were selected. Positive outcomes of these programs include improved student attendance rates; student improvement on evaluations of their functioning; high percentages of students reporting that they are motivated to succeed and that their program involvement helped improve their lives; and parental satisfaction with, and involvement in, the programs.

We conducted in-depth case studies of these programs to identify their salient characteristics; characterize their school climate; understand the degree to which they meet quality indicators for at-risk programs; characterize the effectiveness of the programs from the perspective of those involved in the program (administrators, teachers and support staff, students, and parents); and explore the factors that help the programs achieve positive results. Three instruments were used to collect data on the programs: the At-Risk Student Services Assessment (ARSSA), which was used to examine the extent to which evidence-based practices for at-risk students are well implemented; the Effective School Battery (ESB), which used teacher and student surveys to characterize these individuals and the psychosocial climate of the schools; and the School Archival Records Search (SARS), which was used to examine and code information on academic performance and school adjustment from student records. In addition, interviews with program administrators, teachers, students, and parents yielded qualitative data that were then analyzed and coded into themes.

Analysis of other extant data and the qualitative and quantitative data from this study indicate the importance of several components to the implementation and functioning of the alternative programs:

1. Program philosophies emphasize that it is the educational approach rather than the individual student that needs to be changed to accommodate learning differences among at-risk students.
2. Program administrators and staff subscribe to the philosophy that all students can learn. These programs communicate and support high expectations for positive social, emotional, behavioral, and academic growth in all students.
3. Program and school administrators are leaders who support the vision and mission of their programs; effectively support staff; listen to teachers, students, and parents; and genuinely care about their students.
4. Low adult-student ratios in the classroom are considered integral to successful outcomes.
5. Teachers receive specialized training (e.g., behavior and classroom management, alternative learning styles, communication with families) to support their effectiveness in working with students who do not succeed in traditional educational settings.
6. Interactions between students and the staff are non-authoritarian in nature. Positive, trusting, and caring relationships exist between staff, and between students and staff.
7. The opinions and participation of family members in the education of their children is valued, and students' families are treated with respect.

Further, each of the three programs tended to implement well 11 of the evidence-based practices for at-risk students, as identified in the ARSSA. All three programs were particularly strong in five dimensions of the ARSSA: administrative support, behavior support and supervision, classroom management, school- and work-based learning, and processes for screening and referral.

Based on the study's findings, we can posit that students identified as troubled or troubling tend to flourish in alternative learning environments where they believe that their teachers, staff, and administrators care about and respect them, value their opinion, establish fair rules that they support, are flexible in trying to solve problems, and take a nonauthoritarian approach to teaching (Quinn, Poirier, Faller, Gable, & Tonelson, in press). These key findings can help build and drive the research agenda for studying alternative education. Although preliminary in nature, the salient characteristics of the studied programs establish an understanding of three programs that are highly effective with at-risk youth. These findings may also be useful to other alternative schools or school districts pursuing or considering program improvement efforts, or to school districts developing new alternative programs. In addition, this study validates a number of characteristics previously cited in the literature as potentially contributing to effective alternative programs.

This report provides background information on the grant including a description of the study, its goals and objectives, modifications approved by the Federal Project Officer, and problems encountered and solutions; the study design including the methodology, sampling strategies used for data collection efforts, and instruments selected for this research; key findings from the literature review, and quantitative and qualitative analyses; and a summary of study-related dissemination activities. The report concludes with a discussion of implications for policy, practice, and research and seven research, development, and technical assistance recommendations.

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# INTRODUCTION

"It is our school and its way of teaching that is alternative, not our students" (as cited in Raywid, 1994, p. 26). As illustrated by this statement from a newsletter of the Central Park East Secondary School, an alternative school in New York, one philosophy guiding alternative education is based on the belief that the traditional system of education is broken and ineffective in meeting the diverse and rapidly changing needs of young people in today's society (Fizzell & Raywid, 1997). However, there are others who argue that problems tend to lie within students, and view students as "broken" or "different." This issue is exacerbated by the fact that professional educators have long been unable to identify the reasons why some children and youth fail to thrive in traditional classroom settings. More important, this continuum of attitudes toward the causes of school failure has led to contrasting approaches to working with at-risk youth.

Regardless of one's perspective, some students will move beyond the tolerance level of classrooms and schools and be referred to school exclusion and (or) alternative schools. According to the literature examining the characteristics of students in alternative programs, many students share several common traits and often are described as "cynical, suffering academic and behavioral adjustment problems in school, possessing antisocial attitudes and behaviors, lacking educational and/or career goals, and having problematic relationships with both family and peers" (Fuller & Sabatino, 1996, p. 295). While this may indicate to some that these children deviate from the norm, or are "broken," it does not explain the cause of the brokenness and equally important, how to repair it.

On the other hand are those, such as the late Nicholas Hobbs (1994), who believe that emotional problems in children are a symptom not of individual pathology but of a malfunctioning ecosystem. Followers of Hobbs' Re-ED philosophy advocate that adults have a responsibility to not only work with a child, but to also change the system in order to facilitate the child's growth in competence, independence, responsibility, and self-respect. Therefore, when a child fails to learn and grow, the fault lies not just with the child but also with the system and with the adults responsible for it.

Advocates of both the "broken child" and "broken system" philosophies do agree on the need for alternatives to traditional educational settings. However, philosophy dictates the structure and the goals of these alternatives. If the philosophy is that the student needs to be somehow changed, alternative programs seek to reform the student. If the philosophy is that the system needs change, the alternative program provides innovative curriculum and instructional strategies to better meet the needs of these students. This difference in philosophy has lead to decades of controversy over what alternative education should look like and who should be sent there.

Even given this divide on the philosophy and mission of alternative programs, the demand for such programs is illustrated by the tremendous growth in the availability of alternative programs in the United States over the past several decades. One estimate puts the number of alternative programs in the United States at about 20,000 (Barr & Parrett, 2001), significantly higher than the estimated 464 programs in 1973 (Steward, 1993). During the 2000-01 school year, 39 percent of public schools districts administered at least one alternative program for at-risk youth, and districts with high minority enrollments and high poverty concentrations were more likely to have such programs (Kleiner, Porch, & Farris, 2002). Students are generally referred to alternative programs if they are at risk of educational failure, as suggested by various risk factors including poor grades, truancy, disruptive behavior, and suspension (Kleiner, et al., 2002).

## Overview of Report

This report presents findings of a study conducted to identify the components of systems that effectively meet the diverse, ever changing needs of children with disabilities for whom traditional school settings do not work. A secondary goal of this study was to develop a conceptually clear and empirically grounded definition of alternative schools. Field experts and members of the study's Expert Panel assisted with identifying alternative programs recognized as exemplary in terms of their effectiveness in working with at-risk students. In addition to expert opinions about exemplary programs, an important selection criterion was the availability of data on program effectiveness. Using this process, three alternative education systems were identified and selected. Positive outcomes of these programs include improved student attendance rates; student improvement on evaluations of their functioning; high percentages of students reporting that they are motivated to succeed and that their program involvement helped improve their lives; and parental satisfaction with, and involvement in, the programs.

The report is organized into seven sections:

- Background information on the grant including a description of the study, its goals and objectives as defined in the grant proposal, modifications approved by the Federal Project Officer, and problems encountered and solutions;
- Our approach to carry out this study including the methodology and sampling used for data collection efforts, and the instruments selected for this research;
- Three sections on findings beginning with the literature review, followed by quantitative and then qualitative findings;
- A summary of study-related dissemination activities; and
- A discussion of implications for policy, practice, and research and recommendations.

# STUDY BACKGROUND AND DESCRIPTION

Literature and data reveal ambiguity regarding the definition and functions of alternative schools and programs: there is a wide variety of schools that are labeled "alternative." Little is know about whom alternative programs serve and why, how they function, the degree to which they are responsive to all children's education needs, and the extent to which children enrolled in these schools benefit from positive experiences and outcomes.

Although alternative schools are not a new phenomena, it has been hard to study these schools in a rigorous manner that specifies the necessary components of effective alternative programs for the variety of students who attend these programs. Although we know about components that make some schools effective (Quinn, Osher, Hoffman, & Hanley, 1998), we are not certain how to match program designs with students that these designs can help (Dynarski & Gleason, 1998). Without this information we too often make a bad situation worse by "pushing" students with disabilities or those who do not "fit" in traditional systems out of schools without a diploma or the necessary skills to lead productive, fulfilling lives.

Further, since the 1997 amendments to the IDEA, interim alternative programs (translated alternative programs and schools) became mandated Federal policy for placement of children with disabilities whose behavior is unacceptable in the traditional setting. Because alternative schools are a requirement, we owe it to our children to ensure that these schools effectively serve their student populations. With this endeavor in mind, the American Institutes for Research (AIR) submitted a grant proposal to the Office of Special Education Programs to study the factors that characterize effective alternative education.

The Alternative Schools Project (ASP) was a five-year Directed Research Project granted to AIR in fiscal year 2001. AIR's research team included Dr. David Osher, Managing Research Scientist at AIR, and Dr. Russ Skiba, Director of the Institute for Child Study at Indiana University, as Co-Principal Investigators; and Dr. Mary Magee Quinn, Principal Research Scientist at AIR, as the Project Director (PD). Mr. Jeffrey Poirier, M.A., Senior Research Analyst, joined the study in 2001 and assumed the duties of Deputy Project Director in 2003. In addition to the research team, the ASP benefited from the guidance of an Expert Panel comprised of researchers and practitioners with a wide range of relevant expertise including alternative schools, school capacity, school discipline, and student outcomes. Members of the panel included:

- George Bear, Professor, University of Delaware
- Judith W. Dogin, Philadelphia Behavioral Health System
- Kevin Dwyer, Special Advisor, National Mental Health Association
- Michael George, Director, Centennial School of Lehigh University
- Nancy George, Program and Training Specialist, Bucks County Department of Education
- Katherine Larson, Expanding Horizons
- Phil Leaf, Professor, Johns Hopkins University
- John Mitchell, Deputy Director, American Federation of Teachers
- Ted Price, Assistant Superintendent, Orange County, CA.
- Carlos Rodriguez, Principal Research Scientist, AIR
- Harilyn Rousso, Executive Director, Disabilities Unlimited Consulting Services
- Robert Rutherford, Professor, Arizona State University
- Jeffrey Sprague, Co-Director, Institute on Violence and Destructive Behavior
- Martha Thurlow, Professor, University of Minnesota
- Brenda Townsend, Professor, University of Florida

- Thomas Valore, Program Director, Positive Education Program
- Hill Walker, Co-Director, Institute on Violence and Destructive Behavior

Through 2005, the Federal Project Officer (FPO) for the ASP was Dr. Kelly Henderson. At the time of her departure from OSEP, Dr. Henderson was replaced by Dr. Anne Smith.

## Goals and Objectives

The purpose of the ASP was (1) to identify the components of systems that effectively meet the diverse, ever changing needs of children with disabilities for whom traditional school settings do not work, and (2) to develop a conceptually clear and empirically grounded definition of alternative schools. In support of these goals, we proposed four objectives for this study:

- **Objective 1:** Analyze extant National Center for Education Statistics (NCES) national and state data, and California and Texas state-wide data;
- **Objective 2:** Establish an Expert Panel to provide ongoing input into the study from a broad research, practice, and policy perspective;
- **Objective 3:** Implement in-depth case studies of alternative schools, "feeder" schools, and "receiver" schools in the San Francisco and Austin school districts; and
- **Objective 4:** Synthesize, communicate, and disseminate study results and lessons learned.

We proposed Objective 1 in an effort to better understand the variation and scope of alternative schools both nationally and within two states (Texas and California) that constitute 18 percent of the U.S. population. However, a separate project funded by OSEP during this competition (Alternative Schools: Policy, Practice and Implications for Students with Disabilities) lead by Dr. Camilla Lehr at the University of Minnesota proposed work similar to this task. In collaboration with the FPO, Dr. Kelly Henderson, AIR decided to delete this work and expand our focus on the third objective.

We accomplished Objective 2 in two important ways. First, we mined the expertise of our senior staff and Expert Panel during the three years of the grant. Second, we added an in-depth literature review, which we used to guide the content of our protocols for the collection of qualitative data collection as part of the next objective.

As part of Objective 3, our intent was to focus on how alternative schools function, their characteristics, the degree to which they meet indicators of quality, and the factors that help them achieve quality. One of the two proposed school districts was unable to participate and the other did not have adequate data available when we began this study. After consulting with the Expert Panel and collaborating with the FPO, Dr. Kelly Henderson, we revised our study design to accomplish this objective by examining the characteristics of three nationally recognized alternative school programs with data supporting their effectiveness. We conducted in-depth case studies of these programs to identify their salient characteristics; examine the characteristics of teachers (and related support staff), students, and school climate; understand the degree to which the programs meet quality indicators for at-risk programs; characterize the effectiveness of the programs from the perspective of those involved in them (administrators, teachers and support staff, students, and parents); and explore the factors that help the programs achieve positive results.

As the study progressed, we identified and pursued timely, relevant, and cost-effective dissemination opportunities. We accomplished Objective 4 through a variety of activities including one journal article,

presentations at professional conferences, and coordination of a conference strand on alternative education (see Appendices A and B). Conferences were selected in order to not only reach relevant stakeholders but to also expand awareness of the study, findings, and alternative education (and related issues) among professional groups (e.g., education researchers) in other disciplines relevant to this study.

## Modifications Approved by the FPO

As previously described, modifications were necessary to more efficiently use grant funds and provide the government with useful information on the characteristics of effective alternative schools. Objectives 1, 3, and 4 were modified during the course of the study. These modifications, which were all made in with the approval of Dr. Kelly Henderson, FPO, are summarized in the following paragraphs.

AIR research staff, the Expert Panel members, and the FPO determined that completing Objective 1 would constitute a duplication of effort between the AIR project and the University of Minnesota project. Therefore, we eliminated Objective 1 and used the funds allocated for this objective to enhance Objectives 3 and 4.

As discussed in the previous section, one of the proposed school districts was unable to participate in the study after this grant was awarded, and the other district did not have adequate data on its effectiveness. In collaboration with the FPO and the Expert Panel, we revised our study design to examine the characteristics of effective alternative education programs (Objective 3). We identified and then studied three nationally recognized alternative school programs with data demonstrating their effectiveness. We revised the study design to conduct in-depth case studies of these three programs to identify their salient characteristics; characterize their school climate; understand the degree to which they meet quality indicators for at-risk programs; characterize the effectiveness of the programs from the perspective of those involved in the program (administrators, teachers and support staff, students, and parents); and explore the factors that help the programs achieve positive results.

As we designed the case studies (Objective 3) we encountered concerns from the alternative programs that conducting research on the "feeder" schools (i.e., schools sending students to the programs) would jeopardize the valuable, collaborative working relationship between the programs and the school districts from which their students come (and the districts that later receive them). It was decided that the benefit of including "feeder" and "receiver" schools was not greater than the potential cost to the programs in terms of damaged district relationships that are integral to their effectiveness. Hence, feeder and receiver schools were excluded from the sample.

AIR research staff and the FPO agreed to expand Objective 4 to include more dissemination activities than were initially proposed.

## Problems Encountered and Solutions

A small number of unanticipated challenges emerged during the study. Foremost, during the literature review we found that there was limited extant empirical research on alternative education and effective alternative programs. As a result, we identified themes in the research and literature that were available (primarily practical/anecdotal evidence) and validated these with the Expert Panel. Second, our student samples were limited by various exclusion criteria (discussed further in the next section) that we followed when defining the sampling frame. Although this limits our ability to characterize the three programs, these criteria were selected to maintain a cost-effective approach to the data collection and with legal and

logistical considerations in mind. Finally, to some degree, securing parental involvement was challenging. We used several strategies to maximize parental involvement. At one program we opted to use a Spanish-speaking parent and Spanish translator, even though we had initially excluded non-English speaking parents. For another program we conducted a phone interview with a parent who was not able to participate in the parent focus group during our site visit.[1]

[1] Interestingly, we found that information provided by the programs with fewer parents was similar to that provided by parents in the program with more parents participating.

# STUDY DESIGN

The study of alternatives to traditional education is a relatively new field and very little empirical information is available upon which to build a research agenda. Therefore, we conducted a descriptive study to identify the characteristics of alternative programs that are considered effective and to describe those individuals who are involved in those programs. In order to accomplish a rigorous data collection effort, we used a triangulated research design that combined quantitative and qualitative research methods. In this section we describe our approach to the case studies of the three alternative programs. We begin with a description of the three phases comprising the study's design, followed by a discussion of program selection, within-program site selection, sampling of teachers and students, and finally the instruments selected for the mixed-methods design.

Phase I included a critical and integrative review of the accumulated literature to formulate a comprehensive understanding of issues and themes surrounding alternative education and to identify any empirical studies that have been published. This was followed by the identification of study sites and preliminary interviews with program staff at each of the sites. We also conducted a preliminary site visit to one site to gather information central to finalizing the details of our research plan.

Phase II consisted of collection and analysis of quantitative data. Quantitative research methods included observational and survey research. Formal observations were conducted to study the level of implementation of evidence-based practices within each program. Surveys were administered to measure the climate of the programs from the perspectives of the students and teachers who learn and work in these settings. Demographic data were collected to describe the types of students attending these programs. The data were analyzed and informed the development of protocols used in Phase III of the study.

Site visits were used to collect qualitative case study data during Phase III of the study. These data were used to help the research team better understand how these programs are effective from the perspectives of those involved with them. Data collection consisted of interviews and focus groups and included students, parents, teachers and administrators.

Finally, for Phase IV we analyzed and synthesized data collected as part of Phases II and III to produce a journal article and this final report, which will be shared with the three programs and posted on AIR's Center for Collaboration and Practice (CECP) website.

## Institutional Review Board (IRB) Approval

Prior to beginning the activities of Phases II and III, research staff followed IRB procedures and had all planned activities reviewed by AIR's IRB. We provided information on the intended subjects, data to be collected, recruitment and consent procedures, anticipated risks and benefits, protections for research participants, and plans for maintaining confidentiality. We submitted this information along with all protocols to AIR's IRB, which reviewed and approved these activities.

## Program Selection

A variation of purposeful sampling, extreme case sampling (Wiersma, 2000), was used to select three alternative school programs for this study. Field experts and members of the study's Expert Panel assisted with identifying alternative programs that are recognized as exemplary in terms of their effectiveness in

working with students who require alternative settings. In addition to expert opinions about exemplary programs, an important selection criterion was the availability of data on program effectiveness. Using this process, three alternative education systems were identified and selected. To maintain confidentiality, pseudonyms (Program A, B, C) are used to refer to these three programs, which are described in greater detail in the following paragraphs. To help protect anonymity, the programs are described below without reference to their pseudonym.

One of the three programs is a single building that serves 84 students who are referred to the school by more than 40 surrounding school districts. All students are served on Individualized Education Programs under IDEA. The program serves students in grades from K to 12, with 24 students at the elementary level and 60 at the middle and high school levels. This program has demonstrated significant growth in many areas during the previous seven years of program improvement, including increased student attendance, improved levels of parent involvement, decreases in student involvement with police, more students meeting goals in their individual education plan, and increased graduation rates.

This program is affiliated with a local university's college of education and is used as a teacher intern site for the college. Teacher interns work for two years as teachers while they complete their masters-level course work. All teachers at this program are constantly involved in staff development around new practices and the experienced teachers serve as mentors to new teachers.

A second alternative program is a non-profit mental health agency charted by the state and a special education program operating under the auspices of the local education service center whose mission is to help troubled and troubling children and their families build skills to grow and learn successfully. It has been recognized as an outstanding program by the U.S. Departments of Education and Health and Human Services and has demonstrated its effectiveness with various outcome data. For example, the Child and Adolescent Functional Assessment Scale (CAFAS) (Hodges and Wong, 1996) is one instrument used to evaluate student progress. It is used to assess a youth's degree of impairment in day-to-day functioning due to emotional, behavioral, psychological, psychiatric, or substance abuse problems; lower scores indicate a smaller degree of impairment.[2] In fiscal year 2002, 497 students enrolled in a day treatment center were included in an analysis group that compared their initial CAFAS test scores to their most recent scores: students made significant gains, moving from an overall mean of 113.16 to an overall mean of 95.79. In surveys of parents of students involved in the program, families overwhelmingly report satisfaction with their involvement in treatment planning and goal setting; the respect they received from program staff; the extent to which staff encouraged them to change, grow, and take responsibility for their lives; and the overall quality of services provided. In many instances a majority of families indicated high satisfaction.

This program's mission is accomplished through the twelve principals of Re-ED (Hobbs). There are nine day treatment centers that service approximately 750 students, many of whom have been identified as severely emotionally disturbed. These centers were created to provide area school districts with places where their most troubled and troubling K-12 students can receive educational and mental health services. This alternative program also has two early childhood centers and two therapeutic group homes; and provides case management/case coordination services for children already involved in at least two human service systems, as well as diagnostic and assessment services for children at risk of being placed in foster care. The program also offers training, consultation, and support on serving troubled and troubling children to other schools throughout the country.

[2] The CAFAS is comprised of eight subscales: behavior towards others, community, home, moods/emotions, school/work, self-harming behavior, substance abuse, and thinking.

In 2004, this program's semi-annual report stated that 750 students had been served in the day treatment centers. The ages of the students were 5 to 18, with 24 percent between the ages of 9 and 11; 31 percent 12 to 14 years old; and 21 percent between 15 to 17 years old. Males represented 83 percent of these students. Relative to student race and ethnicity, 59 percent were African American, 37 percent were white, and 4 percent were of Hispanic ethnicity. About 75 percent of these students were Medicaid eligible and their average length of attendance was 27 months.

The third alternative program is administered by its local county Department of Education Division of Alternative Education and provides programs and services at approximately 140 sites that include alternative education programs, correctional education programs, and an adult correctional education program. The mission of this program is to care for, teach, and inspire all students to discover their potential, develop their character, and maximize their learning so they may become successful contributors to society. In spring 2004, this program received a six-year Western Association of Schools and Colleges (WASC) accreditation. This accreditation validates that this program ensures, for the benefit of colleges and universities, that graduating students have mastered a particular body of knowledge, all students are provided with high-quality learning opportunities, and school staff are involved in the continual process of self-improvement. The following is a list of several school-wide areas of strength that were found by the WASC accreditation visiting committees:

- A caring and healthy environment is clearly evident as a result of the staff's focus on addressing student engagement.
- Dynamic community partners developed within regions provide important resources for many students and their families.
- There is a reciprocal relationship with feeder districts that promotes the transition of students to and from county programs.
- Clean, safe, and well-maintained facilities create a healthy environment for learning.

The program provides a wide range of special programs and services such as a college transition program, counseling services, teen parenting programs, transition programs, extended school day tutoring services, a character-based literacy program, career education, service-learning opportunities, and addiction and substance abuse education.

According to a longitudinal study presented in the program's *2003-2004 Annual Education Report*, enrollment and graduation numbers increased significantly between 2000 and 2004. Cumulative student enrollment and graduation data from this period illustrate that while managing a 10.2 percent increase in the number of students served, this program achieved a 68.2 percent increase in the number of graduates. Students provide the program with high marks[3], with 87 percent of students believing that what they are learning in school will benefit their future, 89 percent feeling hard work is rewarded by the program, and 92 percent feeling motivated to succeed. Results from senior exit surveys administered by the program are also revealing:

- 96% report that they received their high school diploma even though 74% indicate that they entered the program low on academic credit;
- 94% believe that the program has helped them improve their lives;
- 91% of students cite "great teachers" as a positive aspect of attending the program;
- 90% agree or strongly agree that their teacher(s) helped improve their social skills;

[3] These results include responses from students in a variety of programs in the system, of which day treatment programs (which are the unit of analysis in this study) are one type.

- 57% say they attended their school within this program more regularly than they did their traditional school;
- 56% say they enjoyed school more since attending the program; and
- Students report improved math (29%), reading (35%), and writing (34%) skills while enrolled in the program.

This program serves students in grades K-12 who are referred by school districts, group homes, probation and social service agencies, correctional institutions, and families. The total student enrollment for all programs in 2003-2004 was approximately 8,759. Demographic descriptions for 2003 were: 62 percent male; 47 percent Hispanic, 33 percent Caucasian, 4 percent Asian, 4 percent African American, and 12 percent Other ethnicity; 12 percent were 12 years or younger, 23 percent were 13-15, and 61 percent were 16-19 years old.

## Within-Program Site Selection

This study confined itself to students in grades 7-12 in five randomly selected day treatment facilities in each of two multi-site alternative programs and one single-site program. The two multi-site programs are both large, urban systems comprised of many schools. Given the breadth of educational alternatives in these two systems, schools providing day treatment were selected as the units of interest in order to ensure some similarity in the schools studied across the three alternative programs.

At the time of our initial visit to one of the multi-site systems, there were approximately 37 community day schools, which enroll students referred by local school districts and county agencies. Students in these settings are taught with a minimum day or contracted learning schedule and meet with credentialed teachers to develop and implement a student-learning plan while attending a local county school site.[4] An administrator from the system identified 10 schools with enrollments of at least 50 students spread across five regions. One school was randomly selected from each region in order to ensure some representation of the five areas of the county educational system.

The second multi-site system has eight day treatment centers that are designed to serve school-age children and youth who are identified with an emotional disturbance. These centers provide treatment in an integrated educational and mental health environment. Three of these centers serve students with cognitive delays and challenging behaviors; these were excluded from the study. The remaining five centers were selected to participate in the study.

In total, 11 school sites were included in the first phase of site visits, during which the At-Risk Student Services Assessment (Sprague, Nishioka, Yeaton, & Utz, 2002) and Effective School Battery (Gottfredson, 1999) were administered. Archival records of students enrolled at each of these programs were also reviewed using the School Archival Records Search (Walker, Block-Pedego, Todis, & Severson, 1991a).

[4] Students who attend community schools within this program are required to be in school for a minimum of 240 minutes each school day (i.e., minimum day). Contract learning is also offered within the community schools: these students meet individually with teachers at least one hour per week to turn in completed schoolwork, receive new school assignments, and receive any assistance needed.

## Sampling of Students and Teachers

A sample size of at least 50 students was desired for each program so that sample sizes would be similar across the programs and because one program had fewer than 60 students enrolled who fit the criteria for inclusion in the sampling frame. The sampling frame for participation in the student survey of the Effective School Battery (ESB) consisted of all students enrolled in the program in grades 7 to 12 with two general exclusions: students who could not speak and read English, and students who were significantly developmentally delayed. In the case of one program, students in contracted learning were also excluded, as were students in the custody of Child and Family Services in another program.

After the sampling frame was established, students at the multi-site programs were randomly selected from the five participating day treatment programs. At one multi-site program, 15 students were randomly selected from the sampling frame of each of the five schools (n = 75). Five of these students at each school were identified as replacements in case any of the other ten students were unable to provide consent or were absent the day of the site visits. Per the request of one program, 20 students were selected from the sampling frame of each school (n = 100), 10 of which were identified as replacements at each school. At the single-site program, all students in the sampling frame were asked to participate in the study because the entire program was at one site. Across the three programs, the combined sample size was 154, in addition to 75 students designated as replacements.

Informed consent was sought from all selected students. These students were given parent-student consent forms that provided an overview of the background and purpose of the study, described the survey and the degree of anticipated risk associated with participating, and assured confidentiality. Both parents and students were asked to consent to the student's participation. Phone numbers and e-mail addresses of the researchers were included in case the parents or students wanted additional information. The consent form also allowed parents and students to check a box to obtain additional information prior to agreeing to participate. Students who were provided consent forms for the ESB were also asked to consent to a review of their records on the same form.

For the teacher samples, we asked all teachers working with students in grades 7 to 12 in the 11 schools to complete the teacher survey of the ESB. In total, 152 teachers were asked to participate (Program A, n = 41; Program B, n = 23; Program C, n = 88). Informed consent was also sought for teachers. The consent form distributed to teachers provided the same information as in the student consent forms. In addition, teachers were provided with a supplementary description of the study that provided additional information on the study (funding source and research questions). Each teacher was provided the opportunity to decline participation in the study without repercussion. School administrators and teachers assisted with distributing the consent forms and supplementary information to teachers. Envelopes were also provided and teachers were instructed to enclose their completed consent form in the envelope and seal it in order to protect the confidentiality of their decision regarding participation.

Response and participation rates for both teachers and students are provided in Tables 6 and 7 in the section on quantitative findings. Teacher response rates at each program were at least 95 percent; for students the responses rates were 70, 72, and 90 percent across the three programs. It is possible that there is some sampling bias due to the differing characteristics of those students (and teachers) who responded and participated, and those who did not. However, we are unable to characterize either the nature or extent of this bias, and are unable to identify potential implications on the findings.

## Instrument Selection

Three instruments were used to collect data during the first phase of site visits: At-Risk Student Services Assessment (ARSSA), The Effective School Battery (ESB), and School Archival Records Search (SARS). Each of these instruments is described further in the following paragraphs.

### *School Archival Records Search*

The SARS is designed so that school records can be coded and quantified systematically (Walker, Block-Pedego, Todis, & Severson, 1991a). One of its purposes is to identify students at risk for school dropout. According to its developers:

> The normative and psychometric characteristics of the SARS were investigated as part of an ongoing study evaluating the [Systematic Screening for Behavior Disorders] system with elementary-age samples of students….Factorial, Discriminant, and concurrent validity were estimated as part of this research….[and] the outcomes of reported validity studies suggest that the SARS can be used efficiently and appropriately for the purposes for which it was designed. The SARS may have broader uses in the context of schooling as a research instrument and it may be applicable for use with a range of student populations (Walker, Block-Pedego, Todis, & Severson, 1991b, pp.53-62).

For those students who consented to having their records reviewed, the SARS was used to collect data on their school history including academic performance and school adjustment. Data were collected on 11 archival variables. These included achievement scores, attendance, demographics, detentions, disciplinary contacts, GPA, in-school referrals, and out-of-school referrals.

Due to time limitations while on site, staff from the three programs were recruited to assist with completing the SARS profiles following the site visits. AIR reimbursed recruits at a rate of $10 per record. Three-hour sessions were led by AIR at each program to train program staff on completion of the SARS to maximize reliability of the coding. Intercoder reliability, which we assessed once per program, was above the minimum acceptable threshold of 80 percent at each program.

### *At-Risk Students Services Assessment*

The ARSSA, which was administered at each of the 11 school sites, is used to define the extent to which evidence-based practices for at-risk students in a school program are well implemented (Sprague, Nishioka, Yeaton, Utz). The ARSSA examines 10 program features (see Table 1) that are comprised of 89 criteria and indicators. The program features reflect the research literature on evidence-based supports for students who are at risk of school failure: when fully implemented, these features increase the likelihood of academic success among at-risk students.

The criteria and indicators are used to evaluate the program features, which are categorized as either in place, in progress, or not in place. Programs or schools with high levels of implementation of the criteria and indicators can be characterized as following evidence-based practices for serving at-risk youth. Direct observation and interviews with administrators, staff, and students are data sources for the program assessment. In addition, twelve types of archival data are reviewed:

- Communication and screening tools
- Classroom, intake, outcomes tracking, personnel, and service coordination forms
- Lesson and school improvement plans

- Training and meeting schedules
- School handbook

The ARSSA provides a descriptive, numeric, and graphic summary of the interviews, observations, and archival record reviews. In consultation with our Expert Panel, we identified two consultants from the University of Oregon's Institute on Violence and Destructive Behavior, which developed the ARSSA, to participate in program site visits and administer the ARSSA. Both consultants were previously trained and participated in administering the ARSSA in schools. Observations at each school site lasted about four hours but varied based on school size, availability of staff and students, and breadth of archival data.

## Table 1: Program Features Assessed by the ARSSA and Sources of Data

| Program Feature | Types of Data Sources |
|---|---|
| Administrative support | Evaluation, job descriptions, meeting schedule/available time allotment, trainings |
| Behavior support and supervision | Attendance, behavior routines/expectations/ outlined, verbalized, and reviewed; teaching strategies |
| Classroom management | Classroom routines/expectations/consequences outlined, verbalized, and reviewed; physical environment, teaching strategies |
| Instruction | Assessment process, curriculum, student goals, student scheduling, student-to-staff ratio |
| Mentoring and adult involvement | Communication plan/tracking, mentor assignments, service coordination plan/tracking |
| Program outcomes tracking | Attendance rates, criminal/behavioral recidivism, graduation rates, program recidivism, sustained academic improvement, success in return to sending school/full inclusion |
| School and work-based learning | Curriculum, school-to-work components, transition planning |
| Screening and referral | Intake forms, intake procedures, screening process, screening tools |
| Service coordination | Collaboration of key players, communication system and tracking, transition planning, into and out of program |
| Whole school discipline | School-wide evaluation tool (SET) |

The same two coders collected data for the ARRSA on all three site visits. Reliability checks were completed on all measures of data collected during the visit to Program B. Reliability was determined to be 99 percent across the 10 program features. We did not conduct reliability checks during the subsequent visits to Programs A and C for a number of reasons. Foremost, coders were separated during classroom observations for cost efficiency purposes and due to the locations of schools. Second, based on the strong reliability of their assessments at Program B and their background experience with the ARSSA, we were confident that reliability would be similar at the other programs.

### *The Effective School Battery*

The third instrument, the ESB, was administered to teachers and students at each of the 11 school sites in an effort to characterize students, teachers, and school climate (Gottfredson). The student survey examines 12 scales specific to student characteristics (See Table 2), whereas the teacher survey includes 7 scales to measure teacher characteristics (see Table 3). In addition, both the student and teacher surveys included measures of psychosocial school climate (6 and 9, respectively), which are listed and described in Table 4. The ESB is recommended for students in grades 6-12 and the reading level of the student survey is lower 5th grade.

The ESB was developed through research on school environments conducted at Johns Hopkins University. A number of instruments including those used in the National Institute of Education's Safe School Study (SSS) guided the development of the ESB. The SSS was conducted in the early 1980s and included 14,108 students in a variety of educational settings including urban schools with large minority populations and suburban schools, a Native-American reservation, a community in the Virgin Islands, and three communities in Puerto Rico. The work included middle, junior high, high school and alternative programs. Participating students ranged from 10 years or less (less than 2% of the student sample) to 18 years or older; however, most were 12-15 years of age. The sample included students from various racial/ethnic backgrounds including Asian Americans (1%), Black (44%), Native Americans (2%), Spanish Americans (29%), White (22 %), and Other (2.3%). Items were analyzed to ensure they were valid for each ethnic group, age, and gender. Items were included in the ESB based on their performance in the item analyses and research on the dimensions of school climate.

AIR staff led and monitored the administration of the student surveys, which occurred at each school site during the school day. We met with students in locations that were convenient for school staff and that ensured a quiet, private environment for the students to complete the surveys. These locations consisted of classrooms not being used for instruction, libraries, or staff offices. All students were provided a copy of the survey booklet and were offered the opportunity to have AIR staff administer the survey orally. Some students opted to complete the survey independently. Students were given the option to either circle their responses in the survey booklet or fill in their responses on a survey response form. In cases where students used the survey booklet, AIR staff completed the response forms following the survey administration. AIR-completed forms were reviewed for accuracy by a second member of the project team. All forms were then forwarded to Gottfredson Associates, Inc. for optical scanning and reporting.

Each consenting teacher received a copy of the teacher survey during our site visits. We strived to protect the confidentiality of teachers' responses by providing teachers with envelopes in which to seal their completed surveys. In some instances, the sealed surveys were collected while AIR staff was on site. In cases where teachers were unable to complete the surveys while we were on site, we provided pre-paid postage envelopes so they could mail their completed surveys to AIR. In addition, at schools with fewer teachers completing surveys while we were on site, we recruited and benefited from school liaisons. These liaisons followed up with teachers whose surveys were missing, collected completed surveys, and submitted these to AIR.

## Table 2: Student Characteristics

| Measure | Description |
|---|---|
| Attachment to school | Extent of positive student attitudes toward school |
| Avoidance of punishment | Experience with negative sanctions |
| Belief in rules | Belief in the moral validity of conventional social rules |
| Educational expectation | How far in school student expects to go |
| Interpersonal competency | Extent of psychological health and adjustment |
| Involvement | Level of student participation in school activities |
| Parental education | Parents' educational levels |
| Positive peer associations | Extent of positive or negative peer influence |
| Positive self-concept | Level of self-esteem |
| School effort | Level of effort in school |
| School rewards | Experience with positive sanctions |
| Social integration | Extent to which student feels integrated or alienated from school's social order |

## Table 3: Teacher Characteristics

| Measure | Description |
|---|---|
| Classroom orderliness | Extent to which classroom disruptions interfere with teaching |
| Interaction with students | Extent of out-of-class interaction with students |
| Job satisfaction | Extent to which teachers like their jobs |
| Nonauthoritarian attitudes | Extent of sympathetic attitudes toward students |
| Personal security | Extent to which teachers feel safe |
| Professional development | Extent of recent continuing education or in-service learning |
| Pro-integration attitude | Attitudes toward racially integrated education |

## Table 4: Psychosocial School Climate Measures

| Measure | Part of Student Survey? | Part of Teacher Survey? | Description |
|---|---|---|---|
| Clarity of school rules | Yes | No | Extent to which students feel school rules are clear |
| Fairness of school rules | Yes | No | Extent to which students feel school rules are fair |
| Involvement of parents and community | No | Yes | Level of parent and community influence and involvement |
| Morale | No | Yes | Commitment and morale of teachers |
| Planning and action | Yes | Yes | Extent to which the school engages in problem-solving and is open to change |
| Resources for instruction | No | Yes | Levels of resources available in the school |
| Respect for students | Yes | No | Extent to which students feel the school environment degrades them or treats them with dignity |
| Safety | Yes | Yes | Perceptions of school safety |
| School race relations | No | Yes | Opinions about school race relations |
| Smooth administration | No | Yes | Extent to which a school's administration is viewed favorably |
| Student influence | Yes | Yes | Level of student involvement in school decision making |
| Use of grades as a sanction | No | Yes | Use of grades as a response to misconduct |

# LITERATURE REVIEW FINDINGS

Although there is a dearth of rigorous empirical evidence supporting the relevance of particular program characteristics in terms of program effectiveness, various characteristics are frequently cited in the literature on alternative education. Many of these characteristics are in need of empirical study and hence questionable: it is unclear whether these characteristics produce positive outcomes or are generally correlated with positive outcomes. Further, in most instances the characteristics are discussed in a descriptive context without any discussion of their relationship to program or student success. They do still, however, warrant a discussion because of their frequent appearance in the literature. It is noteworthy that these characteristics are often suggested as essential to or important for program success by experts, administrators, or practitioners in the field. They include:

- Small class size and small student body
- Personalized school environment in which students feel included in the decision-making process
- Flexibility
- Effective classroom management
- Choice
- High expectations/belief in the students
- Special teacher training
- Parent involvement
- Collaboration

Most of these characteristics reflect research on the qualities of effective regular educational settings. However, it is our opinion – based on our site visits, and quantitative and qualitative findings – that these characteristics exist with greater intensity and play a more significant role in the effectiveness of the alternative programs we studied. In particular, effective classroom management, flexibility, small class size, and staff collaboration are imbedded in the philosophies of these programs and are integral to their identities and approaches to effectively serving their students.

In addition to the aforementioned characteristics, four characteristics are less frequently discussed in the literature on alternative education but remain worthy of mention as potentially important characteristics of effective programs. As such they also merit more investigation. These additional four characteristics include:

- Community support
- Targeted to a specific population
- Administrative leadership
- Transition support

A second literature review on interim alternative settings was also conducted. The search used the terms "interim alternative education placement," "interim alternative education setting," "IAEP," "IAES," "IAP," and "IAS." Various databases were used (e.g., PSYCINFO, ERIC, PsychArticles, LEXIS/NEXISon) as well as Internet search engines (e.g., Google, Yahoo) and organization websites (e.g., www.nasdse,org, www.nasponline.com, www.cec.sped.org, www.ideapolicy.org) that were recommended by the Expert Panel. In addition to research, the search produced documents related to opinions, barriers, and policies.

The only information obtained from these websites and databases were explanations of the IDEA amendment that introduced interim alternative education placements, and parents' handbooks describing the rights of parents and students regarding these placements. Therefore, the literature search showed that there is little existing research or publications about these interim alternative education placements, let alone their effectiveness and characteristics.

# QUANTITATIVE FINDINGS

In this section we summarize key findings of the ARSSA, the ESB, and finally the SARS.

## At-Risk Student Services Assessment

The criteria established by the ARRSA for the evaluation of findings state that any program feature falling in the 80-100 percent range is considered to be well implemented; the 70-79 percent range indicates features that are moderately developed; and the 50-69 percent range would indicate features that need improvement.

Five program features were found to be in the "well implemented" range for each of the three programs:

- Administrative Support (Does administration provide program support via organization, training, and involvement?);
- Behavior Support and Supervision (How does program staff implement behavior support strategies?);
- Classroom Management (What classroom management strategies are utilized in the program?);
- School and Work-based Learning (How does program connect students to career-based opportunities?); and
- Screening and Referral (What process determines student eligibility for the program?).

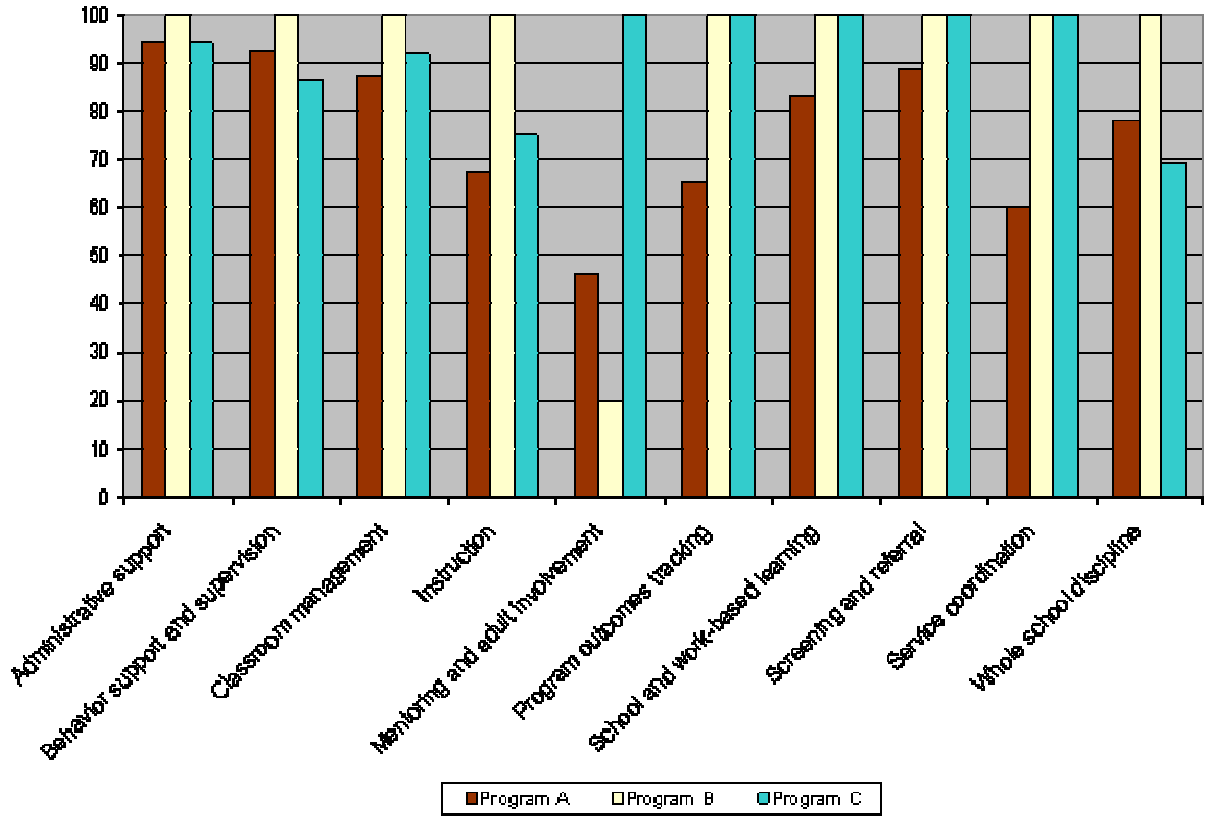
There were no features in which all three programs would be considered to be in the "moderately developed" range. Interestingly, Mentoring and Adult Involvement was the only feature for which any of the programs scored below the "in need of improvement" range.

The ARRSA data from each site were aggregated to yield ratings for each program feature. Table 5 shows the percent of implementation by program and program feature, and includes the mean scores of the three programs; Figure 1 displays this information graphically.

### Table 5: Percent of Implementation of Evidence-Based Program Features, by Program and Across Programs

| Program Feature | Program A | Program B | Program C | Program Mean |
|---|---|---|---|---|
| Administrative support | 94 | 100 | 94 | 96 |
| Behavior support and supervision | 92 | 100 | 86 | 93 |
| Classroom management | 87 | 100 | 92 | 93 |
| Instruction | 67 | 100 | 75 | 81 |
| Mentoring and adult involvement | 46 | 20 | 100 | 55 |
| Program outcomes tracking | 65 | 100 | 100 | 88 |
| School and work-based learning | 83 | 100 | 100 | 94 |
| Screening and referral | 89 | 100 | 100 | 96 |
| Service coordination | 60 | 100 | 100 | 87 |
| Whole school discipline | 78 | 100 | 69 | 82 |

**Figure 1: Percent of Implementation, by Program and Program Feature**




## The Effective School Battery

Teacher response rates were strong across all three programs while student response rates were strong in one program and good in two programs. A high percentage of teachers at each program consented to complete the ESB survey (Table 6). In fact, 95 percent of teachers consented at Programs A and C and 100 percent of teachers consented at program B. Program B also had a high percentage of students consenting to participate (90%). Programs A and C had 70 and 72 percent of students, respectively, consent to participate in the ESB survey.

**Table 6: Teacher and Student Response Rates**

| | Teachers | | Students | |
|---|---|---|---|---|
| | **Percent** | **N** | **Percent** | **N** |
| **Program A** | 95% | 41 | 70% | 54 |
| **Program B** | 100% | 23 | 90% | 46 |
| **Program C** | 95% | 84 | 72% | 55 |

Most teachers and students who consented to completing the ESB survey also participated in the study (Table 7). Among teachers, the participation rates ranged from 88 to 100 percent across programs. Student participation rates were also high, ranging from 91 to 100 percent across programs.

## Table 7: Teacher and Student Participation Rates

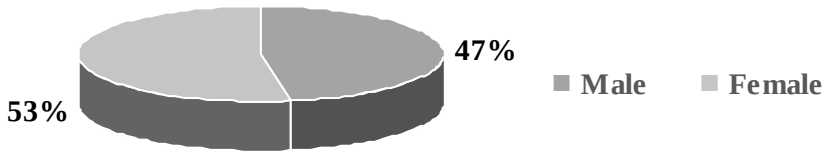
| | Teachers | | Students | |
|---|---|---|---|---|
| | Percent | N | Percent | N |
| **Program A** | 88% | 36 | 91% | 49 |
| **Program B** | 100% | 23 | 100% | 46 |
| **Program C** | 90% | 76 | 96% | 53 |

Review of the ESB responses yielded various findings, which are presented in the following sections beginning with teacher and student demographics, followed by the psychosocial climate measures and other key findings from the teacher and student surveys.

### *Demographics*

Figure 2 shows that slightly more than half of the responding teachers across the three programs were female; these figures are disaggregated by program in Table 8.

## Figure 2: Teacher Gender




## Table 8: Teacher Gender, by Program

| Gender | Program A | Program B | Program C | Total |
|---|---|---|---|---|
| Male | 18 | 8 | 38 | 64 |
| Female | 18 | 15 | 38 | 71 |
| Total | 36 | 23 | 76 | 135 |

In terms of race/ethnicity, a large majority of teachers responded that they describe themselves as white (76%), followed by black (15%). Small percentages of teachers reported being "other" (6%), Spanish American (3%), and American Indian or Alaskan Native (less than 1%). No teacher reported being Asian-American or Pacific Islander.

## Table 9: Teacher Race/Ethnicity, by Program

| Race/Ethnicity | Program A | Program B | Program C | Total |
|---|---|---|---|---|
| American Indian or Alaskan Native | 0 | 0 | 1 | 1 |
| Asian-American or Pacific Islander | 0 | 0 | 0 | 0 |
| Black | 5 | 0 | 15 | 20 |
| Other | 4 | 0 | 4 | 8 |
| Spanish-American | 4 | 0 | 0 | 4 |
| White | 23 | 23 | 56 | 102 |
| Total | 36 | 23 | 76 | 135 |

About half of the teachers surveyed had fewer than five years of teaching experience as a full-time teacher, while about 27 percent had 10 or more years of experience (Figure 3 and Table 10).

**Figure 3: Teacher Experience as a Full-Time Teacher, as a Percent of Total Teachers**

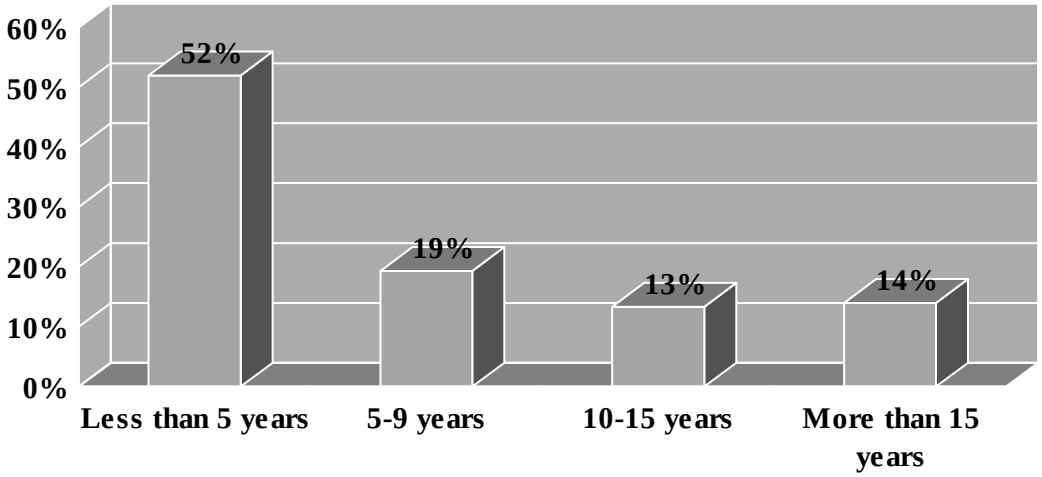
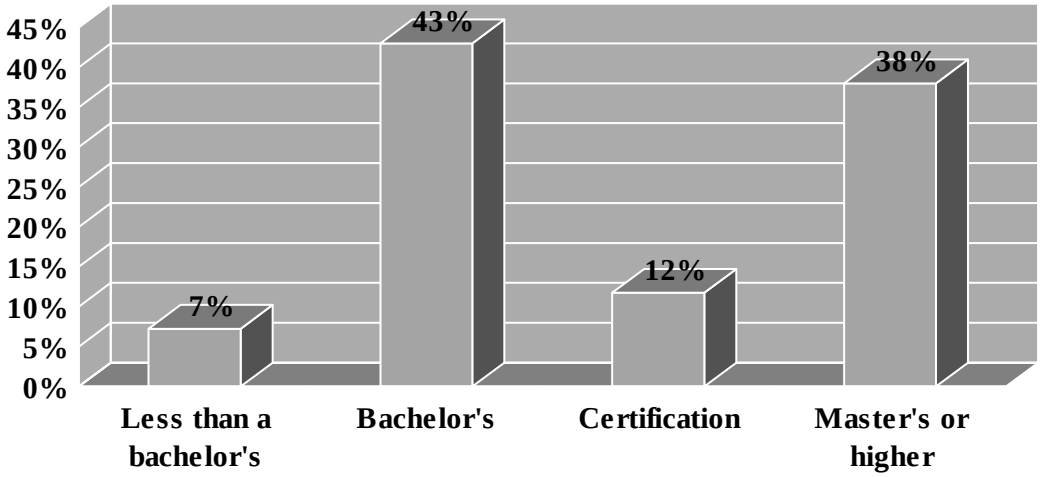



**Table 10: Teacher Experience as a Full-Time Teacher, by Program**

| Length of Experience | Program A | Program B | Program C | Total |
|---|---|---|---|---|
| More than 15 years | 8 | 1 | 10 | 19 |
| 10-15 years | 2 | 1 | 15 | 18 |
| 5-9 years | 5 | 5 | 16 | 26 |
| Less than 5 years | 21 | 16 | 33 | 70 |
| No response | 0 | 0 | 2 | 2 |
| Total | 36 | 23 | 76 | 135 |

Relative to reported levels of educational attainment, a majority of reported that they either have a bachelor's degree (43%) or a master's degree or higher (38%) (Figure 4 and Table 11).

**Figure 4: Teacher Educational Attainment, as a Percent of Total Teachers**



## Table 11: Teacher Educational Attainment, by Program

| Educational Attainment | Program A | Program B | Program C | Total |
|---|---|---|---|---|
| Less than a bachelor's degree | 1 | 0 | 9 | 10 |
| Bachelor's degree | 7 | 14 | 37 | 58 |
| Fifth year certification | 13 | 0 | 3 | 16 |
| Master's degree or higher | 15 | 9 | 27 | 51 |
| Total | 36 | 23 | 76 | 135 |

Table 12 presents data on the educational level of students' parents, based on student survey responses. Some students were not able to report the educational attainment of their mother and father (30 and 42, respectively). Of those who reported this information, just under half responded that their mother's educational attainment consisted of 8$^{th}$ grade or less, some high school, or high school completion. This percentage was higher (about 66%) in the case of students reporting their father's level of educational attainment.

## Table 12: Parental (or Legal Guardian) Educational Attainment, by Program

| Educational Attainment | Program A | | Program B | | Program C | | Total | |
|---|---|---|---|---|---|---|---|---|
| | Mother | Father | Mother | Father | Mother | Father | Mother | Father |
| 8$^{th}$ grade or less | 4 | 6 | 1 | 1 | 1 | 1 | 6 | 8 |
| Some high school | 10 | 10 | 2 | 2 | 6 | 8 | 18 | 20 |
| Finished high school | 9 | 9 | 6 | 9 | 10 | 10 | 25 | 28 |
| Some college | 13 | 6 | 7 | 5 | 10 | 7 | 30 | 18 |
| Finished college | 2 | 4 | 7 | 4 | 14 | 3 | 23 | 11 |
| Don't know | 11 | 14 | 22 | 24 | 12 | 24 | 45 | 62 |
| Total | 49 | 49 | 45 | 45 | 53 | 53 | 147 | 147 |

### *Findings from the ESB Psychosocial Climate Measures*

The ESB data were ordinal in nature. To be conservative, a non-parametric equivalent to analysis of variance, Kruskall-Wallis, was computed to determine if there were any significant differences on the scales among the three programs. If overall significance was obtained on a scale, a Mann-Whitney U Test was computed as a follow-up analysis to determine which of the groups differed significantly from the other(s). In addition, completed student and teacher surveys were submitted to Gottfredson Associates, Inc., to produce interpretative reports for each school and program. These reports summarized the findings by scale and compared them to the ESB norm group.

*Teacher Survey*. Using the data from the teacher surveys, there were no significant differences among the three programs on 3 of the 9 psychosocial climate scales (race relations, safety, and student influence) and 2 of the 7 teacher characteristics scales (non-authoritarian attitudes and pro-integration attitudes). In comparison to the ESB norm group, teacher responses were very high on one of these scales (non-authoritarian attitudes) and moderately high on two other scales (safety and student influence), which suggests that the school climate of the alternative programs tend to be more positive on these dimensions relative to the norm group.

On 2 of 5 scales with no significant difference (race relations, pro-integrations attitudes), teacher responses were in the average range, suggesting that the programs tend to be similar to the ESB norm group on these dimensions of school climate. In addition, in the area of psychosocial climate, significant differences among the groups were found on six scales: avoidance of use of grades as sanction, $X^2(2) = 44.63$, $p < .01$; morale, $X^2(2) = 24.66$, $p < .01$; parent/community involvement, $X^2(2) = 14.38$, $p < .01$;

planning and action, $X^2(2) = 20.77$, $p < .01$; resources, $X^2(2) = 20.99$, $p < .01$; and smooth administration, $X^2(2) = 19.84$, $p < .01$. Significant differences were also found on five scales of teacher characteristics [classroom orderliness, $X^2(2) = 65.83$, $p < .01$; interaction with students, $X^2(2) = 6.87$, $p < .05$; job satisfaction, $X^2(2) = 18.61$, $p < .01$; personal security, $X^2(2) = 57.56$, $p < .01$; and professional development, $X^2(2) = 41.46$, $p < .01$].

*Student survey.* There were no significant differences among the three programs in the measures on 4 of the 6 psychosocial climate scales on the student survey – fairness of rules, planning and action, respect for students, and student influence – as well as 7 of the 12 student characteristic scales (attachment to school, belief in rules, educational expectations, interpersonal competency, positive peer associations, school effort, and social integration). Relative to the ESB norm group, student responses were high or very high on four of these scales (belief in rules, fairness of rules, planning and action, and respect for students), which suggests that the school climate of the alternative programs tend to be more positive on these dimensions relative to the norm group.

On 4 of the other 6 scales with no significant difference (attachment to school, educational expectations, interpersonal competency, and social integration), student responses were average, suggesting that the programs tend to be similar to the ESB norm group on these dimensions of school climate. On the other two scales, the programs tended to be below average when compared to the norm group (positive peer associations, school effort). In addition, significant differences were found on two school climate scales: clarity of rules, $X^2(2) = 6.59$, $p < .05$; and safety, $X^2(2) = 13.56$, $p < .01$. In the area of student characteristics, significant differences were found on five scales: avoidance of punishment, $X^2(2) = 7.39$, $p < .05$; involvement, $X^2(2) = 10.01$, $p < .01$; parental education, $X^2(2) = 8.2$, $p < .05$; positive self concept, $X^2(2) = 7.76$, $p < .05$; and school rewards $X^2(2) = 18.85$, $p < .01$.

***Other Key Findings from the Teacher Survey***

- Across the three programs, more than 90 percent of participating teachers indicated they view their colleagues as enthusiastic, as well as innovative and open to change. Between 80 and 90 percent view their colleagues as cohesive. A majority of respondents also reported that their colleagues are appreciated, satisfied, and untraditional.

- More than 80 percent of teachers consider their principals fair, informal, and permissive. A majority also view their principals as firm, open to staff input, progressive, strict, and tough. Just under 90 percent of teachers feel that administrators and teachers collaborate to make their school run more effectively. About 83 percent responded that teachers' ideas are listened to and used in the school.

- Teacher morale tended to be high across the three programs. About 60 percent said they love their job while another 36 percent indicated they like their job. A large majority believe that they like their job more (77%) or as much as (19%) other people in general like their jobs.

***Other Key Findings from the Student Survey***

- About 72 percent of students indicated that the grade they get in school is very important and another 22 percent felt grades are fairly important. About 46 percent of students stated that what teachers think about them is very important, with 32 percent indicating this is fairly important. Large percentages of students stated that they like their school (65%), classes (70%) principal (72%), and teachers (78%). Only about half feel that the

school makes them like to learn while 56 percent disagreed with the statement that they feel like they belong in their school.

- About eight in 10 students have "lots of respect" for their teachers and believe that teachers care about students. The percentage of students stating that teachers almost never do things to "make students feel put down" ranges from 45 to 55 percent by program (Figure 6). In addition, the percentage of students stating that teachers almost always treat students with respect ranged from 49 percent in Program C to 73 percent in Program A (Figure 7).

**Figure 6: Student Responses to the Question, "Teachers Do Things that Make Students Feel Put Down"**

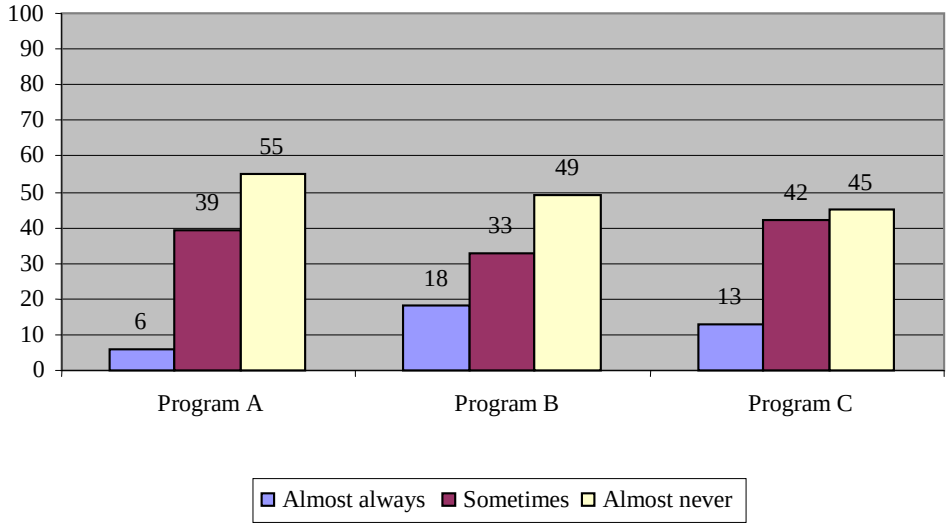
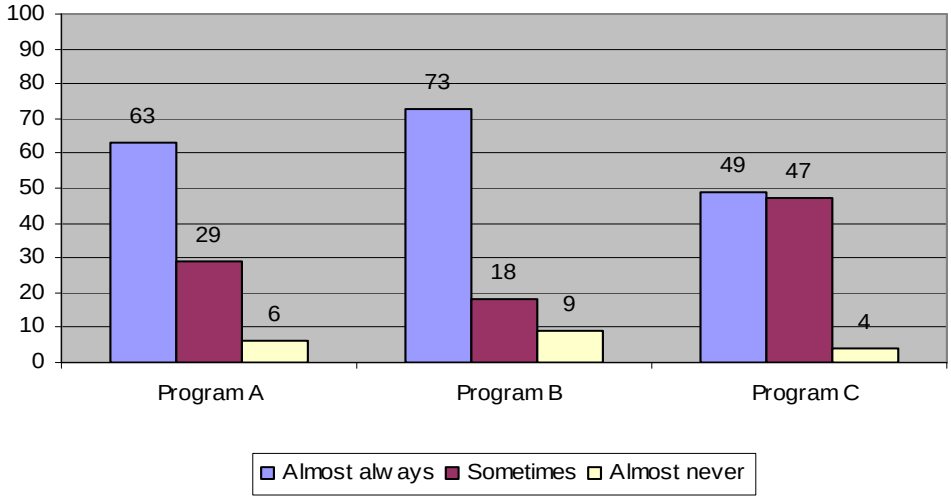
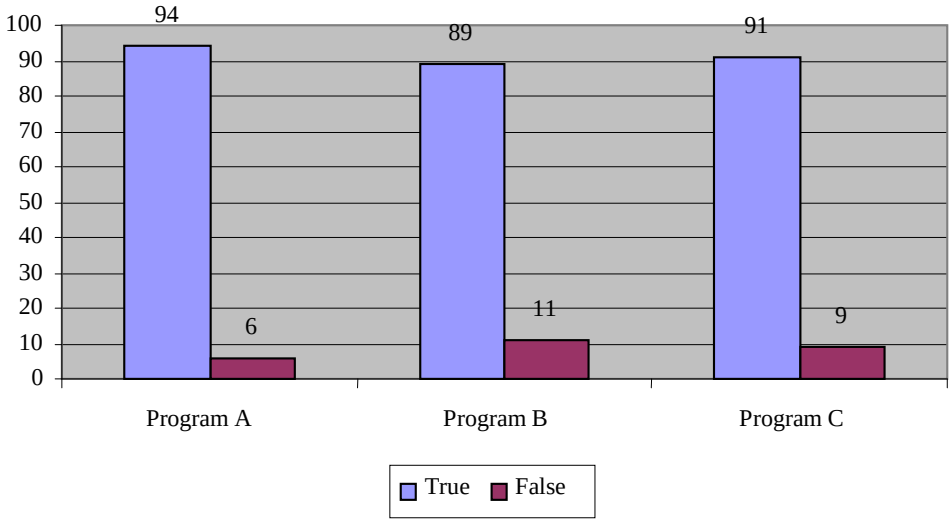



**Figure 7: Student Responses to the Question, "Teachers Treat Students with Respect"**



- Students tended to believe that school rules are clear and fair. In fact, an estimated 40 percent of students stated that school rules are always fair and 42 percent responded that school rules are sometimes fair. A large majority (81%) believe that their principals are fair, although this ranged from 68 to 91 percent by program.
- Across the programs, large majorities of students reported that teachers let students know what is expected of them (Figure 8).

**Figure 8: Student Responses to the Question, "Teachers Let Students Know What Is Expected of Them"**




- Other ESB findings worth noting include:
  - About 9 in 10 students are pleased with how they are doing in their alternative program.
  - 4 in 10 expect to complete a two-year college degree.
  - 4 in 10 anticipate completing a four-year college degree.
  - About half of students indicate that teachers often say nice things about their schoolwork; 45 percent report teachers sometimes do.
  - 8 in 10 students agree that someone cares about what happens to them.

In addition, several questions are built into the student ESB survey as a quality control mechanism to test the validity of students' responses: did students randomly respond to questions or did they think about their responses? Table 13 displays students' responses to the five questions that comprise the Invalidity index. We find that student responses on the Invalidity indicators align with how we would expect students to respond (e.g., that they like to have fun), which suggests that students responded to the survey in a serious manner.[5] Hence, this provides greater confidence in the findings.

[5] No student surveys were removed from the analyses due to responses to questions that are part of the Invalidity Index.

### Table 13: Student Responses to Questions in the Invalidity Index

| Invalidity Index Item | True | False |
|---|---|---|
| Never disliked anyone | 16% | 83% |
| Easy to get along with nasty people | 19% | 78% |
| Read several whole books every day | 10% | 90% |
| I like to have fun | 96% | 3% |
| I sometimes get angry | 91% | 9% |

## School Archival Records Search

Students who consented to having their records reviewed in the sites we visited were typically male (ranging from 77 to 91 percent, on average) but their ethnicity varied markedly by program. In one program the students were predominantly white (76.7 percent), while in another they were mostly black[6] (64 percent) and in the third they were primarily Hispanic (64 percent). Of the total combined sample of students across the three programs, about 46 percent were white, with the remainder of students split about evenly between black and Hispanic race/ethnicity. Only one program had students who were of Asian ethnicity, but these students comprised only 4 percent of that program's sample.

In terms of student disabilities, in two of the programs 100 percent of the students whose records were reviewed had been diagnosed with a disability. In the third program, student records revealed that about 13 percent of these students had documented disabilities. The vast majority of those students with disabilities (84%) were identified as having an emotional or behavioral disability.

The mean number of different elementary schools previously attended by students was about 3 in one program and 2.3 in another; data were not available for the third program. The mean number of different middle schools previously attended ranged from about one in two of the programs to almost two middle schools in the third program. The mean number of different high schools previously attended by students ranged from 1.4 in one program to about two in the other programs.

[6] We use the term "black" rather than "African American" to keep the language consistent with that used in the student survey.

# QUALITATIVE FINDINGS

Analysis of the quantitative research enabled researchers to better characterize the programs and their participants. The purpose of the qualitative portion of the study was to describe, from the perspective of the key participants in the alternative programs (i.e., students, teachers, administrators, and parents), the culture of the programs and to begin to identify possible components of this culture that are integral to how these programs operate and why they might be effective.

To accomplish this, results from the literature review and the quantitative analysis were used to identify characteristics for further inquiry. Using this information, protocols were developed for student, teacher, and administrator interviews and parent focus groups. The protocols were reviewed by a team of four researchers and revised before being sent to the Institutional Review Board for approval.

## Procedures

Five students and five teachers were selected randomly from the groups who participated in the quantitative phase of the study. Students who were no longer enrolled in the program and teachers who were no longer employed by the programs were excluded from the sampling frame for this portion of the study. In addition, groups of students and teachers were randomly selected as replacements in the event those originally selected did not consent to participating. Some students and teachers were not available when the research team visited the sites. In addition, five parents of students who participated in the quantitative phase of the program were randomly selected to participate in either an interview or a focus group (depending on their preference).[7] The numbers of participating teachers, students, and parents by program are provided in Table 14.

### Table 14: Number of Interview or Focus Group Participants, by Type and Program

| | Teachers | Students | Parents |
|---|---|---|---|
| **Program A** | 4 | 4 | 2 |
| **Program B** | 3 | 5 | 5 |
| **Program C** | 5 | 5 | 3 |

Administrator interviews for the qualitative phase of the study were limited to those who were in these positions at the time of the quantitative data collection activities, and who were still in their administrative positions at the time of our qualitative data collection activities. This yielded two administrators at one of the multi-site programs and five administrators at the other. We also interviewed the only lead administrator at the single-site program.

Researchers visited each site to collect data (three researchers at each of the multi-site programs and one researcher at the single-site program). Researchers recorded field notes during the interviews and focus groups; if participants consented, discussions were also recorded using an audio tape. We reviewed these tapes following the site visits to supplement written notes and maximize the likelihood of an accurate, thorough transcription of the interviews and focus groups. After the qualitative data were coded, audio tapes were destroyed as promised in the consent and assent agreements.

[7] In some cases students were represented by both parents. Parent interviews were held in all three programs and focus groups were held in two programs.

## Analysis

Researchers used topological analysis in which all data from the interviews and focus groups were divided into categories, or themes. These themes were originally devised using the theoretical framework resulting from the literature review and the quantitative research results. During the initial coding additional themes emerged. We used QSR N6 software to sort and code data, resulting in 16 themes and, in some cases, sub-themes.

In this section we describe the various findings across these themes, beginning with positive student growth and improved performance, followed by administrative leadership, unique teacher characteristics, positive student-teacher relationships, separating behavior from students, student choice, classroom management and discipline, staff collaboration, flexibility, high expectations of students, adult-student ratio, teacher training, transition support, parental involvement, community support, and finally, cultural competence. Significantly, each of these themes emerged during the interviews and (or) focus groups at the three alternative programs. With few exceptions the summaries and quotes are representative of our findings across the three programs.

***Positive Student Growth and Improved Performance***

Interviews and focus groups provided rich data on the perspectives and experiences of those involved in the alternative programs. A particularly salient theme in the data was program impact on the academic, behavioral, and personal growth of students. In this first section we present key findings on this prominent theme.

*Changes in Morale and Attitudes Toward School*. Parents and students alike stated that they observed positive changes in attitudes toward school and morale. As one student shared, "[my] experiences at this school will affect the rest of my life – [school name] changed the way I think about school." A parent also stated, "each day there is something positive – he *can't* miss school. When he missed his bus, he called his Grandma to take him to school." When asked about changes as a result of the alternative program one parent commented, "she's always been an extremely bright kid and so learning wasn't a real problem, but she actually wants it more now." Finally, one parent shared that her son's

> Morale was low when he came to [program name], but the teachers encouraged him to finish. When he recovered his lost credits he preferred to stay at [program name]. At [this program] he doesn't just have a teacher, he has a friend.

*Changes in Performance*. Students and parents shared very positive opinions about improvements in student achievement and attendance since placement in the alternative programs. One parent stated, "my child is getting a better education. Making As and Bs vs. Fs. For the first time, he does homework." Another parent remarked, "this alternative school has proved other schools wrong – my son is reading now when other schools said he wouldn't be able to read." Students also commented about improvements in their grades in the alternative programs compared to those in the public schools that they were enrolled in previously. One student said, "yes [my grades] have gone up.... I will probably get better grades when I go to college and get a better job, and marry somebody intelligent."

However, one student felt he was not being challenged enough and not enough classroom time spent on academics in the alternative program. He explained that in his regular school he received "Bs" and "Cs", but in the alternative program "straight As." When further questioned he remarked that "whenever kids are having problems and [staff] have to restrain 'em, then we're off academics." He stated that he was

concerned because he knew he would "go back to public school next year and be stupid, not know anything in ninth grade."
When asked about attendance, students consistently responded that they were more likely to attend classes at their alternative program than they were at their previous school(s). One student commented, "I used to ditch school but now care about school and about graduating." He went on to add,

> Yes, no more ditching school, [I] will go home and read books. [I am] more organized than before, school is important now. [My] grades have improved. I enjoy school now. I get along better with others."

Another student shared, "I attend more, [whereas] before I was suspended almost every day."

Teachers credited this improvement in school attendance to increased student success, excitement about learning, and students' sense of belonging within the alternative programs. One teacher explained, "we have kids come here who start coming to school even though they never wanted to before – or kids that are suddenly excited about learning because now it makes sense because we are moving slower for them or we are giving it to them in chunks and they don't feel like as much of an outsider because they fit in more." Another commented about the importance of belonging and school bonding: "it's not our school, it's their school [and] they take ownership in it. So, attendance is going to increase, their interest increase[s], their grades increase."

Parents explained that initially they viewed placement in the alternative programs as a punishment or "dumping ground" for their children, but their opinions changed after the initial few weeks of their children's enrollment in the alternative programs. In fact, one teacher shared an experience with a parent who initially came to the program in tears because someone at the sending school told her that the alternative school would manacle (confine) her son to a chair. The teacher went on to say that this student

> Was with me for two years, graduated a year early, went to [a nationally recognized culinary school]…I ran into him at the grocery store just this weekend. I saw him and his mom. She gives me a big hug. "Thank you, thank you, thank you! He's such a success…! He's graduating in a month…" I forget where she said he's going to go next. You know, she was just thrilled. And she was in here crying at first.

*Changes in Future Goals*. Students also remarked that as a result of the alternative programs, they had either formed or made changes to their future plans. Students talked about their new desire to graduate from high school and reflected on the contrast between their educational and career goals in the public school and these goals after enrolling in the alternative programs. One student said that he "wasn't planning to go to college before" but is now, and the alternative school was "a great decision." He then explained that he is considering joining the Peace Corps, which he had discussed with his teachers. Another student stated that she was planning on enrolling in college courses, but because of the opportunities available through the alternative program she was able to work at a hospital where, "you work for 120 hours and they see if they like you; this helps you to get a career fast." Because of this experience the student now wants to become a pediatrician. A third student said that the alternative program provides experiences and opportunities that his previous public school could not: "I'm going to be a heavy equipment operator and get CDO so I can work on a job site. If I was back at my [old] school I would not have been able to do that." Finally, another student stated,

> I feel like I have an opportunity to plan for the future. I ask my teachers for advice for my coursework. They tell me what I should focus on and do. I'd like to help children.

In the words of one parent, "my child now has a future."

### *Administrative Leadership*

The significance of administrative leadership relative to program effectiveness was another notable theme in the qualitative data and characteristic of the programs. Administrative leadership emerged in a number of ways, including the importance of listening, caring, and putting students first. Each informants recognized and articulated the value of these qualities and their roles in program and student success. In the following paragraphs we describe each of these sub-themes in more detail.

*Listening*. Listening emerged as a key attribute of the program administrators. Administrators stated that an important part of their roles is listening to the teachers, students, and parents. As one administrator explained, "you have to communicate. You have to listen and you have to be able to communicate with a variety of different personalities." Another administrator said that listening is instrumental to building caring relationships with parents: "sometimes it takes three or four times. Listening, I mean that's pretty much it, following through, answering phone calls, being there, being available, being a sounding board, letting 'em vent sometimes." Listening is also key to developing relationships with the students.

> So I try to make it comfortable for them to just to dialogue, to share what's going on. Normally the kids have a lot of stuff going on. They have dynamic issues going on at home and they're all different, so if Grandma's sick and they need to be there, then let me know and we'll get around that. It's not going to be truant, truant, truant and then you're out.

In addition, it is important for teachers to know the administrator is listening, "I listen to them. I realize that they… it's a tough job and I feel if they're coming to me with an issue, it's important to them."

Both parents and teachers said that they feel the administrators listen when they have problems and try to solve the problem rather than just make a decision. A parent was impressed that the administrator listened: "in public school the principal always takes the side of the teachers, [but] in [this program] the principal listens and tries to solve problems." One teacher stated that the teachers:

> Come back [to teach each year] because of [the administrator]. He is a leader that mirrors a good atmosphere. Students like it too, his calm demeanor. He is always processing, there to help you. Even kids feel that way.

Having the administrator physically available seemed to be important to people. Many spoke of an open-door policy, including one administrator who said that "open door, face-to-face conversations seem to work best…treat people like you want to be treated, don't hide behind closed doors, everybody knows they can come talk to me." A teacher also said that the administrator "definitely has an open door policy and is approachable…this is very important."

*A caring attitude*. "Good leadership is helping people achieve their agenda. The secret is to ask them what their agenda is [because] leaders take the time to discover what that is and provide resources." These words of one program administer reflect sentiments that were commonly shared across the three programs. Administrators all expressed genuine care for their staff and the students who attend their schools. One administrator spoke about a student who had just left his office:

> I am here for him. I praise him, I care about him. I want him to do well. I constantly encourage him to constantly do well.

Another administrator stated that:

> Every time I come across a kid or a parent, I give them my phone number [and tell them that] anytime you need anything, you call me. If you need to modify your schedule, if there's some circumstances at home that we need to know about, transportation, you know, we'll address that. We'll get around it.

Students seemed to appreciate the relationships they have with program administrators. When asked about how the administrator helps him be successful, one student shared that the administrator "will always help even if he is busy – he worries about students and checks on students in classrooms; other principals don't do this because they are just in their office." Other students discussed their relationships with their program administrators: "[he] gives me good advice. He makes me laugh" One student thought the administrator's sense of humor was important:

> Most [administrators] are serious and you won't be able to have a conversation with them. He comes up to you and talks to you and jokes around with you. He is nice, not mean, you can have fun with him.

Teachers also feel this caring attitude. One teacher mentioned that her administrator "is a mentor and a friend. He is personable." They also commented that administrators cared about the students and showed that care in their day-to-day interactions with students:

> He is a master. He really is. I mean from day one I've been amazed by how good he is with the kids, how calm he is, how he always directs students to making their own decisions, being responsible for themselves, coming up with their own solutions. You know with students he's just a master, in a conference with students and parents.

*Putting Students First*. Administrators all seemed to recognize that they, their staff, and the schools are there for the students. One administrator commented, "you need to keep focus on the kids. Focus on the kids with every decision you make with regards to students, teachers, administrators, everything." Another administrator said that he hopes people "would say I am somebody that understands the needs of kids." Another administrator thought his job was different than it would be if he were an administrator of a traditional school because the program "need[s] to be different" and cater to the needs of students and their parents.

*Other Administrator Qualities*. Several other leadership qualities emerged as important for administrators in alternative programs. Many teachers commented about the support that they feel they are given by their administrators. They said that administrators push them to develop professionally so they can be the best teachers they could be – and the administrators provide the training opportunities they need to accomplish this.

Many administrators and teachers commented on the necessity of administrators having experience in alternative programs before becoming administrators in them. One administrator commented that a good alternative program administrator "would have come up through this system" and that "if they come from outside, I hope they would look at the data, use evaluative skills, use observation skills, and conduct FBA on the organization." The administrator's role in fostering a common philosophy that ties each classroom together and provides goals was also identified as an important component to effective alternative programs. One administrator put it nicely: it is important that administrators provide "a philosophical foundation to what we do, which I think is important with this kind of work, with this kind of population, to always have a ground, an anchor to look back on."

### *Unique Teacher Characteristics*

Informants agreed that teachers in these alternative programs were "different" than teachers in traditional settings. Some students referred to them as "friends" who they could "talk comfortably with" and "who are willing to listen." Students also used words like: caring, awesome, fun, calm, friendly, and kind. They described their teachers as people who did not "take a joke too seriously," "would not discriminate you," and who are "kind of cool." One student said the teachers at his school "really do care." He went on to say that "they don't stand and yell at you. They don't curse at you and don't blame you for things you didn't do." Another said:

> The teachers here make this school special. They are here for us, they are cool and nice. At the other school they are just doing their job because they want the money."

Parents also commented on the uniqueness of the teachers in the alternative programs. One parent said the teachers are "like another parent" who "never seems to be having a bad day" and who "love what they are doing." During one parent focus group, many agreed with one parent's statement that the teachers in the alternative school seem more dedicated than the teachers in the traditional settings where their children were previously placed. One parent commented:

> Do you know what the teachers do differently? They get the kids…motivated. They're just good at motivating.

The teachers affirmed that they and their colleagues are not like teachers in traditional settings. In fact, one teacher said that "teachers here are not the ideal teachers that universities would like to think they produce." When asked to explain, she said, "there is more progressive teaching here, teachers here are all knowledgeable of the most current teaching methods, but here we constantly create and adapt to the needs of the position – more maverick kind of teachers here." Teachers think they have to be "able to manage behavior, foresee that there are issues that may arise and can prevent situations from happening." They also see themselves as "open-minded and flexible." They feel that they must be "very positive, believe they can make a difference, believe they can change kids. Because, when you lose that, you've lost everything." Another teacher said that:

> I think the kids get the message here fairly quickly that "we like you – we may not like what you're doing right now, but we like you as a person" and I think if a teacher's able to transmit that they have the relationship part beat.

Administrators had much to say about the characteristics they seek in teachers for their programs. They felt the teachers need tolerance, humor, and passion, and they have to want to be there and be the type of person who doesn't mind the unexpected, because "there are no usual days except unusual days." Other administrators said teachers must be positive, encouraging, impart hope, and truly see parents as a partner in the teaching endeavor. These teachers make the "process of learning fun, enjoyable, and engaging." They are "not willing to accept limits of children, but [are] willing to push the kid to the highest degree possible." They also must be "extremely organized, creative, and flexible – and a thick skin is important to have" because "the demands on the staff are extraordinary and most people in our society probably wouldn't be able to do it, so they have to have just a sort of inherent trait toward liking kids and these kinds of kids." One administrator said that teachers in alternative programs:

> Have a little bit more swagger to 'em, not defiant, but definitely a strong will in their belief in their positions – and they definitely are advocates for the kids, but they just somehow view things in a different way.

***Positive Student-Teacher Relationships***

A personal connection between the students and their teachers was another characteristic deemed important for success in all three programs. An administrator stated that "the uniqueness of our program is that the teachers get to know the kids personally." One administrator went further to describe ideal student-teacher connections:

> The ideal is when almost every one of the teachers at this site knows by name every kid, even though if it's not [their] student. You can see it and there's like a familiarity…[and then from the perspective of the students] it's not just some other teacher…[so their attitude is that] "I'm supposed to be responsible and I'm supposed to be respectful to them."

A genuine interest in students and their future was thought to be the basis for this connection. An administrator said, "kids generally see their teachers as really interested in them, as really liking them… having positive regard and unconditional acceptance….that the teachers really are looking out for their goodwill." Another administrator said that "the crux of the effective teacher is the ability to establish relationships." Teachers' comments reflect agreement with this: "rapport is also a big thing, teachers have to be personable. If you don't connect with kids, they don't listen." Another teacher explained her relationship with students: "I think of my classroom as sort of an extended family…I definitely promote that attitude among my students and I promote it with my [students'] parents and I look at myself as like a second mother in many ways to them."

Students also commented that their relationships with teachers in the alternative programs were different than those they had experienced in the past: "this school is different because here the teachers get along with you. You can be more like friends with teachers here." Another student said:

> It is better here [because] I get more respect and help. Teachers here are more focused. They take the time to know more about me so they can make a good education plan.

Another student said, "teachers talk to you and ask how you have been." When asked if he would change anything about his school, another student said, "keep it the same. It's pretty nice. Keep the teachers here and they help you learn your life and how the past life and the future life might be and I think it's pretty cool." Another student discussed the reciprocal necessity of respect:

> [It] certainly helps if you respect [the teachers] first. I, I know that some things I've done was not very respectful, because I always thought, "why should I give my respect to you when you have never respected me?" I mean, I know I'm a kid and some people don't believe a kid should disrespect an adult after an adult has disrespected a kid. I don't think that's fair and it's not….but when you sense their respect, but when you sense they're respecting you, they show respect, compassion and they'll [help you to] self-discipline….They'll trust you and they'll be fair.

Parents also commented on the uniqueness of the relationships at the alternative schools:

> The old school did not encourage enough. Kids were just supposed to sit and vegetate. They didn't care about his education. There was a lack of communication. They are more patient here, they care.

Another parent commented, "when my son was in an accident, they worked hard to help him finish the school year. They constantly called to see if they could do anything. Their care and concern is genuine." Another parent said, "They have treated my son fairly and kindly, and want to see him succeed." One parent was poignant in describing the student-teacher relationship:

> I think they work hard to make these kids feel like they're somebody instead of like in public school where they were just all over them all the time…here they're making them feel like you are a person, 'You are somebody, you are worth something,' and I think this makes them want to learn and want to work harder.

Finally, a teacher discussed the magnitude of the impact of building good rapport with their students: "we carry a heavy burden as teachers – we have a lot of control over kids' lives by laying a foundation for when they are going back to public school, whether they are going to be successful as adults, whether they are going to go to college or jail or be dead as adults."

### *Separating Behavior from Students: Students as Individuals*

Many teachers and parents commented that teachers are able to separate student behavior from the individual. A teacher said:

> You can't go and sweat every battle. You know a kid is probably gonna use a little bit of foul language once in a while, but is that reason enough to bounce him out of here or her out of here everyday? You address it….they acknowledge that OK, yeah, I see that I did something wrong and then you move on.

Two groups of parents also commented that "teachers look at students as individuals, not down on them." Another parent commented that the teachers "identify the child's problem…while at the public schools they consider them to be behavioral problem children and the only goal they have is to get them out instead of working with your child through the meltdown or the problem." Two administrators also shared that a good alternative education teacher "treats kids with a lot of dignity and respect" and that their students are seen more as a symptom of the issues and emotional disturbance that they have, rather than as "this kid…is really trying to hurt me or create this adversarial relationship." Finally, a teacher commented:

> I tell my students this is not personal, it is professional. So, I don't take it to heart. We both have good and bad days. It is the behavior we are trying to change and not you as a person.

The philosophy that allows a separation between a student and the behavior seems to impact the way these programs approach their missions. The general feeling was that students are not "problem individuals" but instead are individuals who have a great number of problems. This philosophical approach leads to the practical approach of solving and preventing problems rather than "fixing" students. The missions of these programs are to help students see that they have some control over their problems, rather than their challenges controlling them. This gives students a sense that they are in control rather than being completely dependent on the teachers and other professionals to solve problems.

### *Student Choice*

We also asked questions about the extent to which students have input in their education and the alternative programs. Some students said they did not have a choice as to whether to come to the alternative programs; however, in one program the students were required to apply to the school before attending it. A parent commented, "[my son] had to apply to come to this school – it made him feel important." Another parent from that particular school added, "they think it is a big deal that they had to apply for this school and being accepted was a big deal for him. It made him a part of the process. The acceptance letter came to him." One student made an interesting observation about choice:

> I was placed here. Technically every person chooses where to go. Because of the way I acted I chose this 'path' but not this actual school….Some kids need to come and some should because it is a nice environment.

An administrator at one of the programs (that does not require applications for admission) made an interesting comment about student choice: "it's called forced choice. It's an old, old trick in SED. You know, I think that way it kind of empowers the kids."

For the most part, informants felt it is important for students to have choice about their personal education even if they do not feel they have a lot of choice about where they go to school. In at least one program, this choice takes the form of leadership opportunities, which allow students to have input on how their classrooms and schools are run. An administrator commented that "in most rooms, the kids are given leadership opportunities to lead group meetings, to do certain jobs…to make them feel like they're contributing to what's going on here." Teachers agreed that having input into how the class is run helps motivate students: "[we spend] a lot of time trying to determine what students like to do – wherever possible we try to get student input on classroom activities because if they have more choice they are more likely to buy into it, [which] is more motivating."

***Classroom Management and Discipline***

We asked teachers, administrators, and students to describe the classroom management in their school. Students seemed to appreciate well-managed classrooms. They felt it is important and supports student learning. One student said good classroom management was important to "get a better education." Teachers tended to say that classroom atmosphere has an important role in managing student behavior. She said,

> The atmosphere, like you look out here right now, everybody's quiet, everybody's calm, everybody's doing their thing and a new student comes into my classroom and that atmosphere has an effect on them and you could bring the worst behavior kid at the regular high school into my classroom, they would calm down and do the deal. Because…you look around the room and everybody's doing that and you start doing that too.

Other teachers mirrored this belief that a calm and peaceful atmosphere is paramount to good classroom management:

> You can walk into any of our classrooms at any time and you will find students learning. You won't find students playing around or goofing off or not working…you won't find chaos. You'll find calmness. That's the other thing I think we all strive [for], or at least I do. This should be a peaceful place. For my students, their lives are very unpeaceful and this is all about peace here, calm, [and] quiet.

Teachers indicated that they believe creating these types of environments is their professional responsibility. One teacher stated that she believes she has not been as effective as she could be if behavior problems occur in her classroom. Another teacher shared that clear expectations and effective teaching played a major role in classroom management. He stated, "effective classroom management… is if that kid understands what he should and should not do and is making positive choices not to do the unthinkable or the thing that [he] shouldn't do, because that means that there is effective teaching happening and that kid is understanding that he has a choice and he's choosing to operate or to behave in this way."

Respect was also mentioned by many of those interviewed as a key component to effectively managing an atmosphere where students could learn. One administrator said, "I would like to describe [classroom management approach] as being respectful of the child." She went on to add, "we have to always be asking ourselves when we come up with a new intervention or something, does it respect the dignity of that child and would we want our own child treated that way?" Another administrator described classroom climate as "supportive and open, warm, inviting...[where] interactions between the staff and the students [are] respectful" and as a place where "the staff are willing to listen to the kids." She described one aspect of this respect for students as active listening: "we get ourselves into trouble when we start lecturing the kids without listening to what they have to say." In addition, a student described how problems are handled in his classroom: teachers will "go to the two students that are having trouble and ask them 'What's the problem?' They have them shake hands and…respect each other."

In one of the programs, physical restraints are used to suppress students who are extremely non-compliant. While some of the students interviewed mentioned disdain of restraints, one student was most articulate:

> So the teachers, they will ask, nicely at first, to remove yourself from the room or calm down in the room. And if that does not work, they must use physical force…but I don't think physically removing a child should…I mean, it is not great. I mean, you might have to use force to take them out of the room, but when they take them out of the room, they end up usually restraining them.

He described how it felt to be physically restrained: it "seems like they have millions of teachers on top of you." He went on to say that if he were a teacher he "wouldn't restrain a student, 'cause all that does is make a kid more upset." In fact, he felt restraints "worsen the problem by making the student more upset than they are. And that leads up to school property damage, physical damage and emotional damage." When asked what he thought when other students disrupt a class and restraints are used, he replied,

> I'm thinking there's something wrong with these students. I mean these teachers are nice to you and stuff and you gonna treat them that mean? And then, I guess if it was the teacher making it worse, you would be thinking, what's up with that? What are you doing? You should be working on this problem, you should be calming this student down.

In one of the programs that had eliminated the use of restraints, parents noted that they were pleased with this decision. During the focus group at that school the parents agreed that the "hands off policy is really good."

Each program has policies that reflect the belief that simply punishing inappropriate behavior or rewarding appropriate behavior was inadequate. It was clear that teaching the skills that promote social competence, or the behaviors that should be used in different settings, is very important. One student commented, "they taught me a lot when I was in school so I would know what to do and what not to do in a situation….[now I can] do all the right things instead of the wrong [things]."

***Staff Collaboration***

Without exception, every teacher and administrator shared a story of collaborative working relationships with their colleagues. Teachers described collaborations beyond typical sharing of lesson plans, behavior management techniques, and team teaching. These collaborations included both teachers and administrators. When asked if he collaborated with other teachers, one teacher said, "every period, every day." When asked if there was collaboration between administrators and teachers he replied, "every day – very informal but also formal, there is an open door policy throughout the whole school." Another teacher shared that:

> [Collaboration] is critical to school success. I do not come into school every day believing I have all of the answers, and if you come with that attitude you will hit a wall of failure every day. You have to be very flexible and willing to modify what is successful one day [so you can foster] success the next day.

Many staff echoed the importance of both formal and informal collaboration, and explained that they informally collaborate during their planning periods as well as before and after school. Most teachers explained that they can observe in other classrooms and learn new techniques for managing behavior and teaching effectively, and can always turn to their colleagues for support and guidance. Many of the teachers discussed formal collaboration opportunities. For example, in one program, "all teachers get together on Wednesdays to discuss classroom management." Many of the teachers mentioned formalized partnerships between teachers:

> In this school we have partners, which I think is a great idea for any school. We regularly come together to discuss issues/ask questions; when either of us are out of school then the other will keep an eye on problematic students while the substitute teacher is here. We also share student papers to see if we are on the same wavelength in terms of grading and so forth.

Another teacher summarized the importance of collaboration for teacher effectiveness: we are family here and really do support each other and have a support network with colleagues and staff in high positions – we communicate, talk, and discuss what works in different classrooms. This kind of support makes this job very bearable when it [is] overwhelming."

***Flexibility***

Parents, students, teachers, and administrators all agreed on the importance of flexibility in alternative programs. Parents felt that staff at the alternative programs are flexible in the demands placed on their children. One parent gave the example of staff understanding her son's challenges: "if he can't pay attention, [the teachers] understand." Another parent felt flexibility in academic requirements was important to her son's success: "[the teachers] individualize what [the students] need. If it doesn't work, [there is] no problem trying something else." Students also commented that it is important that programs provide this flexibility and individualization.

However, both administrators and teachers mentioned that there is a time for conformity to procedures and policies. They felt conformity provided predictability, something they agreed most of the students in their programs thrive on. However, they were quick to point out that staff has to be willing and able to be flexible if the situation calls for it. One administrator commented,

> We don't have…a student code of discipline…because we see that this kind of recipe approach to managing problems really doesn't work, that these problems or events or the behaviors that kids engage in that create problems for themselves, you know each of these events have some unique features to it that we can't just dismiss by having just this code of conduct that says 'well you got into a fight so therefore since you were fighting, you got X number of days'.

Teachers and administrators commented that the degree of flexibility in their programs would not be feasible in public school settings due to their higher adult-student ratios. In fact, teachers in the programs commented that being flexible is vital to their effectiveness:

> [Flexibility] is essential to school success. Someone rigid would not make it here because you have to adapt at any time for any behavior that may be coming your way. Because this is high

> stress you have to be able to adapt to situations so that you can go home at the end of the day without losing your mind."

Administrators agreed:

> It's just all flexibility. I think that that is essential that no two days are alike…and I think that you just, you have to be flexible. I think the staff and the kids, all of us, have to be flexible."

***High Expectations of Students***

Each of the programs believes that students should be held accountable for their academic and social behaviors, and provide, as one administrator described, "constant support and high standards." The students agreed that these programs taught them that they should "do the best they can do." Parents also felt that the programs held their children accountable. One parent said her son's school expected him "to work at the level he needs to be at and not just to let him slide by. They encourage him to move up and challenge [himself]." She went on to share differences between the expectations of the public school and the alternative program: "the public school expected him to be the worst criminal in the world, since pre-school!" Another parent also commented on the differences between the public school where her son attended previously and the alternative program: if he did not want to do his work "they would just say fine, he doesn't want to do it. No big deal. Just sit there and be quiet. Don't disturb [anybody]." Parents credited their children's success to high expectations. One mother commented about the importance of communicating high expectations: "Oh, this is very, very important. Without it he would not have been successful."

Parents and students commented that having high standards and knowing exactly what is expected is important to success. One student stated, "we only have five rules for the classroom – that is good 'cause regular schools probably [have] more rules that that." One characteristic common to all of the programs was the importance of proactively managing behavior through high expectations and direct instruction. While there was some disagreement about academic challenge, administrators and teachers stated that getting the students interested in education was a primary goal of the programs. One administrator said,

> One of the saddest things I see when kids are just like 'yeah, whatever'. You know, super smart but just passive in their involvement and there's so many different things you can do once the light bulb goes on and they are like 'holy cow, this is cool, I can literally in this school, in this state, in this country, do whatever I want to do'. I mean you work at it, there's resources, there's people that want to help you, there's grants and financial aid available.

Another administrator discussed the importance of encouraging students to have high expectations for themselves and discussed how they may have different expectations for different students, but that:

> Doesn't mean that we don't want them to squeeze every bit of talent they can out of them. It's just at a different pace and individualized, you know…that goes back to the relationship thing. You gotta know what your kids are capable of and you gotta push 'em and they're probably capable of more than they think they are.

One teacher commented about how her high expectations soon were mirrored by her students because:

> They know I'm not gonna accept anything but the best that they can do. So even if they've never had that before, it's just amazing how the kids respond to that. They don't want to disappoint me and just like it worked in kindergarten, it works with high schoolers too, if you do it right.

However, some of the students did not think the academic standards were high enough. One student complained that although he had been in the program for a year, his reading had not improved. A parent was concerned about another program's reliance on seat work. Another student reported that he did not think he had enough homework. He said, "it makes my dad mad that I only have a little bit of homework and my sister, in fourth grade, comes home with an hour and a half's worth of homework. I come in with two minutes worth of homework." One program administrator confided that improved academics are a future goal of the program and that new reading programs are currently being implemented to improve student performance.

***Adult-Student Ratio***

Class size is less than 20 students per classroom in each of the programs. However, one program had a ratio of 3 staff per 10 students. This was viewed as important to student success because of students' intense needs. An administrator made the point that "alternative schools are for meeting needs of kids …[who] need more resources." It was also thought that smaller class size enabled teachers to build the relationships with students that are considered so important: "we have been able to work anywhere between the ratio of 15 to 18 [students] per [adult]…that is the reason we have success in this school. We have developed relationships where public educators [cannot]." Another administrator said, "when [classrooms] get too big, you don't have that familiarity and a lot of problems happen then." Another administrator explained that " because so much is dependent on relationship[s], if class size gets too large [then] the relationship potential is diminished."

Parents expressed that the number of students in the classes was "perfect, everybody gets the attention they need." A parent from a different program said,

> They have the time to work with his disorder, work with him on how to control himself.... [Time] to help teach him his emotions, you know, how he needs to handle himself when he feels himself getting worked up or angry or whatever. No way is that going to happen in a public school....There's no way and they're flexible with his emotions and his anger and his meltdowns or whatever. They work with him through that.

Students agreed: "classes are smaller than usual. [This is a] better learning experience [because the teachers] can focus on you because there are not that many of you." Another student said that "having that smaller class, like the one we have here, helps a lot because it shows, if you can work with a small group, you can work with a medium, then a large, then a extra-large."

In the program that had classes of 10 students with 3 adults, all interviewees commented that this was an optimal situation. An administrator in one of these schools commented, "the dynamics of the behavior issues are a factor – if our classes were larger or smaller I don't think we'd be as successful; I don't know why 3 staff for 10 students is the right ratio but it seems the most effective; we need to have a good ratio to effectively teach, model, and individualize the curriculum; we need to teach students behavioral strategies." A student took a mathematical approach to describing the importance of small class size, "well, the thing is, with ten kids and three staff you get, out of a hundred percent, you get thirty-two percent of each staff's time a day. In public school, with one staff and let's say thirty kids, you get two percent of the staff's time the whole day."

In one program both a parent and student complained about the physical size of the classroom. The parent said, "it is crowded. The classroom is too small" and the student shared that "class sizes are OK but sometimes it gets too squished here – [we] need larger classrooms so that more students can come here."

### *Teacher Training*

As indicated by the informants, teachers in alternative programs require unique skills beyond those required of regular classroom teachers. Teachers shared a variety of training opportunities provided by their programs. These included in-service trainings on topics such as writing good lesson plans, providing effective instruction, and applying effective strategies for working with students with special needs. In explaining the importance of effective teacher training, one teacher noted the need for different teaching methods for teaching the population in their program: "there is a reason this population of kids didn't succeed in the regular school… teachers need to apply different techniques." At one of the programs, new teachers are given a mentor for two years and are trained to work with at-risk as well as traditional populations at multiple levels. A teacher in this program commented that the alternative program "effectively mixes teachers with less and more experience, which enables newer teachers to learn from others, and which reminds the more experienced teachers why they entered this field."

One program offers teachers about eight days of in-service before the school year starts and in-services for a half day every Wednesday so "teachers can gain experience and become more qualified." Another program offers trainings every three weeks during the first semester, which "keeps [teachers] aware of the skills and statistically sound ideologies that are out there, and how [teachers] can pair new approaches with what [they] are already doing to improve" the quality of their teaching with their new cohort of students. Another teacher commented that the options for training were varied: "within the program, there are in-services, in-house trainings and seminars, guest speakers to address issues staff are concerned about; [administrators] allow time for staff to leave early and do coursework at local universities." He also stated that in the past a university professor had come and taught teachers in their school building. He felt as did others, that the alternative program "made it easy for teachers to improve themselves." One teacher thought this training made him more capable to handle difficult situations. He said, "[it] kind of catches these kids off guard when the teachers are trained so much that they don't even have to think about it."

One administrator discussed teacher training at length. He said,

> We have a pretty extensive training and in-service program that we do that ranges all the way from classroom management to instructional programming. Then of course there's our TCI program, which looks at the whole question of the whole person, how to work with a person from an emotional perspective in terms of de-escalation, how to do relationship development and, of course, there's a section there about how to deal with people who are out of control as well. We have a …training program that deals with clients' rights, that deals with first aid, and CPR. I think our training apparatus takes on or reflects our philosophical approach of dealing with the whole person, there just isn't much that we leave out in terms of preparation and again our teachers are hybrid teachers. They're both educators and mental health people."

He went on to make a point of how important well-trained staff are to a program: "it's the people, it's not, you know the building. I mean it's always nice if you have a playground and it's nice if you have large rooms…but it just comes down to the people." Other teachers also commented that a staff that is well-trained in the philosophy of the program is essential.

### *Transition Support*

Transition from the alternative program back to the home school or to the community is something that should be supported. Each program, however, viewed and supported transition differently. In one program, transition was not a major focus because the primary responsibility for transition back into the home school fell on that school. One teacher explained, "in the case of students who return to traditional

school, teachers help write a behavior essay and recommendations, but the students and parents make the appointment with school district for the student to get reinstated." When asked about available transition supports, another teacher in the same program stated, "not for graduates unless individual teachers collaborate with students to apply to junior colleges. In general there is not a transition program, though."

Transition, or reintegration as one program calls it, is much more planned in the other two programs. Staff at both of these programs discussed the importance of gradual reintegration back into the home school. "We don't just drop [students] back in the public school the day after [transition]. We build class by class by class 'til we think the public school agrees, and we agree, that that kid is ready to be back full time. Some kids may go four months part time, so it just depends."

In one program, each student is assigned a case manager who works with the student and the receiving-school staff to facilitate a successful transition. In addition to ensuring the student has the skills necessary to be successful in the home school, case managers work with the public school teacher(s) to share with them "effective ways of working with this particular child…the child's learning style and what the kid responds well to and what he doesn't respond well to." Parents are also included to smooth the reintegration process. One teacher explained that some parents have bad memories of traditional schools and are afraid that their child will not be successful.

Parents commented on the reintegration process: "they prepared [our daughter] and they're following through, especially the caseworker [who] will visit the school and talk to the teachers…I'd say the follow-through is excellent." Another parent discussed her family's experience with reintegration:

> My son was reintegrated, not too long ago and it didn't work out too well. For one, I don't know if it was…too much peer pressure when he got to the public schools. For one, the school that they sent him to, he shouldn't have been at, and I told the case manager upfront that I didn't feel comfortable with sending my son to his home school, but at the time she told me that that was the school he had to go to and she couldn't do anything about it.

She explained that the combination of peer pressure and freedom was not a good mix for her son: "when the bell rings, they [have] a lot more freedom in public schools, you know, switching classes, you know what I'm saying, and they would meet in the hallways, he would see his friends…he was cutting classes." She shared that her son did not want his friends to see him going to those "slow classes" so he chose not to go.

One program offers a separate school for 16-year-old students who are likely to graduate from the alternative program. As explained by an administrator, this other school emphasizes transitioning to adulthood and job placement, and learning tangible skills students will use in everyday life (e.g., opening a checking account).

***Parental Involvement***

Administrators and teachers across the three programs stressed the value of a strong, collaborative relationship between parents and the schools. When asked about relationships with parents, one administrator said, "positive parent involvement is a critical component." Another said, "It is critical to success, 100 percent absolutely. The parent and school must work together or the game's over, point and match." A student said, "it helps you get in a bigger relationship with your parents, to show them how you do it in school and show your teachers what you do at home, to know what you can make different and what you can make the same."

The home-school collaboration was also important to the teachers. One teacher explained:

> We try to make parents understand that we are not here to fix their children. We are only one part of the solution and we need their input, critique, insight, and what goes on in the home is vital to allowing us to understand what is important to their kids and…in reshaping and remolding their behaviors.

Another teacher said, "we have meetings for staff to sit with parents to discuss how behavior at home compares to that at school. We discuss strategies that we teach here and how they can modify these strategies for the home; and we try to teach parents the modifications in a very simplistic way that are successful (e.g., children cues…stop and think,); help parents to model and role play so that students begin to generalize behavior in both home and school setting."

It was clear that to be successful at building relationships, there has to be, as one teacher put it, genuine "concern for kids and parents" and that this concern has to extend beyond the teaching of academics. One teacher expressed what many others echoed, "this cannot be just a job." Many of the teachers and administrators stressed the importance of finding common ground with the parents. One teacher commented that "I now realize the parents have the same wants and desires that I want for my kids."

Parents of children and youth with emotional and behavioral challenges often state that professionals see them as either a part of, or worse, the cause of their child's problem (Osher, & Hunt, 2002). This attitude was not expressed by any of the parents, students, or administrators. However, it was reflected in the words of one teacher who expressed concern that the program might be enabling parents by doing too much: "sometimes we enable parents too much by doing way too much for them – if we are doing everything for the parent and trying to teach the kid, then how are we ever going to break the cycle?" This same teacher went on to express blame of parents:

> The parents are the problem. I have Spanish-speaking kids for the most part whose families are for the most part passive and they've come from a place where they're happy their kids are not starving and they're happy that their kids are going to school at all. But they don't have high expectations of their children for the most part aside from just this general idea that education is a good thing….[Spanish-speaking students] come from a culture where the teacher…is held up very high. So and because I speak the language I can usually get support from the parents and I have an advantage, because I just call the parents and chew 'em out when their kid doesn't come and I do it in front of the whole class and so I've had kids tell me, 'I just have to see you do that once and I know I don't want that to happen to me. I don't want you to call my parent chewing her out', so that works. But parents I know in some of the other classrooms are the biggest obstacle because they've enabled their children this whole time. They're the reason, they're the one at fault. They haven't raised their kids right and they've made excuses for their children and they continue to make excuses for their children and they never hold their kids accountable. Well they never hold themselves accountable. So you know there's just too many bad parents out there. I know it sounds blunt and bad and all that, but it's just the truth.

A second teacher said that "a major reason kids end up here is because of a lack of parent involvement – gang involvement is one of the biggest issues we deal with here…many of our kids live on gang streets."

The interviews revealed the importance of open communication in building relationships with parents. One parent described this nicely: "communication is the main thing. It builds confidence between parents and teachers." This communication is highly encouraged in each of the programs and is mandated in two of the programs. In one program, teachers are required to call and talk with at least 10 parents each day so that each parent is contacted at least weekly. In addition, two of the programs require daily

communication through notes sent between school and home. Parents from these programs expressed the value of these communications: "on the point sheets, teachers always write something on the back. Students get extra points if parents write too—it keeps the communication going." Administrators and teachers across the programs stressed that building relationships with parents and parental involvement in their child's education requires effort and support. As an administrator of one of the programs explained, "we in-service our staff on strategies for working with parents. There are 10 to 15 ways we have for this, daily point cards, weekly calls, open house, talent show, honor roll, resource library, and the parent survey." Teachers in this program mentioned that because these strategies have been in place, they are "bringing parents back into the school." Parents shared that "everyone loves the open house, the raffle, and the dinner." A student from another program also expressed the importance of activities to involve families: "we have the carnivals and the family fun nights and my parents come, they help out volunteering and yeah, it's pretty cool."

One program assigns case managers to each family. "Case managers work with families on a daily basis; at the beginning of the year we send information with school phone numbers to parents in case they have questions; classrooms have e-mails for parents to send questions; our main [goal is to be] supportive of families." This program also has family meetings that are held every other week. One of the teachers commented that in her school about seven families attended these meetings regularly. Parents "sit in a circle and discuss a relevant topic, then [the meeting is] open for parents to raise concerns."

It was also stressed that communication should not be reserved to only report problems. One administrator said,

> I try to express to my teachers that it makes everybody's job easier in good times and bad times if you create a relationship with the family…call up and lob a phone call and say 'you know what, he's done awesome…you know he was a half hour late every day for the last month and now he's been on time', you know the good and bad – and as a teacher I made a point to really know those parents because when there are issues it's a lot easier, it's more familiar, it's more casual and they know that it's not just somebody sitting across the desk, an administrator, and now you're in trouble again. They're willing to listen and we understand things are going on.

Parents commented that they liked it when the school contacted them about positive things. One parent said, "the teachers always find positive feedback about my son to share." In addition, some parents and teachers acknowledged limitations to parental school involvement. A teacher said, "involvement varies often due to family issues…job requirements, number of children at home." A parent said,

> Yeah…they invite me. You know, it's just I'm a working mom and can't always go when I want to or like I want to, but I try to go to things as much as I possibly can. By me working during the day – my husband and I work – so it's real hard, but I try to be there when I can.

An administrator said that parental involvement "depends on the parent and the kid and the situation. Some of our parents are mentally ill themselves."

Some parents were glad to have very frequent communications with the school: "anything that happens at school, I am notified right away, even if something is done about it at school." In the words of a parent from another program:

> [We are] very much involved. I mean they don't do anything without calling and asking us first. I mean they're very, very good. [For example, they say] 'we're thinking about this, what are your feelings? What do you think we should do?' You know…it's very good. I have no complaints whatsoever.

Other parents expressed that as long as things were going well at school, they felt they did not need to be that involved: "they did [make frequent calls] at first…there is no trouble now, so I don't have to come in and talk." Another parent thought her involvement distracted her son, "he does so much better when I'm not there. I mean I have gone and done things and he's been fine when I'm there, but not always. And that's good enough for me. I don't feel like I'm left out in the cold or anything like that. They're excellent, excellent at calling if something's up." The key to relationship building seems to hinge on respecting and accommodating the parents' needs. One parent said, "I have always felt involved since the first day. You are as involved as you want to be. They welcome involvement." A student said, "my mother doesn't agree with everything but she is involved in her own way." Another student said he did not like it when his mother was very involved in the school. He thought her involvement was too "personal."

In addition, the words of one administrator explain why parents are critical to program effectiveness:

> They're decision makers and they know their kids better than we do. What we try to do is establish a collaborative sort of a model with them where we do consultation, and we try to establish those relationships that allow us to get a glimpse into home life and home functioning and then we try to offer insight into what's been effective in terms of how to set up and structure homes; but we always, always respect the integrity of their homes and of their role as parents in decision makers in their children's lives, and that comes first and foremost for us.

***Community Support***

Community support greatly varied among the programs. Administrators in one program discussed being good neighbors, but keeping a low profile: "my philosophy and theory is that the people who need to know where we're at know." A teacher in that program expressed a need for more social marketing of the school:

> We need to do more to bring the community in to see what we do and I think that's one thing we don't do enough of. I've voiced that a little bit. We need to have the mayor in here. We need to invite educators and the district to come observe our program. We need to get the city council in here. We need to get the newspaper in here…writing articles about our kids….we need to get out there more. We tend to be insular.

An administrator of another program mentioned a comprehensive social marketing campaign to elicit community support. He mentioned inviting community organizations to school functions, involving the community in fundraising activities, and even a positive piece about the program on the local cable channel. One unexpected finding is that every program mentioned positive relationships with the local police and probation officers. Some discussed the need to build these relationships proactively, before police need to be called to the programs.

***Cultural Competence***

Several parents mentioned that race relations were better at the alternative school than in the public schools. One Hispanic parent made a particularly poignant point:

> You know, the public school said that a report said that Hispanic parents don't encourage their children to stay in school. This is not true! It is the teachers who encourage our kids to drop out. The last straw in public school [for me] was when a teacher approached a group of students and said 'You are a bunch of good for nothings and should go back to Mexico, you can not learn.' Hispanic kids leave school not because they want to, but because they are not getting what they

> need. If it weren't for [school] a lot of Hispanic kids would leave school and be in the streets. I am lucky we found out about [this school]. If not, my son would have been one of those statistics.

An administrator agreed that cultural competence was critical to being an effective teacher. She said, "an effective teacher is one that understands the culture, and the background of the kids that they're serving." However, one teacher pointed out that while they are given cultural competency training, it might be more beneficial if it were less generalized to racism and prejudice because they "need a better understanding of where these kids are coming from, including culture, language, and the ideology of this generation. He added, "in addition, have more staff training to discuss some of the issues in the classroom that seem to be disruptive but are cultural issues so they are not really defiant and oppositional, but instead it is cultural behavior and we would become more empathetic and more knowledgeable of the cultural variables which would address some of the reactionary characteristics of staff."

***Summary of Qualitative Findings***

As with most qualitative data analysis, once data are organized and sorted into the established categories, the portrayal of a complex whole phenomenon begins to emerge (LeCompe & Preissle, 1993). In this section on the qualitative findings of the study, we presented themes identified during our review of interview and focus group data collected from administrators, teachers, students, and parents. It is clear that there are many important dimensions that characterize the three alternative education programs and are considered, from the perspective of the participants, integral to how these programs function and why they are effective. The significance of administrative leadership, collaboration, teacher training, and other themes may not be surprising – but it is important to understand how they "play out" in the programs, and their role in program identity.

In addition to the aforementioned themes, other themes related to program areas needing improvement, from the perspectives of participants, also emerged. These are presented here, beginning with location, then lack of resources, and finally suggested program improvements (we solicited this information from informants). It is important to recognize that although these programs are not perfect, they still manage to be highly effective with the challenging student populations they serve.

*Location.* Parents in all three programs expressed concern about the distance between their homes, places of work, and schools. For some students, this distance results in long bus rides to and from school, and makes it difficult for parents to attend school meetings. One parent identified this as the only thing she would change about her son's placement.

In one of the programs, many of the schools were in strip malls. The teachers in this program said they would change this if they could. One teacher thought it would be better if the school were in "a setting [or] location that is more private and withdrawn from public view." Another teacher in that program thought it would be better if the "buildings look like a school to normalize the environment, so kids feel like it is a regular school."

*Lack of Resources.* In two of the programs, both parents and teachers noted a lack of resources as a concern. One parent was concerned that "there are no text books, no real physical education, and no hardcore education. [Written materials are] black and white; there is no color so it is not interesting. The copies are of poor quality." Similarly, a teacher in that program stated that if he could make changes, he would "ensure there are enough materials for students."

*Suggested Program Improvements.* We asked each informant to identify anything they would change about their programs to make them more effective. Responses varied, but it was surprising how many

students and parents said that they would "not make any changes to this school." However some did suggest changes.

One parent would like to see "more structured classes" because she felt there is too much independent work. The students were mostly interested in changes to the physical structures: "I would make it more clean, new paint on the outside and inside" and "get better desks" because the desks were "all cracked up." Surprisingly, two students commented that they want either longer school days or fewer breaks during the day: "if I could change one thing about this school, I would have more hours in the school day because I just go home and watch TV. If the school day were longer, I would add more history, because I like it, math, and physical education like [in the] district; as well as activities after school." The student who wanted fewer breaks explained:

> See the whole reason people, kids get off task is 'cause they have a break. We have a break in class. They don't want to stop the break. So they take it further. They don't stop it. They won't stop the break. So that's how problems happen. Maybe we should have a little less breaks.

When asked if they wanted to return to their regular public school, students shared mixed responses. Many felt they concentrated better and did better in the alternative setting. Some students also reported that they feel safer in the alternative programs: "I feel more safe here than at the other school because there are teachers everywhere and there is more security here. At my old school it was big and there were a lot of fights that teachers didn't know about because the school was so big." Some students missed their friends and the extracurricular activities that were offered in their home school: the "alternative education program is good for getting credits, but the regular high school has good experiences, like the prom and school dances" and "the regular high school is nice because you get to see your friends."

Lastly, one teacher discussed her frustration with the lack of evidence-based practices in alternative education and called for more research. She said, "whatever the new thing that comes down the pipe, they want to change directions. Well, why don't we just figure out what really works, kind of like what you're doing, and let's go there and let's stay there long enough to find out whether it's effective."

# DISSEMINATION ACTIVITIES

An important objective of this study was to disseminate key findings from our research on the three alternative programs. Importantly, we strived to provide information to the field in a timely manner, in particular to practitioners and researchers. We shared not only updates on the activities completed under this grant, but also preliminary findings including the literature review, summaries of school archival data, analyses of teacher and student responses to the ESB, and program ratings on the ARSSA.

During the grant period, key project staff led 10 presentations at 9 conferences and meetings (see Appendix A for a complete listing) including the:

- American Education Research Association (2005),
- Council for Children with Behavioral Disorders (2006),
- Council for Exceptional Children (2003, 2005),
- International Child and Adolescent Conference (2004), and
- OSEP Project Directors' Meeting (2002-2005).

A highlight of our dissemination activities was an alternative schools conference strand coordinated by the PD and Deputy PD. This strand was part of the International Child and Adolescent Conference in 2004, with presenters from three programs that were part of our study, including school administrators and teachers. Other researchers studying alternative education were also invited to participate by presenting a session during the strand. A complete list of the 11 conference sessions that comprised this strand is included in Appendix B.

Project staff also wrote and submitted an article on the school climate findings. This article was submitted to Heldref's Publication's newly released *Journal on Alternative Schooling*, which the PD and Deputy PD had a role in founding. Further, a copy of the approved final grant performance report will be posted on AIR's Center for Effective Collaboration (CECP) website, which is located at http://cecp.air.org/ and receives 60,000 views per month. The CECP website received a five-star rating ('excellent') from the Tufts University Child & Family WebGuide.

# IMPLICATIONS FOR POLICY, PRACTICE, AND RESEARCH

This is perhaps the first methodical investigation of the essential characteristics of effective alternative programs. Analysis of extant data and the qualitative and quantitative data from this study indicate the importance of several components to the implementation and functioning of effective alternative schooling:

1. Program philosophies emphasize that it is the educational approach rather than the individual student that needs to be changed to accommodate learning differences among at-risk students.
2. Program administrators and staff subscribe to the philosophy that all students can learn. These programs communicate and support high expectations for positive social, emotional, behavioral, and academic growth in all students.
3. Program and school administrators are leaders who support the vision and mission of their programs; effectively support staff; listen to teachers, students, and parents; and genuinely care about their students.
4. Low adult-student ratios in the classroom are considered integral to successful outcomes.
5. Teachers receive specialized training (e.g., behavior and classroom management, alternative learning styles, communication with families) to support their effectiveness in working with students who do not succeed in traditional educational settings.
6. Interactions between students and the staff are non-authoritarian in nature. Positive, trusting, and caring relationships exist between staff, and between students and staff.
7. The opinions and participation of family members in the education of their children is valued, and students' families are treated with respect.

Further, each of the three programs tended to have many of the 11 evidence-based practices for at-risk students, as identified in the ARSSA, well implemented. All three programs were particularly strong in five dimensions of the ARSSA: administrative support, behavior support and supervision, classroom management, school- and work-based learning, and processes for screening and referral.

Based on these findings, we can posit that students identified as troubled or troubling tend to flourish in alternative learning environments where they believe that their teachers, staff, and administrators care about and respect them, value their opinion, establish fair rules that they support, are flexible in trying to solve problems, and take a nonauthoritarian approach to teaching (Quinn, Poirier, Faller, Gable, & Tonelson, in press). These and the other aforementioned key findings can help build and drive the research agenda for studying alternative education. Although preliminary in nature, these salient characteristics establish an understanding of three education programs that are effective in working with at-risk youth. These findings may also be useful to other alternative schools or school districts pursuing or considering program improvement efforts, or to school districts developing new alternative programs. In addition, this study validates a number of characteristics previously cited in the literature as potentially contributing to effective alternative programs.

# RECOMMENDATIONS

The primary goal of this study was to gather and analyze data from alternative programs deemed effective (as measured by student outcome data). After analyzing the data, we have the following research, development, and technical assistance recommendations.

1. Further study of alternative programs and alternative schools is needed. These studies should include:
    - The use of longitudinal research to determine the long-term outcomes for students placed in alternative programs.
    - The use of randomly assigned control or comparison groups to determine the effects of the various types of alternative schools (e.g., change the student, change the school, or change the system) on the social, emotional, behavioral, academic, and vocational development of students.
    - Analyses to examine the relative impact of individual program characteristic on the overall outcomes of the students enrolled there.
    - Multiple regression analysis to examine how effectively students with different types of disabilities are served by alternative programs.
2. Development of a tool to aid in identifying the optimal alternative school placement based on individual student educational needs and the philosophy and programmatic components of alternative programs.
3. Facilitation of an ongoing, professional dialogue between researchers, policymakers, practitioners, and family members regarding the optimal characteristics of alternative programs.
4. Facilitation of an annual conference or symposium to bring together researchers, practitioners, families, and youth to discuss effective practices in serving youth with disabilities and other at-risk youth in alternative education settings. The primary goal of such a meeting would be to further develop a research agenda and build a body of empirical research on effective alternative education.
5. Inclusion of youth and families in research and publications related to alternative schools so that this work is youth- and family-guided.
6. Development of a guide to effective alternative school practices for dissemination to various stakeholder audiences (e.g., policy makers, and practitioners and administrators of alternative schools and programs).
7. Development of a user-friendly guide for parents to build their capacity as advocates for their children, by building their understanding of effective versus ineffective approaches to educating at-risk and troubled youth.

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# APPENDIX A: PUBLICATIONS AND PRESENTATIONS

## PUBLICATIONS IN PEER-REVIEWED JOURNALS

Quinn, M. M., Poirier, J. M., Faller, S. E., Gable, R., & Tonelson, S. (in press). An examination of school climate in effective alternative programs. *Journal on Alternative Schooling*. Washington, DC: Heldref Publications.

## ALTERNATIVE SCHOOLS CONFERENCE STRAND

Quinn, M. M., & Poirier, J.M. (2004). *Strand Leaders: Alternative schools.* International Child & Adolescent Conference XII, Minneapolis, MN.

## PROFESSIONAL PRESENTATIONS

Quinn, M. M., & Poirier, J. (2006). *General session: The national investigation of current alternative school programs*. Alternative Schooling: Changing Perspectives and Emerging Best Practices for Children and Youth with Challenging Behaviors, Council for Children with Behavioral Disorders International Forum, Norfolk, VA.

Faller, S. E., Quinn, M. M., & Poirier, J. (2005). *A study of effective alternative education*. Poster Session presented at the Research Project Directors' Conference, U.S. Department of Education, Office of Special Education Programs, Washington, DC.

Poirier, J., Quinn, M. M., George, M., & Faller, B. (2005). *Nontraditional education: Evidence-based components of effective alternative programs*. Presented at the Council for Exceptional Children Convention and Expo, Baltimore, MD.

Quinn, M. M., & Poirier, J. (2005). *A comparative evaluation of alternative education settings*. Paper presented at the American Educational Research Association (AERA) Annual Meeting, Montreal, Canada.

Bain, I., Quinn, M. M., & Poirier, J. (2004). *Identifying essential components of effective alternative programs.* Poster Session presented at the Research Project Directors' Conference, U.S. Department of Education, Office of Special Education Programs, Washington, DC.

Price, T., Weaver, K., Poirier, J., & Quinn, M. (2004). *Supporting alternative education: Equity, collaboration, and funding*. Presented at the International Child and Adolescent Conference XII, The Behavioral Institute for Children and Adolescents, Minneapolis, MN.

Quinn, M. M., Poirier, J., & O'Cummings, M. (2004). *A comparative analysis of effective alternative education.* Paper presented at the International Child and Adolescent Conference XII, The Behavioral Institute for Children and Adolescents, Minneapolis, MN.

Bain, I., Quinn, M. M., & Poirier, J. (2003). *What we know and what is left to learn about effective alternative programs for students with disabilities*. Poster Session presented at the Research Project Directors' Conference, U.S. Department of Education, Office of Special Education Programs, Washington, DC.

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# APPENDIX B:
# ALTERNATIVE SCHOOLS STRAND SESSIONS OF THE INTERNATIONAL CHILD & ADOLESCENT CONFERENCE XII

## 1. ADMINISTRATIVE LEADERSHIP IN ALTERNATIVE EDUCATION

This session presented the unique characteristics of administrative leadership that are essential in effective alternative schools. Topics discussed included the characteristics of effective administrators; challenges that administrators must overcome; and strategies that empower and involve staff, students, and parents and that encourage them to take ownership in the program.

**Presenters:** Centennial: Michael George, Christine M.D. Piripavel; Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Ted Price, Kelly Weaver; Positive Education Program: Tom Valore, Matthew Joyce

## 2. SUPPORTING ALTERNATIVE EDUCATION: EQUITY, COLLABORATION, AND FUNDING

Alternative programs face challenges that require atypical support systems. This presentation discussed: how alternative schools increase educational equity; how to facilitate collaboration between the alternative school and the district, and between the alternative school and community organizations; the special funding issues unique to alternative schools; and potential sources of additional funding.

**Presenters:** Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Ted Price, Kelly Weaver; American Institutes for Research: Jeffrey Poirier, Mary Quinn

## 3. PARENTAL INVOLVEMENT IN ALTERNATIVE EDUCATION

This session described how staff in alternative settings can foster effective and active parental involvement in their school. Presenters discussed initiating contact with parents; supporting parents; involving parents in school events, flexibility relative to parents' schedules; and parental empowerment in terms of the alternative program, curriculum, and instruction.

**Presenters:** Centennial School: Nancy George, Christine M.D. Piripavel; Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Janice Histon, Bob Manley; PACER Center, Lili Garfinkel; Positive Education Program: Tom Valore, Matthew Joyce

## 4. Implementation of Functional Curriculum Within Alternative Settings

An essential element of effective alternative programs is an individualized functional curriculum. This presentation described how functional curriculum is determined; the logistics necessary to make a functional curriculum work; and the unique challenges of a functional curriculum such as high-stakes testing, course credits, and graduation.

**Presenters:** Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Janice Histon, Bob Manley

## 5. Teachers' Perspectives On Supports that Enhance Effective Alternative Programs

In this session, presenters described the supports that effective alternative programs provide to their teachers. These include issues related to staffing, professional development activities, and administrative leadership.

**Presenters:** Centennial School: Christine M.D. Piripavel, Julie Fogt; Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Janice Histon, Bob Manley; Positive Education Program: Tom Valore, Matthew Joyce

## 6. An ACCESS to Options: Alternative Education in Orange County

ACCESS provides educational options for students referred by local school districts, probation, and social services. Its exemplary programs and powerful learning, teaching, and support strategies help students succeed. Staff inspire all students to discover their potential, develop their character, and maximize their learning so they may become successful contributors to society. This session described ACCESS and answered related questions.

**Presenters:** Orange County Department of Education: Alternative, Community, and Correctional Education Schools and Services (ACCESS): Dr. Ted Price, Assistant Superintendent, Kelly Weaver, Manager of Educational Programs

## 7. Preventing Problem Behaviors in Alternative Education

In this session, presenters shared a gradation of positive strategies for establishing safe, civil learning environments in alternative school settings; and shared five years of data to show how the consistent use of these strategies has eliminated the need for seclusionary time-out and decreased the use of physical restraint in the school.

**Presenters:** Centennial School: Michael George, Julie Fogt

## 8. Reclaiming Troubled and Troubling Children Through the Re-ED Approach

Positive Education Program (PEP) is a Re-ED program in Cleveland, Ohio that provides integrated education and mental health services to children and youth with emotional/behavioral disorders. This presentation explored the premises, characteristics, and strategies that provide the foundation for building resilience and reclaiming troubled and troubling children and youth.

**Presenters:** Positive Education Program: Tom Valore, Matthew Joyce

## 9. Alternative Schools Across the Nation: Student Voices

Results from interviews and surveys conducted with over 300 students with and without disabilities attending 22 randomly selected alternative schools in six states were presented. Information gathered from legislative reviews and state-level surveys contextualized descriptions of who is currently being served. Practices and procedures that enhance student engagement and successful student outcomes were also highlighted in this session.

**Presenter:** University of Minnesota: Cammy Lehr

## 10. The Team Approach: School and Residential Staff Working Together to Promote the Whole Child

This workshop/lecture addressed strategies for successful school and residential staff cohesiveness that promote a positive beneficial program for each child/youth.

**Presenter:** Minnesota Independent School District 196: Carrie Wilson-Smith

## 11. A Comparative Analysis of Effective Alternative Education

This session introduced attendees to the strand on alternative education. An overview of the strand was provided as well as the impetus for the alternative schools strand, the ASP grant. Presenters discussed preliminary findings from phase I of data collection and the study's phase II plans.

**Presenters:** American Institutes for Research: Mary Quinn, Jeffrey Poirier, Mindee O'Cummings

# EXHIBIT D

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# Implications for educational practice of the science of learning and development

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**ABSTRACT**

This article draws out the implications for school and classroom practices of an emerging consensus about the science of learning and development, outlined in a recent synthesis of the research. Situating the review in a developmental systems framework, we synthesize evidence from the learning sciences and several branches of educational research regarding well-vetted strategies that support the kinds of relationships and learning opportunities needed to promote children's well-being, healthy development, and transferable learning. In addition, we review research regarding practices that can help educators respond to individual variability, address adversity, and support resilience, such that schools can enable all children to find positive pathways to adulthood.

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## Introduction

As knowledge regarding human development and learning has grown at a rapid pace, the opportunity to shape more effective educational practices has also increased. Taking advantage of these advances, however, requires integrating insights across multiple fields—from the biological and neurosciences to psychology, sociology, developmental and learning sciences—and connecting them to knowledge of successful approaches that is emerging in education. This article seeks to contribute to this process by drawing out the implications for school and classroom practices of an emerging consensus about the science of learning and development (SoLD), outlined in a recent synthesis of the research (Cantor, Osher, Berg, Steyer, & Rose, 2018; Osher, Cantor, Berg, Steyer, & Rose, 2018).

Using these articles as a foundation, we synthesize evidence from the learning sciences and several branches of educational research about well-vetted strategies that support the kinds of relationships and learning opportunities needed to promote children's well-being, healthy development, and transferable learning. In addition, we review research regarding practices that can help educators respond to individual variability, address adversity, and support resilience, such that schools can enable all children to learn and to find positive pathways to adulthood.

This work is situated in a relational developmental systems framework that looks at the "mutually influential relations between individuals and contexts" (Lerner & Callina, 2013, p. 373). This framework makes it clear how children's development and learning are shaped by interactions among the environmental factors, relationships, and learning opportunities they experience, both in and out of school, along with

physical, psychological, cognitive, social, and emotional processes that influence one another—both biologically and functionally—as they enable or undermine learning (Fischer & Bidell, 2006; Rose, Rouhani, and Fischer, 2013). Although our society and our schools often compartmentalize these developmental processes and treat them as distinct from one another—and treat the child as distinct from the many contexts she experiences—the sciences of learning and development demonstate how tightly interrelated they are and how they jointly produce the outcomes for which educators are responsible.

Key insights from the science of learning and development are that the brain and the development of intelligences and capacities are malleable, and the "development of the brain is an experience-dependent process" (Cantor et al., 2018, p. 5), which activates neural pathways that permit new kinds of thinking and performance. As a function of experiences, the brain and human capacities grow over the course of the entire developmental continuum and across the developmental spectrum (physical, cognitive, affective) in interactive ways. What happens in one domain influences what happens in others. For example, emotions can trigger or block learning. Emotions and social contexts shape neural connections which contribute to attention, concentration, and memory, to knowledge transfer and application. Understanding how developmental processes unfold over time and interact in different contexts can contribute to more supportive designs for learning environments.

Furthermore, general trends in development are modified by interactions between unique aspects of the child and his/her family, community, and classroom contexts. As a result, children have individual needs and trajectories that require differentiated instruction and supports to enable optimal growth in competence, confidence, and motivation.

A central implication for educators is that this integrated and dynamic developmental system is optimally supported when all aspects of the educational environment support all of the dimensions of children's development. This calls for a deeply integrated approach to practice that supports the whole child in schools and classrooms that function coherently and consistently to build strong relationships and learning communities; support social, emotional, and cognitive development; and provide a system of supports as needed for healthy development, productive relationships, and academic progress. This holistic approach must necessarily connect with family and community contexts: developing strong, respectful partnerships to understand and build on children's experiences and, as needed, to strengthen any aspects of the developmental system where there are challenges to children's health and well-being.

In what follows, we describe the implications for practice of these interrelated systems that address major developmental needs: the need for strong, supportive relationships that enable students to take advantage of productive learning opportunities in cognitive, social, and emotional domains, plus additional supports (physical, social, emotional, and/or academic) needed to address individual circumstances that need attention at a moment in time to maintain a positive developmental trajectory. We stress that all of these are interactive and interrelated and that these aspects of education must be designed to work together in a tightly integrated fashion. Figure 1 illustrates the four areas that structure the remainder of this review:


**Figure 1**. SoLD principles of practice.

1. Supportive environmental conditions that foster strong relationships and community. These include positive sustained relationships that foster attachment and emotional connections; physical, emotional, and identity safety; and a sense of belonging and purpose;
2. Productive instructional strategies that support motivation, competence, and self-directed learning. These curriculum, teaching, and assessment strategies feature well-scaffolded instruction and ongoing formative assessment that support conceptual understanding, take students' prior knowledge and experiences into account, and provide the right amount of challenge and support on relevant and engaging learning tasks;
3. Social and Emotional Learning that fosters skills, habits, and mindsets that enable academic progress, efficacy, and productive behavior. These include self-regulation, executive function, intrapersonal awareness and interpersonal skills, a growth mindset, and a sense of agency that supports resilience and productive action;
4. System of supports that enable healthy development, respond to student needs, and address learning barriers. These include a multi-tiered system of academic, health, and social supports that provide personalized resources within and beyond the classrom to address and prevent developmental detours, including conditions of trauma and adversity.

Within this framework, we address the following questions: Given what we know about human development and learning, and what is known from multiple domains of educational research, what school and classroom practices can create environments that support students in all of the areas of their development? In what ways can educators help students acquire transferable knowledge, skills, habits, and

mindsets that support ongoing learning? And what kinds of changes are needed within our education system as a whole to reflect what we know about development, since our current system was not designed with this knowledge in mind?

We focus primarily on K–12 schools, although the principles we articulate are generally applicable to early childhood as well. As we answer these questions, we emphasize the whole child within a whole school and a whole community context. From an ecological systems framework, the school serves as an immediate context shaping children's learning and development through instruction, relationships with teachers and peers, and the school culture. Connections between home and school are critical to provide aligned supports for children.

As we describe these components and their implications for educational practice, we both describe optimal practices for all children in schools and specific interventions that are needed when children have experienced adversities that require redress and when schools have been structured in ways that do not yet permit developmentally supportive experiences at all times and in all the contexts of school life. Where we describe specific programmatic interventions, we do so with the goal of informing a whole school approach that will eventually incorporate these elements into the regular features of educational settings.

The research presented in this article builds on the literature presented in the earlier syntheses on learning and development and maps the key findings to other research on school and teaching practices that have well-developed evidence associated with these goals. We tap reviews of research, meta-analyses, and handbook chapters that have synthesized evidence, as well as individual studies that represent a broader body of evidence represented in other research.

## Developmental outcomes we seek and the experiences needed to support them

For more than two decades, researchers, educators, policymakers, and business leaders have emphasized the need to support "twenty-first century" skills in a context where knowledge is rapidly expanding and technologies and work processes are rapidly changing. These abilities include critical thinking and problem solving skills; the capacity to find, analyze, synthesize, and apply knowledge to novel situations; interpersonal skills that allow people to work with others and engage effectively in cross-cultural contexts; self-directional abilities that allow them to manage their own work and complex projects; abilities to competently find resources and use tools; and the capacity to communicate effectively in many ways.

Scholars in the learning sciences have emphasized that developing these kinds of skills requires a different kind of teaching and learning than that emphasized in prior eras of education when learning was conceptualized as the acquisition of facts and teaching as the transmission of information to be taken in and used "as is." The National Research Council's (NRC) review (Pellegrino, Hilton, & National Research Council, 2012), for example, indicates that the kind of learning supporting these higher order thinking and performance skills is best developed through inquiry and investigation, application of knowledge to new situations and problems, production of ideas and solutions, and collaborative problem-solving. These tasks, in turn, require strong self-regulation, executive functioning, and metacognitive skills; resourcefulness, perseverance, and resilience in the face of obstacles and uncertainty; the ability to learn independently; and curiosity, inventiveness, and creativity. To become productive citizens within and beyond the school, students also need positive mindsets about self and school, along with social awareness and responsibility (Stafford-Brizard, 2016).

The SoLD synthesis, along with related research on school improvement, suggests that the ability of schools to help achieve these outcomes requires environments, structures, and practices attuned to students' learning and developmental needs, including,

As part of a supportive environment:

- A caring, culturally responsive learning community, where students are well-known and valued and can learn in physical and emotional safety;
- Structures that allow for continuity in relationships, consistency in practices, and predictability in routines that reduce anxiety and support engaged learning;
- Relational trust and respect between and among staff, students, and parents.

As part of productive instructional strategies:

- Meaningful work that builds on students' prior knowledge and experiences and actively engages them in rich, engaging tasks that help them achieve conceptual understanding and transferable knowledge and skills;
- Inquiry as a major learning strategy, thoughtfully interwoven with explicit instruction and well-scaffolded opportunities to practice and apply learning;
- Well-designed collaborative learning opportunities that encourage students to question, explain, and elaborate their thoughts and co-construct solutions;
- Ongoing diagnostic assessments and opportunities to receive timely and helpful feedback, develop and exhibit competence, and revise work to improve;
- Opportunities to develop metacognitive skills through planning and management of complex tasks, self- and peer- assessment, and reflection on learning.

As part of social and emotional learning opportunities:

- Explicit instruction in social, emotional, and cognitive skills, such as intrapersonal awareness, interpersonal skills, conflict resolution, and good decision making;
- Infusion of opportunities to learn and use social-emotional skills, habits, mindsets throughout all aspects of the school's work in and outside of the classroom;
- Educative and restorative approaches to classroom management and discipline, so that children learn responsibility for themselves and their community.

As part of a system of supports:

- Access to integrated services (including physical and mental health and social service supports) that enable children's healthy development;
- Extended learning opportunities that nurture positive relationships, support enrichment and mastery learning, and close achievement gaps;
- Multi-tiered systems of support to address learning barriers both in and out of the classroom based on a shared developmental framework uniting a capable and stable staff with families and support providers.

Research finds that the presence of these features produces stronger gains in outcomes for those students who typically experience the greatest environmental challenges. This is consistent with developmental science findings that children who experience adversity "may be more malleable—and stand to benefit most—in the context of supportive, enriched environmental supports and interventions" (Cantor et al., 2018, p. 9).

Accomplishing this work clearly requires an intensive focus on adult development and support, so that educators can design for and enact the practices that enable them to put these features into place. We take up

the research about adult learning for developmentally supportive practice in a separate companion article that builds upon this one. In the following vignette, we illustrate how the four principles of practice (shown in Figure 1) can be brought together by a skilled practitioner who has been well-prepared to use the science of learning and development.

Science of Learning and Development in Practice

In Ted Pollen's fourth grade classroom at Midtown West school in New York city, a diverse group of 27 students is deeply engaged in a mathematics inquiry focused on understanding the concepts of range, mean, median, and mode. Some are seated around tables, while others are in pairs or trios on the rug in the classroom meeting area. While some teachers might introduce the three terms with definitions and rules for calculating them, and give students a worksheet of problems to fill out, Ted's class has been conducting a study that provides them with the data they are now analyzing: They measured and recorded the height of everyone in their own classroom and all the children in one of the kindergarten classrooms who are their "reading buddies." Each then figured out how to display the data distributions with bar graphs they constructed individually, so as to be able to figure out the mean, median, and mode for each class and compare them. Working in teams, they use various tools, such as manipulatives and calculators, as they advise and query one another about what to do.

Ted moves unobtrusively among groups, watching the process and occasionally asking questions to help move students to the next level of understanding. It is clear that he is thinking about students' zones of proximal development as he chooses his questions. Ted says to one group: "Think about your design. What's the best way of displaying the data so you can make an actual comparison?" In another, he asks, "Can someone give me the range for kindergarten? Our range? Are there any outliers?" This led to a realization that there was little overlap between the two groups, but there were a few relatively short fourth graders and one very tall kindergartner. A student said proudly, pointing to that data point: "That's my reading buddy!"

In yet another group Ted observes to one of the boys, "You're having the same problem that she's having," pointing to a tablemate to encourage the two of them to work together. They begin counting and calculating to solve the problem jointly. Ted never gives away the answer, but he assists the problem-solving process with questions that carefully scaffold student understanding. He watches over a student with autism who is doing her work with a one-on-one aide. The student sings to herself periodically while she is doing the work, but continues to make progress. In the hubbub of the classroom, her singing is not a distraction to the others, as they all focus intently on communicating to find solutions to this highly motivating puzzle. Every single student has made significant progress in developing a deep understanding of these key statistical concepts that often elude students much older than themselves.

Around the hard-working groups of children, student work covers the walls: Especially prominent are student accounts of their lives as slaves in New Amsterdam and New York: 1621–1680, along with fractions posters illustrating various problems they have tackled and solved, including how they have split sub sandwiches among various odd numbers of people. A classroom constitution that was collectively developed and signed by each student and teacher is displayed, along with a "Problem Parking Lot" with stickies listing various problems and questions the class has agreed to return to.

On the back shelves, one set of tubs offers manipulatives for mathematics. Another set of tubs includes books labeled by type, all connected to current topics of study: Authors who have been studied by the class each merit a tub, as do African-American Biographies; Slavery; Other Biographies; Ted's favorites; and more. Hand-made globes and a time line string with chronological date cards of important events hang from the ceiling. The meeting area in front of a whiteboard is covered with a rug that is a map of the world.

Also on the wall are many posters reminding students about their routines. One summarizes the rules for "Book Club." Another asks "What is figurative language?" clarifying that it is "when words mean something other than their literal meaning." The poster defines what most would think of as high school

terms: simile, metaphor, hyperbole, personification, alliteration, onomatopoeia, idiom, allusion, and oxymoron, offering concrete examples of each.

Other posters developed by students and teacher include a “Writing workshop conferencing protocol,” “Poetry guidelines,” “Persuasive essays,” “Jobs in a reading conference” (enumerated for both the student and the teacher), and “Elements of a news magazine article.” These are often in the students’ own words, codifying their learning so they can share it and go back to it as needed. Another poster enumerates, “What we know about maps,” while still another describes “Multiplying 2-digit by 1-digit numbers: The traditional algorithm.”

Invisible in this moment are the school supports that make this productive hubbub possible: free breakfasts for all children; free transportation for children who live in temporary housing; a Family Center that offers educational workshops, cultural connections, and family support services; extended afterschool time and services; twice annual student-family-teacher conferences; and a set of children’s rights that include: “I have a right to be happy and to be treated with compassion in this school.” “I have a right to be myself in this school. This means that no one will treat me unfairly.” And “I have the right to be safe in this school.” Community building and conflict resolution are explicit schoolwide efforts. Although the school is overcrowded, it is welcoming in every respect.

Source: Podolsky and Darling-Hammond, (2019); Midtown West Handbook: http://www.midtownwestschool.org/school-handbook.html

This short vignette illustrates how Ted’s class and Midtown West Elementary School are grounded in the science of learning and development which supports strong, trusting relationships; collaboration in the learning process; connections to prior experience; inquiry interspersed with explicit instruction where appropriate; and support for individualized learning strategies as well as collective learning. Authentic, engaging tasks with real-world connections motivate student effort and engagement, which is supported through teacher scaffolding and a wide range of tools that allow for personalized learning and student agency. Other scaffolds—such as the charts reminding students of their learning processes and key concepts—support self-regulation and strategic learning while reducing cognitive load, in order to facilitate higher order thinking and performance skills. These also enable student self-assessment, as well as peer and teacher feedback that is part of an ongoing formative assessment process. Routines for reflection on and revision of work support the development of metacognition and a growth mindset.

Meanwhile, students’ identities as competent writers, scientists, and mathematicians are also reinforced as their work dominates the walls of the classroom and is the focus of the learning process. All students feel they belong in this room, where they are learning to become responsible community members, critical thinkers, and problem solvers together. A range of culturally connected curriculum units and materials supports that sense of inclusion, while a wide array of school supports reinforces that inclusion by addressing student and family needs in multiple ways while including families as partners in the educational process.

## Supportive environmental conditions

### *What the science of learning and development tells us*

Warm, caring, supportive student-teacher relationships, as well as other child–adult relationships, are linked to better school performance and engagement, greater emotional regulation, social competence, and willingness to take on challenges (Osher et al., 2018). Strong relationships have biological as well as affective significance. Brain architecture is developed by the presence of warm, consistent, attuned relationships; positive experiences; and positive perceptions of these experiences (Center on the Developing Child, 2016). Such relationships help develop the emotional, social, behavioral and cognitive competencies foundational to learning.

Students need a sense of physical and psychological safety for learning to occur, since fear and anxiety undermine cognitive capacity and short circuit the learning process. A meta-analysis of 99 studies found that the affective quality of teacher-student relationships was significantly related to student engagement (average effect sizes of .32 to .39) and to achievement (average effect sizes of .16 to .19). Students deemed at higher levels of risk for poor outcomes—children from low-income families, students of color, and those with learning difficulties—were more harmed by negative teacher affect and benefitted more from positive relationships with teachers (Roorda, Koomen, Spilt, & Oort, 2011).

Positive adult relationships can support student development and welfare, especially when these are culturally sensitive and responsive (Hammond, 2016). Students learn best when they can connect what happens in school to their cultural contexts and experiences, when their teachers are responsive to their strengths and needs, and when their environment is "identity safe" (Steele & Cohn-Vargas, 2013), reinforcing their value and belonging. This is especially important given the societal and school-based aggressions many children, especially those living under adverse conditions, experience. For all these reasons, and because children develop through individual trajectories shaped by their unique traits and experiences, teachers need to know students well to create productive learning opportunities.

### Principles for practice

These insights from the science of learning and development suggest the following principles for practice in this domain, which we discuss further below:

1. School and classroom structures should be designed to create and support strong attachments and positive, long-term relationships among adults and children that provide both academic and social-emotional support for cultivating developmentally-appropriate skills, emotional security, resilience, and student agency.
2. Schools and classrooms should be developed as physically and psychologically safe, personalized learning communities where students feel they belong and teachers engage in practices that help them know their students well so that they can respond to children's specific needs, interests, readiness for learning, and opportunities for growth.
3. School practices should be designed to strengthen relational trust and promote cultural competence among educators, school staff, and families to provide deeper knowledge regarding children and greater alignment between the home and school.

### School structures that support strong attachments and positive relationships

Personalizing the educational setting so that students can be well-known by adults and their needs can be better met is a powerful lever that can change student outcomes. Although some currently use the term "personalized learning" to denote computer-based instruction, we use the term in its more traditional sense as educators' ability to gear instruction and supports to the needs and interests of individual children. While this kind of personalization may sometimes include uses of technology, that is not its main goal or only tool.

As we detail in this section, smaller learning environments and structures that allow for stronger, adult-child relationships can improve attendance, attachment, achievement, and attainment. Often, it is because of close adult-student relationships that students who are placed at risk for a variety of negative outcomes like dropping out are able to attach to school and gain the academic and other kinds of help they need to succeed. Research suggests that students are more likely to attend and graduate from school, attach to learning, and succeed academically when they have strong, trusting, supportive connections to adults, including at least one intensive relationship with a close advisor or mentor (Friedlaender et al., 2014; Lee, Bryk, & Smith, 1993).

Developing these relationships in schools can be difficult where organizational structures minimize opportunities for extended personalized relationships, as is often the case in "factory-model" schools designed a century ago for efficient batch processing of masses of students (Tyack, 1974). These schools were not designed based on knowledge of how people learn and develop optimally. Unlike schools in many countries, where teachers often stay with their students for two or three years in primary school and have more extended relationships in secondary school, U.S. schools adopted the Prussian age grading model that typically moves students to another teacher each year and to as many as 7 or 8 teachers daily in secondary schools. Secondary teachers may see 150 to 200 students per day in short 45 minute blocks, and, despite their best efforts, are unable to know all of their students or their families well. This reduces the extent to which teachers can build on personal knowledge in meeting their needs. Counselors are assigned to attend to the 'personal needs' of hundreds of students, also an unmanageable task, and students who experience adversity may have no one to turn to for support (Eccles & Roeser, 2009; Juvonen, Le, Kaganoff, Augustine, & Constant, 2004).

The design of most U.S. secondary schools is particularly at odds with the needs of adolescents, as high schools de-emphasize personal connections with adults and engage in intense evaluation and competitive ranking of students (e.g., in academic tracking, try-outs for clubs and activities) just as young people are most sensitive to social comparisons and most need to develop a strong sense of belonging, connection, and personal identity (Eccles & Roeser, 2009). Depersonalized contexts are most damaging when students are also experiencing the effects of poverty, trauma, and discrimination without supports to enable them to cope and become resilient. Unless mediated by strong relationships and support systems, these conditions interfere with learning, undermine relationships and impede opportunities for youth to develop skills to succeed (Osher & Kendziora, 2010).

Ecological changes that create personalized environments with opportunities for stronger relationships among adults and students can create more productive contexts for learning. For example, small schools or small learning communities with personalizing structures—such as advisory systems, teaching teams that share students, or looping with the same teachers over multiple years—have been found to improve student achievement, attachment, attendance, attitudes toward school, behavior, motivation, and graduation rates (Bloom & Unterman, 2014; Darling-Hammond, Ross, & Milliken, 2006; Felner, Seitsinger, Brand, Burns, & Bolton, 2007).

***School Size.*** Reviews of research about school size have consistently found that students benefit when they are in smaller settings where they can be well known, and these effects are strongest for students with the greatest economic and academic needs (Darling-Hammond et al., 2006). These settings include smaller schools as well as small learning communities created within large school buildings, where staff and students work in together in smaller units that function as close-knit communities. More intimate settings allow educators to more easily develop shared norms and practices, to create a community within the school where caring is a product of individuals knowing each other in multiple ways; such environments also allow more students to be engaged in a variety of extracurricular activities and to take on leadership opportunities, which promotes greater confidence and agency (Lee et al., 1993).

Optimum size varies by student needs and school design, with high school sizes below 900 having been found more conducive to student success than larger schools, all else equal. For high-need students, school sizes of 300 to 400 have been found most supportive in increasing attendance, grades, and graduation rates, as they enable strong relationships, support systems, and trust among teachers and students (Darling-Hammond et al., 2006).

Many studies in high-poverty urban areas have found strong improvements in student outcomes in small schools. In a study of 143 high schools in Chicago, for example, Wasley et al. (2000) found that, after controlling for race, socioeconomic status, student mobility, and prior achievement, students in schools of

400 or fewer had better attendance, lower rates of violence, greater parent and student participation and satisfaction, lower dropout rates, and higher graduation rates than similar students in larger schools. An MDRC study that examined the results of New York City's small high schools initiative using a series of naturally occurring randomized lotteries found that small high schools consistently increased high school graduation rates by 9.5 percentage points, on average, over large high schools and significantly increased Regents exam scores in English language arts (Bloom & Unterman, 2014).

***Personalizing Structures.*** Small size alone is not enough to produce these effects, however. For example, in a study of 820 high schools, Lee and Smith, (1995) found that student achievement and engagement were higher in smaller schools and those that use more "communal" practices – such as shared responsibility, personalized instruction tailored to the needs and interests of the students, flexible scheduling, cooperative learning, and a collegial environment for all members of the school community. Similarly, in a set of studies of redesigned schools, including randomized controlled trials, quasi-experiments, and case studies, Felner and colleagues (2007) found that small learning communities stimulate positive outcomes for students, with the greatest benefits in larger schools with more students from high risk backgrounds. These researchers identified consistent findings about the features of successful small learning communities that affect both student opportunities to learn and teachers' opportunities to teach, including small school and class size, advisories, and block scheduling.

In effective ***advisory systems***, each teacher advises and serves as an advocate for a small group of students (usually 15–20) over two to four years. Teachers facilitate an advisory class that meets regularly to support academic progress, teach social-emotional skills and strategies, and create a community of students who support one another. In a distributed counseling function, advisors support students on academic and nonacademic issues that arise and serve a point person with other faculty teaching the same student. The advisor functions as a bridge between student, school, and home so that students are provided the supports they need in a coherent way that allows them to navigate school in a productive and positive manner. Many studies finding positive effects of small schools or learning communities note the importance of advisories in enabling these effects (Darling-Hammond et al., 2006; Felner et al., 2007).

***Block scheduling*** is the practice of having fewer, longer, class periods in a given day to reduce teachers' overall pupil load and lengthen time for instruction. For example, instead of six 45 minute class periods, schools might schedule only three 90-minute classes each day. Each teacher sees half as many students, and students see fewer teachers. This smaller pupil load allows teachers to provide more attention to each student and to engage in more in-depth teaching practices. Block scheduling has been found to support improved behavior and achievement for students, including higher grades and higher rates of course completions (Felner et al., 2007; Woronowicz, 1996), especially when courses continue for a full year and teachers use the longer class periods to implement teaching strategies that support inquiry, help students obtain directed practice, and personalize instruction.

In addition, Felner et al., (2007) point to the importance of ***interdisciplinary teaming*** with common planning time for teachers. This structure allows teachers to share their knowledge about students in planning curriculum to meet student needs, while creating more continuity in practices and norms, which supports students emotionally and cognitively. As the authors note:

> Effective interdisciplinary teaming reduces the levels of developmental hazard in educational settings by creating contexts that are experientially more navigable, coherent, and predictable for students. Interdiscipinary teaming can also create enhanced capacity in schools for transformed instruction through enabling the coordination and integration of the work of teachers with each other, including in instruction, and as ongoing sources of professional development and support for each other (p. 216).

When teachers develop a greater sense of efficacy to jointly solve problems of practice they also develop a sense of collective responsibility that reduces attributions of low student achievement to student-related factors such as family poverty, lack of ability, or low motivation and improves achievement (Lee & Loeb, 2000).

To accomplish this, schools need structures and practices that allow staff to develop collective expertise about their students as well as to develop trust with them. Continuity of relationships is a key principle in this regard, especially important for children who have minimal continuity outside of school. Strategies found effective in this regard include looping from grade to grade, and longer grade spans at the school level. These organizational designs create sustained relationships, reduce cognitive load and anxiety for students when they do not need to learn new systems and reestablish their identity, and expand learning time because staff carry their knowledge about students and families forward from year to year.

***Looping***, through which teachers stay with the same students for more than one year, can occur when teachers teach the same students in fourth and fifth grade, for example, or when a secondary teacher has the same students for 9$^{th}$ and 10$^{th}$ grade English. In the International High Schools, a successful school model for new English learners, an interdisciplinary team of teachers stays with a group of 75–100 students for two years (Darling-Hammond, Ancess, & Ort, 2002). The strong relationships and deep knowledge of student learning supported by these longer relationships between adults and children can substantially improve achievement, especially for lower-achieving students (Bogart, 2002; Hampton, Mumford, & Bond, 1997) and can also boost student and teacher attendance while lowering disciplinary incidents and suspensions, grade retention rates, and special education referrals (Burke, 1997; George & Alexander, 1993). Teachers in such settings report a heightened sense of efficacy, while parents report feeling more respected and more comfortable reaching out to the school for assistance.

Reducing ***class sizes*** can also help personalize instruction. The largest benefits for achievement are often found below a threshold size of 15 to 18 and are often found to be most pronounced for young children, children of color, those from low-income families, and children who have been lower-achieving (for reviews, see Glass & Smith, 1979; Mosteller, 1995; Kim, 2006). Positive benefits of class size reduction are based on a continuing threshold of teacher quality (Stecher & Bohrnstedt, 2002).

Schools with ***longer grade spans*** (e.g. K–8 or 6–12), which allow closer, longer-term relationships are also found to be more effective in supporting student outcomes, as they help to establish and build upon close relationships among school members with students and families. Many studies have found that school transitions have a negative effect on student achievement; in particular, a transition to middle school at fifth or sixth grade sharply increases the odds of dropping out, while decreasing achievement in reading and math (e.g., Rockoff & Lockwood, 2010; Schwerdt & West, 2013; Simmons & Blyth, 1987). These results are consistent across multiple states, as well as urban, surburban, and rural areas.

Discontinuity in relationships is, in itself, stressful and can be counterproductive – especially for young people who have little continuity in their home and community environments. Furthermore, at a vulnerable time in young adolescence, when children should be developing greater competence and confidence to support their growing autonomy, they can flounder when placed into an environment that reduces opportunities for attachment and introduces comparisons among students that include negative attributions about competence, intelligence, and other talents. A growing body of evidence notes that low-income students are not the only ones at risk during this time: unusually high rates of maladaptive behaviors are found among affluent youth beginning around seventh grade, including substance abuse, eating disorders, and even suicide attempts (Luthar, Barkin, & Crossman, 2013). These are thought to be a function of high rates of stress associated with a culture of competition and peer pressure, coupled with inattentive or permissive parenting in the context of depersonalized school settings.

Middle schools that seek to strengthen relationships—by using teams of teachers who work with shared groups of students over time and by reducing the total number of teachers students see through block scheduling—mediate the negative effects of the secondary school transition and have better outcomes than those that leave students without means to develop relationships and secure help (Eccles & Roeser, 2009; Irvin, 1997). Similarly, high schools that create ninth grade transition supports can improve outcomes, as Chicago schools did, by providing data to monitor student progress and supports for students to pass their courses, raising graduation rates from 64% to 82% over 4 years (Roderick, Kelley-Kemple, Johnson, & Beechum, 2014).

Structures are important to set the stage for the kinds of coherent, consistent, continuous relationships children need to support their development, but the nature of those relationships and the resulting educational experiences are not a given. They depend on the attitudes, beliefs, skills, and capacity of staff; the school climate, including norms for interactions; and the practices and procedures that are adopted for instruction, classroom management, school discipline, and more. We turn to these important elements next.

### *School and classroom communities that offer safe, personalized settings for learning*

Learning is a transactional process in which both students and teachers learn how to understand and communicate with each other, and in which trust creates conditions for reduced anxiety, as well as greater striving and motivation (Felner et al., 2007). Research suggests that relationships are most beneficial when they are attuned to children's emotional needs, when they are consistent and overtime, and when they support children's cognitive engagement (Bergin & Bergin, 2009).

Practices reflecting these principles are well represented in schools that are successful with students who are typically marginalized and underserved. These include the development of an intentional community that ensures a sense of belonging and safety, with shared norms represented in all of the school's activities. In addition, a culture of participation encourages student agency and leadership in the context of a culturally responsive curriculum that values diverse experiences. Educative and restorative practices teach students responsibility and allow them to exercise it in contributing to the school and local community (Hamedani, Zheng, Darling-Hammond, Andree, and Quinn, 2015; Noguera, Darling-Hammond, & Friedlaender, 2017).

***Classroom design and management.*** In developmentally-grounded schools, classroom management is approached as something that is done *with* students and not *to* them. Productive classrooms are organized not around a compliance regimen that emphasizes the recognition and punishment of misbehavior, but on the promotion of student responsibility through the development of common norms and routines with the participation of students (LePage, Darling-Hammond, & Akar, 2005). Students may help develop the classroom rules and norms—often in a classroom constitution that is posted—and take on specific tasks, ranging from materials manager or librarian to leading activities in the classroom to organizing special events, which allow them to be responsible and contributing members of the community.

An effective classroom learning community develops respectful relationships between teachers and students, and also among the students themselves, as students are taught to develop social competence. Teachers take time to socialize students to their roles as community members (Brophy, 1998). Teachers and students together create common norms for how to behave in various situations, so that students can learn how to interact respectfully, take turns, voice their needs and thoughts appropriately, and solve problems that occur. The teacher's active role in co-regulating children's behavior helps scaffold the child's development toward self-regulation by providing them with a repertoire of words and strategies to use to manage different situations.

A recent meta-analysis of 54 classroom management programs found that while all of the approaches had modest positive effects (overall ES = .22) the interventions focused on the social-emotional

development of students were the most effective (Korpershoek, Harms, de Boer, van Kuijk, & Doolaard, 2016).

One well-researched example of such a developmentally-grounded approach is *Consistency Management and Cooperative Discipline*, which builds shared responsibility for learning and classroom organization between teachers and students. The teacher creates a consistent learning environment by working with students in establishing a cooperative plan for classroom rules, procedures, use of time, and academic learning that governs the classroom. Students become "citizens" of the classroom as they create a constitution and take responsibility for dozens of activities in the classroom that teachers might otherwise do themselves. As they are taught citizenship skills and given multiple chances for leadership, students gain the experiences necessary to become self-disciplined. All adults in the school learn to work with children in consistent ways, and home/community involvement is encouraged. In a set of evaluations in urban public schools, researchers found increases in student and teacher attendance; a reduction in discipline referrals; and improvements in classroom climate, time to learn, and long-term student achievement (Freiberg, Huzinec, & Templeton, 2009; Freiberg & Brophy, 1999).

The development of a classroom learning community helps teachers to manage the classroom, both because children feel more connected and because peers offer greater assistance and collaboration, gaining in competence and agency. Developing community practices that strengthen relationships is critical. These practices may include classroom meetings, "check-ins" about how students are doing at the beginning of class, and routines for how to work in groups productively, engage in respectful discussions, or resolve conflicts. They may also include regular student-teacher conferences. In collaborative communities, members feel personally connected to one another and committed to each other's growth and learning.

***Identity Safe Environments.*** As we have noted, healthy development and learning require both physical and psychological safety. One aspect of this safety is protection from physical bullying or trauma, accomplished by explicitly teaching students how to interact with each other and addressing challenges immediately. Equally important is that teachers create environments where students are affirmed and equitably supported. Teachers play a key role in shaping student learning through their own beliefs and the feedback they provide to their students. Their perceptions of students shape expectations that often predict student achievement apart from prior ability (Dweck 2000; Ladson-Billings, 1995, 2009).

Unfortunately, there is evidence that many teachers attribute inaccurate characterizations of academic ability and behavior to students based on race and ethnicity (Irvine, 2003; Kaplan, Gheen, & Midgley, 2002). On average, teachers have lower expectations of Black and Latino students and interact with them less positively than White students (Tenenbaum & Ruck, 2007); they are more likely to label black students as "troublemakers," punishing them more harshly for the same offense (Okonofua & Eberhardt, 2015). While the vast majority of teachers enter the profession with a passion for fostering children's learning, growth, and development, implicit bias can nonetheless color how they interact with their students.

This type of bias can lead to negative expectations, which often triggers the behaviors that teachers want to avoid **(**Kaplan et al., 2002) The way students are treated in school can trigger social identity threat if they feel they are at risk of being stigmatized by characteristics such as race, language background, economic background, gender or other traits. Social identity threat leads to significant stress, release of cortisol and adrenaline, symptoms of anxiety and depression, and sometimes, challenging behavior that results from an attempt to protect one's identity from perceived attack (Major & Schmader, 2018). If students come to expect bias, this expectation also influences their behaviors (Sheets & Gay, 1996).

Teachers need to understand how their attitudes toward their students can shape their treatment of students and what students ultimately learn. Affirming attitudes that convey confidence in students' abilities, for example, have been shown to support students' achievement (Ladson-Billings, 2009; Nieto, 2002) and to counteract stereotype threat the social identity threat that occurs when someone fears being judged in terms

of a group-based stereotype (Steele, 1997; 2011). When triggered, stereotype threat induces stress and reduction in working memory and focus, leading to impaired performance (Schmader & Johns, 2003).

Stereotype threat can be mitigated by how teachers frame the purpose of assignments and assessments—as diagnosing current skills that can be improved, rather than measuring ability (Aronson, 2002)—and by how they give constructive feedback to students about their work, noting that the feedback reflects the teacher's high standards and a conviction that the student can reach them, along with an opportunity to revise the work (Cohen, Steele, & Ross, 1999). When the threat is lifted, through affirmations that the student is seen as competent and valued, many dozens of studies have shown that performance on tests, grades, and other academic measures improves significantly in ways that are frequently maintained over time (Steele, 2011).

Affirming attitudes can make a substantial difference in outcomes, which is suggested by the growing number of studies finding that students of color achieve at higher levels, attend school more regularly, feel more cared for in the classroom, and are less likely to be suspended when they have teachers of the same race (Cherng & Halpin, 2016; Egalite, Kisida, & Winters, 2015; Egalite & Kisida, 2017). One recent study found that having at least one black teacher in third through fifth grades reduced a black student's probability of dropping out of school by 29% and by 39% for low-income black boys. The odds of both boys and girls planning to attend college also increased sharply (Gershenson, Lindsay, & Papageorge, 2017).

All teachers can convey affirming attitudes by exposing students to an intellectually demanding curriculum and supporting them in mastering it, conveying their confidence that students can learn; teaching students strategies they can use to monitor and manage their own learning; encouraging children to excel; and building on the individual and cultural resources they bring to the school, ranging from social knowledge of the community and its history to mathematically rich pasttimes such as chess and sports to expressive understanding of language use and popular culture. Strategies that convey respect and concern for students become the basis for meaningful relationships and positive academic results (Carter & Darling-Hammond, 2016; Gay, 2000; Irvine, 2003; Ladson-Billings, 2009).

These elements of an "identify safe" classroom promote student achievement and attachments to school (Steele & Cohn-Vargas, 2013). In addition to the cultivating the classroom features already described, teachers who create identity safe settings cultivate diversity as a resource for teaching through regular use of materials, ideas, and teaching activities that draw on referents to a wide range of cultures and exhibit high expectations for all students.

Creating an identity safe classroom by engaging in culturally responsive pedagogy relies on teachers understanding the views and experiences children bring to school, including, for example, how students communicate in their communities (Lee, 2017). Geneva Gay (2000) suggests that such teaching uses "the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It teaches *to and through* the strengths of these students" (p. 29), developing classroom practices that capitalize on the funds of knowledge that are abundant in children's households and communities (Moll, Amanti, Neff, & Gonzalez, 1992; Nasir, Rosebery, Warren, & Lee, 2014). This approach counters the deficit narrative of "poor" children with little social capital by recognizing and building upon the wealth of knowledge and "repertoires of practice" (Gutierrez & Rogoff, 2003) that exist in children's families and extended social networks.

This recognition can support stronger student learning. As one example, a recent study of teachers of Latino students found that teachers' beliefs and reported behaviors about the role of Spanish in instruction, use of students' funds of knowledge, and teachers' own critical awareness were positively related to students' reading outcomes. For teachers reporting the highest level of each dimension, reading gains were significantly higher at the end of the year (.85 *SD*, for those who valued Spanish; .60 *SD* for those using students' funds of knowledge; and 1.70 *SD* for those who exhibited a critical awareness) (López, 2016).

Practices and dispositions associated with culturally responsive pedagogy include (a) recognizing students' culturally-grounded experiences as a foundation on which to build knowledge; (b) cultural competency in interacting with students and families; (c) an ethic of deep care and affirming views of students; and (d) a sense of efficacy about learning and creating changes to promote equity that is consciously transmitted to students (Carter & Darling-Hammond, 2016; Villegas & Lucas, 2002). When teachers view students' experiences as an asset and intentionally bring students' voices into the classroom, they create a safe and engaging atmosphere for learning to take place.

Teachers can learn about the strengths and needs of students as well as their families' funds of knowledge through regular check-ins and class meetings, conferencing, journaling, close observation of students and their work, and connections to parents as partners. These practices can foster trust and alignment among students, parents, and staff, as described in the following section.

### *Practices to strengthen relational trust and family engagement*

Recent research shows that relational trust among teachers, parents, and school leaders is a key resource for schools that predicts the likelihood of gains in achievement and other student outcomes where instructional expertise is also present. Trust derives from an understanding of one another's goals and efforts, along with a sense of mutual obligation, grounded in a common mission. As Bryk & Schneider, (2002, p. 144) put it: "Relational trust constitutes the connective tissue that binds…indviduals together around advancing the education and welfare of children." They identify five features that foster relational trust, including 1) small school size that fosters interpersonal relationships; 2) stable school communities; 3) voluntary associations where there is at least some choice for staff and students; 4) skillful school leaders, who actively listen to concerns of all parties and avoid arbitrary actions; and 5) authentic parent engagement, grounded in partnerships with families to promote student growth.

Principals can nurture relational trust among staff members by creating time for staff collaboration focused on curriculum planning and school improvement, supporting teachers' growth and development through asset-based feedback and learning systems, distributing leadership for many functions throughout the school, and involving staff in decision making. These practices have been found to retain teachers in schools, contributing to staff stability, and to increase teaching effectiveness and gains in student achievement (Podolsky, Kini, Bishop, & Darling-Hammond, 2016).

Schools can nurture strong staff-parent relationships by building in time and supports for teachers and advisors to engage parents as partners with valued expertise, by planning teacher time for home visits, positive phone calls home, school meetings and student–teacher–parent conferences scheduled flexibly around parents' availability, and regular exchanges between home and school (Darling-Hammond, Ramos-Beban, Altamirano, & Hyler, 2016; Darling-Hammond et al., 2002).

Building strong relationships between the school and the family increases academic outcomes for students. In a series of meta-analyses examining the impact of parent involvement, Jeynes (2012, 2017) found consistent positive effects of parent involvement on academic achievement for children from pre-K through 12th grade. A meta-analysis of 51 studies found an effect size of .30 for a broad population of urban students (Jeynes, 2012). Another meta-analysis of 28 studies found parent involvement associated with better school outcomes for Latino students (ES = .52; Jeynes, 2017). The largest effect sizes were for programs that encouraged parents to engage in shared reading with their children, including strategies in which teachers offered questions that parents could ask about the readings; those that involved parents and teachers working together as partners to develop common strategies, rules, guidelines, and expectations for children; those that increased communication between parents and teachers; and those that involved parents in checking students' homework (Jeynes, 2012).

Similary, the Consortium on Chicago School Research found parent involvement a key component of 100 Chicago elementary schools with steep improvements in achievement: Controlling for other variables, students were 10 times more likely to achieve substantial gains in mathematics and have increased student motivation and participation in schools with strong parental involvement (Bryk, Sebring, Allensworth, Easton, & Luppescu, 2010).

In a research synthesis of 51 studies that included experimental, quasi-experimental, and correlational studies with statistical controls, Henderson & Mapp, (2002) found that schools that succeeded in engaging families from diverse backgrounds focused on building trusting relationships where power and responsibility are shared. They found lasting effects on achievement when students feel supported both at home and in school. Students with involved parents have more self-confidence, feel school is more important, earn higher grades and attend college. In a longitudinal study conducted in 71 Title I elementary schools, higher achievement was stimulated by teacher outreach to parents through face-to-face meetings, sending materials home, and phone calls home on a routine basis. The overall effect size between parent involvement and students' academic achievement was approximately .30 (Fan & Chen, 1999).

Other research finds that African-American youths' experiences of their family's support for them, sense of control over their own academic outcomes, and their feelings of self-worth and emotional security—in part a result of positive racial socialization—predict their engagement in school beyond the influence of SES (Connell, Spencer, & Aber, 1994; Spencer, 2008). Creating strong, respectful relationships among families and staff can create the resonance and coherence between home and school that reaps long-term benefits for students' learning.

***Summary.*** In sum, schools can support student development by creating structures that enable teachers to know their students well and develop strong relationships, ranging from smaller classes and school units to advisory systems, looping, teaching teams, and longer grade spans. Teachers can create classroom communities in which students are affirmed, enabled to belong, and taught social responsibility. And schools can involve families as partners, aligning home and school practices, and capitalizing on their cultural assets. These multiple approaches to developing strong relationships promote the trust, safety, and sense of belonging necessary for students' productive engagement in all aspects of school.

## Productive instructional strategies

Having created a supportive environment for learning, what are the curriculum designs, instructional approaches, and assessment practices that will enable students to deeply understand disciplinary content and develop skills that will allow them to solve complex problems, communicate effectively, and, ultimately manage their own learning?

### *What the science of learning and development tells us*

Modern learning theory emphasizes the situated and social nature of meaning making, by which "mind, behavior, perception and action are wholly integrated" (Jonassen & Land, 2012, p. vi). Children are natural learners and inherently seek to learn things that matter in their immediate everyday world. To support children's learning, adults make connections between new situations and familiar ones, focus children's attention, structure experiences, and organize the information children receive, while helping them develop strategies for intentional learning and problem solving (Bransford, Brown, Cocking, and National Research Council [NRC], 2000).

The science of learning indicates that humans learn more effectively when they are not anxious, fearful, or distracted by other pressing concerns; when the learning is connected to their prior knowledge and experience; when they are actively engaged; and when they have a reason to care about the content they are

learning and can use it to deepen their understanding and to solve real questions or problems. Finally, as Cantor and colleagues (Cantor et al., 2018) note: "There is no single 'ideal' developmental pathway for everyone; instead there are multiple pathways to healthy development, learning, academic success, and resilience" (p. 9).

The NRC's (2000) report on *How People Learn* outlines three fundamental principles of learning that are particularly important for teaching:

> 1. Students come to the classroom with prior knowledge that must be addressed if teaching is to be effective. Students are not tabula rasa. If what they know and believe is not engaged, learners may fail to grasp the new concepts and information that are taught, or they may learn them superficially but not be able to apply them elsewhere. This means that teachers need to understand what students are thinking and how to connect with their prior knowledge if they are to ensure learning. Students come to school with different experiences, so they present distinct preconceptions, knowledge bases, cultural and linguistic capital that teachers should learn about and take into account in designing instruction. Successful teachers provide carefully designed "scaffolds" to help students take each step in the learning journey with appropriate assistance. These vary for different students depending on their learning needs, approaches, and prior knowledge. Teachers' success with diverse learners is enhanced by their ability to address students' different ways of learning, knowing, and communicating.
>
> 2. Students need to organize and use knowledge conceptually if they are to apply it beyond the classroom. To develop competence in an area of inquiry, students need to understand facts and ideas in the context of a conceptual framework, so that they can organize knowledge in ways that facilitate its application. This means that teachers should structure the material to be learned in ways that help students fit it into a conceptual map and teach it in ways that allow application and transfer to new situations. The teaching strategies that allow students to do this integrate carefully designed direct instruction with hands-on inquiries that actively engage students in using the material, incorporate problem solving of increasing complexity, and assess students' understanding for the purpose of guiding instruction and student revisions of their work.
>
> 3. Students learn more effectively if they understand how they learn and how to manage their own learning. A "metacognitive" approach to instruction can help students take control of their own learning using a set of personalized learning strategies, defining their own learning goals, and monitoring their progress in achieving them. Teachers need to know how to help students self-assess their understanding and how they best approach learning. Through modeling and coaching, teachers can teach students how to use a range of learning strategies, including the ability to activate background knowledge, plan ahead, and apportion time and memory; to create explanations in order to improve understanding and to note confusion or failures to comprehend; as well as to evaluate their own work, seek out additional insights, and revise and improve it.

In what follows, we use these three principles to organize this section on curriculum, instruction, and assessment, and we infuse additional insights from research grounded in a sociocultural perspective, including a section on motivation. While enormously helpful in synthesizing knowledge from the learning sciences up to that point, the *How People Learn* report did not fully examine the sociocultural contexts of learning and the social-emotional factors affecting it. The National Academy of Sciences is currently producing a second edition of *How People Learn* intended to address these issues.

Among these additional insights are that students' beliefs and perceptions about intelligence and ability —both generally and in relation to themselves personally—affect their cognitive functioning, confidence, and learning. These perceptions can be shaped by teachers' and peers' expectations, statements, and behaviors. While negative emotions like anxiety and distress can block learning, emotion also triggers learning as it affects excitement and attention (Immordino-Yang & Damasio, 2007) and thus should be considered in designing instruction that is mentally engaging. At the same time, consistent structures, supports, and affirmations that allow the student to know what to expect and how to be successful reduce cognitive load and free up the mind for learning other challenging material (Paas, Renkl, & Sweller, 2003).

Finally, as we have noted, there are different kinds of learning which call for different kinds of teaching. Educational goals increasingly emphasize the problem-solving and interpersonal skills needed for 21st century success, which cannot be developed through passive, rote-oriented learning focused on the memorization of disconnected facts. Today's goals require paths to deeper understanding supporting the transfer of skills and use of knowledge in new situations (Goldman & Pellegrino, 2015; NRC, 2012).

## Principles for practice

With these goals and insights in mind, the science of learning and development suggests the following principles for instructional practice:

1. Teaching should *build on and expand children's prior knowledge and experiences*, both to scaffold learning effectively as it expands to new areas of content and skills and to inform practices that are individually and culturally responsive. Given what each child is ready to learn, teachers should structure appropriately challenging activities that balance what a child already knows with what he wants and needs to learn, while introducing other rich experiences to support ongoing learning.
2. Teaching should support *conceptual understanding, engagement, and motivation,* by designing relevant, problem-oriented tasks that combine explicit instruction about key ideas – organized around a conceptual map or schema of the domain being taught – with well-designed inquiry opportunities that use multiple modalities for learning.
3. To enable students to manage their own learning and transfer it to new contexts, teaching should be designed to develop students' *metacognitive capacity, agency, and the capacity for strategic learning.* This requires opportunities for self-direction, goal-setting and planning, and formative assessment with regular opportunities for reflection on learning strategies and outcomes, feedback, and revision of work.

## Building on and expanding children's knowledge and experiences

Jean Piaget was the first student of learning to lay out a set of developmental stages that he observed children move through as independent learners. This concept of development was fairly static, suggesting that students would be ready for certain kinds of learning at certain ages, for example. However, Russian teacher and psychologist Lev Vygotsky (1978) recognized that individual capacities develop in social contexts where they are supported, shaped by language and cultural exchanges, and that experiences can influence what children are ready to learn, especially when they have the help of a more expert other within their "zone of proximal development" (ZPD). Futhermore, experiencing a sense of disequilibrium in light of new situations or unfamiliar ideas can trigger the need to resolve puzzlement through exploration, which itself sparks more learning, especially when the right supports are in place to help the student make meaning of what he or she is experiencing.

The learning sciences point to the importance of 1) teaching students within the zone of proximal development, and scaffolding their learning so that they can advance to more complex skills; 2) drawing on students' prior experiences; 3) creating a rich environment for learning, including opportunities for collaboration with others, which expand the range of experiences each can encounter; and 4) providing cognitive supports. We treat each of these in the following sections.

***Teaching and Scaffolding in the Zone of Proximal Development.*** The ZPD represents the learning space between what a child can do in a particular area on his or her own and what he or she can do with some assistance from more capable peers, teachers, or others. Children internalize the help they receive from others, which becomes part of their repertoire to guide future problem-solving. Well-designed instruction helps nudge the child to a new level of understanding within the ZPD by providing the right kind of

experiences and supports. This "scaffolding" refers to the guidance that allows students to more readily master a task that is beyond their existing skill set or knowledge base. Scaffolding includes both affective and cognitive elements: In addition to providing assistance and timely feedback, scaffolding involves communicating reassurance; helping students understand the habits of mind necessary to become proficient; and helping students understand the task's relevance and how their personal trajectory toward competence could unfold (Nasir et al., 2014).

Children's developmental and learning trajectories vary as a product of the interactions of their attributes and social contexts as well as over time (Fischer & Bidell, 2006; Rose et al., 2013). Furthermore, each student functions within multiple zones of development that vary from one domain to the next. A student may need one kind of assistance as she completes a long division problem, and yet another kind of assistance as she writes a short story. Careful observation, questioning, assessment of work, and one-on-one interactions with students provide the kinds of information teachers need to determine what level and type of assistance a student may need to advance in his or her understanding.

***Drawing on Students' Prior Experiences.*** Part of successful teaching is learning what students already know, where they already demonstrate competence, and how they can bring that knowledge into the classroom context. As Nasir and colleagues (2014, p. 491) point out, "Often, people can competently perform complex cognitive tasks outside of school, but may not display these skills on school-type tasks." Or, their displays might not be recognized as demonstrating competence according to normative standards based on assumptions that those who differ from middle-class norms operate at a deficit. For example, complex statistical calculations used on the basketball court may not initially carry into the mathematics class, unless teachers are alert to support the transfer by building on this kind of real-world knowledge.

As Lee (2007) demonstrated, a bridge between students' experiences and school content can be built using a cultural modeling approach that draws on the familiar to make the structure of a domain visible and explicit to students. Lee illustrated symbolic meanings in literature by beginning with rap songs and texts the students knew, and carried their insights into study of more formal canonic texts. Similarly, Boaler's (2002) study of the outcomes of inquiry-based instructional practices in mathematics classrooms serving low-income students found that linguistic, ethnic and class inequalities were reduced when teachers contextualized problems and made them relevant to students' lives, introducing new concepts through discussion and asking students to explain and discuss their thinking. These teachers achieved stronger outcomes by seeking to understand and support students' thinking and inquiry in the context of rich, collaborative learning experiences, rather than narrowing the curriculum to rote-oriented algorithms, as often happens for students who have had less prior experience with the content. A broader body of research has documented similar strategies for building classroom communities that support successful mathematics learning (e.g., Walshaw & Anthony, 2008).

In addition to building on students' prior knowledge, teachers may also need to confront prior knowledge to address misconceptions. In the area of historical thinking, for example, studies reveal that young people come to historical topics with experiences and encounters developed outside of the classroom through media or their families' accounts of historical events. Thus, teachers need to surface students' beliefs and judgments while helping them develop skills for evidence-based inquiry. Curriculum that teaches students to interrogate and use primary source documents builds on expert studies of historians' practices and helps teachers guide whole class discussions and design inquiry projects that are appropriate for younger readers with less background knowledge (Monte-Sano & Reisman, 2015; Wineburg, Martin, & Monte-Sano, 2011).

***Creating Rich, Collaborative Environments for Learning.*** As the aforementioned examples illustrate, learning abilities are developed by access to rich experiences that stimulate the brain. One of earliest studies on the effect of the environment on brain development was the work of William Greenough and his colleagues (Greenough et al., 1987), who compared the brains of rats raised in "complex environments"

containing toys and obstacles with those housed individually or in small cages without toys. They found that rats raised in complex environments performed better on learning tasks, liked learning to run mazes, and had 20–25% more synapses per neuron in the visual cortex. Many studies since have shown that brain development is experience-dependent.

"Rich environments" that support brain development provide numerous opportunities for social interaction, direct physical contact with the environment, and a changing set of objects for exploration (NRC, 2000, p. 119). Similarly, rich classroom environments provide interactions with others in the classroom and community, hands-on experiences with the physical world, and frequent, informative feedback on what students are doing and thinking. Ted Pollen's classroom described at the beginning of this article is a good example of such an environment, with different work areas for different kinds of activities, a rich assortment of readily accessible books, blocks, and other manipulatives, a physical timeline overhead with historical date cards frequently added, regularly used posters reminding students of how to engage in varied reading and writing activities, and opportunities for collaboration with other students.

Ted's classroom also illustrates how teachers can set up instructional conversations that support student learning. Vygotsky noted, and learning scientists have since demonstrated, that social interactions using language in support of thinking enable more strategic learning (Tharp et al., 2000). Neuroscientists have also demonstrated that the development of neural pathways is associated with exposure to and generation of language (Kuhl, 2000). Students sharpen their thinking as they converse about their reasoning and inquire into what they don't yet understand. When they are able to articulate concepts, use them in a task, see or hear other models of thinking, and get feedback, they learn more deeply.

Substantial research identifies benefits of social learning in well-managed groups (Barron & Darling-Hammond, 2008), and the capacity to work well in groups is an increasingly valued outcome of schooling. Collaborative learning is an important classroom tool that can be used to provide students with learning assistance from peers within their zone of proximal development, opportunities to articulate their ideas, and opportunities to develop metacognitive skills like self-regulation and executive function, as they learn to manage themselves to interact productively with others and seek out help from teachers and peers. These skills are both exhibited and developed through social processes that teachers foster (Tharp et al., 2000).

Cooperative small group learning is one of the most studied pedagogical interventions in educational research, with hundreds of studies and many meta-analyses finding significant achievement benefits for students when they work together on learning activities. For example, a meta-analysis of 158 studies, 70% of which involved random assignment, demonstrated that cooperative learning promotes higher achievement compared to individualistic efforts. Effect sizes range from .18, at the low end, to 1.03 for the most impactful program (Johnson, Johnson, & Stanne, 2000). In addition to cognitive gains, a review of 36 studies using experimental or quasi-experimental designs found positive outcomes of collaborative learning on measures such as student self-concept, social interaction, time on task, and liking of one's peers, as well as academic outcomes, with moderate effect sizes (Ginsburg-Block, Rohrbeck, & Fantuzzo, 2006).

Researchers have identified a number of social processes that help to explain why small group work supports individual learning. These include opportunities to share original insights, resolve differing perspectives through argument, explain one's thinking about a phenomenon, provide critique, observe the strategies of others, and listen to explanations (Barron & Darling-Hammond, 2008). There is evidence that collaborators can generate strategies and abstract problem representations that are extremely unlikely to be observed when individuals work alone, suggesting that there are unique benefits of joint thinking (Schwartz, 1995).

While well-managed group work can enhance student learning, it requires group-worthy tasks in which all must engage for the work to be successfully accomplished, support for students to learn to work together, and sophisticated questioning and scaffolding skills on the part of teachers. For example, in Complex

Instruction classrooms—a much-researched approach that uses cooperative learning to teach at a high academic level using carefully-constructed, interdependent group tasks—students are taught to undertake different roles (e.g., materials manager, timekeeper, task minder, and others). To support productive collaboration, the teacher orchestrates tasks, relationships, and supports, and disrupts status hierarchies that might develop based on students' personalities, developed abilities, language backgrounds, or other factors.

Teachers equalize interactions between high and low-status students by structuring tasks to help them recognize and use their multiple abilities, as students draw on different competencies to accomplish a group task. Teachers can also "assign competence" to a student by recognizing the student's contributions to the group task through public statements conferring a positive evaluation on to the students' effort, thus boosting participation of low-status students without restraining the participation of high-status students. These moves produce strong learning gains and reduce achievement gaps among student groups (Cohen & Lotan, 2014).

In successful use of cooperative approaches, teachers often help students structure roles within the group and provide questions and tasks that guide the group's discussion. For example, in a review of 94 studies which focused on the conditions for high quality discussion in science teams, the authors concluded that:

> A successful stimulus for students working in small groups to enhance their understanding of evidence has two elements. One requires students to generate their individual prediction, model or hypothesis which they then debate in their small group. The second element requires them to test, compare, revise or develop that jointly with further data provided (Hogarth et al., 2004).

Teachers play an active role in constructing the tasks and questions that help students learn to coordinate their work and frame their ideas in terms that reflect the modes of inquiry in the discipline. These efforts support the development of social, cognitive and academic skills while also developing student agency and the ability to reflect on and evaluate ideas.

***Providing Cognitive Supports.*** Teachers can also support student learning by being aware of how cognitive development unfolds. At the heart of all learning is meaning making that involves connecting what we already know to new information. The central role of background knowledge is well documented in cognitive research. As just one example, research on reading has long demonstrated that comprehension depends on prior knowledge about the topic that permits sense-making as much as it does on decoding skills (Pearson, Cervetti, & Tilson, 2008).

When students have not had particular experiences or have not acquired certain kinds of background knowledge, teachers can in fact create experiences for them to develop that knowledge. The kind of classroom described above, which constructs rich experiences for students and provides extensive information on the topics that are the subject of deep inquiry, helps to do that. One way to build background knowledge is to ensure a broad curriculum in history, social studies, science, and the arts, as well as reading and math, and engage students in field trips as educators have long advocated. Finally, teachers can set the stage with information regarding the context and topics of a shared text, before they began with the students.

The fact that background knowledge is important for higher level problem solving does not mean that "basic skills" must be taught by rote before children engage in inquiry. In fact, allowing for discovery and exploration can help set the stage for explicit instruction. In an approach called "inventing to prepare for future learning," Bransford and Schwartz (1999) found that posing challenges to learners and introducing inquiries into questions created more contextualized understanding and ultimately led to better recall and use of information presented later than did approaches that simply taught novices the relevant facts or formulas.

Teachers can also support student learning by providing strategies and tools that reduce cognitive load and free the mind's attention for higher order thinking and problem solving. Cognitive load theory (CLT) addresses techniques for managing working memory load in order to facilitate the learning of complex

cognitive tasks (Paas, Renkl, & Sweller, 2003). Working memory is our capacity to simultaneously keep in mind multiple pieces of information, and it is highly influenced by how information is perceived and connected to concepts, schemas, and scripts that are already familiar. These forms of background knowledge influence what is noticed, how easily new knowledge can be kept in mind and previous information remembered.

Prior knowledge allows for a cognitive process referred to as "chunking," reducing a larger set of items into smaller units that allow for pattern recognition and fit within the constraints of working memory. Teachers can support learning by chunking information in manageable ways and supporting students to become proficient in the use of new material by attaching ideas to one another and to a common schema of the domain under study that makes the material more meaningful (rather than asking students to remember disconnected pieces of information), and by giving students opportunities to practice skills so that they become automatic, freeing up bandwidth for new material and more complex applications.

Educators can also help students reduce cognitive load to free up their minds for problem solving by using tools for adapting to working memory limitations, from using notes to digital tools such as calculators or computers that can be used to offload computational or memory-heavy tasks during problem solving sessions. This view of cognition casts intelligence as distributed among minds, material artifacts, cultural tools, and interacting partners (Pea, 1987).

In the classroom we visited at the beginning of this article, the teacher, Ted, had worked with students to create many memory assists that were posted all over the classroom: posters illustrating fractions problems the classroom had tackled and solved, a classroom constitution with shared norms, the rules for "Book Club", the definitions of figurative language, a "Writing workshop conferencing protocol," "Poetry guidelines," "Persuasive essays," "Jobs in a reading conference" (enumerated for both the student and the teacher), "Elements of a news magazine article," "What we know about maps," and "Multiplying 2-digit by 1-digit numbers: The traditional algorithm." These were often in the students' own words, codifying their learning so they could share it and go back to it as needed. All of these both helped reduce cognitive load and support student independence and confidence in building on their prior learning.

In light of the need for students to learn to find, curate, and use information, rather than just remember it, educators can help students learn to use tools that improve their performance. Furthermore, assistive technologies such as audio-books, electronic readers that can adjust the size and type of font, recording tools, dictation strategies, and other supports can help students with particular kinds of disabilities in working memory, auditory or visual processing become successful in managing their learning and developing their performance capabilities, rather than suffering from deficit frameworks that limit the advances they can make.

Pedagogies are ways to coordinate cognitive processes and systems. For example, learning to read requires developing the capacity to decode text, which in turn is facilitated by earlier phases of language development that involve hearing words in meaningful contexts and understanding that they can correspond to written symbols. Working memory, background knowledge, and opportunities for elaboration all come into play as children work to develop both decoding and strategies for meaning making.

Research on reading makes it clear that both explicit instruction in decoding and immersion in meaningful, interesting, and varied texts are needed to become fluent in reading, along with sustained engagement with a larger community of readers who support skills and interest development (Pearson, Cervetti, & Tilson, 2008). Learning how to make strategic meaning of the text is centrally important: As readers use reading clues and background knowledge to make sense of text (and the knowledge of others in their community), they are also acquiring more background knowledge for the future from the text and their peers.

Similarly, learning is supported by techniques that lead to the elaboration of material, such as self-explanation, peer teaching, and representing information in multiple modalities. These deepen conceptual understanding, strengthen mental models, and improve the capacity to recall and use information. In mathematics for example, asking students to represent quantitative information in multiple forms, such as with graphs and verbal explanations, can support robust understanding. More generally, asking students to integrate abstract concepts and concrete examples in their explanations can deepen their comprehension while simultaneously providing richer data to teachers for assessment.

Specific pedagogical moves that support these learning processes include:

- Choices of tasks that have the right amount of challenge with supportive guidance;
- Well-chosen questions as scaffolds that support student thinking, guide their inquiry, and help them consolidate their understanding;
- Use of multiple and varied representations of concepts that allow students to "hook into" understanding in different ways;
- Design of instructional conversations that allow students to discuss their thinking and hear other ideas, developing concepts, language, and further questions in the process;
- Encouragement for students to elaborate, question, and self-explain;
- Instruction and curriculum that use apprentice-style relationships in which knowledgeable practitioners or older peers facilitate students' ever-deeper participation in a particular field or domain (Donovan & Bransford, 2005).

### *Supporting conceptual understanding, engagement, and motivation*

Cognitive science indicates that we learn more effectively when we see how ideas are conceptually connected to one another, when our minds are fully engaged, and when the tasks we encounter are motivating because they are interesting and accessible. Productive learning within different subjects is shaped by the unique structures of the disciplines and their particular modes of inquiry. In what follows, we discuss how teachers can shape understanding by 1) organizing and representing knowledge conceptually; 2) developing an inquiry-based curriculum that integrates explicit instruction appropriately; 3) designing environments and tasks that support motivation; and 4) providing for interest-based learning opportunities.

***Organizing and Representing Knowledge Conceptually.*** As we have noted, learning is enhanced when learners have a cognitive map or schema for particular concepts and relationships among concepts within a domain, into which they can place and connect what they are learning so that it adds up to a meaningful whole. For school-based learning, a central set of organizers are the structures of the disciplines. All subject areas have structures that reveal the ways their core ideas are connected with one another (Goldman et al., 2016), including a code of patterns and regularities that organize content fields (Schwab, 1978; Shulman, 1992). Understanding the structure of a domain helps people learn things more efficiently. For example, teaching vocabulary based on the underlying semantic and syntactic structure of the language enables students to learn rules for broader application. When students learn that words can be analyzed into meaningful parts (for example, that "photo" refers to light and "hydro" to water), they then may be able to figure out the meanings of words like photosynthesis and hydrotherapy. Similarly, when learning a language, knowing the structure of verb conjugations enables transfer.

Cognitive scientists have found that organizing knowledge in schemas facilitates retrieval and use of material from long-term memory. More complex schemas can combine elements of less complex organizations of information that are processed with more automaticity, reducing the burden on working memory (Paas, Renkl, & Sweller, 2003). Organizing knowledge and automating access to this knowledge in long-term memory supports meaningful learning in complex cognitive domains.

Teachers can help students understand the structure of concepts within a domain by providing an overarching conceptualization of the big ideas and then locating specific facts or information in relation to these. In a discipline like history, for example, students may consider how societies organize themselves to engage in government and commerce, and how they distribute power and manage conflicts. If students understand these core concepts, they can look at different societies and different nations over time and see patterns and discontinuities, generalizations, and connections (NRC, Donovan & Bransford, 2005).

Each discipline also has a different manner of posing questions and solving problems: for example, scientific investigation through scientific methods, historical inquiry, literary analysis, and mathematical modeling. These *central modes of inquiry*, knowledge-finding tools, and means of using evidence (Schwab, 1978) are also critical to curriculum design. If students learn to use these modes of inquiry, they will be training their minds in distinctive ways (which was the original rationale for introducing the disciplines) and more able to engage in disciplined forms of deep learning. The structures of the disciplines, which can be used to organize the curriculum to engage students around these core ideas and modes of inquiry, also pave the way for transfer to other ideas, subjects, and real-life problems inside and outside of school (Shulman, 1992).

It is important for educators at the state, district, and school level to have knowledge of how to select high-quality curriculum materials that support a conceptual organization and understanding of the disciplines and offer thoughtful guidance for productive engagement with the materials through useful representations of ideas, means to connect those ideas to students' experiences, approaches to discussions that can engage multiple approaches and explanations, and disciplinary inquiries. Many well-grounded curricular designs—including carefully researched professional learning processes to help teachers understand the underlying concepts and teaching strategies—have been supported by extensive research (see, e.g., Cobb & Jackson, 2011 re: mathematics; Penuel & Fishman, 2012 re: science; Wineburg et al., 2011 re: history).

While this review cannot fully explore the many bodies of research on learning within the content domains, we note here that significant evidence demonstrates that effective teaching is content-specific, and not based on a toolbox of generic teaching techniques. As the NRC (2005) review of *How Students Learn History, Mathematics, and Science* observed: "Expert teachers have a deep understanding of the structure and epistemologies of their disciplines, combined with knowledge of the kinds of teaching activities that will help students come to understand the discipline for themselves" (p. 163). This involves particular pedagogies related to the discipline's rules of evidence for its particular modes of inquiry. Instruction helps students participate in the forms of thinking, reasoning, and doing that resemble those of a skilled historian, geographer, scientist, mathematician, writer, or artist.

For example, students develop a deeper understanding of history when they examine historical evidence and learn how it can be interpreted based on the type of evidence and its source, and when it is placed in the context of a larger schema (Wineburg et al., 2011). Learning to look for and understand structures and patterns in mathematics, to reason quantitatively as a form of sense-making, and to explore multiple solution strategies produces deeper learning in mathematics (Boaler, 2002). Learning to form hypotheses, experiment, observe, collect evidence, and frame conclusions, while seeking to understand the principles that are at work in a phenomenon helps students begin to think scientifically (Penuel & Fishman, 2012). These and other disciplines have their own modes of discourse as well as investigation strategies (Darling-Hammond et al., 2008).

***Inquiry-Based Curriculum that Appropriately Integrates Explicit Instruction.*** The argument that student inquiry is critical to transferable learning is based on insights from cognitive theories about how people learn and the importance of students making sense of what they are learning and processing content deeply so that they truly understand it (Bransford, Brown, Cocking, Donovan, & Pellegrino, 2004). Inquiry

approaches to learning require students to take an active role in knowledge construction to solve a problem or probe a question. Inquiry may take place in a single day's lesson or a long-term project, centered around a question or problem that requires conjecture, investigation, and analysis, using tools like research or modeling. The key is that—rather than just receiving and memorizing pieces of information—inquiry provokes active learning and student agency through questioning, consideration of possibilities and alternatives, and applications of knowledge.

The family of approaches that can be described as inquiry-based includes problem-based learning, design-based learning, and project-based learning, among others. The success of well-designed and managed problem and project-based curriculum has been documented across many schools and experimental interventions. Typically studies find that students exposed to this kind of curriculum do as well as or better than their peers on traditional standardized test measures but significantly better on measures of higher order thinking skills that transfer to new situations, as well as stronger motivation, problem solving ability, and more positive attitudes toward learning (Barron & Darling-Hammond, 2008; Boaler, 2002; Bransford et al., 2004). Similarly, meta-analyses of studies of medical students have found that those who are enrolled in problem-based curricula, in which they have to work on diagnostic inquiries regarding patients and their treatment, score higher on items that measure clinical problem solving and actual ratings of clinical performance (Albanese & Mitchell, 1993).

Inquiry-based approaches to learning develop social and emotional skills, habits, and mindsets as well as academic skills as students learn to set goals, plan their work, reflect on what they have learned and what more they need to know to solve a problem, overcome obstacles, and communicate what they have found (Barron & Darling-Hammond, 2008).

Inquiry challenges need to be carefully planned and well-supported so that students in fact learn, rather than wandering aimlessly through discoveries that confuse rather than enlightening them. Research syntheses have documented the advantages of inquiry-based learning over expository forms of instruction for the transfer of learning to new contexts, and have also found that the benefits for achievement are greater for students who have received useful guidance from their teachers (Alfieri, Brooks, Aldrich, & Tenenbaum, 2011 [d = .30]; Furtak, Seidel, Iverson, & Briggs, 2012 [d = .65]). One meta-analysis of 72 studies found several types of guidance equally effective at promoting stronger outcomes for inquiry-based teaching as compared to expository learning. These forms of guidance defined the learning task, provided prompts, scaffolds, and explanations to support aspects of the task, and made task progress and learning visible to the learners (Lazonder & Harmsen, 2016 [d = .66 for effects of guidance on learning activities; d = .71 for effects on performance success; and d = .50 for effects on learning outcomes.])

The literature on pedagogies for inquiry indicates that effective inquiries are guided by clearly defined learning goals, well designed scaffolds, ongoing assessment, and rich informational resources. Good inquiry tasks allow multiple methods for reaching solutions. They also allow repeated exposure to concepts and provide opportunities for feedback. An effective teacher in this approach is one who designs tasks and processes for engaging them that are clear and support understanding, and who plays an active role in making thinking visible, guiding group processes and participation, and asking questions to solicit reflections. The goal is to model good reasoning strategies and support students to take on these roles themselves (for a review, see Barron & Darling-Hammond, 2008).

Effective teachers also offer strategic feedback that takes students to the next stages of learning. Teachers provide direct instruction at critical junctures, offering explanations or directing students to resources that are crafted and timed to support inquiry (Hmelo-Silver, 2004; Moreno, 2004). Direct instruction to provide information and develop a conceptual schema may be especially helpful when students are new to a topic or when they have entered a new domain through an inquiry-based approach and have developed key questions

that motivate them to use new information that is now contextualized in their experience (Bransford & Donovan, 2005).

Students' needs for teacher support change as they become more cognitively engaged and develop expertise. Teachers need to gauge how much scaffolding to provide as individual learners become more knowledgeable and proficient. However, at any stage of development, learners benefit from strategically placed direct instruction, feedback, and critical questions that guide their learning (Hmelo-Silver, 2004). When teachers give explanatory feedback, rather than corrective feedback, student performance improves (Moreno 2004).

In addition, instructional designers need to think about learner's level of prior knowledge and expertise in order to determine what types of information and activities can facilitate learning outcomes. A common misconception is that reducing cognitive load is uniformly beneficial. However, it is the source, rather than the level of the load, that matters. Extraneous load, such as that caused by stress or trauma, negatively affects learning. However, germane load, such as that created when curiosity is piqued and sparks exploration, increases relevant mental activities and positively affects learning (Paas, Renkl, & Sweller, 2003). Tasks should be engaging and challenging, so that germane cognitive load is as high as possible. What is helpful for an advanced learner, though, could overwhelm a novice. Knowing about the learner allows educators to design tasks and pose questions at the right level to enhance their learning.

Teachers can reduce extraneous load by providing increased guidance for developing conceptual understanding during discovery learning. This can be accomplished by providing explanations of central ideas and relationships at key junctures, offering useful texts, scaffolding the tasks by sequencing them from less to more complex, chunking the inquiry into discrete steps with instructions and information at each step, or having students write hypotheses, conjectures, or summaries that are the basis for conceptual discussion. The amount of guidance needed will vary across developmental levels and from learner to learner.

### *Developing metacognition, agency, and the capacity for strategic learning*

A critical component of learning for understanding is thinking about one's prior knowledge, connecting that knowledge to other ideas within a conceptual framework, and processing that knowledge so that it is available for application to new contexts or problems. The process of metacognition, or "thinking about one's own thinking," (Georghiades, 2004) allows more strategic learning and deeper conceptual understanding of content.

Metacognition is part of a broader concept of self-regulated learning through which students are able to respond positively to feedback, set goals, and manage their progress towards these goals, which enhances their sense of agency. Metacognition is especially important as it moves students out of the role of passive receptors of information to active learners where they are aware of and monitoring their own understanding during the learning process (Flavell, 1979). In order to enable transferable learning that is increasingly independent, teaching should be designed to support metacognition, so that students can learn to accomplish their goals.

The use of metacognitive strategies has been found to distinguish between more and less competent learners. Strong learners can explain their learning process and articulate reasons why they decided to take certain steps or how they arrived at a particular conclusion, shich is an important element of engaging deeply in the learning process (Chi, Bassok, Lewis, Reimann, & Glaser, 1989). A substantial body of research has found that students who employ metacognitive strategies, including self-regulated learning and goal-setting, are better able to engage in cognitive processes, remember information, and maximize learning (Farrington et al., 2012).

We discuss here three pathways teachers can use to develop students' metacognitive skills: 1) teaching metacognition and learning strategies directly; 2) providing feedback followed by practice and revision; and

3) employing mastery assessment that allows students to continue to make progress in their learning that they themselves can help to guide.

***Teaching Metacognition and Strategic Learning.*** As Donovan and Bransford (2005) note in *How People Learn: Examples in History, Mathematics, and Science,* learning well depends on (a) how prior knowledge is incorporated in building new knowledge, (b) how knowledge is organized, and (c) how well learners can monitor and reflect on their learning.

Educators can develop metacognitive skills within the classroom through modeling of thinking, explicit strategy instruction, scaffolds for self-monitoring of thinking and actions, and regular opportunities for student self- and peer assessment. Opportunities for students to reflect on their strengths and areas of growth, and for students to self-correct errors can be incorporated into the curriculum within content areas, so that monitoring of understanding is tied to domain-specific knowledge and expertise (NRC, 2012).

In reading, for example, considerable work has been done to teach students to monitor their understanding in the process of reading and take steps to shore up their comprehension as needed (for an overview, see Pearson, Cervetti, & Tilson, 2008). The development of what Pearson and colleagues call "mindful engagement" on the part of students involves this strategic monitoring that supports comprehension, connection-making, and critique (Afflerbach, Pearson, & Paris, 2008; Duke & Pearson, 2002).

Among the many strategies that have been found effective in stimulating mindful engagement in reading are Reciprocal Teaching and Transactional Strategies Instruction, which variously include strategies that ask students to think aloud as they are reading, construct images, create themes, predict, question, clarify, make connections, summarize, and read for specific literary elements (see Duke & Pearson, 2002). In these and similar methods, teachers scaffold the process and turn over responsibility for choosing the strategies and managing the discussions to student groups as soon as possible. Reviews of experimental and quasi-experimental studies have found these strategic approaches produce positive effects for text comprehension (see, e.g., Pressley, 1998; Rosenshine & Meister, 1994).

Duke and Pearson (2002) identified a set of steps that typically occur when teachers engage in explicit strategy instruction, including: naming and describing the strategy—why, when, and how it should be used; modeling the strategy in action—either by teacher, student, or both; using the strategy collaboratively—in a sort of group think-aloud; guiding practice using the strategy with gradual release of responsibility; finally, students using the strategy independently, with no teacher guidance, either individually or in small student-led groups.

These steps reinforce Baker's (2002) point that: "[T]here is a sequence of development from other-regulation to self-regulation. This notion provides the framework for virtually all instructional programs in which the goal is to enable students to take responsibility for their own learning" (p. 78). Instructional supports and scaffolding should not only be focused on higher achievement, but also on qualitative changes in the ways "students view themselves in relation to the task, engage in the process of learning, and then respond to the learning activities and situation," supporting their increasing self-direction, which, in turn, increases their skills along the way (Ames, 1992, p. 268). The goal is that teachers and students have a shared understanding and ownership of the learning process, and students are increasingly able to reflect on and self-monitor their own improvement. As scaffolding fades, students should internalize standards and take responsibility for their own learning (Tharp et al., 2000).

Studies have documented how the explicit teaching of metacognitive strategies can improve learning for a wide range of students across multiple subject areas. Some of this research studies the thought processes of experts and then organizes these so that they can be taught to novices engaged in that work. Following Vygotsky's (1978) notion that talking things through—internally or aloud—helps people to learn by helping

them to organize and manage their thought process, many strategies involve teaching students to think aloud.

Studies of writers have found that they engage in an internal (and sometimes external) dialog about what they are doing and why, which helps them think through their writing process (Pearson, Cervetti, & Tilson, 2008). This research has led to strategies for teaching writing that help novice writers learn to engage in this kind of self-talk and self-monitoring as they go through similar processes. A year-long study of a set of urban elementary classrooms where half the students were identified as learning disabled found that, when teachers of fourth and fifth grade students taught students these approaches as they analyzed texts and modeled the writing process, students engaged in more self-regulating metacognitive strategies, were more able to explain their writing process, and achieved at higher levels in reading and writing than a matched group of comparison students. The learning disabled students in these classes were just as able to describe and use the writing strategies as were the regular education students in the comparison group. Sometimes, the learning disabled students who had received this strategy instruction even outscored the regular education students (Englert, Raphael, & Anderson, 1992; Pearson, Cervetti, & Tilson, 2008). A review of research on learning of argumentative writing reinforces the importance of teaching these kinds of cognitive processes to students while also engaging them in social discourse about their writing (Newell, Beach, Smith, & VanDerHeide, 2011).

An example from science used the metacognitive strategy of self-explanation. In one controlled experiment, for example, a group of eighth-grade students used a “think aloud” protocol while reading about the human circulatory system from an often-used biology textbook (Chi, 2000; Chi et al., 1994). The students read a line of text silently and were then prompted to explain to themselves, out loud, what the text meant. A control group (nonprompted) was asked to read the line of text silently twice to approximate the same amount of time dedicated to learning the material by both groups. The researchers found that self-explaining raised the posttest score of both high and low achieving students, with those who explained the most showing the greater gains from pre-to post-test. Furthermore, the results for the more difficult questions—those that required students to integrate knowledge of what they had just learned with prior knowledge—indicated even greater gains for the prompted students. One explanation for these gains was that the prompted students utilized their prior knowledge to a greater degree.

Another form of metacognition is self-regulation of motivation. Students can learn to regulate their own motivation by, for example, creating conducive conditions for study, using learning strategies that are more effective for them, studying with peers, or even rewarding themselves when they have accomplished something. Use of strategies for increasing motivation has been found to improve grades and other measures of achievement (Wolters, 2011). Furthermore, when students have opportunities for self-regulation, including setting their own goals, developing study skills, and taking ownership of their own learning, they are more likely to succeed after high school (Conley, 2011). These co-cognitive skills appear to be better predictors of long-term success than academic skills alone (Lerman, 2008).

Computer-based tools can assist productive collaborative exchanges that support self-regulation and metacognition. One of the most documented examples originated as the Computer-Supported Intentional Learning project, now known as Knowledge Forum, which allows students to collaborate on learning activities through a communal database with text and graphics capabilities. Within this networked multimedia environment, students can engage in dialogs through their notes about topics they are studying and conversations about formulating and testing conjectures. The tools support knowledge building as a community activity. Students at the elementary, secondary, and higher education levels—across all achievement levels—do better on achievement tests and portfolio measures and show greater depth in their explanations than those in other classrooms (Scardamalia, Bereiter, & Lamon, 1994).

Knowledge forum aims to support creative work with ideas while keeping agency in the hands of the students, enabling more varied interactions among students and between students and ideas. This facilitates self-organization at both the social and conceptual levels, along with better-informed metacognitive control of knowledge production processes that is supported by a collaborative environment which requires articulating explanations and strategies (Bereiter & Scardamalia, 2014). This kind of technology can also assist the classroom teacher: observing a group's interactions can provide a substantial amount of information about the degree to which the work is productive, as well as an opportunity for formative feedback and the provision of support for aligning understandings and goals among group members.

***Thoughtful Feedback and Revision.*** Regular, well-designed feedback on students' work is a critical component of strategic learning. One of the oldest findings in psychological research is that feedback facilitates learning (Thorndike, 1931). Without feedback about conceptual errors or an inefficient backstroke, the learner is likely to persist in making the same mistakes. In a meta-analysis of 131 studies, Kluger and DeNisi (1996) reported an average effect size on learning due to feedback of .40; however, they also found large variation across studies. In identifying characteristics of effective feedback, the authors found that neither nonspecific praise nor negative comments supported learning. Instead, gains were most likely to occur when feedback focused on features of the task and emphasized learning goals.

It is insufficient for teachers merely to give feedback about whether answers are right or wrong. Instead, to facilitate learning, it is equally important that feedback be linked explicitly to clear performance standards and that students be provided with strategies for improvement (Hattie & Gan, 2011). Rubrics are an important tool that allows performance to be judged in relation to well-defined criteria (rather than globally or in comparison to other students), so that feedback focuses on particular qualities of a student's work and provides guidance about what to do to improve, along with immediate opportunities to apply the feedback. Research has found that this approach to feedback fosters a mastery orientation on the part of the students where they seek not only to develop an understanding of the content and improve their skills, including their own learning strategies, but also come to recognize personal relevance and meaningfulness in the work itself (Ames, 1992; Hattie & Gan, 2011). Furthermore, students' sense of agency and motivation are enhanced when they can strive for and demonstrate improvement.

Revision of work is a critical aspect of the learning process, supporting reflection and metacognition about how to approach a particular kind of content or genre of tasks in future learning. Unless students have opportunities to incorporate the feedback as they revise their work or performance (e.g., rework math problems; retry jump shots or musical efforts; reread a tough passage; rewrite sentences, paragraphs and essays; retake tests; revamp products), they cannot benefit optimally from the feedback that teachers or their peers often take considerable time and effort to produce. A long line of research shows that expert performance is related to opportunities for *deliberate practice*, which is coached through the provision of immediate feedback for a performance, opportunities to evaluate and problem-solve, and repeated attempts to refine the behavior or skill (Ericsson, 2006). As individuals become more expert, they can self-evaluate and identify strategies for improvement with less outside feedback.

Opportunities for regular revision also help students develop a sense of confidence and competence as they see the improvements in their work, and a growth mindset that can carry into other contexts. For deliberate practice and revision to occur, feedback should occur during the learning process, not at the end when teaching on that topic is finished, and teacher and students should have a shared understanding that the purpose of feedback is to facilitate learning. Given that teachers cannot frequently meet one-on-one with each student, classroom practices should allow for students to display their thinking so the teacher will be aware of it, and for students to learn to become increasingly effective critics of their own and each other's work as they use rubrics and other tools to engage in self- and peer-assessment.

Research shows that this kind of assessment carried out during the instructional process for the purpose of improving teaching or learning can be a powerful tool in targeting instruction so as to move learning forward. A landmark research review by Black and Wiliam (1998) found that focused efforts to use formative assessment routinely produced learning gains greater than one standard deviation, which is equivalent to raising the score of an average student from the 50th to the 85th percentile. These large gains were seen when concrete, specific feedback was provided without any grade and when it was followed by opportunities to revise the work.

Formative assessment is more than data gathering. It is a model for supporting learning that is designed to advance a student within his or her zone of proximal development. The assessment step in the formative assessment model – which answers the student's question, "where am I now?" provides the insight needed to enable effective support. That support should ideally be informed by an understanding of learning progressions, which are the next steps likely to support advancement in the domain. A complete formative model, which clarifies goals and provides the means to get there, is synonymous with instructional scaffolding.

### *Mastery-oriented assessment*

To manage the formative feedback and learning process, teachers benefit from being able to draw on a range of assessment strategies and tools such as observations, student conferences, portfolios, performance tasks, prior knowledge assessments, rubrics, peer assessments, and student self-assessments. They can then combine rich evidence of student learning with their own deep understanding of the learning process so that they can use insights from assessment to plan and revise instruction and to provide feedback that explicitly helps students see how to improve (Stiggins & Chappuis, 2005).

A mastery-focused approach to assessment that emphasizes learning goals has been found to help sustain achievement-directed behavior over time and to orient learners toward a focus on improving competence and deeply understanding the work they produce (Ames, 1992). In addition, assessments that place value on growth rather than on scores earned at one discrete moment have been found to create higher motivation, greater agency, and higher levels of cognitive engagement, as well as stronger achievement gains (Blumenfeld, Puro, & Mergendoller, 1992; Stiggins & Chappuis, 2005). In contrast, researchers have found that evaluative, comparison oriented testing focused on judgments about students leads to students' decreased interest in school, distancing from the learning environment, and a lowered sense of self-confidence and personal efficacy (Eccles & Roeser, 2009).

Many schools that have been particularly successful in reducing opportunity and achievement gaps for traditionally marginalized students—producing high graduation and college success rates—have adopted mastery-oriented performance-based assessments that build higher order thinking and performance skills, collaboration and communication skills, motivation and engagement, and a host of co-cognitive skills such as self-regulation, executive function, resilience, perseverance and growth mindset (Darling-Hammond, Ancess, & Ort, 2002; Huberman, Bitter, Anthony, & O'Day, 2014; Noguera, Darling-Hammond, & Friedlaender, 2017). In these schools, assessments of projects, papers, portfolios, and other products are evaluated through rubrics that clearly describe dimensions of quality. When these are coupled with opportunities for feedback and revision, the assessments promote learning and mastery, rather than seeking to rank students against each other. These practices are consistent with research indicating the importance of explicitly expressing high expectations for students that are enacted though meaningful challenges, with opportunities to develop competence, so that students know they are capable of strong achievement (Osher & Kendziora, 2010; Steele, 2011).

Many of these schools require portfolios of rigorous work in each discipline that are presented before committees of teachers and outside jurors, rather like a dissertation defense. The work typically includes

social science research papers, science experiments, literary essays, and mathematical models or projects that require in-depth study, extensive writing, and oral presentation (Darling-Hammond & Adamson, 2014). The work may also include problem-based interdisciplinary projects, sometimes grounded in internships in the community. Research suggests that knowledge that is applied to relevant problems and situations is retained and later used at higher rates, and that students who learn modes of disciplined inquiry within and across content areas are better able to successfully tackle complex problems and learn on their own (Bransford, Brown, Cocking, Donovan, & Pellegrino, 2004).

Performance assessments that encourage higher order thinking, evaluation, reasoning, and deep understanding are themselves tools for learning (Darling-Hammond & Adamson, 2014). In addition to knowledge, the assessments build students' metacognitive and co-cognitive skills, such as planning, organizing, and other aspects of executive functioning; resilience and perseverance in the face of challenges; and a growth mindset. Performance assessments can also provide multiple entry points for diverse learners, including English language learners and students with special needs, to access content and display learning (Abedi, 2010).

The use of curriculum-embedded assessments strengthens teaching by providing teachers with models of good curriculum and assessment practice, enhancing curriculum equity within and across schools – as all students have access to the educative tasks, and allowing teachers to see and evaluate student learning in ways that can inform instructional and curriculum decisions. Such assessments can build students' capacity to assess and guide their own learning, and, through ownership in the learning process, strengthen their interest and motivation.

### *Motivation and learning*

Closely related to the developmental and cognitive processes we have previously reviewed is the issue of motivation for learning. Students will work harder to achieve understanding and will make greater progress when they are motivated to learn something. However, motivation is not just inherent in the individual; it can be developed by skillful teaching.

***Motivating Tasks***. Researchers have found that student motivation in the classroom is fostered by three major considerations about the tasks and conditions students confront: 1) the nature of the ***task*** and its value to the student; 2) the nature of the ***learner*** and his or her expectations of success; and 3) the nature of the ***learning environment*** and the extent to which it emphasizes learning goals and provides support (Blumenfeld et al., 1992).

First and foremost, motivation is about the learner's perceptions of the task. As Lee (2017) notes, the learner implicitly asks: "What am I being asked to do?"; "Am I capable of tackling these tasks?"; "Is this task meaningful to me?"; "What supports are available to me to wrestle with this task?"; "Do I feel safe in attempting to wrestle with this task?"; and "How do I weigh any risks or competing goals?"

A learning task will have more value to students if they believe it is important, if it is relevant to their lives, can be connected to events they have experienced or care about, or focuses on problems that are interesting and realistic (Eccles, 2005). It is helpful if the task offers choices of topics, research strategies, or modes of presentation that allow students to make a connection to their interests. A motivating task is also approachable (i.e., within the zone of proximal development) and structured to provide evidence of progress along the way, so that it offers ongoing incentives to continue. Students are more likely to value learning when intrinsic reasons for learning are emphasized, as when the task potentially benefits others and/or results in products or performances that have an audience beyond the teacher (Ryan & Deci, 2000).

Students need to believe they can be successful if they are going to try. Their expectations for success influence their willingness to apply effort toward learning (Eccles, 2005). These expectations depend on students' perceptions of the task and their likelihood of success, as well as on their inclinations to undertake

new learning, tackle difficult tasks, and take risks. These inclinations, in turn, are related to self-perceptions of ability and mindsets. Students with confidence in their abilities to succeed at a task work harder and persist longer, which leads to better performance (Eccles & Roeser, 2009; Stipek, 1996).

Among the factors shaping this sense of efficacy are students' beliefs about intelligence and their capacity to improve their intellectual abilities. If students believe that intelligence is a fixed trait and that there is nothing they can do to expand their capacity to learn tend to think that no amount of effort will be worthwhile when they encounter a difficult task. Those who believe that intelligence is "incremental" and can be cultivated tend to be willing to try new things and to work harder when they encounter an obstacle, rather than giving up (Dweck, 2000).

Students' sense of academic identity also matters. If a student feels he is "not good at math," or a "bad reader," it will negatively affect his attention, motivation, and learning. Conversely, if a student sees herself as a mathematician, a reader, a scientist, or a writer, she will be more likely to engage and adopt a growth mindset in that domain. In addition, students who have received societal or school-delivered messages that they are less capable as a function of their race, ethnicity, gender, income, or other status will often translate those views into self-perceptions of ability affecting their performance on school tasks or tests (Steele, 1997).

Schools foster these beliefs to the extent that they group or track students in ways that convey messages about perceived ability, deliver stereotypic messages associated with group status, or emphasize ability rather than effort (e.g., "smartness" vs. "hard work") in their judgments about students and attributions of causes of success (Dweck, 2000). In the classroom, teachers should avoid labeling students and instead provide positive affirmations about individual and group competence, emphasize the importance of effort, and encourage students to understand that through effort they will indeed improve. Teachers can also acknowledge improvements through their feedback and the ways their assessment and grading systems credit growth.

To make challenging tasks motivating and enhance expectancies of success, teachers can organize their lessons to connect them to issues relevant to students' lives, scaffold the learning process, and ensure that there are many ways for students to learn and represent their understanding (Blumenfeld et al., 1992).

The learning environment supports motivation when learning and mastery goals are emphasized, rather than grades or performance goals. Learning goals are encouraged when scaffolding and support are provided, effort and improvement are recognized, mistakes are treated as learning opportunities, students have the opportunity to revise their work, evaluation emphasizes learning, individual competition and comparison are minimized, and students are grouped by topic, interest, or choice rather than by their performance (Blumenfeld et al., 1992).

These classroom features enhance intrinsic motivation, which more often results in high-quality learning and creativity. In contrast, extrinsic motivation based on external rewards that are used to control students' behavior can reduce students' intrinsic motivation for the task as well as the quality of performance on the task (Ryan & Deci, 2000). Although extrinsic rewards are sometimes useful to create incentives for a new behavior or practice, their use should be minimal and reduced over time as the desired behavior become commonplace.

***Interest-Driven Learning.*** As we have noted, one driver of intrinsic motivation is interest in a topic, object, or activity. Ecological views of learning and development have focused attention on interest-driven learning, which is particularly important for development because it requires self-regulation, defining and pursuing goals, and reflection on how well one is doing (Barron, 2006). Neurological data, longitudinal ethnographic studies, naturalistic observational research, and experiments converge to provide evidence of the short and long term benefits of interest for learning (Renninger & Hidi, 2017). In the short term, interest is cognitively energizing and it increases attention, leads the learner to generate questions, and sustains

engagement in learning activities. In the longer term, interest can catalyze a consequential series of choices that over time accumulate and help launch pathways to future jobs, educational opportunities, and careers. Interests can also support academic resiliency, for example, in overcoming challenges in processing text or persevering in difficult tasks.

In the four-phase model of interest development (Hidi & Renninger, 2006), earlier phases of interest are dependent on the social environment. As interests become more deeply connected to values, purpose, meaning, and identity, they become increasingly self-sustaining. Choices to learn might include initiating a new project activity, pursuing opportunities for mentoring, deciding to enroll in a formal class, or using technology to engage in personal learning excursions (Barron, 2006; Wigfield & Cambria, 2010). At the same time, consistent with a contemporary understanding of the science of learning and development, interest in any domain is dynamic and can exhibit continuities and discontinuities depending on access to resources, such as welcoming affinity groups, relevant technologies and tools, role models, learning opportunities, and time (Azevedo, 2018, Cantor et al., 2018).

In this ecological view, the origins and evolution of interests are connected to both contextual and individual variables. They are simultaneously socially grounded (Osher et al., 2018) and influenced by personal relevance based on unique experience, sense of purpose, and goals for the future (Eccles, 2005; Harackiewicz & Hulleman, 2010). Teachers have a significant role to play in developing interests by customizing assignments and offering choices, providing material that sparks curiosity, expressing their own enthusiasm for a topic, designing activities that support exploration and are relevant to student identities, and connecting students with peers and mentors that share interests. When teachers consider the longer term trajectories of learning and development, they are better positioned to help broker future learning opportunities in addition to directly influencing learning through guiding, modeling, and explaining. In this view, interest is both a cause and a consequence of learning.

Interests can develop over long periods of time linked to activities that take place both in and outside of school (Azevedo, 2013). Homes, libraries, museums, camps, and a range of digital environments provide social and material resources for interest-driven learning (Barron & Bell, 2015). Teachers can help parents support interests by sharing ideas about ways to collaborate, learn from, or broker opportunities for their children. Meanwhile, parents can share with teachers what they have observed when their children are at home and have free time to explore activities on their own. They are uniquely suited to notice and support a child's nascent interests.

Digital technologies provide an important catalyst for interest-driven learning, as they can be leveraged for learning across time and settings, with interests launched at school leading to informal learning at home, in summer camps, or in community based contexts ( Barron, 2006, 2010 ). The self-sustaining nature of interest-driven learning with technologies represents an important dimension of personalized learning. For example, technology is expanding opportunities for young people to gain experience with design-oriented activities like movie making, programing, and fabrication. In addition, as the NRC (2000) noted in *How People Learn,* interactive computer technologies can help people visualize difficult-to-understand concepts, give users feedback while they are learning, and learn about students' approaches to learning so as to personalize opportunities to learn.

While many uses of technology have been found ineffective, uses that support student interests have been found to support achievement. A recent review of 70 studies ranging from large-scale experimental and quasi-experimental designs to smaller case studies noted that most studies found no effect on learning. Ineffective uses of technology featured "individualized" progression through workbook-type activities; phonics, grammar and punctuation exercises; drill on math items; and practice with multiple-choice test questions. Effective uses, on the other hand, featured simulations, games, data analysis, and writing that was part of interactive learning, where the technology was used to engage with data, explore and create, express

ideas, and develop presentations of learning; and where peer discussions and teacher-led activities were also part of instruction (Darling-Hammond, Zielezinski, & Goldman, 2014).

An example highlighted in the review illustrates the importance of combining interest-driven learning with the use of technology. Educators in Talladega County, Alabama introduced one-to-one computing through a project-based learning program in which students conducted in-depth research projects, recorded podcasts, developed multi-media presentations, and designed and produced publications about their work. The initiative dramatically improved high school graduation and college-going rates (Darling-Hammond, Zielezinski, & Goldman, 2014).

Deep engagement in interest-driven experiences is associated with *psychological assets* like a sense of confidence in creating novel ideas, confidence in learning about computing, a projected future of continued learning, or feelings of expertise with professional tools; *social dispositions*, marked by an increased likelihood of teaching others what one knows; and *choices to learn more* as reflected in efforts to sustain learning, including starting new projects in school or at home, choosing to take elective classes to advance one's skills, finding mentors or peer-based learning partners, and locating informational resources in books or online (Barron & Martin, 2016). These types of choices creating generative learning can help students learn to learn independently and set the stage for lifelong learning.

***Summary.*** The research we have reviewed suggests that, to support student learning, curriculum and instruction should be designed so that it helps build mental schema or models that connect ideas central to the discipline or domain. These goals should be pursued in a thoughtful sequence through authentic tasks and understandable representations that build on students' prior knowledge and capture the key aspects of the content to be learned. To facilitate deep understanding and transfer, teachers should combine explicit instruction with guided inquiry that allows students to engage in problem solving in real-world contexts and should promote agency by asking students to evaluate, analyze, and create ideas, products, or solutions (Donovan & Bransford, 2005).

Finally, to enable increasingly effective learning and the development of productive habits and mindsets, curriculum and assessment should support the acquisition of metacognitive skills, offer feedback throughout the learning process, encouraging students to revise their work so that they can internalize standards and perceive evidence of their growing competence that supports a growth mindset. Providing opportunities for revision along with timely, constructive feedback on a regular basis encourages a mastery oriented approach to learning. Combined with a learning environment that supports individual needs, helping students develop the capacity to monitor their own learning promotes a sense of agency and ownership over their work, which in turn fosters motivation. All of these strategies are designed to help students become more self-sufficient and capable learners.

## Support for the development of social, emotional, and cognitive skills, habits, and mindsets

As we have noted, academic learning is tightly intertwined with social and emotional skills, mindsets, and decisions. Some of these are reinforced by instructional approaches that reduce anxiety and support a growth mindset, for example. Yet, more is needed to ensure that students fully develop these abilities to manage their emotions and mental focus, to work well with others, to persevere in the face of obstacles, and to make productive and socially responsible decisions. In this section, we treat the intentional development of the social, emotional, and cognitive skills, beliefs, and mindsets that support academic and life success.

### *What the science of learning and development tells us*

The SoLD synthesis builds on rich developments over the past two decades in social and emotional learning (SEL) (Osher et al., 2016). *Cognitive skills* such as problem-solving, responsible decision making, and

perspective taking interact with *emotional skills* such as emotion recognition, empathy, and emotion regulation, and with *social skills* including cooperation, helping, and communication (Cantor et al., 2018). Attitudes, beliefs, and mindsets also matter for school and life success. Holding a growth mindset and connecting academic endeavors to personal values support learning. These capacities are influenced by input from teachers and other adults, and, in turn, they inform higher order skills across cognitive, emotional, and social domains. Social, emotional, and other conditions of cognitive engagement influence the affective salience of instruction, how safe students feel, and how they focus their attention and make decisions (Osher & Kendziora, 2010).

### Principles of practice

Acknowledging the importance and the interaction of these capacities, the science of learning and development suggests the following principles for educational practice:

1. Schools and classrooms should explicitly teach and provide regular opportunities to integrate social, emotional, and cognitive skills into academic curricula and throughout the school day.
2. Students should receive guidance and support to develop habits and mindsets that promote perseverance, resilience, agency, and self-direction (e.g., executive function, self-regulatory routines, stress management, growth mindset).
3. Schools should offer educative and restorative behavior supports that teach students skills which enable positive behaviors, encourage them to take responsibility, and, as needed, make amends to restore relationships and community health.

All of these practices support and derive from a school culture that aims to develop strong relationships, trust, positive interactions, and thoughtful development of student agency.

### Promoting social emotional learning with students

***Developing social-emotional skills.*** The Collaborative for Academic, Social, and Emotional Learning (CASEL) identifies five main areas of social-emotional competence: *self-awareness* involves identifying emotions and accurate self-perceptions; *self-management* includes managing stress and controlling impulses, which includes aspects of executive function; *social awareness* entails perspective taking, empathy, and appreciation for diversity; *relationship skills* involving communication and cooperation are about establishing and maintaining healthy relationships; and *responsible decision making* focuses on skills like identifying problems, evaluating, reflecting, and acting with consideration for the well-being of oneself and others.

Some approaches to fostering students' academic, social, and emotional learning are delivered through stand-alone instruction, while others focus on integration of skills within the core academic curriculum. Formal programs teaching SEL have shown considerable success. A meta-analysis of 213 controlled studies of SEL programs, representing more than 270,000 students from urban, suburban, and rural schools, found participating students showed greater improvements than comparison students in their social and emotional skills; attitudes about themselves, others, and school; social and classroom behavior; test scores and school grades, including an aveage 11 percentile point gain in achievement, with an overall mean effect size of .27 for academic performance and .57 for SEL skills. Students also experienced reductions in misbehavior, aggression, stress and depression (Durlak et al., 2011). Benefits of SEL interventions on skills, attitudes, behavior, and academic performance have been found to endure and serve as a protective factor (e.g., preventing conduct problems and drug use) on follow-up measures collected 6 months to 18 years later (Taylor, Oberle, Durlak, & Weissberg, 2017).

Effective SEL programs provide instruction that is sequential, active, focused, and explicit (Durlak et al., 2011). SEL programing is more effective when conducted by school personnel who themselves have opportunities to support and deepen their own skills (Weissberg, Durlak, Domitrovich, & Gullotta, 2015). This highlights the critical need for ongoing professional development around educators' social-emotional skills as a vital element for promoting these capacities in students. Outcomes can also be enhanced when SEL is embedded throughout the school day, and integrated into other subject matter rather than introduced as stand-alone curriculum (Jones & Bouffard, 2012). More integration allows for strengthening of skills and transfer of learning by capitalizing on teachable moments and opportunities to reinforce and practice skills throughout the school day. Mindfulness practice, which cultivates greater awareness of one's experience infused with kindness (Kabat-Zinn, 1994), and related contemplative practices have also been linked to more prosocial behavior and reductions in implicit bias (Kang, Gray, & Dovidio, 2014; Lim, Condon, & DeSteno, 2015).

***Implementing SEL Practices in Schools.*** An agenda to develop these critically important skills may begin by implementing efficacious SEL programs and other specific interventions, such as those included in guides provided by Center for Academic, Social, Emotional Learning (CASEL, 2013) and the U.S. Department of Education. Identifying common ingredients that are shared across effective programs and integrated into schools' normal routines (e.g., class meetings) and daily pedagogical practice can support a more integrated approach (Jones & Bouffard, 2012). For example, the American Institutes for Research identified 10 instructional strategies that teachers use throughout the school day that can affect students' social and emotional skills. Examples include the kind of language teachers use, cooperative learning, and student-centered discipline (Yoder, 2014), all practices we treat elsewhere in this article.

In studies of high schools organized to develop socially and emotionally competent students, researchers found that student engagement, achievement, and positive behavior (being collaborative and supportive of their peers, resilient, employing a growth mindset, valuing opportunities to help others) were associated with infusion of social and emotional learning opportunities in every aspect of the school. This ranged from curriculum focused on perspective-taking and empathy in history and English language arts to community and social problem solving in social studies, math, and science; community service projects; and the teaching of specific conflict resolution strategies and the use of restorative practices (Hamedani, Zheng, Darling-Hammond, Andree, & Quinn, 2015). A whole school approach imbued with a social justice orientation, underscoring themes of interdependence and social engagement in daily activities, enabled students to act as agents of change, which enhanced their motivation and sense of agency, increased achievement and attainment, and reduced educational inequality.

## Developing habits, beliefs, and mindsets

A wide range of habits, beliefs, and mindsets influence emotions and learning, shaping how children approach and engage with the world, how they interpret the messages they receive, and how they respond to opportunities and challenges. Here we discuss those related to cultivating executive functions, developing productive mindsets, and reducing stress and trauma.

***Cultivating executive functions (EFs).*** Among the habits important for school success are those associated with the executive functions, which operate in four interrelated executive domains – attentional control, cognitive flexibility, goal setting, and information processing, which operate in an integrative manner to enable "executive control" (Anderson, 2002). Children are engaged in exercising EF throughout the school day: to focus on their assignment and not get sidetracked by distracting thoughts, to follow multi-step instructions and make adjustments as necessary, and to take turns during play, to name a few examples. Although explicit development of executive functions has often been restricted to special education settings, most children need support to develop these skills optimally.

Teachers can offer explicit opportunities to learn executive functions by providing tools and modeling to help students learn to organize themselves, think ahead, plan their actions, and decide on what behaviors they will pursue, rather than reacting impulsively. As we discussed earlier, these are skills and habits that are reinforced by the development of metacognitive skills, which allow children to reflect on and evaluate their plans and decisions. As teachers assign and scaffold complex work, they are building executive functioning and metacognitive skills.

A well-scaffolded environment with strong organizational routines can help promote EF as students learn to model approaches to tasks that can become part of their own organizational structures and self-management later. These reliable approaches to tasks—ranging from organizing one's notebook to engaging in instructional conversations or collaborative tasks—can reduce cognitive load and promote learning as executive functions develop, while modeling strategies that can become part of the EF repertoire if teachers are explicit about their reasons for different structures and if they gradually reduce scaffolding over time.

Executive functions have been shown to improve through repeated practice coupled with increased challenge via games, aerobics, martial arts, yoga, mindfulness, and school curricula (Diamond & Lee, 2011). Executive functions training can also be part of broader SEL programs, and has been found to be beneficial to young children from the preschool years to pre-adolescence (Bierman, Nix, Greenberg, Blair, & Domitrovich, 2008; Diamond & Lee, 2011). Although explicit EF training is often targeted toward younger students, brain development spurts in adolescence enable young people to think abstractly and become more deeply reflective. Explicitly fostering higher order executive skills at this age can lead to the greater levels of self-direction needed as students enter secondary school and, later, college and careers.

***Developing Productive Mindsets.*** Students' beliefs and attitudes have a powerful effect on their learning and achievement. Four key mindsets have been identified as conducive to perseverance and academic success for students: 1) a belief that one belongs at school, 2) belief in the value of the work, 3) belief that effort will lead to increased competence, and 4) sense of self-efficacy and the ability to succeed (Farrington, 2013). The types of messages conveyed by teachers and schools and corresponding attitudes may be especially relevant with adolescents for whom the explicit skills training approaches that work for younger children tend to be less beneficial. Effective programs that promote stronger learning for adolescents involve creating climates in which adolescents feel respected and affirmed, and giving them challenging work on which they are enabled to improve (Dweck, 2017; Yeager & Walton, 2011).

The belief that effort will lead to increased competence constitutes a growth mindset, which has been found to foster greater achievement and well-being across academic, emotional, and social domains (Dweck, 2000, 2017). The core principle, that skills can always be developed, is consistent with the science of neuroplasticity: that the brain is constantly growing and changing in response to experience. Learning this fact alone has been found to help change students' perspectives on their learning. Providing feedback focused on effort and process encourages students to adopt a growth mindset, whereas feedback that focuses on traits (e.g., "smarts") depresses student motivation and achievement. Providing students with meaningful learning challenges, supports, and a clear sense of progress leading to mastery helps students develop a growth mindset (Dweck, 2017).

Students from groups that experience discrimination face particular challenges in feeling confident that their efforts will produce positive outcomes. Teachers can reduce student self-doubt and bolster confidence by showing that they value students. For example, affirmation interventions that guided students to share their personal goals for learning with their teachers in notes to which teachers responded were found to reduce the effect of stereotype threat among middle-school students, resulting in higher academic performance for Black students with gains in grades sustained as long as two years later (Cohen et al., 2009). Shaping productive mindsets can set into motion a cascade of effects that accumulate over time to result in more positive school outcomes; for example, increasing school affiliation and self-concept,

resulting in higher levels of academic engagement that becomes self-reinforcing (Yeager & Walton, 2011). A positive racial identity can also buffer societal negative stereotypes (Yip, 2018).

***Reducing the effects of stress and trauma.*** When children or adults are distracted by concerns that flow from their lives outside the classroom or social dynamics within the classroom, their capacity to focus on learning can suffer (Center on the Developing Child, 2016). Traumatic or strongly emotional events can simultaneously influence the regulation of affect (for example, feelings of depression or anxiety), physical phenomena (such as heart rate or adrenaline production), and cognition (for example, executive functioning and working memory). Chronic stress due to trauma affects cognition and working memory. Cognitive load in the classroom is exacerbated by a lack of safety and belonging.

Teachers' abilities to maintain a supportive, culturally responsive environment with consistent routines support student learning by reducing hyper-vigilence, anxiety, and extraneous cognitive load. School support systems that offer counseling and social supports when children experience adversity, described in the Educative and Restorative Approaches to Behavior section, are also important to enable children to manage their emotions and improve their circumstances so that they are able to learn.

Researchers have also investigated mindfulness as a tool to reduce stress and cultivate calmness and attention. Mindfulness practice strengthens internal and external awareness by bringing deliberate attention to all of one's experience, including breath, body, thoughts, feelings, and the surrounding environment (Kabat-Zinn, 1994). The practice of mindfulness promotes neural integration, and may be particularly helpful during the period of adolescent brain remodeling, contributing to higher capacities for regulation (Siegel, 2013). The use of mindfulness strategies for monitoring and redirecting attention has begun to show benefits for learning at all ages. A meta-analysis of 24 studies investigating mindfulness training with children in school settings found positive effects, with moderate effect sizes, on cognitive performance (particularly attention), stress reduction, and resilience (Zenner et al., 2014).

### *Educative and restorative approaches to behavior*

A developmentally appropriate approach to behavior management recognizes students' behaviors as demonstrations of a developmental need and as a set of skills that need to be taught and developed, not demanded. Explicit teaching of self-regulation, conflict resolution, and other skills creates a virtuous circle of responsible behavior. Studies have found, for example, that even in elementary school, when students learn and practice skills of conflict resolution, they become more inclined to work out problems among themselves before the problems escalate (Johnson, Johnson, Dudley, & Acikgoz, 1994). Students who have been aggressive benefit especially from learning specific skills for managing conflicts peacefully that differ from what they have previously learned at home or from peers (Tyrrell, Scully, & Halligan, 1998). The results of such teaching are increased social support, improved relations, higher self-esteem, increases in personal control, and higher academic performance (Deutsch, 1992).

Research also finds that coercive discipline, in which teachers manage student behavior largely through punishments, inhibits the students' development of responsibility, ultimately increasing misbehavior, as students increasingly abandon their own self-responsibility for their learning and behavior and develop resistance and opposition to school (Lewis, 2001; Mayer, 1995), while exacerbating discriminatory treatment of students (Townsend, 2000).

A punitive environment undermines learning by heightening anxiety and stress, placing extra demands on working memory and cognitive resources, which drains energy available to address classroom tasks (e.g., Pennington, Heim, Levy, & Larkin, 2016). By contrast, an educative approach supports learning, as teachers's proactive and positive responses create a safe and empowering classroom environment through reinforcing and reminding language (including verbal and nonverbal cues), approaching students in a nonthreatening manner, presenting students with problem-solving options as a means of deescalating

potentially explosive situations, and using nonpunitive, restorative consequences (Turnaround for Children, 2016).

Students who learn in such supportive communities have higher levels of self-understanding, commitment, performance, and belongingness, and fewer discipline problems (Sergiovanni, 1994). These settings reduce the likelihood of disruptive behavior occurring in the first place. Authoritative approaches that strengthen interpersonal supports and connections, establish structures for fair processes, and encourage student voice are especially responsive to the developmental needs of adolescents and in line with a style that is known to be beneficial for parenting, as well as teaching (Gregory, Clawson, Davis, & Gerewitz, 2016).

Educative approaches are also important for addressing the excessive reliance on exclusionary discipline in many schools, which persists in spite of evidence that punishment and exclusion do not work and often have harmful effects (Mayer, 1995; Osher, Bear, Sprague, & Doyle, 2010). This is particularly the case for many students of color, who are not only disproportionately removed from class and school, but also are removed for longer terms, with disproportionalities being the largest in subjective offenses that are more likely to be affected by implicit as well as explicit bias. Exclusionary discipline does not teach students new strategies they can use to interact and solve problems, nor does it enable teachers to understand how they may unintentionally trigger or escalate problem behavior (Losen, 2015).

School discipline policies that exclude students through suspension and expulsion create a range of dysfunctional consequences: The more time students spend out of the classroom, the more their sense of connection to the school wanes, both socially and academically. This distance promotes disengaged behaviors, such as truancy, chronic absenteeism, and antisocial behavior (Hemphill et al., 2006), which, in turn, exacerbates a widening achievement gap. The frequency of student suspensions is linked to academic declines and an increased likelihood of dropping out (Raffaele Mendez, 2003).

Many schools have started to reduce their suspension and expulsion rates by adopting restorative practices that focus on reflection, communication, community building, relational-based discipline, and making amends instead of relying on punishment (Karp & Breslin, 2001; Skiba, Arredondo, & Rausch, 2014). Restorative discipline is an approach to dealing with conflict built on relational trust, with systems—including peace circles and peer or adult mediation—by which students reflect on any mistakes, repair damage to the community, restore relationships, and get counseling and other supports where needed. Restorative practices also include universal interventions such as daily classroom meetings, discussions of how to manage feelings, and conflict resolution strategies.

Syntheses of research suggest that restorative practices result in fewer and less racially disparate suspensions and expulsions, fewer disciplinary referrals, improved school climate, higher quality teacher-student relationships, and improved academic achievement across elementary and secondary classrooms (Fronius, Persson, Guckenburg, Hurley, & Petrosino, 2016; Gregory, Clawson, Davis, & Gerewitz, 2016). The more comprehensive and well-infused the approach, the stronger the outcomes. For example, a continuum model including proactive restorative exchanges, affirmative statements, informal conferences, large group circles, and restorative conferences, substantially changed school culture and outcomes rapidly in one major district, as disparities in school discipline were reduced every year for each racial group, and gains were made in academic achievement across all subjects in nearly every grade level (Gonzalez, 2015). Creating an environment in which students learn to be responsible and are given the opportunity for agency and contribution can transform social, emotional, and academic behavior and outcomes.

***Summary.*** Student learning and behavior benefit from explicit teaching of social-emotional skills and opportunities to practice those skills throughout the day. As teachers infuse skills such as self-management, empathy, collaboration, and responsible decision making into instruction, and explicitly cultivate executive functions that support SEL through classroom routines and habits, they strengthen students' abilities to

focus and persevere in their learning. Teachers also play an important role in shaping students' beliefs about their own abilities, their sense of belonging, and their academic mindset. Self-efficacy is enhanced by a student's confidence that effort increases competence. A growth mindset enables students to engage more productively in academic pursuits and to persevere in the face of challenges. All of these are supported by an inclusive school environment that uses educative and restorative approaches to support behavior rather than relying on punitive methods that exclude and discourage students.

### System of supports

As schools develop supportive environments for all children's learning, they must also be prepared to address individual needs that can create barriers to learning and development. These may be the result of academic challenges or adverse childhood experiences, such as physical or mental illness, abuse, neglect, food or housing insecurity, exposure to violence, divorce, loss of a parent, or other difficulties. School environments that are trauma-sensitive incorporate a personalized approach to identify and address each child's developmental needs and provide children with psychological safety, adult alertness and responsiveness, and necessary supports.

## *What the science of learning and development tells us*

Cognitive, social and emotional competencies develop within a complex system of contexts, interactions and relationships, all of which matter for children's outcomes. Adversity and trauma occur in all communities, as does healthy development. In the context of adverse childhood experiences, excessive stress at home, school or in other aspects of the community can undermine brain development and learning, and have profound effects on children's well-being. Well-designed supports, including strong relationships as well as specific programs that prevent or buffer children against excessive stress, can reduce vulnerability (Spencer, 2007) and enable resilience and success even for children who have faced serious adversity and trauma (Cantor et al., 2018; Osher et al., 2018). Teachers and other adults should be trained to work with children who have been traumatized and supported in the development of their skills and the management of their own stress so that their actions can be experienced by students as being helpful and compassionate (Osher, Kidron, DeCandia, Kendziora, & Weissberg, 2016).

## *Principles of practice*

To address children's needs as they occur, the science of learning and development suggests the following principles for practice:

1. Schools should create a collaborative multi-tiered system of supports to meet student needs and address learning barriers both in and out of the classroom based on a shared developmental framework uniting staff, families, and support providers.
2. Schools should develop internal student support structures (e.g., counseling and student support teams) and coordinate access to integrated services (including physical and mental health and social service supports) that enable children's healthy development, via on-site supports and partnerships with community providers.
3. Extended learning opportunities should be designed to support personalized instruction and mentoring that nurture positive developmental relationships, support mastery learning, and close achievement gaps.

## *Multi-tiered systems of support to address student needs*

A key aspect of creating a supportive environment is a shared developmental framework among all of the adults in the school, coupled with procedures for ensuring that students receive additional help for social-emotional or academic needs when they need them, without costly and elaborate labeling procedures standing in the way. Multi-tiered systems of support include multi-disciplinary student support teams, on site pupil services personnel (e.g., social workers, school psychologists, counselors, and nurses) who are skilled in culturally competent academic and behavioral assessment, care coordination, and family engagement with support teams.

Most such systems include three tiers of support involving, first, promotion and prevention, then selective intervention, and intensive intervention (Adelman & Taylor, 2008). The first tier is universal—everyone experiences it. Ideally, teaching strategies are grounded in universal designs for learning that are broadly successful with children who learn in different ways, as well as positive behavioral support strategies that are culturally and linguistically competent (Osher, Kidron, Brackett, et al., 2016). Tier 2 services and supports address the needs of individuals who are at some elevated level of risk or who need some additional support in particular areas. The risk may be demonstrated by behavior (e.g., number of absences), by academic struggles (e.g., difficulty reading), or by having experienced a known risk factor (e.g., the loss of a parent). Tier 2 services could include academic supports (e.g., Reading Recovery, math tutoring, extended learning time) or family outreach, counseling, and behavioral supports. Tier 3 services involve intensive interventions for individuals who are at particulary high levels of risk or whose needs are not sufficiently met by Tier 2 interventions. Tier 3 services might include wraparound services and effective special education.

Interventions are tiered, not students, and supports can and should be provided in normative environments. Students are not “tier 2 or 3 students”; they receive services as needed for as long as needed but no longer. Providers should recognize that student have strengths in many areas and build upon student assets, not just focus on deficits. It is particularly important that Tier 2 and 3 services be implemented in a child- and family-driven manner that is culturally competent. This can maximize engagement and minimize errors that occur when students, families, or teachers are not asked about their context and needs. Interventions should minimize removal from the mainstream classroom or extracurricular environments and learning. These supports often benefit from collaboration with local service agencies and community-based organizations with communication feedback loops to school-based staff. The key is that a whole child approach is taken whereby students are treated in connected, rather than fragmented ways and care is personalized to the needs of individuals.

Helping staff and parents better understand child development is critical so that they can use information about children in productive ways to foster their deeper attachment and growth. When staff and parents work together from a developmentally informed framework, substantial improvements occur for children. The School Development Program (SDP) is an example of this approach and illustrates how to enact many of the other SoLD principles (Darling-Hammond, et al. 2018). Building upon relationships and school culture to address 6 developmental pathways—social-interactive, psycho-emotional, ethical, cognitive, linguistic and physical—the program establishes collaborative working relationships among principals, parents, teachers, community leaders, and health-care workers, teaching them about child development and grounding collective action in a shared developmental framework for multi-tiered supports (Darling-Hammond et al., 2018). Research on the SDP shows that it helps reduce absenteeism and suspension, improves school climate and relationships among students and teachers, increases student self-competence and self-concept, and strengthens achievement (for reviews, see Darling-Hammond et al., 2018; Lunenburg, 2011).

### *Integrated student services*

Awareness of the pervasiveness of student toxic stress across the income spectrum as well as growth of child poverty in economically traumatized communities has created additional demands for health, mental health, and social service supports that are needed for children's healthy development and to address barriers to learning. A number of approaches have emerged to creating integrated student services, also called wraparound services, which link schools to a range of academic, health, and social services. ISS programs address the reality that children whose families are struggling with poverty—and the housing, health and safety concerns that often go with it—cannot learn most effectively unless their nonacademic needs are also met. The goal is to remove barriers to school success by connecting students and families to service providers in the community, or bringing those services into the school.

Examples include Schools of the Twenty-First Century in New Haven, Connecticut, the Children's Aid Society in New York City, the West Philadelphia Improvement Corps, and Communities in Schools programs in 25 states, all of which have brought social services to schools through community partnerships for over 30 years. These and other models provide on-site child care and early childhood development; job training, transportation, and housing assistance for parents; health care and mental health services, child nutrition, and food assistance programs. A social worker or community school coordinator conducts needs assessments, partners with agencies outside the school, and tracks program data (Moore & Emig, 2014).

A research synthesis that examined 11 experimental and quasi-experimental studies of ISS models found significant positive effects on student progress in school, attendance, mathematics and reading achievement, and overall grade point averages. These studies also found measurable decreases in grade retention, dropout rates, and absenteeism (Moore & Emig, 2014). A study of the Massachusetts Department of Elementary and Secondary Education Wraparound Zones program, which set up partnerships with community groups to improve school climate and address students' nonacademic needs, found student outcomes on state English language arts and math assessments in wraparound schools were significantly better than those in matched schools (Gandhi, et al., 2015).

Many of these features come together in well-designed community school models. Community schools represent a place-based school improvement strategy in which "schools partner with community agencies and resources to provide an integrated focus on academics, health and social services, youth and community development, and community engagement" (Coalition for Community Schools, 2018, p. 1). Many operate year-round, from morning to evening, serving both children and adults. A recent review of 125 studies of community schools and their components, which include integrated services, family engagement, expanded learning time, and collaborative partnerships, found significant evidence for the benefits of these approaches for student outcomes ranging from attendance and behavior to student achievement and graduation (Oakes et al., 2017). In these models, schools draw on a wide range of community and cultural resources to strengthen trust and build resilience as children have more support systems and people working together to help address the adversities they may face.

### *Extended learning time*

Given the plasticity of the brain, and its experience dependency, the amount and consistency of cognitive stimulation matters. By high school, as much as two-thirds of the difference in achievement between affluent and low-income students is the cumulative result of summer learning loss for those who lack year-round enrichment and learning opportunities (Alexander, Entwisle, & Olson, 2001), and lose about one month of achievement on average during the summer (Cooper et al., 1996).

Extending learning time is one way to address these gaps. Before and after school and summer programs can expand learning opportunities for students. Examples of out-of-school time (OST) enrichment activities include additional academic instruction, mentoring, and hands-on learning experiences, in music, art, and athletics. Research consistently documents the benefits of such programs, with the greatest academic gains

associated with frequent attendance in longer duration programs with high quality instruction (Oakes et al., 2017).

In a meta-analysis of 93 summer programs, Cooper et al. (2000) found positive impacts on knowledge and skills for middle- and low-income students from programs focused on both remediation and enrichment, with an average effect size of 0.25. The strongest effects were found for smaller programs and those that provided more individualized and small-group instruction. However, even the largest programs showed positive effects. Other reviews show similar effects (McCombs et al., 2011), and a review of effects for "at-risk" students found stronger outcomes for longer programs and those with both social and academic foci than for those that were academic alone (Lauer et al., 2006). Furthermore, as in other contexts, programs featuring tutoring in a content field such as reading had substantial effects.

After school programs can also make a difference. A meta-analysis of 68 studies of afterschool programs —ranging from Twenty-First Century Community Learning Centers, programs conducted by Boys and Girls and 4-H Clubs, and others—found positive impacts of participation on self-perception, bonding to school, social behaviors, school grades and levels of academic achievement, as well as significant reductions in problem behaviors, compared with students in a control groups (Durlak, Weissberg, & Pachan, 2010). Notably, the afterschool programs that demonstate the most success implement practices that are consistent with SoLD principles: they build on youth, family, and community assets; build developmental relationships with youth and create a warm and welcoming environment; support skill building, and provide authentic opportunities for youth voice, choice, and leadership (Moroney, Newman, & Osher, 2018).

***Summary.*** A system of supports for students can take many forms, including multi-tiered systems of support, access to an integrated system of services, and extended learning opportunities. These supports aim to remove barriers to school success by reaching all students with the kind of support needed. Importantly, they connect students and families to services that promote holistic development, including children's physical and mental health, as well as needed opportunities to learn, as these capacities are vital to social and academic success.

## Conclusion

The foundational knowledge provided by the sciences of learning and development, coupled with decades of insights from educational research, provides a framework for supporting children's welfare across the wide range of contexts they experience. This knowledge base indicates the importance of rethinking institutions designed a century ago based on factory-model conceptions of organizations that privileged standardization and minimized relationships. It indicates how schools can be organized around developmentally-supportive relationships; coherent and well-integrated approaches to supports, including home and school connections; well-scaffolded instruction that intentionally supports the development of social, emotional, and academic skills, habits, and mindsets; and culturally competent, personalized responses to the assets and needs that each individual child presents. A summary of the four principles of practices with examples of each facet is provided in Table 1.

**Table 1**. Practices aligned with the science of learning and development. (Table view)

| I. Supportive Environment | | | II. Productive Instructional Strategies | | |
|---|---|---|---|---|---|
| Structures for Effective Caring | Classroom Learning Communities | Connections among staff and families | Student-centered instruction | Conceptual understanding & Motivation | Learni learn |

| I. Supportive Environment | | | II. Productive Instructional Strategies | | |
|---|---|---|---|---|---|
| • Small schools<br>• Small class size<br>• Advisories<br>• Block scheduling<br>• Looping<br>• Teaching teams<br>• Longer grade spans | • Intentional community-building<br>• Cultural competence<br>• Identity safety<br>• Consistent routines | • Relational trust<br>• Staff collaboration<br>• Home visits<br>• Regular parent conferences<br>• Authentic family engagement | • Building on prior experience<br>• Teaching to readiness<br>• Personalization<br>• Collaborative learning<br>• Cognitive supports | • Conceptual map of the domain<br>• Inquiry + explicit instruction<br>• Motivating tasks with skillful scaffolding<br>• Interest-driven learning | • T<br>m<br>+<br>s<br>• F<br>fe<br>p<br>re<br>• M<br>o<br>p<br>a |

| III. Social and Emotional Development | | | IV. System of Supports | | |
|---|---|---|---|---|---|
| Integration of Social Emotional Skills | Development of Habits & Mindsets | Educative & Restorative Behavioral Supports | Multi-tiered systems of support (MTSS) | Coordinated access to integrated services | Extenc<br>opport |
| • Teach intra- and inter-personal skills, empathy, conflict resolution, collaboration, responsibility<br>• Integrate & practice skills throughout the day | • Teach executive functions<br>• Develop growth mindset, self-efficacy, sense of belonging<br>• Use mindfulness, tools for stress management | • Teach students behavioral skills & responsibility<br>• Cultivate community contributions<br>• Repair harm by making amends | • Tier 1: Use universal designs for learning and knowledge of child development<br>• Tier 2: Diagnostically identify additional services needed<br>• Tier 3: Provide intensive interventions | • Wraparound health, mental health and social services<br>• Community partnerships<br>• Family & community engagement | • B<br>s<br>e<br>m<br>a<br>s<br>• S<br>le<br>o<br>• T |

Implementing the breadth of practices covered here depends upon policies that enable schools to address the scale of re-organization required. Challenges to implementation include limitations of curriculum available to address the range of goals articulated here and the breadth of knowledge that teachers need to learn to adapt such curricula in ways that address students' needs; limitations of current assessments for addressing learning aimed at transfer and higher order thinking and performance skills; and insufficient supports for teachers and administrators at the school, district and state levels to develop the requisite knowledge base and dispositions to carry out the quality of teaching and organization of schools suggested here.

However, evidence from successful strategies and programs illustrates that it is possible to support productive learning and development for all young people. Analyses of ambitious, integrated approaches to education at the school, district, state, and national levels have shown that with intensive preparation, purposeful curriculum systems, and equitable resources, educators can create supportive environments for children and youth that enable healthy development and powerful learning, even for those who experience

the adverse effects of poverty (see, for example, Darling-Hammond, 2010). These examples make it clear that broader application of this knowledge base cannot be the responsibility of teachers and principals alone. Adequate support and preparation for educators alongside the development of thoughtful curriculum and assessments, as well as sound resource policy based on students' needs, is required to achieve these goals at scale.

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**Tulsa Public Schools**
**Research Supporting a 7-12 School Configuration**

## I. Minimizing Transitions to Improve Academic Achievement:

A transition from one school to another brings a different facility, unfamiliar teachers and administrators, new groups of friendships and classmates, as well as different expectations. As detailed below, research reveals that school-to-school transitions negatively impact academic achievement. The fewer transitions, the better chance a student has of completing high school. If there is a transition into a new school for high school instruction, however, grade 7 is preferable to transitioning in later years. Schools with more grades, and fewer students per grade, are also related to improvements in academic achievement and the dropout rate.

- There is a decline in achievement during a student's transition year from elementary school to the next level. As the number of transitions experienced by a student increases, so does the high school dropout rate. Further, the higher the transition grade level (the later the student transitions into the high school), the higher the dropout rate, most significantly for boys. Specifically, of the high school configurations studied (7-12, 9-12, and 10-12), the lowest high school dropout rates were seen in high schools where students transitioned in at grade 7. The highest dropout levels were seen in 10-12 grade high schools. Alspaugh suggests that the link between higher dropout rates and later-grade transition years is most likely attributed to the academic achievement loss commonly experienced during the transition year and the fact that students transitioning at grade 7, as opposed to grade 9 or 10, have more time to acclimate to high school. In addition, he notes that schools with more grades (i.e., 7-12 schools) are usually smaller schools with fewer students per grade. Smaller high schools typically have lower dropout rates than larger schools. Consequently, his findings also supported previous research that with regard to minimizing dropout rates, it is optimal to structure schools with more grades and fewer students per grade. (Alspaugh, J. W. (1999). *The interaction effect of transition grade to high school with gender and grade level upon dropout rates.* (ED 431066). Paper presented at the Annual Meeting of the American Educational Research Association); (Alspaugh, J. W. and Harting R. D. (1995). *Transition effects of school grade-level organization on student achievement*. Journal of Research and Development in Education. 28(3), 145-49).

- In a study of eight different schools with seven different grade spans, researchers found that sixth-grade students in both elementary and combination K-12 schools outperformed sixth graders in middle schools or junior high schools and considered the number of transitions a significant factor. (Paglin, Catherine, & Fager, Jennifer. (1997). *Grade configuration: Who goes where*. Northwest Regional Educational Laboratory. http://educationnorthwest.org/webfm_send/464).

- A 2003 study of 232 schools in Michigan revealed that the reduction of school-to-school transitions is correlated with improvements in student achievement and that longer grade spans within schools is positively correlated with student achievement. The number of transitions was a significant predictor of student achievement. The study evaluated student performance on the state assessment administered in grades 4, 5, 7, 8 and 11.

(Wren, Stephanie (2003). *The Effect of Grade Span Configuration and School to School Transition on Student Achievement*). ED479332. 2003. http://www.eric.ed.gov).

- A researcher from Johns Hopkins revealed in a 1987 study that the positive impact of longer grade spans in schools teaching sixth graders was an advantage most evident among students of lower socio-economic status. (Becker, H. J. (1987). *Addressing the needs of different groups of early adolescents: Effects of varying school and classroom organizational practices on students from different social backgrounds and abilities.* Office of Educational Research and Improvement, U.S. Dept. of Education).

- Some studies have found that schools with more grade levels per building (i.e., fewer number of transitions) evidenced not only higher academic achievement, but also better attendance rates, self-esteem and attitudes towards school, with fewer suspensions and behavior problems, regardless of socioeconomic status (Alspaugh, *supra*) (Offenberg, R.M. (2001). *The efficacy of Philadelphia's K-to-8 schools compared to middle grades schools*. Middle School Journal, 35(1)).

- A 1997 study of Connecticut elementary and middle schools found that sixth graders performed better on standardized tests when they were in K-6 configurations, as opposed to 6-8 middle school configurations. The researchers also determined that a K-6 configuration led to greater school accountability for sixth grade performance than that occurring in a 6-8$^{th}$ grade configuration. (Tucker, Charlene G., and Andrada, Gilbert N (1997). *Accountability Works: Analysis of Performance by Grade Span of School.* Paper presented at the Annual Meeting of the American Educational Research Association. ED 411 278. http://www.eric.ed.gov ).

## II. Other Benefits of the PK-6/7-12 Grade Configuration:

- In elementary schools, student environment is more nurturing with fewer stressors than a middle school. The stressors of a middle or high school—navigating through the school, forming peer relations, organizational instructional adjustments—are so critical that they neutralize or even diminish the achievement gains made in elementary school. (Wren, *supra* ).

- Schools with a broad span of grade levels present opportunities that do not exist in middle schools. There is more opportunity for cross-age activities such as tutoring and older role model programs like "kindergarten buddies." Parents are more involved in a school in which their children are more likely to be in the same building. (Paglin & Fager, *supra*).

- The shift to longer grade span elementary schools allows students to stay in their neighborhood schools for a longer period of time. (George, P.S. (2005). *K-8 or Not? Reconfiguring the Middle Grades*. Middle School Journal. 37(1)).

- Having schools with longer grade spans allows for more collaboration among teachers across grade levels as well as better alignment of curriculum across grades. With regard

to a K-7 school, it can become a place where subject matter depth and expertise is more highly valued and leveraged than before the reconfiguration, and its secondary students and teachers can benefit from the "whole child" perspective of education more commonly found in elementary schools. (George, *supra*).

## III. Challenges and Criticisms of Middle Schools

A significant number of districts across the nation are transitioning away from the use of middle schools. The use of middle schools peaked in 2005 with just over 9,000 across the United States, and as of 2007-2008, the National Center for Education Statistics reported 500 fewer middle schools. David Hough, the dean of Missouri State's education school and a former editor with the Research in Middle Level Education recently reported that "the trend is definitely away from stand-alone middle schools" and estimated there will be fewer than 7,950 when the 2010 data are in. (*The Middle School Mess,* Education Next, Winter 2011). Many in the education reform community believe that the reconfiguration of schools is a response to the evidence showing that middle schools have failed to serve the academic and developmental needs of 6-8$^{th}$ grade students. *Id.* Studies critical of the middle school configuration include the following studies.

- In an award winning study by researchers from Duke and the University of California, researchers studied and compared sixth graders in North Carolina in the 2000-2001 school year who were in middle schools serving grades 6-8 and sixth graders who were kept within the elementary school. The researchers found that students who attended middle school in sixth grade were twice as likely to be disciplined relative to their counterparts in elementary school. They found that the behavioral problems of these middle-school sixth graders persisted beyond the sixth grade year through the ninth grade and that exposing sixth graders to older peers had persistent negative consequences on their academic trajectories. The authors note that their results complement the recent findings by other researchers that school systems that move sixth graders from elementary to middle school experience a 1-3 percent decline in on-time graduation rates. As such, the authors explained, "Based on our results, we suggest that there is a strong argument for separating sixth graders from older adolescents (Philip Cook, Robert MacCoun, Clara Muschkin, and Jacob Vigdor (2008). *The negative impacts of starting middle school in sixth grade.* Journal of Policy Analysis and Management, 27, 104-121).

- The 2010 study by Columbia Business School researchers Jonah Rockoff and Benjamin Lockwood concluded that "middle schools are not the best way to educate students" in urban districts. These researchers compared academic achievement of New York City's middle schools (6-8) to the city's K-8 schools. Data revealed that students who enter public middle schools in New York City fall behind their peers in K–8 schools. The effects are large, present for both math and English, and evident for girls as well as boys. The academic achievement lag persists at least through 8th grade, the highest grade for which we could obtain test scores. The most notable lag by students in middle school as compared to a K-8 school was experienced by children with lower initial levels of academic achievement. The researchers also found evidence that student absence rates increased when students entered middle schools as compared to their counterparts in a

K-8 school. Further, parents' perception of schools declined more in the 6th to 8th grade years when the students attended a middle school than when they attended a K-6 or K-8 school. Finally, sixth grade students reported less academic rigor, less mature social behavior among students, that the schools are less safe and that the school provides lower quality education than do sixth graders in K-6 or K-8 schools.

Rockoff and Lockwood explain that the grade size (cohort size) has a pronounced influence on student achievement in the 6th to 8th grade years. Though they could not find evidence to support any particular cause, they speculate that it is harder to educate middle-school aged students in large groups because of their developmental stage, which is characterized in part by negativity, low self-esteem, and an inability to judge the risks and consequences of actions. They also suggest that some of the difficulty is a result of the combining of students from multiple elementary schools, which disrupts students' immediate peer group.

(Benjamin Lockwood, Jonah Rockoff (2010, December). *Stuck in the Middle: Impacts of Grade Configuration in Public Schools*, Journal of Public Economics). (Offenberg, *supra.*)

- Several studies on grade configuration have reported middle schools to be less effective in terms of test scores than K-8 schools in the same district. The evidence is especially strong for students in high-poverty schools. (Offenberg, *supra*).

- An analysis and comparison of middle schools with various configurations revealed that each time students switch schools, their feelings of anonymity increase. Further, the researchers found that sixth-grade students in both elementary and combination K-12 schools outperformed students in middle schools or junior high schools and considered the number of transitions a significant factor. (Paglin & Fager, *supra*).

- Authors of a book regarding the interaction of puberty and school context report that upon transition into middle school or junior high school, girls in early adolescence frequently suffered from a drop in self-esteem, extracurricular participation, and leadership behaviors, but not if they remained in an elementary school setting. The effects of this transition persisted throughout the school years. For boys transitioning into middle and high school, there were similar negative effects in extracurricular participation and grades, but not in self-esteem. The authors concluded that the relatively protected elementary school setting made the entry into adolescence less stressful for both boys and girls. Moreover, the authors state that the students who had not had the stress of the earlier transition seemed to cope better with the transition into high school than did other students (Simmons & Blyth (1987). Moving Into Adolescence: The Impact of Pubertal Change and School Context).

- In a study undertaken in rural Louisiana schools that examined the relationship between grade configuration and student behavior, researchers concluded that longer grade spans were linked better behavior. Specifically, they found that sixth-grade boys experienced more suspensions in middle schools or junior high schools than in elementary schools, possibly related to the effects of the transition, the school organization, or school size.

(Franklin, B., Glascock, C. (1996). *The relationship between grade configuration and student performance in rural schools*. Paper presented at the Annual Conference of the National Rural Education Association).

## IV. Recommendations and Caveats Relating to School Configuration

- While research suggests that the absence of school-to-school transitions may be one factor that contributes to higher academic achievement in longer-spanning elementary schools, the programming and practices within those schools resulting from the longer grade span configuration are also likely drivers in the schools' improved achievement. As some educators and researchers explain: "Effective programs and practices, not grade configuration, determine the quality of schools." and "Grade configuration per se may not make the difference, but it does make a difference." (Coladarci, T. & Hancock, J. (2002). *Grade-Span Configurations: The (Limited) Evidence Regarding Effects of Academic Achievement.* ED467714, 8/2002. http://www.eric.ed.gov) quoting a finding of the National Middle School Association Research Summary.) (Regional Educational Laboratory Northeast and Islands (2010). *Reference Desk Response No. 431: School Grade Configurations K-8. N*ewton, MA).

- When school-to-school transitions must occur, regardless of the grade, there should be articulation and transition activities that ensure the alignment of curriculum and the smooth transition of students into a new school. "Teachers and students alike should have an informed view of the instructional and social world of the next school in line." (Coladarci, T. & Hancock, J. (2002). *Grade-Span Configurations: The (Limited) Evidence Regarding Effects of Academic Achievement.* ED467714, 8/2002. http://www.eric.ed.gov).

- When making decisions regarding grade configurations and adapting to new grade configurations, schools should consider and address the following:
  - The cost and length of student travel
  - That parent involvement typically decreases in the higher-level schools, but parent involvement is greater in elementary schools.
  - Combining schools into separate grade centers may affect whether neighborhood schools close or remain open.
  - Current buildings may have a design more suitable for several grade levels.
  - School population may increase or decrease substantially as configurations change.

  (Clearinghouse on Early Ed. and Parenting. http://ceep.crc.uiuc.edu/poptopics/gradeconfig.html).

Total number of middle, high, and combined schools and students and, among middle, high, and combined schools, average start time and percentage distribution of schools, by start time and selected school characteristics: 2015–16

| Selected school characteristic | Number of middle, high and combined | | Average start time | Percentage distribution of start times | | | | |
|---|---|---|---|---|---|---|---|---|
| | Schools | Students | | Before 7:30 a.m. | 7:30 a.m. to 7:59 a.m. | 8:00 a.m. to 8:29 a.m. | 8:30 a.m. to 8:59 a.m. | 9:00 a.m. or later |
| All public schools | 40,000 | 25,818,700 | 8:02 | 7.8 | 32.9 | 42.4 | 11.6 | 5.3 |
| School classification | | | | | | | | |
| Traditional public | 36,400 | 24,105,900 | 8:02 | 8.0 | 33.2 | 42.0 | 11.6 | 5.1 |
| Charter school | 3,600 | 1,712,800 | 8:05 | 5.7 | 29.6 | 45.9 | 10.9 | 7.9 |
| Community type | | | | | | | | |
| City | 10,000 | 7,470,900 | 8:08 | 7.8 | 28.4 | 36.8 | 16.6 | 10.4 |
| Suburban | 11,500 | 10,063,800 | 8:00 | 12.0 | 38.1 | 31.8 | 11.3 | 6.9 |
| Town | 6,200 | 3,132,500 | 8:00 | 4.2 | 32.6 | 52.8 | 8.7 | ‡ |
| Rural | 12,300 | 5,151,500 | 8:01 | 5.7 | 31.8 | 51.6 | 9.2 | 1.7 |
| School level | | | | | | | | |
| Middle | 13,900 | 8,554,500 | 8:04 | 6.7 | 35.4 | 39.2 | 12.2 | 6.3 |
| High | 17,900 | 14,345,400 | 7:59 | 10.4 | 35.8 | 40.4 | 9.6 | 3.8 |
| Combined | 8,200 | 2,918,800 | 8:07 | 4.0 | 22.4 | 51.9 | 14.6 | 7.1 |
| Student enrollment | | | | | | | | |
| Less than 100 | 4,600 | 199,800 | 8:09 | 3.7 ! | 23.9 | 45.3 | 19.1 | 8.0 |
| 100–199 | 4,000 | 574,700 | 8:10 | 6.6 | 23.3 | 43.7 | 16.7 | 9.7 |
| 200–499 | 11,300 | 3,867,800 | 8:02 | 4.6 | 34.0 | 50.2 | 7.7 | 3.5 |
| 500–749 | 7,400 | 4,550,300 | 8:00 | 8.2 | 38.1 | 40.0 | 9.8 | 3.9 |
| 750–999 | 4,900 | 4,229,700 | 8:02 | 7.9 | 35.0 | 40.6 | 11.1 | 5.4 |
| 1,000 or more | 7,700 | 12,396,300 | 7:58 | 15.2 | 35.3 | 31.8 | 12.2 | 5.6 |
| Percent of K–12 students who were approved for free or reduced–price lunches | | | | | | | | |
| 0–34 | 10,800 | 9,499,900 | 7:59 | 10.8 | 35.1 | 39.8 | 11.0 | 3.3 |
| 35–49 | 5,800 | 3,956,600 | 8:01 | 5.4 | 36.6 | 44.1 | 9.3 | 4.6 |
| 50–74 | 8,000 | 5,400,000 | 8:02 | 7.3 | 33.5 | 42.1 | 12.7 | 4.4 |
| 75 or more | 11,800 | 5,232,600 | 8:05 | 7.7 | 29.5 | 42.6 | 13.0 | 7.2 |
| School did not participate in free or reduced-price lunch program | 3,500 | 1,729,700 | 8:07 | 4.3 | 29.9 | 47.1 | 9.5 | 9.1 |

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate).

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.