

EVIDENCE-BASED PRACTICES TO PROMOTE AGENCY IN MIDDLE SCHOOL STUDENTS

Simple practices to activate the Social Development Strategy in a school setting



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Disclaimer

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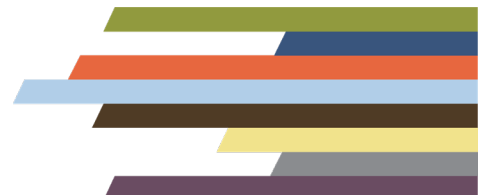


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EXECUTIVE SUMMARY

While building protection for all our young people is a common and aspirational goal for many in diverse walks of life, schools present a unique opportunity and challenge for doing so. This report describes a set of simple yet powerful practices that, when used consistently by teachers, can enhance middle school student agency and build student success skills.

Following on two collaborations with the Raikes Foundation and the State of Washington Office of Superintendent of Public Instruction, OSPI contracted with the Social Development Research Group along with the UW College of Education to establish methods for increasing student agency among middle school students. This was a unique effort—while much attention has been focused on discovering noncognitive skills and social-emotional supports for middle school students, few studies have sought out methods to increase these skills in meaningful ways. This work seeks to fill this gap in the implementation of effective practices for addressing student agency. This work was based on two important reports shared by the Raikes Foundation, the 2013 IMPAQ report on Student Agency in the Middle Shift and the report on the role of non-cognitive factors in the 2012 Chicago Consortium of Schools. Building upon these reports, this work aims to (1) [synthesize the research on evidence-based practices to promote student agency](#), (2) [develop a series of practice guides for teachers to use these practices in the classroom](#), and (3) [pilot test a brief training program](#).

This report summarizes these activities and aligns the evidence-based practices to the components of the Social Development Strategy, a strategy for enhancing daily interactions with young people that has been proven to have far-reaching positive effects on their development (see below).

1. [Research Synthesis on Evidence-Based Practices](#). A review of the literature was conducted to assess evidence-based practices that have proven effective in impacting middle school student agency and the previously identified student success skills. Twenty-one promising practices were identified from 49 studies. These ranged from relatively simple practices such as *Positive Greetings at the Door* to more complex ones such as Cooperative Learning. Each practice has been tested in at least one rigorous experimental trial with positive results, both in increasing agency and in academic effects.
2. [Professional Development Materials and Series](#). Practice guides were created for all 21 promising practices. In addition, a three-part professional development series was created based on the identified evidence-based practices. Thirteen of the practices were included in the series, with accompanying practice guides and teaching activities created to provide additional background, experience, and reference material to participants. The easily disseminated practice guides provide brief explanation of the practice and target skills, instruction in using the practice, background research, and other reference material to support the use of the practice. The practice guides are now available on the OSPI website.



3. *Professional Development Pilot Test.* The professional development series was piloted in the spring of 2015 at Eisenhower Middle School in the Everett Public Schools to assess the feasibility and acceptability of the practices, materials, and design of the sessions. Participants completed anonymous surveys providing quantitative ratings as well as qualitative responses. The data indicate a high level of satisfaction with the professional development series and a high degree of interest in using the practices.

Next Steps

We propose two potential next steps. The first would be to expand the intervention delivery methods by creating online tools such as web-based content, mobile apps, and video Modeling. The second would be to conduct an optimization study to assess the effectiveness of each strategy through the use of MOST, a research design that emphasizes analysis of the discrete intervention components.

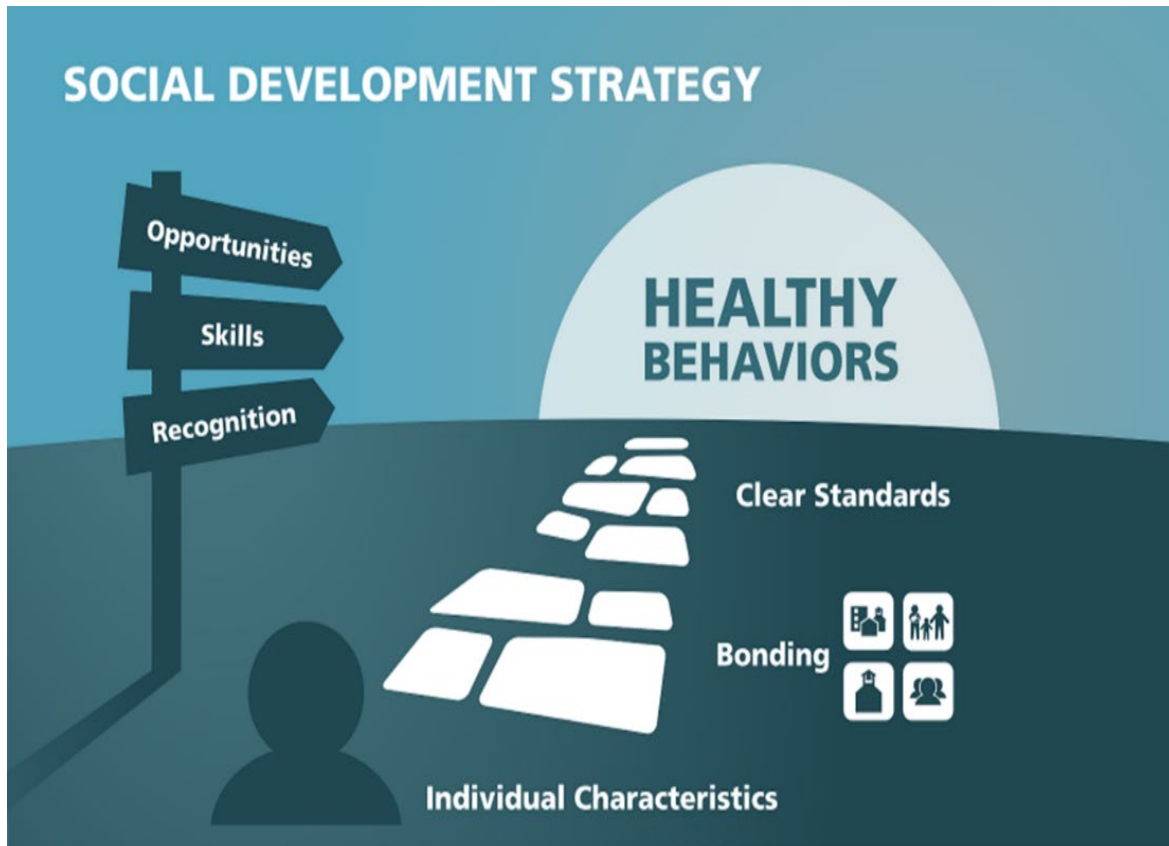
The Social Development Strategy

The Social Development Strategy (SDS) is a theoretical framework (Catalano & Hawkins, 1996; Hawkins & Weis, 1985; Cambron, 2019), that has been tested to explain positive and negative developmental pathways for children, youth, adolescents and young adults. It has been used to design interventions that have demonstrated positive, longitudinal impact on youth development, and in reducing health disparities (Haggerty & McCowan, 2018). The SDS functions as a framework not only for prevention, but for creating healthier environments for young people to grow, learn, live, and play. The SDS (also known as the social development Model) provides a framework for organizing protective processes that promote well-being for all youth.

The SDS (Figure 1) asserts that providing **opportunities** for youth to engage in prosocial activities and interactions; attention to youth **skills** development; and **recognition** of the prosocial efforts, improvements, and achievements of the community's youth population will lead to stronger **bonds** between young people and their caretakers. This bond becomes a motivation for the young person to abide by **clear standards** for health behavior that are communicated by those to whom the young person feels connected. By organizing processes around these leverage points, the SDS represents a set of prevention-system constructs that can be focused, activated, and reinforced in ways that are appropriate and meaningful to the individuals involved, to create the conditions needed to meet the grand challenge of healthy development for all youth (Haggerty & McCowan, 2018).



Figure 1. The Social Development Strategy



A challenge for families, schools and communities working to build protection for their young people lies in how to apply the SDS in practical ways in day-to-day life – by implementing programs, policies and practices that have been demonstrated in high quality studies to have the desired positive impact on youth development.

This report summarizes research findings and implementation tips for a set of 16 simple but potentially powerful practices that can be integrated into the school day and, when used effectively by middle school teachers, can enhance student agency and build protection.

Table 1 below lists the practices by name, and organizes them according to the component of the SDS that they build. The rest of this report provides detailed information about each practice, and the research behind the practices is summarized in the Appendices.



TABLE 1: EVIDENCE-BASED PRACTICES IN SDS COMPONENTS

Opportunities	Skills	Recognition	Bonding	Healthy Beliefs
Positive Greetings at the Door	Gratitude	5-1	Establish, Maintain, Restore	ACHIEVER Model
Emotional Hooks	WOOP	Wise Feedback	Acts of Kindness	Possible Selves
Choice Making	Self-evaluation/monitoring			Growth Mindset
Opportunities to Respond	Character Strengths			

-----Cooperative Learning-----

Practice Guides

For each of the evidence-based practices we developed an easy-to-use practice guide, which are provided in full in this report.

The guides provide an explanation of the practice, a sample of how it would be used in a classroom setting, a summary of what the practice looks and sounds like in a classroom setting, and a summary of the evidence base for the specific practice.

Below are the current versions of the practice guides and materials developed for use in the professional development course piloted in spring 2015.

Each practice guide, with the exceptions of the *ACHIEVER Model and Cooperative Learning*, feature seven sections: a reference chart, an explanation of the practice, the target outcomes, methodology for using the practice, how a classroom that uses the practice might look or sound, evidence for the practice, and a list of studies cited. Additional sections, such as commonly encountered obstacles, are sometimes included as applicable as well.



The Implementation Quick Reference Chart

The quick reference chart is meant to provide a guide on the evidence level, learning curve, ease of use, and time required to implement in class. The evidence levels mirror those established by the systematic review:

- *= Emerging (single quasi-experimental study),
- ** = Promising (multiple quasi-experimental study),
- *** = Strong (randomized control trial by single investigator),
- **** = Excellent (replication by multiple investigators).

The learning curve reflects how long a professional should expect to spend learning the practice before implementing it in the classroom:

- 1= Pick up and go (0 - 30 minutes)
- 2= Take a few extra minutes (30 minutes – 2 hours)
- 3= Nuanced: Set aside time (2 hours - 4 hours)
- 4= Complex: Extra time required (4+ hours needed)

The Ease of Use gives a basic guideline of the types of materials a professional would need to use the practice in the classroom:

- 1= No additional materials
- 2= Worksheets suggested
- 3= Additional supplies needed
- 4= Requires extra planning

The final category, Class Time Required, gives an approximate amount of class time needed to implement the practice, though the exact amount of time needed will be based on the usage of the practice and classroom needs. Below are the guidelines:

- None (*note: this will come with an explanation in the guide*)
- Minimal (<30 minutes/week)
- Moderate (30 minutes – 1 hour; more than once a week)
- Extensive (multiple hours per day)

[See the practice guides reproduced below.](#)



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Practices That Build Opportunities



Practice Profile: *Positive Greetings at the Door*

Implementation Quick Reference	
Evidence Level	Emerging (*)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What is Positive Greetings at the Door?

Positive Greetings at the Door is a practice of inviting students into the school day with a positive note. By engaging students in a positive interaction as they enter the classroom and transition into the school day, teachers have the opportunity to establish a positive atmosphere each day. Positive greetings can encompass anything from a smile to a short discussion about positive efforts a student can make that day or a quick chat about a conversation from the day before.

How will this help my students?

By greetings students as they enter the classroom, teachers have the chance to build better relationships with their students, start the day off positively, and pre-correct any potential problems for the day with individual students. [The purpose of this strategy is to act as a preventative for potential disruptions, streamline the transition into the school day, and improve student-teacher relationship.](#) By engaging with each student, teachers can establish a rapport with the student for that day and orient the students towards a specific task to open the day. Further, teachers can use this time to survey students and check whether there are any existing issues (e.g. a student is particularly tired or feeling angry about a situation outside of the classroom). This gives teachers the chance to prepare for potential issues and pre-correct students.

How does Positive Greetings at the Door work?

Positive Greetings at the Door is easy to introduce into the morning routine and can be used for a number of purposes. The following is one example:

- 1) As the start of classes approaches, have the classroom set up to facilitate the beginning of the day's lesson plan.



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- 2) Position yourself so that you are easily seen from the door. Ideally, stand just outside the door so you can actively greet students as they come in.
- 3) As students approach, engage each student by offering a warm smile or a welcoming comment.
 - a. Personalizing greetings is ideal (e.g. if you know a student has a birthday approaching, ask if they are getting excited for their birthday).
 - b. Use this as an opportunity to check in with students who may have had behavioral lapses the day before or might be having a hard morning.
- 4) Direct students towards an “Opening the day” activity to minimize disruptiveness in starting the school day or class period.

As an added effect, if multiple teachers in a school do this strategy, it provides a great way to passively monitor the hallways and keep an adult presence in the halls in between class sessions. This can prevent hallway issues and minimize the impact of any that do happen.



What does *Positive Greetings at the Door* look like and sound like in the classroom?

Positive Greetings at the Door will generate a more positive atmosphere and increase student feelings of connectedness and belonging the classroom. As a result academic engagement improves and students are less likely to create classroom disruptions.

Student-teacher relationships are more positive and supportive

- Through morning conversations, Mrs. Ovell discovers that Henry, who sometimes struggles to stay focused, actually struggles with sleep issues at times. She modifies her response to his focus issues and finds that his performance begins to improve dramatically.

Students are more engaged in academic activities

- As students enter Ms. Warner's class, they immediately pull out notebooks and start writing responses to the "Question of the day" on the board.
- Dana tells a school administrator that because the students always start off the day in a good mood because of Mr. Handle's great morning jokes for each student, they just don't seem to get bored with schoolwork as quickly.

Class disruptions are minimized

- When Johnny comes in the classroom, Ms. Findlay greets him and gives him a gentle reminder of how great he did the previous day when he didn't have any behavior problems. That day turns out to be a great day for Johnny too.
- Seth mentions to a friend who wants to know why he's so good in class now, "I don't want to disappoint Mr. Loggis. He really seems like he cares about how I'm doing. He always asks me how my day is going when I come in in the morning."



What evidence is there for *Positive Greetings at the Door's* effectiveness?

Positive Greetings at the Door have a range of positive effects with a particular emphasis on student behavioral improvement.

Study	Key Findings	Any useful category (e.g. Age of study population)
Cook et al., in press.	<i>Positive Greetings at the Door</i> was taught to a subset of teachers in the study. Through observations and surveys, the study found positive outcomes on student behavior and engagement. Teachers felt that the method was very acceptable and enjoyable in the context of the classroom.	Academic engagement increased and disruptive behavior decreased

Reference List

Cook, C.R., Prentiss, K., Daikos, C., Decano, P., & Grady, E.A. (under review). *Positive Greetings at the Door* as a standalone proactive classroom management strategy for middle school students.



Practice Profile: *Emotional Hooks*

Implementation Quick Reference	
Evidence Level	Emerging (*)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What is Emotional Hooks?

Emotional Hooks is a method of inducing positive emotions in students, prior to asking them to perform a task. It is based on Barbara Fredrickson's research into the broaden-and-build model. Research has shown that both performance and focus improve when students are in a positive emotional state rather than a negative one. *Emotional Hooks* refers to first broadening students' cognitive abilities by inducing a positive emotional state. This positive mindset then builds, or improves, performance and focus on the task at hand resulting in stronger academic performance.

How will this help my students?

Academics, the social and emotional demands of school, and personal factors can all cause high stress, high anxiety, or other heightened negative emotions during the school day. These negative emotions then impact students' behavior and performance. *Emotional Hooks* is a strategy meant to both minimize the detrimental effects of negative emotions and boost the effects of positive emotions, such as increased attention. This in turn helps increase academic performance and improve student behavior. Because students do not exist in a vacuum while in school, using the *Emotional Hooks* strategy will help mediate the effects that students' emotions might cause on their ability to perform in the classroom.

How does *Emotional Hooks* work?

Emotional Hooks utilizes involves utilizing a brief activity, following transitions or at other desirable moments, that helps improve student mood. Below is one example of how *Emotional Hooks* might be incorporated into the classroom:

- 1) As students return from lunch, have them sit at their seats and read the introduction for a comedy video.



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- 2) When students are seated, allow students to watch the brief video (2-5 minutes), which should improve the overall mood and help students begin the class on a positive note.
- 3) Move into the desired activity

Potential activities:

There are any number of ways to help encourage a positive atmosphere. These can be anything from a short video, as suggested above, to a classroom game or other activity. Other strategies included in these guides are also great ways to encourage and maintain a positive atmosphere.

- Consider using *Positive Greetings at the Door* to set a positive atmosphere in the morning
- The *5-to-1 Ratio* is a great way to maintain a positive mood in the classroom
- Practicing Gratitude is a great activity for reinvigorating a classroom with positive energy

All of these are great tools to broaden students' ability to perform in the classroom and prepare them to build new skills!



What does *Emotional Hooks* look like and sound like in the classroom?

Emotional Hooks, as an antecedent strategy, will lead to better focus and better performance on tasks.

Students are more positive

- Gerry, who usually complains about reading assignments, gets a determined look and goes to work on the reading passage.
- Students in Mr. Jacobson's class seem to be more interested about assignments and even excited about participating in class.

Students sustain attention to tasks for longer periods of time

- In Ms. Harden's class, students usually work hard on assignments for 10 minutes, but then start to lose interest. However, recently, the disruptions that usually result have become fewer and farther between.
- Katelyn has trouble completing assignments as she starts looking around and getting off task after a few minutes. Her teacher notices that recently she has been completing her assignments much more often.

Students are able to explore concepts more thoroughly

- Usually Daniel only understands concepts if they are clearly explained multiple times. He always seems distracted. Lately, as he has become more positive, he understands concepts more quickly and with less repetition. His focus seems to have improved substantially at the same time.



What evidence is there for *Emotional Hook’s* effectiveness?

Emotional Hooks is mainly effective as an antecedent strategy, one that helps set the stage, for students to learn more efficiently. By helping ensure they are not distracted by negative emotions and attitudes, *Emotional Hooks* aids students in focusing their full attention on tasks. Currently there is one major study included below that studies this practice directly, though many multi-component studies have included the concepts of broaden and build theory in their inventories.

Study	Key Findings	Major Outcomes
Fredrickson and Branigan, 2005	In a study exploring the effects of inducing positive emotions prior to participants performing a task, the researchers found that both attention and “thought-action repertoires” improved. The latter refers to the amount of possibilities or thoughts one can produce to an open-ended question. It is relatable to concepts like open-mindedness and creativity.	Level of attention or focus and number of thought-action repertoires showed significant increases

Reference List

- Fredrickson, B. L., & Branigan, C. (2005). Positive emotions broaden the scope of attention and thought-action repertoires. *Cognition & Emotion*, 19(3), 313-332.
- Ferrer-Wreder, L., Lorente, C. C., Kurtines, W., Briones, E., Bussell, J., Berman, S., & Arrufat, O. (2002). Promoting identity development in marginalized youth. *Journal of Adolescent Research*, 17(2), 168-187.



Practice Profile: *Choice Making*

Implementation Quick Reference	
Evidence Level	Promising (**)
Learning Curve	Nuanced: Set aside time (3)
Ease of Use	Additional supplies needed (3)
Class Time Required	Moderate (30 minutes – 1 hour a few times a week) to Extensive (multiple hours per day)**

** This time will be spent on chosen academic work, though the *Choice Making* will be embedded.

What is Choice Making?

Choice Making is providing students with the opportunity to choose when completing assignments. This can take a number of forms. Simpler forms might include allowing students to choose the method to complete an activity, their preferred order of completing multiple assignments, or their preference of team members on group assignments. More involving options might be strategies like Participatory Action Research (PAR), in which students design and complete activities from the very beginning based on a targeted skill or content area. While a powerful concept for encouraging critical thinking, measured judgment, and personal accountability in the classroom, this form of *Choice Making* can also be a very time consuming and involved process.

How will this help my students?

Choice Making is a key skill for students to gain for both their personal development and professional development. [The goal of *Choice Making* is to increase student engagement and academic achievement by connecting students' experiences in the classroom with their personal interests and life experiences.](#) Though the more involving PAR strategy accesses this directly by allowing students to choose the entire activity and assignment themselves, any form of *Choice Making* can be leveraged to give students some measure of ownership over their classroom experience.



How does Choice Making work?

Choice Making can also be considered an approach towards classroom activities. The goal is to utilize students' personal experiences, provide them with individual decision-making power, and encourage autonomy in the classroom. There are numerous ways to provide choice in the classroom:

- 1) "Choice time" can become a specific part of the day or week in which students are allowed to choose an activity to work on from a menu of options.
 - a. These can be quick activities like creating a visual representation of a molecule or writing a haiku.
 - b. These can also be longer term activities like creating a cultural profile for class-wide presentation at the end of the month (e.g. an overview of British culture and history).
- 2) Similar to the above, have students choose a set of "semester long projects" and require that they complete their choice of 3 out of 10 possible projects. Have them put together their own "portfolio" to turn in at the end of the semester.
- 3) In assigning reports or essays, provide multiple options for completing the assignment
 - a. For example, an English teacher might tell students that they will have 3 essays to complete throughout the semester. For those essays, they must choose 3 different types of deliverable formats, one for each essay. These can be "interview with an important character from the book," "PowerPoint presentation of the important themes from the book," "write a set of poems highlighting the important events and themes," or a traditional five paragraph essay.

Choice Making can also take the more involved PAR approach, allowing students to create the assignments themselves based on the targeted skills or content areas. An example of this might be tasking students to develop a project that features the effects of gravity. One student might design a project around baseball and the physics of baseball while another might focus instead on how differently weighted objects are affected by gravity by dropping objects from different heights.



What does *Choice Making* look like and sound like in the classroom?

Choice Making encourages more student involvement in the activities and furthers students' academic achievement based on this enhanced interest.

<p>Students are more involved with classroom assignments</p>	<ul style="list-style-type: none">• Hans seemed really flustered with what to do on the project next. "I really want to figure out how to do this, which is why I chose it in the first place. Okay, one more try..."• Mrs. Campbell noticed that ever since she gave students a choice in how they wrote their essays the essays seem to have grown in length and quality.
<p>Academic skills and content knowledge expands</p>	<ul style="list-style-type: none">• Ms. Golliver's class really seemed to get the last few lessons. They needed less review and their test scores showed some solid improvement. She decided she would definitely need to let them help "create" the assignments from now on.• Joe found that as his interest improved, since he got to decide how he did his work, he content seemed to click a lot better than before. It didn't seem to just disappear a week later like it used to.
<p>Students are more excited to perform assignments</p>	<ul style="list-style-type: none">• As Mr. Johnston announced that they would be beginning a new chapter for science, students started animatedly wondering out loud what types of projects they would be able to do for this chapter.



What evidence is there for *Choice Making's* effectiveness?

Though most current support for this methodology has been through case studies and qualitative reports, there is a lot of evidence in these studies to support the merits of allowing choice in the classroom. A few examples are provided below:

Study	Key Findings	Major Outcomes
Van Sluys, 2010	This study investigated the value of PAR research towards improving literacy in 8 th grade students through leveraging students' specific experiences and choices in the learning process	Working to reposition students' perspectives can help them feel more engaged and personally efficacious
McIntyre et al., 2007	This qualitative study reported the experiences of a team of graduate students who worked with a group of Latina youth to perform a PAR project. Their main objective was to become more informed about the issues facing minority (Latina) youth in the current education system along with the youths' specific experiences.	Graduate students found that previously held concrete beliefs were not as universal as believed. They also found the effectiveness towards engagement for PAR projects.
Hall and Zentall, 2000	This study investigated the effect of introducing a "Learning Station" into a classroom to help with completion rates and accuracy on homework through multiple case studies. The Learning Station provided a measure of choice along with self- monitoring devices to assist students.	Large increases in accuracy and amount of homework completed



Evidence-based Practices to Activate the SDS in a School Setting

Reference List

- Hall, A.M. & Zentall, S.S. (2000). The effects of a learning station on the completion and accuracy of math homework for middle school students. *Journal of Behavioral Education*, 10(2/3), 123-137.
- McIntyre, A., Chatzopoulos, N., Politi, A., & Roz, J. (2007). Participatory action research: Collective reflections on gender, culture, and language. *Teaching and Teacher Education* 23, 748-756.
- Van Sluys, K. (2010). Trying on and trying out: Participatory action research as a tool for literacy and identity work in middle grades classrooms. *American Journal Community Psychology* 46, 139-151.



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Practice Profile: *Multiple Opportunities to Respond*

Implementation Quick Reference	
Evidence Level	Strong (***)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What Multiple Opportunities to Respond?

Multiple Opportunities to Respond (OTR) is a practice for allowing students to actively participate in class by providing more chances for them to ask questions and answer academic requests. Some traditional teaching methodologies rely more on didactic methods, with the majority of instruction revolving around teachers instructing students and students quietly listening. The emphasis of *OTR* is for students to take an active role in the classroom dynamic, keeping students engaged in the lessons.

How will this help my students?

OTR creates an engaging classroom environment in which students are encouraged to participate in the learning process. [The purpose of *OTR* is to increase student participation and engagement in order to improve academic achievement and decrease the frequency of disruptive behavior.](#) By including students actively in the lesson, teachers encourage the students to stay focused and engaged. Further, through increasing student participation and response to academic requests, teachers receive continual feedback on students' grasp of the material, allowing for more efficient and effective use of class time. These factors all then contribute to increasing student achievement.

How does Multiple Opportunities to Respond work?

OTR requires teachers to plan out lessons around when and how to include student responses. There are many ways to encourage student active participation in lessons. However, with restrictions in time and increasing amounts of material, students' *OTR* often suffer. A good balance of *OTR* is usually between 3 and 5 *OTR* per minute. Here are some methods for increasing *OTR* in the classroom:



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- 1) Plan specific review points throughout the lesson in which students answer progressively difficult questions.
- 2) Have students reiterate the previous day's lesson at the beginning of the lesson.
- 3) Track the number of *OTR* per minute. Aim to increase this each day. If on Monday, you notice that you are only providing about 1 *OTR* per minute, aim to increase this to 2 per minute the next day, and 3 per minute by Wednesday.
 - a. One way to increase the effectiveness of this strategy is to set an *OTR* goal for each day and evaluate.
- 4) Create opportunities for non-verbal responses such as thumbs up, hands in the air, or other non-verbal signals.

Planned versus Unplanned Opportunities to Respond

Planned *OTR* are great tools to build check in points throughout a lesson, help boost engagement at timed intervals, and keep students involved in the learning process. Here are some great ideas for building planned *OTR* into your lesson plans:

Unplanned *OTR* can often be the best method to address flagging motivation. The strategies above can also be used as unplanned *OTR*, though this requires more flexibility on the teacher's part. It is often helpful to keep a few unplanned *OTR* options available to provide a motivational jolt for those times when students just seem to be dragging.

The Name from a Jar or Tongue Depressor Game

Establish as a classroom rule that all students' names will be entered into a jar (on slips of paper or on tongue depressors). As necessary, the teacher can pull a name and call on that student to respond to a specific question or participate actively as a quick picker-upper for the students.

Classroom Colors

All students should be provided with color cards at the beginning of class (pick between 5-7 colors). When needed, stop and tell students, "Pick your color!" and turn away. Students have 3 seconds to pick a color card and hold it up. After about 3 seconds choose a color and then have all students who held that color up consider a question. Allow nominated students to confer and then respond within an appropriate timeframe (30 seconds for example). Again, a great way to keep students on their toes.

What's your view?

Stop during a lesson and ask students to quickly pull a sheet of paper out and write down the first thoughts or questions that come to mind about the given lesson. Give them 2 minutes. Have them submit the sheet to you. Choose 3-5 at random to read out – this can be anonymous or not – and have students help you answer or address. This can be modified for many different types of lessons using more direct questions (e.g. How can you use this mathematical concept in



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the real world? When might you see this scientific process in action? Why does this piece of history matter to us?)

What does *Multiple Opportunities to Respond* look like and sound like in the classroom?

OTR has been shown to have myriad positive effects. Not only does it increase student engagement and academic performance, but it also decreases disruptive behavior.



<p>Students actively participate in classroom activities</p>	<ul style="list-style-type: none">• As students settled, Mrs. Bryant asked for a review of the previous day's material. Multiple hands immediately shot into the air.• Yousef, though a very quiet student, utilizes his classes thumbs up/thumbs down participation signs emphatically.
<p>Students are more careful to stay on task</p>	<ul style="list-style-type: none">• Sarah, who is known to be a constant daydreamer, has seemed to be more in touch with class material recently.• Students in Ms. Kind's class have made always knowing answers to Ms. Kind's questions into an ongoing challenge.
<p>Students are less disruptive</p>	<ul style="list-style-type: none">• Mr. Downey's class, in their efforts to answer questions, spend more time discussing answers and debating possible solutions and less time joking with classmates.• Jun, though usually a less than cooperative student, interrupted class less and less as Ms. Pearson included her in more questions and praised her for her correct answers.
<p>Class time is more effectively used</p>	<ul style="list-style-type: none">• Usually students in Mr. Poole's class would zone out by the end of class as Mr. Poole reviewed the same information over and over. More recently, Mr. Poole has been challenging them to explore concepts more deeply once they have the basics.

What evidence is there for *Multiple Opportunities to Respond's* effectiveness?

OTR has been linked to increased student academic achievement, increased engagement in class time activities, decreased disruptive behavior, and more effective use of class time.



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Study	Key Findings	Major Outcomes
Sutherland et al., 2003	An intervention to increase teacher use of OTR was implemented, leading to increased correct answers and decreased disruptions. Teachers were provided feedback on their use of OTR during classroom time and the benefits of OTR, leading to increased OTR during later class sessions.	Improved academic performance, higher on task time, decreased disruptive behavior
Sutherland et al., 2001	This study looked at OTR in conjunction with teacher praise and found that students both strategies in conjunction is an effective combination for increasing positive student outcomes	Praise increases the positive effects of OTR

Reference List

- Sutherland, K.S., Alder, N., & Gunter, P.L. (2003). The effect of varying rates of opportunities to respond to academic requests on the classroom behavior of students with EBD. *Journal of Emotional and Behavioral Disorders*, 11(4), 239-248.
- Sutherland, K.S., Wehby, J.H., & Yoder, P.J. (2001). Examination of the relationship between teacher praise and opportunities for students with EBD to respond to academic requests. *Journal of Emotional and Behavioral Disorders*, 10(1), 5-13.



Practices That Build Skills



Practice Profile: *Gratitude*

Implementation Quick Reference	
Evidence Level	Excellent (****)
Learning Curve	Take a few extra minutes (2)
Ease of Use	Student worksheets recommended (2)
Class Time Required	Minimal (<30 minutes/week)

What is practicing *Gratitude*?

Practicing *Gratitude* is a simple practice for affecting mindset and feelings of positivity towards school, the classroom, and life in general. As the name suggests, gratitude, or feelings of appreciation towards another, is the focus of this strategy. Through exploring positive events in their lives or in their experiences in class, students relate those positive feelings to the classroom environment or to their current situations and, as a result, feel more motivated and positive towards those same environments.

How will this help my students?

Gratitude has been shown to improve students' feelings of positivity, reduce signs of anxiety or stress such as reports of physical symptoms, and increase personal well-being. [The goal of practicing *Gratitude* is to help students feel more comfortable, positive, and connected to school and to the classroom.](#) The exercise can be modified to focus on a variety of contexts and situations as well. Though the academic effects might not be immediately clear, students who feel more connected to their school and more positive about their class experience are likely to be more engaged as well and thus more motivated to perform in the classroom.

How does practicing *Gratitude* work?

Practicing *Gratitude* can be implemented any time throughout the day. It usually requires 10 to 20 minutes to complete. Although it is not necessary for students to write down their answers, most practicing gratitude activities use a worksheet on which students can write what they are grateful for in the recent past (e.g. last week). Teachers then help guide students through the activity.



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- 1) Ask students to write down up to 5 things they are grateful for during the chosen time length. Alternatively, prompt students to read a blurb explaining about gratitude and the directions to write down up to 5 things that the students feel grateful for.
- 2) Guide students to choose things related to the context or situation of interest. For example, suggest students think about experiences with classmates or those that occurred during school, or in a specific classroom.
- 3) Repeat this process as often as desired. Usual intervals are once a day, twice a week, or once weekly.

What does practicing *Gratitude* look like and sound like in the classroom?

Gratitude, while easy to implement, can have far reaching effects. Given that the target outcomes are socially and emotionally based, many of the indirect academic outcomes might be harder to see at first. However, evidence for the wide range of benefits from strategies that encourage positive emotionality, such as gratitude, has been growing strongly. Below are some examples of more direct benefits that teachers and other staff might notice:

Students feel more positive towards school

- Mr. Smith's reports of disruptions in class was on the decline. He noticed that students were also becoming more and more responsive in class.
- Sally tells Jane, "I am grateful that you took notes for me yesterday when I was sick!"

Students feel more comfortable in the classroom

- Johnny, a seemingly sickly student, who often reported stomachaches and other pains, seems to be improving and has been reporting less complaints about feeling sick.
- Students demonstrate fewer signs of negativity such as negative remarks, complaints, or lack of attention, and more signs of positivity such as encouragement, compliments, and happier moods.



What evidence is there for the effectiveness of practicing *Gratitude*?

Gratitude has strong evidence of increasing positivity, physical well-being, and school connectedness (positive feelings towards school) across populations. It is a well-studied positive psychology strategy for increasing optimism and positivity towards different contexts and situations.

Study	Key Findings	Major Outcomes
Emmons and McCullough, 2003	Participants reported fewer physical complaints (implied to be linked to stress or anxiety) and improved feelings towards life and the following week after participating in gratitude exercises.	Increased positivity and life satisfaction, decreased physical complaints
Froh et al., 2008	Students reported more positivity and teachers reported better behavior outcomes for students involved in study.	Increased satisfaction with school experience and positivity
Sheldon and Lyubomirsky, 2005	Participants used a combined strategy with both gratitude and imagining future selves to increase feelings of positivity.	Increased positive affect and decreased negative affect
Lyubomirsky et al., 2011	Through a combined strategy using gratitude along with imagining positive future selves, participants gained in a variety of areas of positivity and effort.	Further support for increased positivity



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Reference List

- Emmons, R. A., & McCullough, M. E. (2003). Counting blessings versus burdens: an experimental investigation of gratitude and subjective well-being in daily life. *Journal of Personality and Social Psychology, 84*(2), 377.
- Froh, J. J., Sefick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology, 46*(2), 213-233.
- Lyubomirsky, S., Dickerhoof, R., Boehm, J. K., & Sheldon, K. M. (2011). Becoming happier takes both a will and a proper way: an experimental longitudinal intervention to boost well-being. *Emotion, 11*(2), 391.
- Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best *Possible Selves*. *The Journal of Positive Psychology, 1*(2), 73-82.
- Shoshani, A., & Steinmetz, S. (2013). Positive psychology at school: A school-based intervention to promote adolescents' mental health and well-being. *Journal of Happiness Studies, 1*-23.



Practice Profile: *WOOP*

Implementation Quick Reference	
Evidence Level	Excellent (****)
Learning Curve	Take a few extra minutes (2)
Ease of Use	Worksheets recommended (2)
Class Time Required	Minimal (<30 minutes/week)

What is *WOOP*?

WOOP, standing for wish, outcomes, obstacles, and plan, is an easy-to-use practice to encourage more thorough planning for achieving future goals. It was previously known as Mental Contrasting with Implementation Intentions (MCII).

In the first part of this process, the student envisions a desired and achievable goal (Wish) and the benefits of attaining that goal (Outcomes), along with the roadblocks along the way that will have to be overcome (Obstacles). The aim of mentally focusing on the wish and outcomes, as well as the obstacles, is to have a healthy balance in one's views rather than *indulging*, or only thinking of the benefits to be gained, or *dwelling*, focusing solely on the obstacles standing in the way.

The final aspect is about creating a roadmap to achieving the sought after goal (Plan). Rather than simply stating a goal and then moving on, this strategy encourages students to carefully talk through how they will handle potential obstacles to their goal. Students then create a plan based on these ideas.

How will this help my students?

Effective goal setting and management are key skills in achieving academically. [The purpose of *WOOP* is to increase academic engagement and achievement by encouraging better organization and student ownership of goal setting and attainment.](#) By learning how to view goals and work towards attaining them, students gain valuable problem solving skills which can improve feelings of self-efficacy (I can do this!) and *Growth Mindset* (I can get better!). Research has shown that *WOOP* leads to positive academic outcomes, improvements in school and classroom engagement, and higher motivation.



How does **WOOP** work?

WOOP relies on teachers guiding students through a series of thought-based and written exercises. It can be utilized in nearly any classroom for working towards achieving almost any goal by following these basic steps:

- 1) Ask students to choose their goal and write it down. Help students pick goals that are challenging but feasible (Wish).
- 2) Have students imagine the best result from achieving this goal. Give students a few minutes to think about this and then write down their thoughts (Outcome).
- 3) Next, ask students to think of and write down any roadblocks that stand in the way of achieving their goals (Obstacles).
- 4) Once students have these pieces filled out, have students think more specifically of when and where the obstacles might occur. Try to help them be as specific as possible (e.g. a student says “it will be hard to study for the test.” Where will it be hard to study? At home? When? At night? After school?) The more specific the better.
- 5) Have students brainstorm what they can do to overcome these obstacles (e.g. study in the library after school rather than at my house where it is noisy). Encourage them to think of these as actions or behaviors that can be performed by the students themselves (Plan)
- 6) Ask students to fill out an “if..., then...” template for these different obstacles they might encounter (if obstacle A, then action/behavior B).
* *see attached worksheet for an example format*
- 7) Return to this process as needed and encourage students to use it to help organize and achieve goals. Research shows that for best results on achieving larger or more long-term goals, multiple review sessions over the course of a few weeks is most effective.
- 8) As a more comprehensive form of planning, encourage students to build a step by step model, with every event, action, or obstacle to overcome marked as an individual step.
* *see worksheet for an example format*



What does *WOOP* look like and sound like in the classroom?

The goal of *WOOP* is to help students pick realistic, achievable goals and develop practical, fully thought out roadmaps of the obstacles to and benefits of attaining these goals. Here are some basic characteristics of *WOOP* in the classroom:

Students talk about specific goals in concrete and clear terms

- A student says, "I will get 9 out of 10 correct on my vocabulary quiz."
- Students have weekly or monthly goals created with a structure similar to "This week I will complete _____."

Students use specific, detailed thoughts rather than vague ideas

- Rather than "I will score well," students might write "I will score 90% or higher on the math test this Friday"
- Rather than "I will complete my essay," observers might hear students say "I will write an introduction, a body paragraph, and a conclusion that is at least 1 page long summarizing the short story we read in class."

Students neither dwell nor indulge but instead consider both the obstacles and benefits around their targeted goals

- I know that to do well, I will have to spend an hour studying for this vocabulary quiz tonight. If I study hard though, I will get an A on the quiz and will get to pick a prize from the mystery prize box.
- When I finish this science project, I will get to use what I learned in this project to make actual ice cream in the lab! However, I need to ask my lab partner for help understanding the short article and then write down the scientific process for this project before I can turn it in and complete it.

After choosing goals, students carefully plan how to overcome obstacles

- I have to write a persuasive paragraph. I will need to do 3 things. First, I need to pick my argument. I can use the guide my teacher gave us for that. Next, I need to pick supporting details. This is hard for me, so I can ask my older brother for help tonight if I am having trouble. Finally, I can then write it.



What evidence is there for *WOOP*'s effectiveness?

Numerous studies have explored the effectiveness of *WOOP* in different contexts. While many studies have shown positive effects, the following table presents a few which focused on student populations:

Study	Key Findings	Major Outcomes
Gollwitzer et al., 2011	Students who were encouraged to envision the rewards and roadblocks (mental contrasting) for performing on a foreign language vocabulary quiz scored significantly higher than the control group (>10% high scores).	Improved academic performance
Duckworth et al., 2011	<p>This study looked at the effects of <i>WOOP</i> (called MCII) on the completion rate of extra workbook practice for the PSAT.</p> <p>The <i>WOOP</i>/MCII group completed 60% more problems than the control group.</p>	Improved motivation and academic effort
Duckworth et al., 2013	This study tested the effect of <i>WOOP</i> (called MCII) on student's grades, attendance, and classroom behavior. All three areas showed significant improvements over the course of a quarter as compared to previous quarters.	Improved grades, decreased absences, and decreased disruptive behavior



Evidence-based Practices to Activate the SDS in a School Setting

Reference List

- Duckworth, A.L., Grant, H., Loew, B., Oettingen, G., & Gollwitzer, P.M. (2010). Self-regulation strategies improve self-discipline in adolescents: benefits of mental contrasting with implementation intentions. *Educational Psychology, 31*(1), 17-26.
- Duckworth, A. L., Kirby, T. A., Gollwitzer, A., & Oettingen, G. (2013). From fantasy to action: Mental contrasting with implementation intentions (MCII) improves academic performance in children. *Social Psychological and Personality Science, 4*, 745-753.
- Gollwitzer, A., Oettingen, G., Kirby, T.A., Duckworth, A.L., & Mayer, D. (2011). Mental contrasting facilitates academic performance in school children. *Motivation and Emotion, 35*, 403-412.



My plan to overcome an obstacle and work towards my goal:

What I am aiming to achieve:

Obstacle and how I will overcome it:

Outcome:



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Though I now know how to overcome the obstacles, I should plan on how I will put my ideas to work.

My Plan:

Step ___ Goal:

- What will you do?

Step ___ Goal:

- What will you do?

Step ___ Goal:

- What will you do?

Step ___ Goal:

- What will you do first?



Practice Profile: *Self-evaluation*

Implementation Quick Reference	
Evidence Level	Promising (**)
Learning Curve	Take a few extra minutes (2)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What is Self-evaluation?

Self-evaluation refers to the practice of encouraging students to monitor, regulate, and self-check their own progress, activities, and completed work. These supports can be applied to academic work, behavioral concerns, or any other area of focus. *Self-evaluation* can take one two primary forms, self-monitoring during the task and post completion *Self-evaluation*.

In self-monitoring, students are guided to check in on their progress at certain intervals throughout the completion of an assignment (“self-record”). At each interval, students think about how they have performed thus far and how they might improve their continued work on the assignment.

In post-completion *Self-evaluation*, students are taught how to evaluate the accuracy of their own work (“self-reflect”) and to be the first line of review for their work. This leads to improved academic scores as students learn to self-correct and check for errors in every assignment they complete. *Self-evaluation* in this form can follow many methods.

How will this help my students?

Self-evaluation, in both concurrent and post activity forms, is a skill often expected of adults in both professional and personal life. [The main goal of Self-evaluation is to encourage efficiency and accuracy in completion of work which then leads to improved academic performance.](#) Students who learn how to apply *Self-evaluation* methods to their own work habits become more able to work independently and with heightened accuracy. Further, these same tools can be applied to goals outside of academic work towards goals such as regulating emotions or monitoring behavioral expectations.



How does *Self-evaluation* work?

Self-evaluation can be applied in the classroom in many different ways. General guidelines to *Self-evaluation* methods, both concurrent and post activity formats, along with reproducible worksheets are given below:

For self-monitoring:

- Establish a regular interval (e.g. every 2 minutes or after completing two sentences in a short essay). Next, the student stops and reviews the completed work. Students should answer facilitating questions about the clarity and accuracy of their work at each of these self-monitoring points and edit their work based on pre-established criteria.
 - Having students participate in picking questions and the interval can help with student engagement and is a great way to review concepts for the lesson.
- The key components:
 - Clear expectations and review criteria
 - The review points should be brief but thorough.
 - Concrete intervals
 - For time intervals, having a classroom timer or individual timers as a reminding device is a great way to help students learn to self-monitor
 - Established goals for the assignment as a whole so that students can understand the progression from start to finish, with self-monitoring serving as intermediary points.

For post activity *Self-evaluation*:

- Have a clear set of goals with easily understood and assessable standards upon which to evaluate them (e.g. a rubric)
 - Similar to the above, having students help establish the *Self-evaluation* rubric points can be very valuable in increasing student engagement
 - Setting up a worksheet for students to use to access the *Self-evaluation* checks can also help student use *Self-evaluation*.
- The review points should encourage revising. Providing guidance for the revisions is important for facilitating students' ability to self-evaluate.

** Reviewing one's own work is a difficult skill to master for many students. In particular, assessing the accuracy of one's own work ("calibrating") takes extensive practice to develop into a reliable skill. As such, practicing *Self-evaluation* and self-monitoring is a very important strategy for students to practice and use frequently.



What does *Self-evaluation* look like and sound like in the classroom?

Self-evaluation leads to higher achievement on activities which are self-monitored or self-evaluated.

The infographic is set against a dark purple background and contains two rows of text boxes. The top row features a grey rounded rectangle on the left with the text 'Students return self-checked and reviewed work. Their levels of achievement improve.' To its right is a white rounded rectangle containing two bullet points: 'Mr. Roberts was shocked when the new set of homework contained barely 2/3 of the errors of previous homeworks.' and 'Ekaterina mentioned how much easier it was to fix her essays since she started using the self-reviewing strategy her teacher taught her. Before her essays always looked like they were covered in corrections, but now her scores had really improved and her drafts were so much easier to revise.' The bottom row features a grey rounded rectangle on the left with the text 'Students feel more able to achieve in the classroom'. To its right is a white rounded rectangle containing two bullet points: 'Lana had always assumed she was just bad at math. However, since she learned how to check her work effectively, she told her friend in surprise, "Wow, I'm actually pretty good at this! Look, I got an A!"' and 'Ms. Toskeritz was amazed at how confident her students seemed. With each assignment, they seemed to seem more and more sure they were able to really excel.'

What evidence is there for *Self-evaluation's* effectiveness?

Self-evaluation and self-monitoring, when trained appropriately, can help students more effectively perform activities and assignments and more methodically correct their work. This leads to higher accuracy in completed assignments and heightened feelings of self-efficacy.



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Study	Key Findings	Major Outcomes
Ramdass and Zimmerman, 2008	Students were training in self-checking and correction methods which they then applied to a math activity.	Significant gains in self-efficacy, <i>Self-evaluation</i> accuracy, and math performance
Peters and Kitsantas, 2009	Students were given metacognitive prompts to encourage self-monitoring and self-regulation in academic performance and work completion. The effects of these prompts were then recorded through gains on a Science based evaluation	Higher gains in knowledge (as shown through scores on Science evaluations)
Leming, 2001	Students were provided with ethical reasoning training in advance of community service program. Researchers looked at whether self-reflection (<i>Self-evaluation</i> of ethical standing and reasoning) led to effects on amounts of community service and identity formation	Feelings of social responsibility and anticipated future participation in community service increased

Reference List

- Leming, J. S. (2000). Integrating a structured ethical reflection curriculum into high school community service experiences: Impact on students' sociomoral development. *Adolescence*, 36(141), 33-45.
- Peters, E. E., & Kitsantas, A. (2010). Self-regulation of student epistemic thinking in science: the role of metacognitive prompts. *Educational Psychology*, 30(1), 27-52.
- Ramdass, D., & Zimmerman, B. J. (2008). Effects of self-correction strategy training on middle school students' self-efficacy, *Self-evaluation*, and mathematics division learning. *Journal of Advanced Academics*, 20(1), 18-41.



Practice Profile: *Character Strengths*

Implementation Quick Reference	
Evidence Level	Excellent (****)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What are Character Strengths?

Character Strengths refers to personality traits that we leverage in our daily lives to accomplish goals and create positive changes. *Character Strengths* are the core characteristics which help students develop their academic talents and skill sets. To access these in the classroom setting, the *Character Strengths* strategy uses activities that ask students to engage with the values they hold. Students are encouraged to explore why they care about their chosen values and why these values might be important to others as well. Through these activities students affirm their own values and their own personal *Character Strengths*.

How will this help my students?

Character Strengths can serve a number of functions. They can help students clarify their own motivations and goals, reconfirm the students' talents and specialized abilities, and help students re-evaluate their value in the classroom. *Character Strengths* has been shown to increase student positivity and the atmosphere of the classroom as well as help students increase their academic achievement. Students that face bias in certain subjects (e.g. female students are poor at math) gain particularly strong academic benefits through *Character Strengths* exercises.

How does Character Strengths work?

In order to leverage *Character Strengths*, students are often asked to think of their core values and the strengths they possess to achieve these values. Below is one efficient method towards this goal:

Provide students with a worksheet that provides a list of commonly held values

- a. Some examples: Family, Building relationships with friends, skill at art, and so forth.



Evidence-based Practices to Activate the SDS in a School Setting

- 2) Have students select up to 3 of their most important values.
- 3) For each value, students write 1 to 2 paragraphs about why this value is important to them.
- 4) The teacher may collect these packets or the students may keep them.

By thinking of their personal strengths, students have the opportunity to explore how to link these strengths with their academic work. When students feel that their work reflects their values and abilities, their feelings of competence and motivation increase.



What does *Character Strengths* look like and sound like in the classroom?

Character Strengths aims to reinforce the abilities of each student and leverage these strengths to improve academic achievement and positivity in the classroom.

<h3>Increased Academic Outcomes</h3>	<ul style="list-style-type: none">• Joe's comments whenever he turned in his English essays slowly changed from "I'm horrible at writing" or "This essay sucks," to "I worked really hard on this" or "I put in extra effort this time." The quality of his essays mirrored the change in tone.
<h3>Improved personal expectations</h3>	<ul style="list-style-type: none">• "Neha, you really did a great job relating the concepts in this unit of physics to music. I'm really impressed with your performance! I knew you could do it!"• Mrs. Peabody made sure to remind Jonah of the dedication he had shown on the unit's homework and that she was sure he could continue it. She could only smile when she saw the clear improvement on the unit test.
<h3>More positive atmosphere in the classroom</h3>	<ul style="list-style-type: none">• As students in Ms. Hirshel's class related more of the class work to their own abilities and values, she noticed a clear shift in the classroom itself. Students smiled more, were more attentive, and rarely caused disturbances.• Elijah found himself happy to be entering Mr. Hall's classroom. He was excited to see how he could apply his creativity in today's class.



What evidence is there for *Character Strengths*'s effectiveness?

Character Strengths can have a sound impact on students' emotional well-being, increasing positivity and life satisfaction through directed exercises. Further, this strategy can serve as a priming exercise to remove stereotyped barriers (e.g. I'm a girl and therefore not able to do well in Math) and result in increased academic performance.

Study	Key Findings	Major Outcomes
Cohen et al., 2006	Affirming positive <i>Character Strengths</i> , particularly in the face of negative stereotypes, led to much heightened academic performance in the targeted student population.	Increases in Academic achievement
Armitage and Rowe, 2011	Adolescent girls reported heightened feelings of interpersonal positive feelings through exercises affirming personal <i>Character Strengths</i> (kindness)	Increases in positivity
Proctor et al., 2011	Adolescents were included in a <i>Character Strengths</i> -based intervention. The students receiving the intervention showed increased life satisfaction, compared to the control group.	Improved life satisfaction

Reference List

- Armitage, C.J. & Rowe, R. (2011). Testing multiple means of self-affirmation. *British Journal of Psychology*, 102, 535-545.
- Cohen, G.L., Garcia, J., Apfel, N., & Master, A. (2006). Reducing the racial achievement gap: A social-psychological intervention. *Science*, 313, 1307-1310.
- Proctor, C., Tsukayama, E., Wood, A. M., Maltby, J., Eades, J., & Linley, P. (2011). Strengths Gym: The impact of a *Character Strengths* -based intervention on the life satisfaction and well-being of adolescents. *The Journal of Positive Psychology*, 6(5), 377-388.



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Shoshani, A., & Slone, M. (2013). Middle school transition from the strengths perspective: Young adolescents' *Character Strengths* , subjective well-being, and school adjustment. *Journal of Happiness Studies*, 14(4), 1163-1181.

Steen, T. A., Kachorek, L. V., & Peterson, C. (2003). *Character Strengths* among youth. *Journal of Youth and Adolescence*, 32(1), 5-16.



Evidence-based Practices to Activate the SDS in a School Setting
Practices That Provide Recognition



Practice Profile: *5-to-1 Ratio*

Implementation Quick Reference	
Evidence Level	Strong (***)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What is *5-to-1 Ratio*?

5-to-1 Ratio is a practice in which teachers increase the number of positive interactions with students as compared to negative interactions. Throughout the school day teachers and students share numerous interactions, such as discussing academic content or providing feedback. Research has supported the idea that there is a “critical ratio” of positive to negative interactions between teachers and students to best support and sustain constructive student-teacher relationships. That ratio is to provide 5 positive interactions (e.g. friendly conversation, nonverbal acknowledgement, praise, and so forth) to every 1 negative interaction (e.g. punishment, criticism, and so forth) for each student. It is important to note that this is not just about complimenting students. Though compliments are one form of positive interaction, it is about forming positive relationships in general through all kinds of interactions.

How will this help my students?

The ***5-to-1 Ratio*** is meant to improve students’ feelings of connectedness and positivity to facilitate the classroom experience. *The purpose is to improve academic engagement and decrease classroom disruption as a result of the more positive classroom climate.* By investing students in the value of the classroom through creating positive interactions, teachers can encourage better behavior and stronger feelings of student belonging in the classroom. Further, when students feel connected and more positive, they are more likely to feel engaged and motivated to achieve academically.



How does *5-to-1 Ratio* work?

The *5-to-1 Ratio* relies on two aspects. The first is for teachers to modify their interactions to increase positive interactions and minimize negative ones as needed to try to accomplish the preferred *5-to-1 Ratio*. The second is for teachers to carefully and objectively track their interactions with students to help support achieving the ratio. Though there is no structured approach, below are some suggestions to make tracking and increasing positive interactions more easily managed:

- 1) Tracking interactions with every student might feel very overwhelming. To alleviate this additional stress, here are some possibilities.
 - a. Limit tracking to only a few students each day.
 - b. Have fellow teachers or staff drop in and observe for brief periods of time and keep a count.
 - c. **Take care not to change normal behavior towards students while tracking.
- 2) For modifying interactions, here are ways to insert more positive interactions
 - a. Praise for correct answers (e.g. “You worked really hard on that one!”)
 - b. Appreciation of assignments or work done (e.g. “Thank you for getting your homework turned in. Great work!”)
 - c. Acknowledgement of *Character Strengths* when displayed (e.g. “That took a lot of courage to try that super difficult question!”)
 - d. Positive greetings in the mornings or after breaks (e.g. “Welcome back... I’m excited to get working with you all again”)
 - e. Gratitude for good behavior (e.g. “Thank you so much for helping _____ clear up the paper scraps”)
 - f. Taking a moment to check in with a student (e.g. “How’s your family?” “What did you do this weekend?”)
 - g. Inquiring about hobbies or interests (e.g. “I heard your track team has a meet this yesterday... how did you do?”)
 - h. Smile or give friendly gestures

One important note: This strategy is meant to be 5-to-1 for *EACH* student. That means that the ones that need the most focus for more positive interactions are also most likely to be the most challenging students. If it seems very difficult with certain students, consider it a work in progress and try to do a bit better each day with each student.



Common Barriers to Implementing the 5-to-1 Ratio

While the effectiveness of the 5-to-1 Ratio speaks for itself, there are a number of common concerns that come up. This section is meant to address some of these specific concerns and help provide guidance on how to implement the 5-to-1 Ratio in particular situations.

Too much effort

“While this sounds good on paper, it sounds like it would take an awful lot of effort!”

The 5-to-1 Ratio can be tough to use consistently at first. Just as teachers do not expect students to be perfect at any new concept, the 5-to-1 Ratio is not something that can be perfected in one day. However, the concept behind the 5-to-1 is to bring focus to increasing positive interactions. Just keeping it in mind and trying to reframe comments and interactions in positive ways will slowly build the ratio further towards the positive side. Relationships with students and the classroom atmosphere will reflect the effort!

Difficult students

“I agree this would be pretty great with most students, but this one student I have just has nothing about them that I can respond to positively!”

For the most difficult students, it can indeed be challenging to find a place to start. A good way to consider these students is to think of the most basic action to start with and build from there. For example, did the student come to class? “It’s great to see you here today!” Did they make eye contact during the lesson? “I like that you’re engaged in the lesson!” It is not impossible to implement the 5-to-1 with these students, it just takes starting at the most basic and shaping behavior from there.

Friend versus Teacher

“If I start trying to be their friend all the time, they are going to stop respecting me as their teacher.”

This can be a valid concern, particularly with older students. However, positivity in the classroom can still be kept within the teacher-student relationship. Consider ways to both create expectations of respect while also continuing to be positive.



What does *5-to-1 Ratio* look like and sound like in the classroom?

The *5-to-1 Ratio* will lead to a more positive atmosphere and better student-teacher relationships. These often lead to a trickle-down effect towards better behavior in the classroom and improvements in academic effort and performance.

<p>Students feel appreciated and important in the classroom</p>	<ul style="list-style-type: none">• Ulysses says to his father, "I really like Mrs. Hopper. She really nice and seems like she cares about all of us."• The principal walks into Mr. Naples class and can feel the positive vibes in the room. All the students seem happy and regard Mr. Naples with respect.
<p>Disruptive behavior is at a minimum and students are normally engaged academically</p>	<ul style="list-style-type: none">• It seems like no matter when the counselor walks into Ms. Miller's room, the students are always happily working on an activity or discussing a topic with Ms. Miller.• Tom had always had trouble staying out of trouble, but he finds that his impulses to act out feel less strong in Mrs. Gerring's classroom. He says that he "feels bad because of how much she cares about me."
<p>Students are generally more positive</p>	<ul style="list-style-type: none">• Grace really enjoys coming to Mr. Denver's class. The whole class just seems to care about each other, and she always feels comfortable asking questions knowing that the other students will never say something negative or mean to her.

What evidence is there for *5-to-1 Ratio's* effectiveness?

Though there has been extensive research behavior the *5-to-1 Ratio* in varying populations, experimental support in the middle school populations is just starting to get addressed.



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Study	Key Findings	Major Outcomes
Cook et al., under review	This study investigated the results when teachers were provided feedback on their positive to negative interaction ratio and encouraged to increase positive interactions to fit the suggested ratio.	Decreased disruptive behavior and increased academic engagement

Reference List

Cook et al (under review). Evaluating the impact of teachers' ratio of positive-to-negative interactions on classroom behavior: The *5-to-1 Ratio* Proactive Classroom Management Strategy.

Fredrickson, B. L., & Losada, M. F. (2005). Positive affect and the complex dynamics of human flourishing. *American Psychologist*, 60(7), 678.



Practice Profile: *Wise Feedback*

Implementation Quick Reference	
Evidence Level	Strong (***)
Learning Curve	Nuanced: Set aside time (3)
Ease of Use	No additional materials (1)
Class Time Required	None (embedded in typical practices)

What is *Wise Feedback*?

Wise Feedback is a structured practice for providing feedback to students. It is designed to communicate teachers' expectations and beliefs that their students are able to produce high-quality work. Teachers use specific responses and communication styles to communicate their high expectations and avoid creating student mistrust. This mistrust can build if students attribute teacher criticism in feedback to teacher bias or other factors rather than as constructive feedback alone. By carefully constructing feedback, teachers can avoid this mistrust while still providing constructive feedback that creates an expectation of high effort, or in other words, *Wise Feedback*.

How will this help my students?

Constructive criticism is a necessary component of any successful classroom. However, the line between positive criticism and destructive comments is often blurred by various factors. These factors might include poor student teacher relationship, students attributing feedback to negative views of the student, or communication errors between the teacher and students. *Wise Feedback is meant to increase student academic effort and achievement through strengthening student-teacher relationships and creating an atmosphere of trust and positive feedback.* By delivering feedback in a reinforcing and relationship building manner, students are more likely to access the feedback and engage in efforts to improve their performance.

How does *Wise Feedback* work?

Rather than relying on specific step-by-step instructions, *Wise Feedback* is a set of procedures which teachers adhere to when grading and reviewing student work. The focus should be on setting high expectations and letting students know that teachers believe that they can reach these expectations. The procedures would resemble the following:



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- 1) Clearly define the topic or concept beforehand, utilizing student input where possible (define expectations of the assignment)
 - a. Ex: For an essay assignment about one's hero, brainstorm with the class beforehand what exactly a hero is and how one might recognize a hero.
- 2) Along with defining the topic, provide a clear rubric of expectations for the assignment and on how grades are calculated.
- 3) In reviewing work and providing feedback, even if you record letter or number grades for your own records, forgo giving students these grades on the first draft. Instead, only provide constructive written feedback as normal.
- 4) Through the use of a note or other system, communicate that the purpose of the feedback is to encourage and aid students in achieving exceptional level work because they are capable of it.
 - a. Ex: A note from one experiment said, "I'm giving you these comments because I have very high expectations and I know that you can reach them." (Yeager et al., 2014)
- 5) Follow through with the assignments and review final drafts.



What does *Wise Feedback* look like and sound like in the classroom?

Use of *Wise Feedback* should result in higher academic performance and effort. Further, there is evidence that it undermines the cycles of mistrust that sometimes form between students and teachers, nurturing a more caring and connected atmosphere.

Students feel that the teacher believes in their capability to achieve

- The principal hears two students talking in the hallway: "I really need to do a little more on my essay, Bryan. Mr. Ingles really thinks I can do better on it."
- Hayley, on getting her paper back, turns to a friend, "Wow, that's a lot of comments! Ms. Jones much really think I can improve this a lot."

Students are more motivated to attempt to achieve

- Homework completion rates in Ms. Largo's class seemed to take a huge jump, even among previously non-engaged students.
- Janet, who usually just gives up when something takes longer than 10 minutes to complete, kept plugging away until she completed the math assignment.

Students set higher bars for themselves academically

- Student grades, which usually center between B- and B on average, start to climb towards B+ and A-.
- When Jim got his math assignment back and saw 7 out of 12 correct, he immediately asked the teacher if he could redo it to earn a higher score.

The classroom atmosphere seems warmer, more caring

- Patricia seemed to be struggling with a map memorization assignment. Fred, seeing this, came over and offered to give her some tips on how to memorize the different points. He said he knew she could do it but wanted to know if she wanted help.



What evidence is there for *Wise Feedback*'s effectiveness?

Wise Feedback has been correlated with improved student trust that their teachers have their best interests at heart. This then leads to students displaying more effort in their schoolwork along with stronger performance in the school work completed.

Study	Key Findings	Major Outcomes
Yeager et al., 2014	Three randomized trials testing the effects of utilizing <i>Wise Feedback</i> methods. The positive gains seemed to center around trust and building stronger student-teacher relationships.	Improved Academic effort and academic achievement

Reference List

Yeager, D. S., Purdie-Vaughns, V., Garcia, J., Apfel, N., Brzustoski, P., Master, A., Hessert, W.T., Williams, M.E., & Cohen, G. L. (2014). Breaking the cycle of mistrust: Wise interventions to provide critical feedback across the racial divide. *Journal of Experimental Psychology: General*, 143(2), 804-824.



Practices That Build Bonds



Practice Profile: Establish – Maintain – Restore

Implementation Quick Reference	
Evidence Level	Emerging (*)
Learning Curve	Take a few extra minutes (2)
Ease of Use	No additional materials (1)
Class Time Required	None (embedded in typical practices)

What is Establish-Maintain-Restore?

Establish-Maintain-Restore (EMR) is a guiding practice for teachers to create and support effective relationships with their students. *EMR* is a specific framework for understanding the teacher-student relationship in which three dimensions of relationship are highlighted: Establishing the relationship through positive interactions, maintaining the relationship with continued support and encouragement, and Restoring the relationship following episodes of teacher-student conflict.

The first phase, establishing the relationship, is focused on devoting time and effort towards creating positive relationships with every child in the classroom, so that each feels respected and connected. At the second phase, maintaining the relationship, teachers utilize high levels of positive to negative interactions and brief relationship check-ins to continue to support the positive relationships. Finally, when conflict or reprimands do occur between the teacher and a student, the third phase, restoring the relationship, comes into effect. The teacher purposefully aims to re-establish the positive relationship through restorative communication techniques.

How will this help my students?

Students spend an enormous amount of time with teachers through each week. *EMR*, as an intention-based approach (e.g. purposefully attempting to restore a damaged relationship), helps teachers create a positive and supportive atmosphere in the classroom. [The purpose of *EMR* is to facilitate the formation and maintenance of effective teacher-student relationships, leading to improved classroom behavior and engagement.](#) Using *EMR* in the classroom also has implications towards improved teacher well-being and reduced teacher burnout.



How does Establish-Maintain-Restore work?

EMR has three phases, Establish, Maintain, and Restore. For each step, there are suggested methods for approaching interactions with students.

- 1) Establish- Teachers take time to implement one or more of the following practices with the intention of having individual time with each student
 - a. Teachers spend time with each student individually
 - b. Teachers reference individual information about the student
 - c. Teacher positively greet each student individually
- 2) Maintain- Teacher continue to engage in positive relationship building with each student through the following methods
 - a. Teachers use high ratios of compliments or other positive interactions to reprimands or other negative interactions
 - b. Teachers use brief relationship check-ins, in which the student is encouraged to share about their lives or personal thoughts, to support the student's sense of respect and connectedness
- 3) Restore- Conflict, reprimands, or other negative interactions are nearly impossible to avoid. However, teachers follow up each negative interaction with efforts to restore the relationship through specific communication techniques
 - a. Taking ownership (e.g., "As your teacher I realize I could have handled the situation better, it's actually my fault.")
 - b. Apologizing (e.g., "I'm sorry we both had a rough day yesterday and for not being able to support you better class")
 - c. Asking for a do-over (e.g., "I know things got a little rough between us, but here's what I say. Let's have a do-over and just try again today")
 - d. Conveying care ("I just wanted to let you know that although your behavior was a bit difficult to deal with, I care deeply about having you in my class and think you are a pretty special student")



What does *Establish-Maintain-Restore* look like and sound like in the classroom?

EMR aims to create a better classroom atmosphere and more engaged students based on positive teacher-student relationships.

<p>Students and teachers have stronger, more positive relationships</p>	<ul style="list-style-type: none"> • A student is heard talking about how much they enjoy being in Ms. Walter's class, "Ms. Walter really cares about me!" • Students value the teacher's attention and positive regard very highly and rarely engage in negative interactions with the teacher.
<p>Students are more engaged and less disruptive during instructional time</p>	<ul style="list-style-type: none"> • As Mr. Gary walks into the classroom and begins speaking, all the students quickly quiet down and listen to him expectantly and respectfully. • Students complete work reliably and with few distractions during the instruction, leading to often productive days.

What evidence is there for *Establish-Maintain-Restore's* effectiveness?

Study	Key Findings	Major Outcomes
Cook et al., in press	Teachers were trained in the Establish-Maintain-Restore paradigm. They reported improve student attention and decrease problem behavior. Teachers also reported better relationships with their students.	Improved academic engagement and teacher-student relationships, decreased disruptive behavior

Reference List

Cook, C., & Coco, S. (in press). Cultivating positive teacher-student relationships: Evaluation of the Establish, Maintain, and Restore (EMR) method.



Practice Profile: *Acts of Kindness*

Implementation Quick Reference	
Evidence Level	Strong (***)
Learning Curve	Pick up and go (1)
Ease of Use	No additional materials (1)
Class Time Required	Minimal (<30 minutes/week)

What is *Acts of Kindness*?

Acts of Kindness is a practice for encouraging students to spontaneously choose to do something nice for someone else during the course of their day. Unlike doing a favor or planning a positive act, *Acts of Kindness* revolves around small, simple acts that are done on the spur of the moment without forethought. These actions do not need to be extensive or time consuming. They can be any number of small kindnesses, from helping someone carry groceries to sharing part of a snack with someone else or comforting someone who seems upset. As a strategy, teachers can help encourage this kind of behavior and work towards an atmosphere that is conducive to positive actions such as acts of kindness.

How will this help my students?

Beyond its appeal as a simple, positive addition to the classroom culture, *Acts of Kindness* can also improve students' emotional and social health. [Performing Acts of Kindness improves students' feelings of positivity and peers' views towards them along with increasing academic engagement during class hours.](#) As one might expect, a classroom that encourages performing *Acts of Kindness* also tends toward having a more positive general atmosphere, one of proactive behavior instead of antagonistic or aloof behavior. This often indirectly leads to more engagement as there are less distractions and students feel more connected with the class. As individuals, students will also feel more positively towards themselves (e.g. I am a good person) and towards others (e.g. he or she does nice things for others).

How does *Acts of Kindness* work?

Encouraging *Acts of Kindness* can and should be formalized. Though informally encouraging students to be kind towards others is positive as well, by formalizing the



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process, students will be more likely to engage in the activity. Below are a few examples of *Acts of Kindness* formalized assignments:

- 1) Ask students to perform 3 random *Acts of Kindness* throughout the week. Have them record each act. Turn in the records to complete the assignment. This can be continued for multiple weeks.
- 2) Have students think of a specific person they would want to do something kind for. Have them briefly brainstorm 2-3 nice acts they could do for this person. For the assignment, have them record what they decided to do and when they did it. Have students meet in groups and explain why they chose the person they did and how it made them feel to perform their kind act.
- 3) Examine nice things one might do to improve the classroom environment. Ask students to try to do one nice thing for someone else before they finish school for that day. Stress that these need not be big, just something kind for someone else or for the class as a whole (e.g. clean up a messy area of the classroom, erase and wash the board, and so forth). Again, have students record their act of kindness and turn that in to complete the assignment.



What does *Acts of Kindness* look like and sound like in the classroom?

While *Acts of Kindness* will have a positive effect on the atmosphere of the classroom, it should also indirectly improve academic outcomes and social acceptance for students.

Students will experience more positive feelings

- May walks into the classroom, "Today is going to be great!"
- The administration notices that Mr. Holloway's class, which usually a quiet, seemingly dour classroom atmosphere, has become quite lively and warm.

Students are more socially inclusive and accepting of others

- Ms. Proctor's class used to seem very segmented and cliquy. However, recently, students have begun to interact more and no one seems to be left out whenever there is a classroom activity.
- George, a quiet student, while sitting at his desk just doodling, was surprised when Felicia walked up and asked if he would want to join her group for the assignment.

Students are more engaged in classroom activities

- Students in Mrs. Vale's class used to moan and groan whenever she introduced a new assignment. She was surprised to notice that today, no one voiced any objections. In fact, they quickly started forming small groups and working on the assignment.
- Jackson was starting to get frustrated with the math problem set. Brandon turned to Jackson, noticing his frustration, and asked if he could help some. Soon, they were steadily working through the problems, Jackson's frustration completely forgotten.



What evidence is there for *Acts of Kindness*' effectiveness?

Acts of Kindness, as with many other positive psychology interventions, effects increases positive emotions along with improved social desirability. This often leads to stronger engagement

Study	Key Findings	Major Outcomes
Layous et al., 2012	This study asked students to either perform 3 <i>Acts of Kindness</i> or visit 3 locations (experimental or control). Researchers then tested whether differences were found between groups in positive affect, well-being measures, and peer acceptance.	Increased peer acceptance (forming friendships)
Ouweneel et al., 2014	Researchers tested the effects of “thoughts of gratitude” and “acts of kindness” on positive emotions and academic engagement. Effects were shown on both for “acts of kindness” as compared to the control group.	Strengthened positive emotionality and improved academic engagement

Reference List

- Layous, K.S., Nelson, K., Oberle, E., Schonert-Reichl, K.A., & Lyubomirsky, S. (2012). Kindness Counts: Prompting prosocial behavior in preadolescents boosts peer acceptance and well-being. *PLOS One*, 7(12), 1-3.
- Ouweneel, E., Le Blanc, P.M., & Schaufeli, W.B. (2014). On being grateful and kind: Results of two randomized controlled trials on study-related emotions and academic engagement. *The Journal of Psychology*, 148(1), 37-60.



Evidence-based Practices to Activate the SDS in a School Setting
Practices That Reinforce Healthy Beliefs



Practice Profile: *ACHIEVER Model*

What is the ACHIEVER Model?

The *ACHIEVER Model* is a set of skills that help with effectively managing stress and identifying ways to stimulate positive thinking. Practical use of these skills can increase positive experiences and lead to more happiness and meaningful productivity. The *ACHIEVER Model* is essentially a methodology for encouraging resilience and decreasing the negative effects of stress in the complex, high-energy, and, at times, frustrating context of teaching.

How will this help me and my students?

Every skill in the *ACHIEVER Model* skill set has been established as an evidence-based practice for decreasing stress, increasing resilience, or generally improving personal well-being and social-emotional competence. Teachers will be able to access these manifold benefits by faithfully practicing these skills. Further, the students will benefit as well. Research has established that educator social-emotional competencies are directly associated with not only reducing teacher burnout but also with improved teaching efficacy and heightened job satisfaction. In other words, the healthier and less stressed the teacher, the better their experience in the workplace, and the better the results for the students.



How does the *ACHIEVER Model* work?

The *ACHIEVER Model* is based on 8 skills built around the *ACHIEVER Model* acronym.

Awareness and Empowerment through mindfulness practices

- Mindfulness is the awareness of the moment when we purposefully view present experiences with a calm, non-judgmental lens
- A mindful approach allows us to stop and calmly address challenging or stressful events

Choosing your attention and Practicing gratitude

- With every experience, we choose how to interpret and respond. By practicing gratitude and choosing to attend to the positive we can decrease stress and increase positivity

Helping and doing good deeds for others

- Doing good deeds, through random acts of kindness or otherwise has been shown to increase positivity and general well-being, leading to "Elevation" that feeling of having a warm or full heart

Identifying unhelpful thoughts and refining them to be helpful

- We all have negative thoughts. However, we also have the ability to identify when they will be unhelpful and consciously work to change them.

Establishing good role models and social support

- Social support has been linked across numerous fields and uncountable studies to important mental and emotional benefits such as increasing life satisfaction and decreasing stress.

Values clarification and commitment

- We all hold certain values above others. For some they are things like hard work or wherewithal, for others willingness to forge into the unknown and similar traits. While we all hold different value for different traits, we should work hard to commit to those that we feel truly strong about.

Exercise, eat well, and engage in good sleep

- Mental health is not only in our heads. It is also reliant on our physical health. Good sleep, eating well, and regular exercise have all been shown to have positive effects on mental well-being.

Reward yourself through relaxation and recreation

- Relaxation is essential parts of our mental and emotional well-being. Even in times of high stress, well timed sessions of relaxation and recreation can improve productivity and decrease stress.



How would the *ACHIEVER* model work in action?

Awareness and Empowerment through mindfulness practices	<ul style="list-style-type: none">• Though life may be crazy, thoughts are here and now. Pay attention to what students are doing now, what to do to help them, and how can to make each activity the best it can be right now. Thoughts about life, future lessons, and other things are put on hold until later.
Choosing your attention and Practicing gratitude	<ul style="list-style-type: none">• Everyone is faced with frustrating situations and challenging students. When faced with such, ask "What is positive about this situation/student?" or "What do I like about this situation/student?"
Helping and doing good deeds for others	<ul style="list-style-type: none">• Aim to help another carry something, hold the door for someone, show compassion when someone has a hard day, and so forth. Notice how these nice deeds affect your own emotions and feelings of well-being.
Identifying unhelpful thoughts and refining them to be helpful	<ul style="list-style-type: none">• When a negative or critical thought comes to mind, think about ways to reinterpret it to something that will be constructive or positive. The same holds true for doubting thoughts and angry thoughts. We are not our thoughts!
Establishing good role models and social support	<ul style="list-style-type: none">• Look towards those who support, nurture, and encourage growth. Reach out and grow these relationships. Identify those social contacts that are not beneficial or encouraging. Know who you can lean on when you need!
Values clarification and commitment	<ul style="list-style-type: none">• What do you care deeply about? If nothing else, what would you want to be remembered for? Think about the values that you would want others to identify you with and commit to upholding these values in your daily life.
Exercise, eat well, and engage in good sleep	<ul style="list-style-type: none">• Do you try to exercise 2-3 times per week? Sleep 8 hours per night? Do you keep a normal eating schedule and eat wholesome meals? Know what a healthy lifestyle looks like and work towards incorporating that in your own life!
Reward yourself through relaxation and recreation	<ul style="list-style-type: none">• Identify the activities that relax you. Work towards making these activities a priority in your weekly schedule. Though work is important, play and relaxation are the necessary counterbalance to work. Find time to relax!



What would the ACHIEVER Model look like or sound like?

Awareness and Empowerment through mindfulness practices	<ul style="list-style-type: none">• Ms. Lovitz is having a rough week. Grades are due tomorrow, her car is having problems, and her family is in town. Yet her thoughts are on class alone: Alright, Jimmy is done with his work. Susan seems to be struggling with the first part, so how can I help her? I can...
Choosing your attention and Practicing gratitude	<ul style="list-style-type: none">• When Janice turns in her class assignment only partially completed, Mr. Jules looks at it and says, "I see that you worked really hard on this problem! It looks great! Do want to show me how you might work on this one here?"
Helping and doing good deeds for others	<ul style="list-style-type: none">• Each day, Mrs. Donovan likes to keep her eyes out for something nice to do for someone else. <i>I love that feeling I get afterwards</i>, she thinks. She stops halfway down the hall to help a student pick up her papers that had scattered. <i>It's always such a great feeling</i>, she smiles.
Identifying unhelpful thoughts and refining them to be helpful	<ul style="list-style-type: none">• As Mr. Sanders looked over at Gina's raised hand, he thought, "Ah, jeez, AGAIN? She ALWAYS has questions." He paused and thought, "That wasn't fair. She asks great questions, and it is great that she's inquisitive."
Establishing good role models and social support	<ul style="list-style-type: none">• Ms. Kelso really felt supported by Ann. She had come into Ann's office ready to quit, but after talking with Ann, she felt that maybe she could do it, that she could at least try one more time. It helped to have such a great friend.
Values clarification and commitment	<ul style="list-style-type: none">• Mrs. Coffling learned early the importance of hard work. Every day she asked her students to think about what they would accomplish that day if they worked hard. She did the same herself and, each day, they talked about their great accomplishments and how much hard work really paid off!
Exercise, eat well, and engage in good sleep	<ul style="list-style-type: none">• Mr. Yogler felt amazing! To think that just 6 months ago he felt tired and sluggish every day. Changing his routine to include a couple jogs a week and a solid 8 hours of sleep every night made a huge difference indeed!
Reward yourself through relaxation and recreation	<ul style="list-style-type: none">• Ms. Redding thought, as she returned her opponent's serve, that this was exactly the kind of reprieve she needed. She was sure that by the time she finished the match, she would be ready for school again the next day.



Practice Profile: *Possible Selves*

Implementation Quick Reference	
Evidence Level	Excellent (****)
Learning Curve	Take a few extra minutes (2)
Ease of Use	Worksheets suggested (2)
Class Time Required	Minimal (<30 minutes/week)

What is Possible Selves?

Possible Selves (PS), also referred to as *Future Possible Selves* or *Best Possible Selves*, is a practice meant to help students self-regulate and increase motivation towards achieving personal goals. In order to do this, students are asked to visualize multiple *Possible Selves*, or versions of themselves in the future. As one part of the strategy, students envision what a positive future would look like, in which they achieve specific academic, vocational, or other goals. As another part, students imagine a negative future in which these goals were not achieved. While the end points envisioned are important for both of these exercises, the focus of this strategy is on understanding the choices and forks in the road that separate the paths to the two outcomes. After thinking of the positive future, students think about the efforts necessary to make it a reality. This is then used as a tool to formulate a detailed plan towards achieving their goals. Similarly, students discuss what choices might lead down the path to the negative future and how to handle these barriers as they arise.

How will this help my students?

The overarching goal of utilizing PS is for students to attain a clearer understanding of how their efforts affect their own accomplishments. **A successful PS strategy has two end objectives: personally motivated, realistic goal setting and detailed planning for achieving goals.** By having a clear understanding of different possible paths into the future, students will be able to create better plans and have a more concrete understanding of the connection between their efforts and the results of these efforts.



How does Possible Selves work?

Possible Selves is a strategy that can be implemented in the classroom through written exercises and complemented with class discussion or group based activities. Below are the key steps for an effective *Possible Selves* activity:

- 1) Ask students to list up to 4 achievements, statuses, or places (physically or figuratively) that they would like to reach within 1 year from now. Allow them 2-5 minutes to think of these and fill them out. Make sure to remind them that these are their own goals so pick ones that they feel strongly about.
 - a. The key to this piece is ensuring that the goals are personally relevant. A goal of “doing well at the science fair” is great, but it may not be personally relevant for all students. By helping students connect their self-identity to the goals, the goals become much more motivating.
 - b. As a note, make sure to provide some guidance and examples of appropriate goals. Pay special attention to helping students set goals that stretch their limits without becoming out of reach.
- 2) After students have these goals written down, ask them to mark next to each one, yes or no, whether they are currently making any efforts towards achieving that goal. If yes, have them write a brief description of what they are doing.
- 3) Next, ask students to list 4 statuses, places, or other ways they would **NOT** like to be within the next year. These can vary from relatively innocuous thoughts such as “absent more than 5 times,” to more serious situations such as “involved with drugs or alcohol.”
 - a. Again, the answers should reflect the students’ *personal* concerns and should relate to the purpose of the exercise.
 - b. As with the positive goals, these should also be reflective of outcomes the student can control, not concerns outside of their control.
- 4) Similar to before, have students consider whether they are doing anything to influence these negative or off-track *Possible Selves*. Have them write down any ways in which they are working to avoid these *Possible Selves*.
- 5) Have students keep these sheets in a commonly accessed location as daily reminders of their goals and progress towards them.
 - a. *Because the main purpose is to motivate and plan, make sure students are referring back to them consistently and editing them if they become unconnected to the students’ current goals and situation.*
- 6) Have students plan what efforts that would be necessary to reach their identified *Possible Selves* goals, or avoid the negative *Possible Selves*. Using these ideas, students can formulate detailed plans to work towards the desired outcomes, to help solidify not just the desired end goals, but the process to getting there as well.



What does *Possible Selves* look like and sound like in the classroom?

A classroom that utilizes *Possible Selves* exercises should foster better awareness of goal setting, understanding of links between actions and outcomes academically or otherwise, and stronger connection with school and academics.

<p>Students can identify both positive and negative possible futures</p>	<ul style="list-style-type: none">• A student who is struggling with writing assignments says, "If I keep practicing, I can get better at writing."• Students have personal goal sheets and track their progress towards or away from different possible outcomes.
<p>Students can link their own efforts to progress towards or away from different possible selves</p>	<ul style="list-style-type: none">• A student who tends not to complete all of his homework notices that he got a higher score on a quiz after completing all of the homework. He decides that if he continues doing this then he can do well in math.• A student says, "I always thought it was luck when I did well in science, though this last time I really did get it after making sure to talk about the ideas with a friend before the test."
<p>Students form stronger senses of personal identity as they link achieving goals with their own efforts</p>	<ul style="list-style-type: none">• A student, after receiving another positive review for her analytical essay, states, "I always wanted to be a writer, but thought writing was a skill that you had to just <i>have</i>. Maybe I can develop that skill in myself after all!"



What evidence is there for *Possible Selves*' effectiveness?

There have been various versions of the *Possible Selves* strategy highlighted in experimental studies. Ones that worked with student populations are outlined below:

Study	Key Findings	Major Outcomes
Destin and Oyserman, 2010	Students were asked to consider possible future careers. When linked with academic based careers, students committed more time and effort	Academic effort (homework time)
Oyserman, Terry, and Bybee, 2006	Students participated in a <i>Possible Selves</i> activity that highlighted positive <i>Possible Selves</i> , feared off-track <i>Possible Selves</i> , and links between each and students' personal identities. Intervention also focused on changing students' perceptions of difficulties encountered while pursuing <i>Possible Selves</i> .	Improved grades and more academic initiative
Oyserman, Terry, and Bybee, 2002	Students participated in a program "School to Jobs" that fostered connecting <i>Possible Selves</i> to current school involvement. In particular, it helped connect school effort and achievement with positive <i>Possible Selves</i> .	Stronger self-concept, increased school connectedness, and effort in school
Sheldon and Lyubomirsky, 2005	A joint best <i>Possible Selves</i> and gratitude study, this highlighted the positive psychological effects of <i>Possible Selves</i> ' exercises, with self-concordant goals reinforced over time.	Increases in positive affect and improves effort towards <i>Possible Selves</i> ' goals



Evidence-based Practices to Activate the SDS in a School Setting

Reference List

- Destin, M., & Oyserman, D. (2010). Incentivizing education: Seeing schoolwork as an investment, not a chore. *Journal of Experimental Social Psychology*, 46(5), 846-849.
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- Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best Possible Selves. *The Journal of Positive Psychology*, 1(2), 73-82.



Practice Profile: *Growth Mindset*

Implementation Quick Reference	
Evidence Level	Excellent (****)
Learning Curve	Take a few extra minutes (2)
Ease of Use	No additional materials required (1)
Class Time Required	None (embedded in language use))

What is Growth Mindset?

Growth Mindset is a practice that encourages students to view their academic capabilities and intelligence as malleable characteristics. The contrasting idea, fixed mindset, is the belief that our intelligence is capped at a genetically or otherwise predisposed amount. The strategy of *Growth Mindset* is based off of two major ideas. The first is that we are not limited by our current state of achievement. The second is that our brain acts like a muscle: the more you exercise your mind, the bigger and stronger it gets. By leveraging these concepts, the belief that our intelligence can change, and grow is nurtured.

How will this help my students?

When students view themselves as able to improve their intelligence and their academic abilities through effort, they are more likely to feel internal control over their academic achievement. Fixed mindset encourages the opposite – if a student is getting bad grades, it is because the work is outside of their abilities and therefore unlikely to ever become possible. This can quickly lead to a lack of engagement and even alienation from school. *Growth Mindset encourages students to feel in control of their academic performance and leads to increases in academic engagement, achievement, and positivity in the classroom.* By encouraging students' beliefs in a *Growth Mindset*, that their brains can and will improve with effort, teachers can help students overcome obstacles that might have previously seemed insurmountable.



Evidence-based Practices to Activate the SDS in a School Setting

How does Growth Mindset work?

Growth Mindset is an easy-to-implement and educationally based strategy. The most effective efforts to include a *Growth Mindset* component into the classroom have utilized one of two models.

Model 1

- This strategy is based around a mentoring model
- Students are matched with an adult mentor who introduces the student to various research and information about the brain and the malleability of intelligence
- Through a number of meetings students become more familiar with the way in which the brain works and that abilities and achievement can actually be affected through personal effort and perseverance.

Model 2

- This strategy follows a similar model as the above but brings the research and information into the classroom settings instead
- Teachers set up a weekly “workshop” in the classroom (~30 minutes/each) in which students are introduced to research around the malleability of intelligence
- Students are organized into teams to discuss the research and develop projects around the ability to change brain structures and develop new neural pathways

Growth Mindset relies on two distinct but related parts: Student belief in *Growth Mindset* and teacher Modeling of *Growth Mindset* through their actions and language.

Student belief

When students believe in a *Growth Mindset*, they believe that their performance can improve with effort and that they can improve. When students are working from a fixed mindset, they will often see failure as the end of the road. Their abilities cannot improve so the outcome of future attempts are already decided. However, a student with *Growth Mindset* will instead see this as a chance to learn and improve the next time.

Teacher Modeling

Research has shown that teachers who model and incorporate *Growth Mindset* into their own teaching and their language encourage much better results in their students. This includes using language around “effort” rather than “intelligence” and talking about the process of learning and improving rather than native ability.



Evidence-based Practices to Activate the SDS in a School Setting

Some valuable *Growth Mindset* resources for use with these models

Mindset Site:

<http://mindsetonline.com/howmindsetaffects/mindsetforachievement/index.html>

Free *Growth Mindset* Framing Tool:

<http://www.mindsetworks.com/websitemedia/resources/growth-mindset-framing-tool.pdf>

Effective Effort Rubric to help shape learning around *Growth Mindset*:

<http://www.mindsetworks.com/websitemedia/resources/effort-rubric-for-students.pdf>

Examples of Effective *Growth Mindset* Feedback (Great resource for use in the classroom!)

<http://www.mindsetworks.com/websitemedia/resources/growth-mindset-feedback-tool.pdf>

Accessible article on “Growing your intelligence” for students:

<http://www.mindsetworks.com/websitemedia/youcangrowyourintelligence.pdf>

Sal Khan, the founder of Khan Academy, on the importance of focusing on effort rather than intelligence

<https://www.khanacademy.org/about/blog/post/95208400815/the-learning-myth-why-ill-never-tell-my-son-hes>



What does *Growth Mindset* look like and sound like in the classroom?

Growth Mindset encourages more effort, perseverance, and ultimately higher levels of achievement in the classroom.

Students stick with difficult assignments for longer and achieve better results.

- Ms. Newman noticed that throughout the semester students had been spending longer on assignments. She was surprised to see that they were answering more of her extra credit "challenge questions."
- Frannie had a habit of just giving up when the problems got harder. However, more and more, she was turning in completed assignments and spending more time on each assignment. Her grades reflected the increased effort.

Students are less likely to give up when faced with challenges or give in to assumptions of low ability.

- Gregory turned to Joyce and said, "Come on, we can do this! We just have to keep trying and we'll find a good answer!"
- While "I'm just not good at reading" had been Alvin's go to answer in past classes, Mr. Ipson thought about how he hadn't heard that phrase for a few weeks. He glanced over and saw Alvin dutifully filling in the answer sheet for the reading assignment.

Students begin to believe they are capable of achieving and having self-efficacy

- Annalise knew she could do the problem set. She turned back to the textbook and tried to find the right strategy to use for this next one.
- Javier had always thought he would never be as good as reading as other students, but his teacher kept encouraging him to remember that as long as he keeps trying, his abilities will keep growing too.



What evidence is there for *Growth Mindset*'s effectiveness?

Research has found significant positive effects on student academic engagement, achievement, and the development of new skills through the use of *Growth Mindset* activities in the classroom.

Study	Key Findings	Major Outcomes
Blackwell et al., 2007	Through a pair of studies, an incremental theory (<i>Growth Mindset</i>) led to students feeling more capable and more motivated to achieve in mathematics.	Improved academic motivation and increased self-efficacy
Good et al., 2003	By including an aspect of <i>Growth Mindset</i> that negated societal expectations of poor performance on math tests by women, female students in an experimental condition were able to score much higher on mathematics tests than their female peers who were not exposed to <i>Growth Mindset</i> .	Increased academic achievement (mostly eliminating the gender achievement gap in mathematics)
Schumann et al., 2014	This study investigated the relation between beliefs in malleability and empathy. It found that <i>Growth Mindset</i> beliefs towards empathy followed similar patterns towards beliefs towards academics and intelligence.	Greater effort given when empathic ability is seen as malleable



Evidence-based Practices to Activate the SDS in a School Setting

Reference List

- Blackwell, L.S., Trzesniewski, K.H., & Dweck, C.S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development, 78*(1), 246-263.
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- Schumann, K., Zaki, J., & Dweck, C.S. (2014). Addressing the empathy deficit: Beliefs about the malleability of empathy predict effortful responses when empathy is challenging. *Journal of Personality and Social Psychology, 107*(3), 475-493.



Practice Profile: Cooperative Learning - *PIES*

What is Cooperative Learning?

Cooperative Learning refers to utilizing team-based activities to create a stronger learning environment for students, as compared to individualized instruction.

Cooperative learning structures can operate in a classroom either along with individual instruction and paired activities or independent from other methodologies.

What Cooperative Learning IS and ISN'T

What it IS	What it ISN'T
<p>A system for completing activities through team-based work that utilizes a required set of tools</p>	<p>Working “parallel” to others to achieve a similar goal</p>
<p>These tools include Positive Interdependence, Individual Accountability, Equal Participation, and Simultaneous Interaction (this is the PIES method; other systems might have varying terminology but similar parts)</p>	<p>Working in a collaborative system in which students each have separate but equal parts that they work on individually</p>
<p>Cooperative Learning is an intentional, complex system that can be extremely beneficial to students when implemented correctly</p>	<p>Establishing teams and assigning a group project</p> <p>Having students “work together to find the answer”</p>



How does Cooperative Learning work? The PIES Method.

Positive Interdependence

- Students must rely on each other in such a way that they bolster performance and encourage each other (instead of creating antagonistic competition)

Individual Accountability

- Students must each, individually, take a public role in performing the task. The achievement of the task should only be possible when every student performs.

Equal Participation

- Students must have roles that spread the active engagement equally across members of the group.

Simultaneous Interaction

- Students must not only be engaged, but be engaged actively at the same time. This shows the limits of effectiveness as groups get larger.

What does *Cooperative Learning* look like and sound like in the classroom?

PIES, when utilized appropriately, should be very recognizable in the classroom. Below are two examples, one academic one based around social/emotional learning (SEL) of Cooperative learning. The Academic example is a *Jigsaw Activity* for literary devices. A *Jigsaw* is an activity in which students are each responsible for learning about one part of an assignment and then returning to the group to fit all of the pieces together to form the whole.

The *SEL Example*, is the *Marshmallow Challenge*. The *Marshmallow Challenge* asks teams to build a structure using limited materials (uncooked spaghetti noodles, a small amount of tape, string, and a marshmallow) which has a marshmallow as high above the base as possible. The goal of the task is to encourage teambuilding.



Academic Example: The *Jigsaw* for types of literary devices

<p>Positive Interdependence</p>	<ul style="list-style-type: none">• Each group is made of 4 students, a leader, a note-taker, a literature keeper, and a runner.• Each student is assigned 2 different literary devices to learn, which they then explain to the group as a whole.
<p>Individual Accountability</p>	<ul style="list-style-type: none">• Each role has an essential duty in the group:<ul style="list-style-type: none">• Leader: Keep team goal focused and check off the assigned tasks (checklist)• Note-taker: Prepare the final document for submission for a grade (Question sheet)• Literature Keeper: Has all of the sources that the team must draw examples from. Is responsible for highlighting examples (sources sheet).• Runner: Gets materials as needed from community source and keeps track of completion time for each part of assignment (time sheet)
<p>Equal Participation</p>	<ul style="list-style-type: none">• All students are required to track their role's assigned tasks.• Each student is required to learn about and teach the group about 2 different literary devices.
<p>Simultaneous Interaction</p>	<ul style="list-style-type: none">• In order to complete the assignment in time, the leader and time keeper must work together to encourage strategic use of time. This means that students must all be actively engaged in each step:<ul style="list-style-type: none">• Explaining/learning about the different literary devices• Searching the sources for examples, answering questions, and tracking time and the checklist.



SEL Example: The Marshmallow Challenge

<p>Positive Interdependence</p>	<ul style="list-style-type: none">• Participants are assigned roles: timekeeper, note-taker (what works, what didn't), resource tracker, and so forth.• Similarly, each participant is made responsible for one of the supplies, the noodles, the tape, the string, and the marshmallow). The participant responsible must make the decision how to use each item.
<p>Individual Accountability</p>	<ul style="list-style-type: none">• Each participant's role has a specific required task that only that participant may perform:<ul style="list-style-type: none">• The timekeeper must track how long each effort takes.• The resource tracker must report how each supply was used.• The note-taker must write a description of each attempt.
<p>Equal Participation</p>	<ul style="list-style-type: none">• Each participant's role is both essential and equal. As with individual accountability, the produced record from each role plays an equal part in the resultant report and participants' performance are graded the same across each team.• The roles are created in such a way that every member must contribute equally for the project to succeed. No one can "just watch."
<p>Simultaneous Interaction</p>	<ul style="list-style-type: none">• In order to get the marshmallow structure to actually stay together and stand, the members must actively work together at the same time to create it.• For example, one person holds the noodles in place, another tapes the ends, a third ties a knot in the string and puts it around a key joint in the structure.



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Resources for Successfully Using Cooperative Learning

KAGAN ONLINE

<http://www.kaganonline.com/index.php>

Kagan online has a large storehouse of free articles detailing PIES, the differences between cooperative learning and cooperative structures, and methods for implementing cooperative learning activities.

SEDL GUIDE

<http://www.sedl.org/scimath/compass/v01n02/2.html>

This resource provides brief explanations of some common cooperative learning activities. This is a great place to get initial ideas for activities in the classroom.

THE JIGSAW CLASSROOM

<http://www.jigsaw.org/>

A great resource for creating jigsaws, a common cooperative learning activity, in the classroom.

Reference List

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APPENDICES

OVERVIEW OF RESEARCH AND DEVELOPMENT EFFORTS

BACKGROUND

Our earlier work with the Raikes Foundation resulted in two important reports. The first report focused on *Social-Emotional Learning Assessment Measures for Middle School Youth (2010)* which has been heavily cited. The second report focused on *Defining and Developing Student Success Competencies (2012)*. This work provides the background for our current effort on developing student agency. Based on what is known about the developmental needs of youth in the middle-level grades, specific student success skills (or competencies) have emerged as priority outcomes for this age group. This report provides school leaders with a guide for policy and practice implementation surrounding student success skills in the middle-level grades. Our goals are threefold: 1) to deliver a set of defined and fully vetted, research-based personal-social, academic-educational, and career development middle school competencies; 2) to provide documentation of how common guidance curricula are addressing these competencies and identify gaps; and 3) to offer an assessment tool that measures achievement of the middle-level student competencies. The report highlights three critical areas:

- 1) Defining Student Success Competencies.** Based on what is known about the developmental needs of youth in the middle-level grades, specific student success skills were articulated. These competencies were vetted through a survey of Washington State middle school counselors and principals in September 2011. Analyses reveal that both principals and counselors overwhelmingly affirm the importance of all the competencies. Nearly 90% of counselors and principals rated the competencies as very important or important, with the exception of educational planning (78% principals, 73% counselors). The final list of 16 vetted student success competencies and five system support competencies are listed in the following table.



Table 1: Student Success and System Support Competencies

Educational Success Skills	Self-management Skills	Interpersonal Skills	Knowledge of Self	System-level Supports
1) Organization Skills/Time Management 2) Study and Test 3) Self-Advocacy 4) Goal Setting 5) Educational Planning*	1) Self-Control 2) Stress Management 3) Decision Making 4) Persistence	1) Empathy/Compassion 2) Problem Solving/Conflict Management 3) Effective Group Skills 4) Social Belonging	1) Self-Efficacy 2) Personal Identity 3) Citizenship	1) Caring Relationships 2) High Expectations 3) Opportunities to Contribute 4) Family Involvement 5) Cultural Competency

*Denotes competency specific to eighth-grade student success.

2) Reviewing Guidance Curricula. Based on principal and counselor support of the competencies, this report provides a crosswalk of commonly used guidance curricula (as identified by survey results) and the student competencies. The crosswalk provides a detailed analysis of gaps between the competencies and the skills targeted in commonly used curricula.

3) Assessing Student Success Skills. Through a review of the literature we developed a sample assessment tool that can be used to measure each of the 16 student success skill constructs. The measures have strong reliability, are publicly available, are predictive of academic or social outcomes, and most of the scales are relatively short in length and are expected to be sensitive to change. We have recommended 26 subscales for competency measurement.

While this work was conducted in collaboration with Washington State OSPI, we were able to leverage unspent Raikes Foundation funds to further explore evidence-based practices to promote engagement and ownership (agency) of learning among middle school students. Below we summarize our progress.



FOLLOW UP STUDIES

This study aimed to investigate methods to enhance student agency in the classroom at the middle school level. The goal was to identify, through a systematic search of the available literature, evidence-based practices that educators can implement to promote student agency and academic success. After identifying these practices, a pilot study evaluated the acceptability and feasibility of the identified strategies through a professional development series with the staff and teachers of a middle school in Everett, Washington.

Systematic Review

The purpose of the research synthesis was to review the scientific research conducted on strategies, practices, or supports that have been implemented to either directly or indirectly promote student agency in middle school-age students. The aim is to identify standalone evidence-based practices to deliver through a set of professional development courses. An evidence-based practice is defined in this regard as a procedure or strategy that has been shown via experimental research to promote an aspect of student agency. Although the identified practices can be implemented independently, they also can be combined with other practices to provide a more comprehensive approach to cultivating student agency in middle school students. The ultimate goal of this research synthesis was to distill the findings into the basic evidence-based practices that teachers and other educators can implement in a feasible, low-cost manner. These would then be delivered through the planned professional development series.

Research Synthesis Methodology. Four search strategies were used in an attempt to secure a systematic, nonbiased, representative sample of published and unpublished studies. First, relevant studies were identified through computer searches of PsycInfo and ERIC using a combination of specific search criteria targeting relevant outcome terms (e.g., motivation, self-efficacy, mindset, beliefs); intervention terms (e.g., their variants: social and emotional learning, competence, assets, health promotion, prevention, positive youth development, social skills, self-esteem, empathy, emotional intelligence, problem solving, conflict resolution, coping, stress reduction); and populations (e.g., children, adolescents, students, and schools). Reference searches were conducted as well.

Inclusion criteria

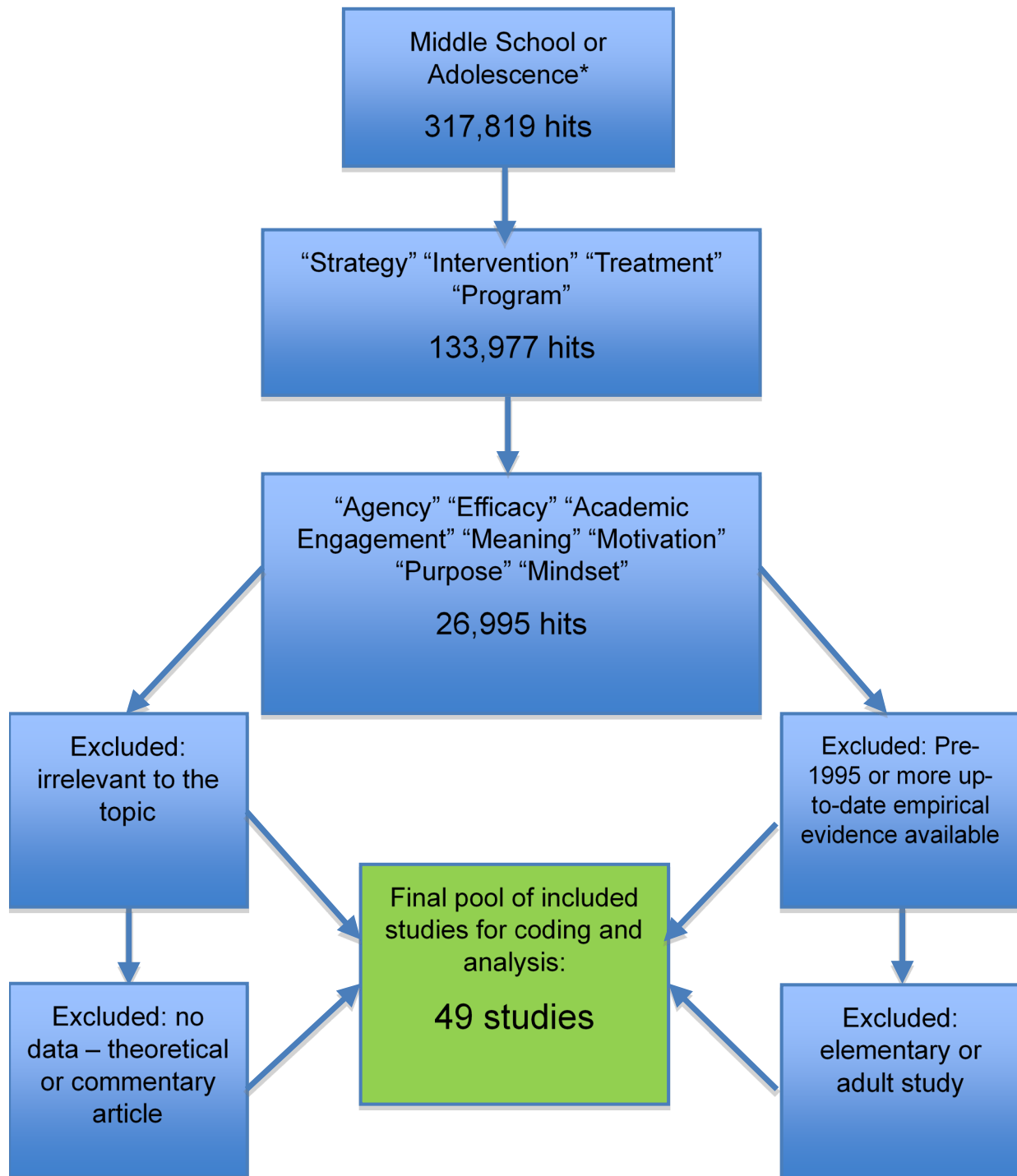
The studies included had to meet the below requirements.

- Implemented an intervention, practice, technique, strategy, or support that directly or indirectly targeted an aspect of student agency
- Involved middle school-age students
- Experimental study with robust methodology (quasi-experimental or randomized control trial)
- Quantitative data that provides for statistical significance testing



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Search results by level



Preliminary Findings

The initial findings are summarized in Appendix A. Table A.1 summarizes student-driven practices that promote student agency. Table A.2 summarizes teacher-driven practices that promote student agency. Table A.3 summarizes mentoring practices.

Professional Development process and Materials: integrating the practices into the school day

A series of professional development training modules was developed to provide focused instruction on 13 of the evidence-based teaching practices. Each module is designed to be between 2.5 and 3 hours in length, and covers 4-5 of the practices described in this report. The modules use interactive teaching strategies and are designed to model the practices.

The largest factor for faithful implementation of new practices and strategies in a natural classroom environment is teacher buy-in (Turnbull, 2002). Though the literature review identified the necessary strategies and components, translating these strategies for use in a natural environment required professional development for teachers. The research team emphasized the importance of first establishing teacher trust and motivation to engage with the resources, as these are both linked with heightened fidelity of implementation (Yeager, 2014).

For access to and training in the use of these professional development modules, please contact the Center for Communities That Care at the University of Washington (<https://www.communitiesthatcare.net/contact/>).



APPENDIX A

Findings from the systematic review of the literature.

The findings are rated by the rigor of the research. Note that these ratings reflect evidence for *only the middle school population*. However, additional references were given though not rated when applicable (school setting with elementary aged students for example)

- * = single quasi-experimental study,
- ** = multiple quasi-experimental study,
- *** = randomized control trial by single investigator,
- **** = replication by multiple investigators.

Because the goal is to apply these evidence-based practices in middle school settings, each practice is also rated in terms of the complexity of implementation.

- 1 = learn about and apply it tomorrow,
- 2 = training and time to prepare for implementation needed,
- 3 = (extensive) training, time to prepare for implementation, and coaching needed

Each evidence-based practice was also evaluated based on the size of the effects found, based on current statistical conventions (as provided in the research evaluated).

- S = small effects found
- M = medium effects found
- L = large effects found



Table A.1

Student-Driven Practices that Promote Agency Among Middle School Students

Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
Increasing thoughts or mindset						
Future <i>Possible Selves</i>	****	2	L	<i>Growth Mindset</i> ; self-efficacy; motivation; metacognition; goal setting and management; relevance and purpose	Improved academic performance; improve academic initiative; improved academic effort	Destin and Oyserman, 2010; Oyserman, Terry, and Bybee, 2006; Oyserman, Terry, and Bybee, 2002; Sheldon and Lyubormirsky, 2005; Oyserman et al., 1995; Ferrer-Wreder et al., 2002
Wish-Outcome-Obstacle-Plan (<i>WOOP</i>)	****	2	M-L	<i>Growth Mindset</i> ; Motivation; self-efficacy; goal setting and management	Academic performance; improved academic engagement and effort	Duckworth et al, 2013; Duckworth et al., 2011; Gollwitzer et al., 201
<i>Growth Mindset</i>	****	2	M-L	Social belonging; <i>Growth Mindset</i> ;	Academic performance (GPA); academic	Aronson, Fried, & Good, 2002; Yeager et al., 2013; Yeager and Walton, 2011; Blackwell et al., 2007;



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Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
				motivation; self-efficacy	engagement	Good et al., 2003; Schumann et al., 2014
Optimistic thinking	**	2	S	<i>Growth Mindset</i> ; motivation	Academic performance	Lyubormirsky et al., 2011; Shoshani and Steinmetz, 2013
Values clarification and <i>Character Strengths</i>	****	2	S-M	<i>Growth Mindset</i> ; motivation; social belonging; self-efficacy		Walton, G. M., & Cohen, G. L., 2011; Walton, G. M., & Cohen, G. L., 2007; Taborisky-Barba, S., & Cohen, G. L., 2013; Cohen, G. L., Garcia, J., Apfel, N., & Master, A., 2006; Armitage and Rowe, 2011; Proctor et al., 2011
Increasing positive emotions						
Practicing gratitude	****	2	S-L	Self-efficacy; motivation; social belonging	N/A	Emmons and McCullough, 2003; Froh et al., 2008; Sheldon and Lyubormirsky, 2005; Lyubormirsky et al., 2011;



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Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
						Shoshani and Steinmetz, 2013
Wellbeing and positive emotions	***	2	S	Motivation	N/A	Ruini et al. 2009
Acts of Kindness	***	1	S	self-efficacy; motivation; relevance and purpose	Academic performance	Layous et al., 2012; Ouweneel et al., 2014
Increasing self-regulation						
Mindfulness	**	2	L	self-efficacy, social belonging, social capital, motivation, <i>Growth Mindset</i>	Academic performance	Anglin et al, 2008; Beauchemin et al., 2008; Broderick and Metz, 2009; Langer et al., 1985



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Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
Self-evaluation and monitoring	**	2	L	metacognition; relevance and purpose; social belonging; self-efficacy	Increased accuracy; increased knowledge; engagement	Ramdass and Zimmerman, 2008; Leming, 2001; Peters and Kitsantas, 2009

Notes: *Evidence Ratings* - * = single quasi-experimental study, ** = multiple quasi-experimental studies, *** = randomized control trial by single investigator, **** = replication by multiple investigators. *Implementation Complexity Ratings* – 1 = learn about and apply it tomorrow, 2 = training and time to prepare for implementation needed, and 3 = training, time to prepare for implementation, and coaching needed



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Table A.2

Teacher-Implemented Practices that Promote Agency among Middle School Students

Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
Increasing student engagement						
Opportunities to respond	***	1	L	Belonging; motivation	Academic engagement	Sutherland, Adler, & Gunter, 2003; Sutherland, Wehby, and Yoder, 2001; Skinner & Shapiro, 1989
<i>Wise Feedback</i>	***	3	L	self-efficacy; motivation; <i>Growth Mindset</i>	Academic completion and quality	Yeager et al., 2014
Clear Expectations	**	1	M	self-efficacy; goal setting and management	Academic performance	Fantuzzo, King, and Heller, 1992
<i>Emotional Hooks</i>	*	1	M	Self-efficacy; motivation	Academic attention	Fredrickson and Branigan, 2005
Increasing student autonomy						



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Choice-making	**	2	Self-efficacy, motivation	Academic performance	Van Sluys, 2010; McIntyre et al., 2007; Hall and Zentall, 2000; Guthrie & Davis, 2007
Increasing social connectivity					
<i>5-to-1 Ratio</i>	***	1	Motivation; social belonging	Academic engagement	Cook et al. (under review); Fredrickson and Losada, 2005
Establish-Maintain-Restore (EMR)	*	2	Social belonging; motivation	Academic engagement	Cook and Coco. (in press)
<i>Positive Greetings at the Door</i>	*	1	Social belonging	Academic engagement	Cook et al. (in press)
Cooperative learning	****	2	Social Belonging, motivation	academic achievement	Carr & Walton (in press); Shlomo, 1980; Jensen, Johnson, and Johnson, 2002; Slavin, Leavey, and Madden, 1984a; Slavin, Leavey, and Madden, 1984b; Vaughn, 2002; Widaman and Kagan, 1987.



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Notes: *Evidence Ratings* - *= single quasi-experimental study, ** = multiple quasi-experimental studies, *** = randomized control trial by single investigator, **** = replication by multiple investigators. *Implementation Complexity Ratings* – 1 = learn about and apply it tomorrow, 2 = training and time to prepare for implementation needed, and 3 = training, time to prepare for implementation, and coaching needed



Table A.3

Mentoring Practices that Promote Agency Among Middle School Students

Practice Category	Evidence Rating	Implementation Complexity	Effect Sizes	Agency Outcomes	Academic Outcomes	References
Improving relationships						
Adult mentoring	****	2	S-M	Self-efficacy; motivation; social belonging	Academic outcomes	Nunez, Rosario, Vallejo, Gonzalez-Pianda, 2013 (RCT); Karcher, 2008 (RCT); Eby, Allen, and Dubois, 2008 (meta-analysis); DuBois et al, 2011 (review of effects); Green, Grant, and Rynsaardt, 2010 (RCT); Ritter, Barnett, Denny, and Albin, 2009 (meta-analysis)
Peer mentoring/tutoring	**	2	M-L	social belonging; self-efficacy; goal setting and management	Academic achievement	Kamps et al., 2008 (quasi); Veerkamp et al, 2007 (mixed methods, quasi); Westerlund et al. 2006 (quasi); Fantuzzo et al, 1992 (RCT); Shlomo, 1980 (meta-analysis)

Notes: *Evidence Ratings* - * = single quasi-experimental study, ** = multiple quasi-experimental studies, *** = randomized control trial by single investigator, **** = replication by multiple investigators. *Implementation Complexity Ratings* – 1 = learn about and apply it tomorrow, 2 = training and time to prepare for implementation needed, and 3 = training, time to prepare for implementation, and coaching needed



Evidence-based Practices to Activate the SDS in a School Setting

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