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### Abstract

To assist educators considering expanding their use of social-emotional education, the article summarizes key findings from the Self-Science program and provides an overview of how it is implemented. Self-Science is a comprehensive approach to developing social and emotional skills. The article discusses the program's goals, features, core processes, research findings, and recommendations from over 35 years of practice. While emphasizing Self-Science, the lessons and critical practices are valuable while implementing any kind of SEL program.

**Key Lessons from 35 Years of Social-Emotional Education:** How Self-Science Builds Self-Awareness, Positive Relationships, and Healthy Decision-Making.

Self-Science – so named because emotional intelligence grows from the study of ourselves and our relationships – is a comprehensive, developmental, and research-based curricula for creating a school-wide culture of emotional intelligence.

Self-Science teaches specific skills related to self-awareness, self-management, and self-direction. Skills include recognizing patterns of behavior, becoming more aware of multiple feelings, accepting responsibility, and using optimistic thinking. Self-Science classes are structured to help students integrate thinking, feeling, and behavior; classes typically include an individual or group activity, a discussion of the activity and how the lessons from the class apply to daily life.

In the 35 years since Karen Stone-McCown began developing and implementing the program, our team has learned several key lessons about teaching emotional intelligence and integrating any social-emotional learning (SEL) program into a school. While this article will focus on Self-Science, the underlying concepts are broadly applicable. It is aimed at educators who are seeking to implement an SEL program or who want to make their current program more powerful.

### Contents:

- Key Goal of the program.
- Basic Assumptions.
- Unique Features of Self-Science.
- The Facilitator Role.
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- Implementation Challenges.
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- Conclusion.

### **Key Goal of Self-Science**

Self-Science has one primary goal: **For children to see they have conscious choice about their thoughts, feelings, and actions.** Both research and practice validate a sense of choice as one of the foundations of performance (Ajzen and Fishbein, *Understanding Attitudes and Predicting Social Behavior*, 1980). As they learn about the freedom of their choices, they naturally increase both accountability and personal power. To meet that goal, the program blends the development of key emotional intelligence skills (such as emotional literacy, emotional management, and optimism) with a structure to practice the skills with each other in "social problem solving" processes to manage and resolve students' social concerns.

Rather than telling children what not to do, Self-Science provides multiple options of what to do. It helps children become more aware of themselves and make more conscious decisions about the ways they think, feel, and act independently and interdependently. This focus on "capacity development" is essential, and distinguishes Self-Science from some character education programs that focus more on "adherence to the rules."

Self-Science is built on ten developmental goals, each both cognitive and affective components. The cognitive components ("thinking") are important because they increase students' ability to apply the affective ("feeling") skills outside the class. Successfully meeting the goals means building a bridge between thinking, feeling, and acting -- students consider what they are telling themselves, their emotional responses, and how they turn that into action. When students become clear that their thinking, feeling, and acting are inexorably linked, they dramatically improve their self-efficacy-- they become better able to make small and large choices (Brown, B.B., *School Culture, Social Politics, and The Academic Motivation of US Students*, 1993).

The first five goals relate to forming a strong, respectful group where optimal learning can occur. The second five goals lead to personal accountability -- to students taking ownership of their own choices and their own futures. Please see Figure 1 for a listing of the goals and the affective and cognitive milestones.

### **Basic Assumptions.**

The Self-Science curriculum is based on some very simple assumptions:

- There is no thinking without feeling - and no feeling without thinking (our brains and bodies are connected) (Pert, C, *Molecules of Emotion*, 1997).
- The more conscious you are of experiencing, the greater the potential for self-knowledge (you learn more when you pay attention).
- The more self-knowledge you gain, the more likely it is that you can respond positively to yourself and others (when you know more you can make better decisions).

These assumptions are based upon a careful and critical study of respected research in the area of affective education. Eclectic in origin, Self-Science follows an action learning model that draws principally from 35 years of practice informed by Martin Seligman's studies of learned optimism; the brain and emotion research by Damasio and LeDoux; emotional intelligence research by Salovey, Mayer, Bar-on, Elias, and Pert; David Buss' work on evolutionary psychology; Carver and Scheier's work on personality; learning theory from Jensen and Gardner; Maslow's hierarchy of needs; Piaget's developmental psychology; Albert Ellis' psychology of cognitive change;

Bandura's work in Neuro Linguistic Programming; and scientific methods of inquiry (Elias, Zins et al, *Promoting social and emotional learning* 1997; LeDoux *The Emotional Brain* 1996; Mayer and Salovey *What is emotional intelligence?* 1997).

### ***Unique Features of Self-Science***

Self-Science uses process-oriented, experiential methods such as simulations, projects, or role-playing rather than content-oriented methods such as teacher presentations, textbook readings, and answering factual questions. Self-Science values the synergy and learning that comes from the interactions of a whole group rather than individuals working or learning alone or in response to the teacher. Self-Science recognizes that mistakes are an opportunity for learning versus an opportunity for judging, criticizing, and blaming.

While all SEL programs invite students to think about behavior and choices, Self-Science is unique in the way it invites students to learn about what underlies their choices through a humanistic and experiential learning model by examining their intentions and actions.

- **Experiential learning.** While it is certainly possible to talk about feelings in the abstract, we believe that students learn better when they can experience the lesson. So Self-Science has "experiments" where students actually do! They think, they feel, and they act. Just like in a science lab, the experiment provides a powerful source for dialogue and reflection. This approach is consonant with the principles of brain-based learning (Jensen *Teaching with the Brain in Mind* 1998).
- **Student centered.** One of the principles of Self-Science is that the students bring the content. That's one reason it works with all kinds of people in all kinds of cultures -- the curriculum is a process, the content comes from the participants. So Self-Science teachers have to be flexible, ready to toss out their lesson plans and discuss what's pressing for the students. "Student centered" also means that the Self-Science teacher is a facilitator, not the "boss" or "expert." The kids are the experts -- each of us is the only real expert on what's going on inside us! (Bruning, Shaw, and Ronning, *Cognitive Psychology and Instruction*, 1995.)
- **Humanistic.** There are many programs that purport to teach character, values, or social skills that really teach compliance. In a behaviorist model, kids will act only to avoid pain and seek pleasure. We believe that there is an innate quality in humans that leads them to seek accord, belonging, and connection (Doyle, *Academic Work*, 1983). Self-Science nurtures that quality and offers students a chance to develop that inner core strength. Self-Science leads students to follow their own values even "when no one is looking."

A specific example of the humanistic orientation comes from the way Self-Science uses rules. Self-Science is intended to be part of the fabric of a school committed to learning. In a learning environment, the goal is learning -- not obedience. So when students break rules there is an opportunity for learning. Consequences can be part of the learning -- but the purpose is to build insight rather than to show who has power. One agreement that is a part of most Self-Science classes is confidentiality. That means you can talk about what happened in Self-Science (which we encourage!), and you can talk about what you said and did, but you should not talk about what other people said or did.

One teacher wrote me in frustration about a 12-year-old student, "Joey," who just would not respect the confidentiality agreement. When confronted, he appeared intransigent -- he insisted that he obtained his power and popularity from sharing secrets. I recommended that the teacher bring this issue into Self-Science and use it as the basis of a lesson -- or several. The teacher asked Joey if they could discuss this issue in Self-Science, and created several lessons about confidentiality. The students were able to use the Trumpet Process (see below) to look at their choices -- and Joey's choices (together with Joey) -- and identify costs and benefits. They also were able to identify and try out alternatives. Joey came to see that he was not getting the kind of power and popularity he really wanted, and that he could get what he most wanted (belonging) in another way. In other words, no externally driven punishment or reward was needed to affect a profound change in the child's behavior -- all that was needed was a process of clarifying the choices and the real costs and benefits of those.

### ***The Facilitator Role***

In Self-Science, teaching is asking rather than telling; teachers encourage curiosity, exploration, redefinition, reframing, questioning, and multiple solutions rather than one right answer.

The main difference between teaching a traditional subject and teaching Self-Science is your role in the classroom. The traditional classroom teaching role often approaches that of a manager (i.e., the teacher is primarily concerned with controlling and directing students). In Self-Science, you must certainly maintain order and set limits, but think of yourself as a "facilitator," a person who leads and pulls and tugs and demonstrates how to negotiate and keep the process going.

Traditional curricula center around what you teach and how you teach it. In Self-Science, the focus is almost reversed. How you teach is in itself a demonstration of using the scientific method to study self. The primary method of teaching emotional intelligence is practicing emotional intelligence yourself. In such a curriculum, who you are and what you personally demonstrate is a great part of what you are teaching.

Teaching a Self-Science class can be an exciting journey in your own development. Start by extending your own self-image and seeing yourself as a role model and group leader; these are parts of your teaching repertoire.

A Self-Science teacher's role exceeds simply creating a safe environment. Preparing to teach Self-Science requires more self-reflection than preparing for teaching most subjects. Children learn from the style of the teacher. Who you are and what you personally demonstrate is a great part of what you are teaching (see Figure Two, Facilitator Goals).

Students are remarkably perceptive. They observe, both consciously and unconsciously, and experiment with behaviors that they see. As a facilitator, you are a part of the Self-Science group. Your honest emotionality, your care with other's emotions, your word choices, your follow-through on commitments are all integral to the student's learning. While we all make mistakes, students have little tolerance for hypocrisy -- so whatever you ask of them, ask more of yourself.

The more you can let students in on what you are doing or attempting to do, the safer the group will feel. Teachers can model trust by expressing their feelings openly, labeling actions clearly but not labeling people, giving feedback and reassurance so there are no hidden surprises. Teachers build trust by participating in experiments as a member of the group.

Providing a role model is not a magical process. It simply means being yourself, while perhaps changing the emphasis on certain skills you already have. Your hardest job may be to examine the conditioning behind your own (possible) tendencies to take control, wield authority, and moralize. While you will never let go completely (this still is a classroom), your efforts should be toward working for greater initiative from the group and less direction from you as time goes on.

We call Self-Science teachers "facilitators" because they are collaborating with the students. While one person can facilitate, the program works best when there are two facilitators. One to run the lesson, and the other to act as an observer. Sometimes called a "process observer," the second person helps guide the discussion, asks thought-provoking questions, and keeps notes. Depending on the age/stage of your students, it might be effective to invite them to act as co-facilitators on a rotating basis. It is important that the two facilitators check-in before the class about the goals and plans for the meeting.

### ***The "Trumpet" or "Change Map" Process.***

Self-Science is based on a model which combines experiences and tools. One key tool is the Trumpet Process; we call it the "Change Map Process" in the high school program. This tool was first introduced to Self-Science by Gerald Weinstein, a researcher in affective education at the University of Massachusetts.

The Change Map Process brings something to Self-Science that is seldom found in other affective curricula; it provides specific steps that lead a student to make new their own positive choices. As the scientific method is a process tool for making discoveries about the physical world, the Change Map is a process tool for making discoveries about and acting on issues having to do with emotion and inner space.

The Change Map Process is a systematic approach to analyzing choices that will be used over and over again in Self-Science classes – and throughout the school. The Self-Science teacher must have the process memorized and ready for use. The Change Map Process offers the focal point for questions the teacher may ask to help students internalize their experiences; it employs several of the research-validated change mechanisms (Prochaska, James, Diclemente, *Changing for Good*, 1994).

The Change Map Process follows eight steps:

- Step 1. Share experiences
- Step 2. Inventory responses
- Step 3. Recognize patterns
- Step 4. Own patterns
- Step 5. Consider consequences
- Step 6. Allow alternatives
- Step 7. Make evaluations
- Step 8. Re-Choose

Here is a more detailed explanation of each:

#### **STEP 1. SHARE EXPERIENCES**

Exercises or experiments provide the class with a common reference point for discussion. An experience can be a game, a real-life situation, watching a video,

or even taking a test. Any experience can lead people to act on their patterns, so any experience can be analyzed with the Change Map.

## STEP 2. INVENTORY RESPONSES

This step begins the “scientific process” that gives Self-Science its name. The inventory is a set of observations about what happened. *What happened in that experience? What were some of the different thoughts people had? Different feelings? What were some of the different actions?*

## STEP 3. RECOGNIZE PATTERNS

All people exhibit behavior patterns; but most people need help in identifying and understanding their patterns. Patterns can include habits of thought, of feeling, and/or of action. A pattern might be expressed as, “When I am embarrassed, I get angry.” Or, “When I fall behind on my homework, I procrastinate even more.”

Learning about patterns is challenging, and most children need to see a pattern on at least three separate occasions before they recognize it. This step of the process helps raise the awareness of patterns without having to talk about their own. You ask them to identify examples of patterns that occurred, For example, “Sometimes when people are embarrassed, they get angry.” The question is, “What are some patterns that people use in this situation?”

## STEP 4. OWN PATTERNS

After identifying possible patterns, this step allows students to take ownership of their patterns. The question is now, “What usually happens with you?”

## STEP 5. CONSIDER CONSEQUENCES

All patterns have positive aspects, they also have negative aspects. The positive aspects are called “benefits,” and the negative aspects are called “costs.” These are relatively neutral words, and that helps reduce the feeling of judgement.

Every pattern – even the most destructive ones – have benefits. And, even the most prosocial patterns have costs. Sometimes benefits are very short term or superficial; likewise sometimes costs are minimal. It is important to identify both the costs and the benefits of the pattern. In the end, the choice will be driven by the combined weight of all these costs and benefits.

Ask, “What are some costs?” And, “What are some benefits?” Often, peers can help identify costs and benefits. The resulting discussion leads to self-awareness, and it helps generate empathy and tolerance. Evaluating costs and benefits give the facilitator great opportunities to demonstrate neutrality and inquiry by acknowledging the benefits of “bad” behavior and the costs of “good” behavior.

## STEP 6. ALLOW ALTERNATIVES

Before making a decision about a pattern, a person needs to see that there are alternatives. You can not just eliminate a pattern, you need to replace it with a new one. In this step, peers generate alternatives. You restate the pattern, “So Carol said, ‘When I am embarrassed, I get angry.’ What are some alternatives Carol could try when she feels embarrassed?” Someone might say, for example, “You could try making a joke when you feel embarrassed.”

By letting the group generate alternatives, you avoid exerting your power and telling the student what he “should” do.

As the group to think of as many ideas as possible without evaluating them right then. Using their imaginations in this way helps students realize there is more than one approach to any situation.

### STEP 7. MAKE EVALUATIONS

Once alternatives have been generated, the student begins evaluating them by discarding the most obviously inappropriate ideas. When only one or two alternatives remain, the child commits to trying one.

The facilitator's job is to seek commitment. "Are you saying you would be willing to try out the new pattern of making a joke when you feel embarrassed?" If the answer is yes, set a specific time for the practice – depending on the new pattern, perhaps you'd say, "Would you be willing to try that out for a week?"

### STEP 8. RE-CHOOSE (OR COMMITMENT)

Conscious choice is the most important element in this final step. People must be aware of making decisions and must take responsibility for them. Remember, the real goal is for the student to recognize that he has a choice – so this step is a confirmation of that power. Re-choosing does not necessarily mean throwing away the old pattern – often a pattern will be useful in some situations but not in others.

After asking about the commitment from Step 7, the facilitator asks for a commitment: "Will you continue to use the new pattern, or do you have a different idea?" It may be necessary to go back through the Change Map with the new pattern and re-evaluate it.

After some practice, the eight steps collapse into three:

- Think -- assess the experience and the patterns. (Steps 1, 2, 3.)
- Feel -- determine if you like where the patterns are going. (Steps 4, 5, 6.)
- Act -- practice an alternative or re-choose the original. (Steps 7, 8.)

The focus on the "Think, Feel, Act" triangle is an essential component of Self-Science. Whenever I am "stuck" as a facilitator, I go back to this basic structure and ask people to consider what they were feeling, what they were thinking, and what they were doing. We recently developed a coaching tool for adults just using this process because it makes choices so clear for people. The process is much like the Self-Science process with children: You ask the participant to identify what he thought, what he felt, and what he did by selecting from cards. Then, you discuss how changing any one of these would change all three.

The "Think, Feel, Act" triangle was around long before the terms "emotional intelligence" and "social-emotional learning." The newest research on emotion and thinking maintains they are inseparable. Thought influences feeling, feeling influences thought. Likewise, you can change a feeling by changing a behavior and visa versa. While it's not clear which comes first, it is clear that the three form a powerful feedback cycle. It's also evident from all of our experience that the place we have the most volition is in our thoughts -- we can think about our feelings and our behaviors, and through that thinking we can make a conscious choice and implement change.

**Research Findings**

Anecdotally for 35 years, teachers have reported that Self-Science is a powerful process for helping students make positive choices. In our 2000 pilot study, **100% of the teachers reported that the program increases cooperation and improves classroom relationships.**

They agreed (92%) that the program helped:

- Increase student focus/attention
- Improve teacher/student relationships

They also agreed (77-85%) that it worked to:

- Improve student learning
- Enhance collaborative work
- Increase positive verbal statements
- Decrease "put downs" (negative verbal messages) between students.

The 2000 study included 311 students in 13 classrooms. The students were ages 7-16, 29% minority, 9% special needs. The schools cover a wide range -- public and private, special needs and mainstream, and from three US states, plus the Virgin Islands. The correlation of positive environment and student performance is well validated (e.g., Murdock, 1999 cited in CASEL Tools for Educators, and Wentzel, *Does Being Good Make the Grade?*, 1993 and Weissberg et al *SEL & Academic Performance* 2003). A detailed report of the 2001 Self-Science study is available on the Self-Science web site, [www.Self-Science.com](http://www.Self-Science.com) (Jensen et al, *Self-Science 2001 Pilot Report* 2001).

Our 2001 study also showed powerful support from the teachers after six months of using Self-Science. We asked the same questions, but compared responses from teachers who said they had support from administration and support from parents.

Question	All teachers	"Supported" teachers
Improved cooperation	85%	100%
Reduced conflict	54%	67%
Improved student focus	54%	100%
Reduced student conflict	54%	67%
Reduced verbal "put-downs"	85%	67%
Improved teacher-student relationship	100%	100%
Reduced violence or violent behaviors	54%	67%
Improved teacher-parent relation	31%	100%
Improved academic learning	62%	67%
Improved classroom relationships	85%	100%
The experience was positive	69%	100%
I will continue to teach this program	69%	100%

Thus, teachers who feel supported in doing this teaching are significantly more likely to see benefits from the program. There were 13 classrooms in the study group

from all around the US; again from a wide mixture of kinds of schools. The sample represent 335 students grades 3-10; 7% special needs; 16% low income; and 15% minority.

In the 2001 study we also administered the Bar-On EQ-i:YV before and after the teachers delivered the program (Bar-On *The Handbook of Emotional Intelligence*, 2000). Students increased scores in some areas, but decreased in others. We learned that the goals of Self-Science overlap the model in the EQ-I:YV, but they do not exactly match. When we repeat the experiment we will focus the teachers on a sub-set of the Self-Science goals.

Reuven Bar-On evaluated the test data. He found that those aspects of EI that improved the most were self-awareness and self-expression (assessed with the Intrapersonal scale) and, especially, adaptability to change and social problem-solving (assessed with the Adaptability scale). On the other hand, scores did not consistently improve on emotional management and control (assessed with the Stress Management scale) and social awareness and relationship (assessed with the Interpersonal scale).

The class with the highest improvement scored as follows:

	Before	After	Z-value	p-level
<u>(n=26)</u>				
Intrapersonal	13.7	15.4	2.63	.009
Interpersonal	38.7	41.0	2.10	.036
Stress Manage.	33.7	36.5	2.35	.019
Adaptability	26.3	29.4	3.23	.001
EQ	54.7	59.8	3.61	.000

The greatest decline looked like this:

	Before	After	Z-value	p-level
<u>(n=19)</u>				
Intrapersonal	14.6	12.7	2.13	.033
Interpersonal	39.3	36.7	2.09	.036
Stress Manage.	32.8	32.5	0.05	.959
Adaptability	27.8	27.6	0.26	.795
EQ	56.2	53.3	1.65	.099

Interestingly, these two classes were at the same school and Self-Science was delivered by the same person -- so the group dynamics have a significant effect on the development of EQ skills. The teacher reports several factors worth considering:

- The declining group was at the end of their 8<sup>th</sup> grade year (in a K-8 school) and seemed to be going through a process of "dissolving" their group from around January to April (when the post-test was given); then in the final month, they seemed to come together and bond closely before leaving the school.
- This group had many absent parents.

- About 20% of the class was involved in extra curricular activities at an unusually competitive level (such as state championships).
- Two students joined the class that year who both had trouble joining the community in a positive way, and one was both socially powerful and highly disruptive -- in a class of 19 students, that's a major influence.

We plan to continue to research to identify the key factors for success and to measure the effects over a longer period.

### ***Implementation Opportunities***

There are three areas of focus for implementing Self-Science. A full program includes the class itself, integration into academic classes, and integration into the school community.

The Self-Science class is held on a regular basis, usually 30-60 minutes per week, and ideally with a stable group of students and regular facilitator(s).

Self-Science has been used in all kinds of schools and in many ways from whole school design and improvement processes to a supplement in other classes. Elementary schools with circle time or class meeting often use Self-Science once or twice a week in an extended class meeting. Middle schools with homeroom or advisory use the program in those sessions. In church schools it has been used as a component of religious education. Some high school teachers have "given up" a weekly period of instruction to deliver Self-Science because they find they get more done in the whole week that way.

The integration into academics involves extending the norms of Self-Science into the rest of the classes. This includes checking in about feelings, using the Trumpet Process for managing behavior, asking more engaging questions, providing more student choice, and connecting the subject matter with students' real-life interests.

Integrating Self-Science into the community is a process of bringing teachers, parents, and administrators together to look at the ways they communicate, the ways the school values turn into action, and building a partnership in support of learning. Schools create themes, develop school-wide agreements, move away from extrinsic rewards and punishments, and increase the level of open dialogue.

### ***Implementation Challenges***

The most frequent hurdle for a successful Self-Science program is engaging parents in the process. It's not that parents are opposed or unwilling -- it's more that the schools often don't have the time and resources to include families as part of their core mission. Perhaps it's time for schools to re-evaluate how they define their "client" and move toward educating families -- not just children in isolation.

We are frequently invited to present at parent meetings, and schools are usually surprised by the large attendance -- often two or three times as many parents attend compared to their usual parent meetings. Perhaps this shows that parents have a deep concern about the climate of the school -- and that they appreciate the opportunity to learn how they can be involved in creating a more positive community. In any case, schools that invite parents to be a part of Self-Science have been most successful -- and as indicated by the 2001 pilot, supportive parents are a key component for getting the most from the program.

Involving parents in Self-Science is much like involving them anywhere else in schools: If you want meaningful involvement, they need a meaningful role. As parents come to see that they are an important part of the school, they become increasingly committed to participating. Parents can be trained as co-facilitators (not in their own child's classroom), and all parent volunteers should learn about the Self-Science norms and process so they can use these tools in their day-to-day interactions around the campus.

The research summaries by the Collaborative for the Advancement of Social Emotional Learning (CASEL) point to some of the other important implementation challenges, including building a commitment for a multi-year program and gaining buy-in for school-wide implementation.

### ***Next Steps***

There are several resources for educators who wish to implement Self-Science including free online tools, a school assessment survey, training, and consulting.

For a more complete implementation, we recommend some combination of these components:

- **Introductory Training** to provide an orientation to emotional intelligence and raise awareness.
- **Site Visit** and observation to provide feedback about the school culture.
- **School Survey** assessment, report, and presentation of results to get buy-in from parents and teachers about the key areas for improving the school culture.
- **Two-day Implementation Training** to equip teachers to facilitate Self-Science, to create new lessons, and to begin integrating EQ into their classrooms.
- **Parent and Staff Self-Science Workshops** to address the key areas identified by the survey and to help integrate the norms into the whole-school community.
- **Certification Training** for 2-3 EQ Advocates so there is an internal team at the school helping to drive the program.
- **Follow-up Trainings** to answer teacher questions and focus on specific additional skills.
- **Co-teaching of Self-Science Classes** to model the process with the teacher.
- **Mentorship** and consulting to help identify and resolve obstacles.
- Faculty Self-Science Meetings to discuss the social-emotional climate in the school, teach new skills, and resolve issues.
- **School-Wide Themes** to provide a focus for implementation; often these are monthly or for two months, with a social focus ("Friendship"), and emotional competence ("Feeling Words"), or an application of EQ ("Balance"). Themes can also be year-long (such as, "Community") with sub-themes through the year (e.g., "Friendship," "Service," "Family," and "Communication").

Many teachers start using Self-Science by simply buying the book and trying it out. The Self-Science web site also has a database of free lessons and articles that teachers are welcome to use -- see [www.Self-Science.com](http://www.Self-Science.com).

### ***Conclusion***

What are your goals for education? Lifelong learning? Positive citizenship? Success in the next stages of school? However you define educational success, helping students make positive, careful choices is an essential ingredient. In an era where educational policy is so focused on "back to basics," it's worth remembering that the

interpersonal dynamics of our schools and classrooms are THE basic -- the fundamental building block for all learning. Thirty-five years of implementing Self-Science has convinced our team that this program is an essential component of meeting the vision of successful education. Fortunately, there are many organizations now supporting effective implementation of social-emotional education -- including the Six Seconds EQ Network, the Center for Social Emotional Education, and the Collaborative for the Advancement of Social Emotional Learning. What matters most is that you create a school where students are safe, included, self-reflective, and best able to learn -- and the foundation is caring relationships.

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**Figure 1**

The elementary school and high school programs have slightly different goals; these are the goal guidelines from the high school version:

Goal	Evidence of Cognitive Growth	Evidence of Affective Growth
I: Committing to Self-Knowledge -- students see that learning about themselves is important.	Understanding how the scientific process applies to the study of self. Understanding concepts of investigating, manipulating, organizing, quantifying, generalizing, inventorying. Understanding different ways of learning.	Choosing to engage in Self-Science. Participating in the activities and discussions. Talking about one's self. Verbalizing what is being learned about self and how this knowledge is useful.
II: Developing Trust in the Group -- students form a group where they can have candid, open dialogue.	Defining trust. Understanding the importance of trust. Applying analysis skills to your role in the group's development.	Increasing honesty and self-disclosure. Increasing participation. Expressing distrust in a constructive manner.
III: Enhancing Emotional Literacy -- students become better able to identify and appropriately express feelings.	Defining emotions. Expanding vocabulary for emotions and feelings. Understanding the importance of emotions. Recognizing that we always feel multiple emotions. Accepting that we choose emotions. Increasing ability to discuss emotions and emotional needs.	Increasing recognition of emotions. Experiencing a range of emotions. Developing understanding of the messages carried by emotions. Expressing a variety of emotions appropriately. Enhancing ability to perceive and interpret emotions.
IV: Developing Communication Skills -- students become more skilled at dialogue and reading nonverbal communication cues.	Developing interpretation and inference skills. Distinguishing between different kinds of questions. Understanding that communication includes both sending and receiving. Improving accuracy in	Improving listening skills and awareness. Developing clarity in communication. Increasing thoughtful communication. Reading nonverbal cues more accurately.

	communication.	
V: Appropriate Disclosure -- students form a closer group by "being real" in an appropriate manner.	Improving analysis skills in self-assessment. Increased understanding of group dynamics. Further recognizing of similarities and differences between people.	Presenting more honest, reflective, and empathic self disclosure. Increasing trust in the group. Expressing more clarity about patterns.
VI: Taking Stock -- students more accurately assess situations and their own choices.	Beginning to understand that personality is learned. Applying evaluation skills to personal behaviors.	Gaining an increasing acceptance of your own feelings, moods, and conduct. Gaining an increasing ability to correlate personal strengths with consequences. Increasing accuracy in self-assessment.
VII: Accounting for Costs and Benefits -- students see that their choices always have costs and benefits both short-term and long-term.	Increasing strategic and consequential thinking Identifying both intended and unintended consequences. Applying analysis skills to personal behaviors.	Increasing responsibility for personal choices. Recognizing that it is possible to change those choices. Increasing accuracy with self-assessment.
VIII: Accepting Responsibility for Motivation and Optimism - - students understand how they can take ownership of their own future.	Increasing understanding that optimism is a learned skill. Understanding of intrinsic and extrinsic motivation. Recognizing that long-term thinking shapes the present.	Shifting of responsibility from others to self. Increasing optimism. Increasing self-motivation. Increasing ability to motivate others.
IX: Nurturing Empathy -- students increase their tolerance and acceptance of others.	Increasing the understanding that people are basically similar. Defining empathy. Applying analysis skills to see others' needs and group dynamics.	Increasing empathy to people in the group. Increasing acceptance of others, including those who you "do not like." Developing ability to seek and accept help. Increasing sense of belonging.
X: Making Principled Decisions -- students increase their commitment to living in accord with their own values and beliefs.	Increasing understanding that multiple choices exist. Defining noble goals. Applying evaluation skills to personal decisions.	Increasing level of commitment or purpose. Developing ability to make decisions based on principles. Increasing feeling of resiliency and optimism.

**Figure 2: Self-Science Facilitator Goals**

Before a teacher or administrator considers initiating a Self-Science program, s/he should explore and clarify her/his own responses to these major questions:

- Are the goals of Self-Science consistent with my personal values?

- Are the goals of Self-Science philosophically consistent with the values of the school where I teach?
- Do teachers have the leadership qualifications for Self-Science?

Self-Science teachers should endeavor to meet these goals:

- Foster emotional intelligence as a long-term solution.
- Create commitment to experiment with EQ strategies.
- Motivate participants to set new goals and priorities; include choice to build intrinsic motivation.
- Make this learning positive, stimulating, enjoyable with an emphasis on humor and high-order thinking.
- Engage multiple learning styles through visuals, sound, activities, discussion, introspection, and other pedagogies.
- Build transference; make training usable.
- Teach that EQ fundamentals can be learned.
- Expand emotion vocabulary.
- Create alliance, community, and trust in the group, including making yourself available as a resource/support person.
- Model excellent communication/ instruction.
- Emphasize the importance of a six second pause.
- Illustrate that people follow patterns of behavior which they can redirect.
- Provide current research in a practical manner.
- Use the power of optimism.