

**NOTE:** This is the *Professional Version* of the "I'm Doing Social Thinking - But Where is the Evidence?" article. It includes pages of examples explaining the layers of evidence underlying the Social Thinking Methodology.

## Research to Frameworks to Practice: Social Thinking's® Layers of Evidence

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I'm *Doing* Social Thinking® - But Where Is the Evidence? To answer the question about evidence and Social Thinking, we need to first begin with a common language and a shared understanding of terms. Right out of the gate, it's confusing when people say they are "doing" Social Thinking because it is not a single entity. It is not a set of behaviors that you teach. It is not a step-by-step "cookbook", nor is it one single program or approach. Social Thinking is a language and cognitive-based *methodology* that focuses on the dynamic and synergistic nature of social interpretation and social communication skills, both of which require social problem solving. The methodology is developmental, utilizing aspects of behavioral and cognitive behavioral principles, as well as stakeholder input as a way to translate evidence-based concepts into conceptual frameworks, strategy-based frameworks, curricula, activities, and motivational tools. (*Note: a more detailed explanation of this very long sentence and a table to illustrate will follow.*)

Social Thinking was originally developed as an intervention and assessment framework dedicated to tackling the complex social emotional learning needs of individuals with social learning challenges. At its inception 20 years ago, there were relatively few treatment-based research studies available to guide interventionists in how to teach individuals about their own social learning process. This relative lack of treatment research, while not as bleak today, continues to be limited. **The underlying motivation for the creation of the Social Thinking methodology was, and is, that individuals with social learning issues should have access to interventions and strategies based on both individual learning abilities and the demands of the community within which they participate.** Clearly, none of us would deny that individuals have varied social learning abilities and part of our mission is to create intervention strategies that span this diversity. This includes assessment of real-time social competencies, understanding different levels of the social mind, creating holistic treatments for understanding perspective taking, social communication, and social anxiety, to name a few.

### A Methodology to infuse Evidence Based Practices

The Social Thinking methodology embraces what the literature tells us about working directly with individuals who have social learning challenges (e.g., ASD, Social Communication Disorder, ADHD, Learning Disabilities, Twice Exceptional, etc.) and promotes the use of visual supports, modeling, naturalistic teaching, and self-management. Also, the methodology anchors to the research in fields that study how individuals evolve and develop to function in society: anthropology, cultural linguistics, social psychology, child development, and others. Many of the components of Social Thinking fit well into the multi-tiered research-based implementation framework of Positive Behavioral Intervention and Supports (PBIS). And while PBIS is not an approach, it *is* a framework that encourages schools to consider the uptake of a variety of practices where the "mutually beneficial relationship between academic and social behavior student success is highlighted (Chard, Harn, Sugai, & Horner, 2008; Sugai, Horner, & Gresham, 2002). In the same vein, CASEL's five Social

and Emotional Learning (SEL) Core Competencies (<http://www.casel.org/social-and-emotional-learning/core-competencies>) are reflected within and throughout the Social Thinking methodology.

"...A methodology does not set out to provide solutions - it is, therefore, not the same as a method. Instead, a methodology offers the theoretical underpinning for understanding, which method, set of methods, or so-called "best practices" can be applied to specific case... (<https://en.wikipedia.org/wiki/Methodology>)

### **If we aren't *doing* Social Thinking, then how do we talk about it?**

In this case, semantics truly matter. As you can see by the diverse components of the methodology, it's not enough to say that you are "*doing*" Social Thinking. The reality is that most of us are implementing one (or many) components of the larger methodology. As a community, we need to articulate WHICH component we are implementing and how that component connects to the deeper evidence that supports it. (Read on for additional tips via a terminology Table and illustration).

For instance... consider stating the following:

- Our school is implementing *Superflex™* as part of our PBIS adoption.
- We are using *The Incredible Flexible You®* curriculum within the SEL framework. It addresses joint attention, self-regulation, and perspective taking through stories and play.
- I'm teaching *Social Thinking Vocabulary* as a way to connect to the social and academic components of the Common Core/State Standards
- Our classroom is implementing *Social Behavior Mapping™* for teaching social responsibility via visual supports and modeling.
- I'm teaching about the *Unthinkables™* and *Thinkables™* to help my students learn perspective taking and self-regulation.

### **Is there evidence for Social Thinking? If so, where is it?**

To drill down on the evidence question, we first need to clear up a common confusion between the name of the methodology (Social Thinking) and the act of teaching individuals to **think** socially or use the social thinking process (i.e., socially think about the context, people, thoughts, emotions and social behaviors). We typically differentiate by referring to the methodology with capital letters (**Social Thinking**) versus the process of teaching how to think socially with lowercase letters (**social thinking**). Now, on to the evidence supporting the components of the methodology.

There are currently 10 peer-reviewed studies, nine theses and dissertations, and numerous articles, papers and presentations related to various **components** of the Social Thinking methodology. These are not studies of the entire methodology! That would make absolutely no sense, as you will see in the **Evidence to Frameworks to Practice** table below. The reality is that the Social Thinking methodology has an extremely rich evidence base, but the term "evidence" can mean many things depending upon: a) the question you ask, b) the lens with which you view the information, and c) your definition of evidence. For example, the American Speech-Language-Hearing Association (ASHA) defines evidence-based practices (EBP) as:

"The integration of: (a) clinical expertise/expert opinion, (b) external scientific evidence, and (c) client/patient/caregiver perspectives to provide high-quality services reflecting the interests, values, needs, and choices of the individuals we serve."

(<http://www.asha.org/CE/for-providers/Evidence-Based-Practice-CE-Providers/>)

ASHA further states,

"Because EBP is client/patient/family centered, a clinician's task is to interpret best current evidence from systematic research in relation to an individual client/patient, including that individual's preferences, environment, culture, and values regarding health and well-being."

This three-pronged definition (i.e., expertise, evidence and stakeholder input) is the most common; ascribed to by numerous organizations within the behavioral, education and social sciences.

So, if we were to ask the following questions based on the three-pronged definition above:

1. Does the Social Thinking methodology integrate clinical expertise, utilize the relevant research available, and include stakeholder input?
2. Are **components** of the Social Thinking methodology based on what is considered to be evidence based for individuals with social learning challenges, including, but not limited to, individuals with ASD? Is there published research to support the underpinnings?
3. Are stakeholder preferences, environment and culture (professionals, parents, individuals) given consideration and highly valued?

### **National Professional Development Center (NPDC): Evidence-Based Practices and ASD**

The National Professional Development Center recently published findings related to evidence-based practices for individuals with ASD (2009 and 2014). Their research review embraced the **three-prong** definition of evidence-based practices, but also cautioned professionals and families to include not only published research, but also stakeholder input and professional expertise.

"People often think evidence-based practice is about the research — and it is! But it is not about the research alone. The values and preferences of family members, including the individual with ASD when appropriate, must be respectfully addressed. Otherwise, we are not engaging in evidence-based practice."

"Professional judgment is certainly more than just relying on your 'gut' to tell you what to do. It involves (1) integrating information about a student's unique history, (2) an awareness of research findings that go beyond the *Findings and Conclusions* report, and (3) the need to make data-based treatment decisions." (NAC, 2009). <http://autismpdc.fpg.unc.edu/evidence-based-practices>

Evidence based practices reported by the NPDC included: Cognitive Behavioral Interventions, Modeling, Naturalistic Intervention, Peer-mediated intervention, Self-management, Social Skills Training, Social Narratives, Reinforcement, and Visual Supports. Those familiar with the Social Thinking methodology will notice the EBPs listed above are infused within age/developmentally sensitive curricula, activities, and motivational tools. In fact, many of the components of the ST methodology are also frequently embedded within other frameworks that utilize EBP such as Response to Intervention (RTI), Applied Behavior Analysis (ABA), Social Emotional Learning (SEL), and PBIS.

## Social Thinking® Methodology: More than teaching social skills

Consider this: Many interventionists implement social skill interventions without a clear definition of social skills and their importance in the holistic social relatedness process. This is also the case for researchers who study the behavioral output of generic social skills without connections to the deeper process of social interpretation and social problem solving. The Social Thinking methodology addresses the fact that first we, as interventionists (both professionals and parents), need to build our own knowledge about the social learning process and what it means to engage “socially” before teaching individuals with social challenges. Remarkably, understanding how people share space together and engage across context, culture and varying ideas and opinions, motives and intentions is absent from most social “skills-based” approaches. Our methodology ascribes to the notion that the key to understanding our clients/students’ individual social learning needs requires that interventionists gain insight into the variables that contribute to their own “social self” as well as the related expectations of others. This unique view toward social treatment, combined with the many layers of our methodology, means that the components of Social Thinking do not fit neatly into any single traditionally defined social skill intervention. Nor is Social Thinking linked to a specific diagnosis (e.g., ASD), but rather addresses specific needs in those with social learning challenges (ADHD, Mental Health Challenges, twice exceptional, gifted, no diagnosis, etc.), regardless of the diagnosis and age.

To illustrate, the Social Thinking methodology (capital **S** and capital **T**) ascribes to three overarching principles:

1. The process of thinking socially or social thinking (small **s** and small **t**) is required to interpret (and possibly respond) to socially based information. This includes the ability to consider our own and others’ thoughts, emotions, beliefs, intentions, knowledge, etc. for interpretation (in our own mind) and related responses (through our social behavioral interactions).
2. Good social skills are the result of considering our own social thinking and then adapting our behavior effectively, based on the situation and what we know about the people in the situation. We adapt our skills so that others will react and respond to us in the manner we had hoped. Note: not all social skill adaptations are meant to have others respond in a “polite” or kind manner. In fact, good social skills also include the ability to advocate for oneself, avoid confrontation, and enhance safety.
3. The reason we use social skills is to impact how people feel, which also impacts how we feel about ourselves.

For those individuals who we expect to learn and engage in a more sophisticated manner socially, we need to teach using this three pronged social learning process: 1) thinking socially (social thinking; small **s** and small **t**), 2) problem solving to adapt social skills effectively, and 3) recognizing that social behaviors impact the emotions of those with whom we are sharing space (including our own emotions).

Furthermore social learning is embedded in academic learning, which means social thinking is embedded in academic learning. One’s interpretation of the social world impacts one’s ability to engage in socially based academics such as reading comprehension of literature, written expression,

and collaboration/cooperation/conversations in the classroom. Socially based academic concepts are embedded in the educational standards on a national, provincial and state level. It is fair to say that the social learning treatment process is far more complex than is recognized by most. However, it is through this more complex lens that Social Thinking methodology has, and continues to, evolve.

As part of our methodology we strongly encourage:

- Professionals to value their own professional expertise—combined with client data—to select and justify the various interventions and strategies they choose based on individual client needs, not diagnosis.
- Professionals to truly value parent input, as well as feedback from individual clients—not as an afterthought but as a part of the intervention process. After all, this is part of the definition of evidence-based practices.
- Professionals and parents to use a different lens to examine the value of data-driven interventions that are grounded in research-based theoretical concepts as well. In other words, practices based on the evidence (PBE).

### **Deep Roots**

The following pages illustrate a structured way to show how Social Thinking methodology is grounded in theoretical research based concepts and constructs, and how each lesson and activity can be traced back to its roots in the research literature. It is also a way to make sense of the many different pathways of information we have created over time.

# Evidence to Frameworks to Practice: Layers of Social Thinking

## Glossary and Definitions

Term	Definition	Examples
<p>Peer-reviewed <b>Research Based Theoretical Concepts (Constructs and Therapies)</b></p>	<p>These are concepts, constructs and therapies supported by bodies of research that are foundational to the philosophical and treatment models upon which Social Thinking methodology evolves.</p> <p>This information is for parents and professionals to broaden their own understanding. This information is not directly shared with clients-students.</p>	<p>Perspective taking, theory of mind, executive functioning, central coherence, multiple intelligence, social cognition, language, sensory processing, social emotional development, Cognitive Behavioral Therapy, mental health, social anxiety, standards based learning, joint attention, play-based learning, adult education, classroom management, and a host of others.</p>
<p><b>Conceptual Frameworks</b></p>	<p>These frameworks are built upon research based theoretical concepts, constructs and therapies in a manner that blends or scaffolds the information to help parents and professionals organize their thinking about social learning (social cognition). In turn, this fosters their own ability to conceptualize their student’s or children’s experiences and challenges. The Conceptual Frameworks are not to be used directly with the student/client.</p>	<p>ILAUGH Model of Social Thinking, Cascade of Social Attention, Three-Part Definition of Social Thinking, Building Blocks of Social Development, Social Thinking-Social Learning Tree, Social Thinking- Social Communication Profile (ST-SCP), Shared Collaborative Imaginative Play (SCIP), Social Thinking – Group Collaborative Play and Problem Solving Scale (ST-GPS), etc.</p>
<p><b>Treatment Frameworks</b></p>	<p>Treatment frameworks evolve from the conceptual frameworks, and transform evidence-based concepts into a concrete and structured framework that can be introduced to and used with students.</p> <p>Treatment frameworks help students (and adults) observe that everything they are learning about the social world applies to a larger, more holistic social framework. These frameworks are used to help the parent/professional understand key concepts AND act as a teaching tool with the client/student.</p>	<p>Social Behavior Mapping (SBM), Four Steps of Perspective Taking, Four Steps of Communication, The Friendship Pyramid, Me Think-We Think, The Pyramid of Flirting and Dating, Creating Conversation Thinksheet, The Spirals of Social Anxiety, Five-Step Power Plan, Different Size Thought Bubbles, the Problem Solving Framework, Goals and Action Plans, and Problem Solving Scale, 10 Aspects to Self-Organize, and many lesson plan scaffolds found in our <i>Thinksheets</i> books.</p> <p><b>Treatment Frameworks created by other professionals</b>, whose work blends well with teaching Social Thinking: Story Grammar Marker® (Rooney-Moreau); The Zones of Regulation® (Kuypers), Get Ready-Do-Done (Ward &amp; Jacobsen), STOP and Read the Room (Ward &amp; Jacobsen), The Incredible Five Point Scale (Dunn Buron &amp; Curtis), etc.</p>

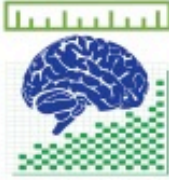





<p>Strategies</p>	<p>Specific treatment strategies stem from the treatment frameworks and consist primarily of Social Thinking Vocabulary, but also come from other sources outside of the Social Thinking methodology.</p> <p>The strategies are thinking and skill-based catalysts for helping the individual see more clearly the social information they are to interpret and respond to. For example, <i>think with your eyes, keep your body in the group, add a thought</i>, etc. Both parents &amp; professionals use strategies to teach the client/student/child.</p>	<p><i>Social Thinking Vocabulary</i>: think with your eyes, body in the group, brain in the group, expected and unexpected, good thought-weird thought, I can change how you feel, three parts of play, smart guess-wacky guess, people files, ask questions to others about others, add a thought, supporting comments, whopping topic change, science wonder-social wonder, information informer-social relater, size of the problem, size of the emotion, social expression compression, read the plan, and others. (Not all are listed here.)</p> <p><b>Strategies created by others</b>: Whole body listening (Truesdale), inner coach-self-defeater (CBT literature), red, orange, green and blue Zones (Kuypers), etc.</p>
<p>Activities</p>	<p>Activities (lessons) are concrete, organized ways in which professionals and parents present, teach, and practice the Social Thinking Vocabulary and related strategies. Lessons are always tied back to a strategy, and strategies always connect back to conceptual frameworks.</p>	<p>Any and all lessons used to help teach the above treatment frameworks, strategies.</p>
<p>Motivational Developmental Tools</p>	<p>This unique layer represents the motivational developmental tools that are created from our treatment frameworks and strategies and bundled with a CBT type approach; they encourage students to learn both thinking and skill-based strategies. Each tool is designed for a specific age group, incorporating age appropriate teaching materials that are meaningful and motivational to students in specific age groups. <b>While the motivational developmental tool used with a specific student(s) may change over the years of a child's life due to developmental shifts, the core Social Thinking Treatment Frameworks and Strategies remain the same.</b> For example, children may use <i>The Incredible Flexible You</i> storybooks and music when six years old, but by 10 years old they are learning about being a Social Detective and having Superflexible strategies to guide them and by 13 years old we may use <i>Social Fortune or Social Fate</i> to teach a more sophisticated view of the social world. The Motivational Developmental tools are for parents and professionals to use directly with the client/student/child.</p>	<p>Superflex®, The Team of Unthinkables and Thinkables, You Are a Social Detective comic and App, Social Fortune or Social Fate, The Incredible Flexible You®, Superflex Superdecks, Thinkables &amp; Unthinkables Double Deck, Socially Curious and Curiously Social.</p> <p><i>Motivational Developmental Tools created by others</i>: Should I or Shouldn't I? What Would Others Think?™ (Baudry), Zones of Regulation app and posters (Kuypers), Whole Body Listening Larry books and poster (Sautter &amp; Wilson), We Can Make it Better (Delsandro), etc.</p>



# Research to Frameworks to Practice

## Social Thinking® Layers of Evidence

Select Examples

<p>Layer 1</p> 	<p><b>Research-Based Theoretical Concepts</b></p>	<p>Joint Attention Theory of Mind Executive Functioning Social Emotional Learning etc.</p>
<p>Layer 2</p> 	<p><b>Conceptual Frameworks</b></p>	<p>ILAUGH Model Cascade of Social Attention ST- Social Learning Tree ST- Social Communication Profile (Levels of the Social Mind) etc.</p>
<p>Layer 3</p> 	<p><b>Treatment Frameworks</b></p>	<p>I have a thought, You have a thought Social Behavior Mapping 4 Steps of Communication 4 Steps of Perspective Taking etc.</p>
<p>Layer 4</p> 	<p><b>Strategies (for Intervention)</b></p>	<p>Who knows what I know? <b>Social Thinking Vocabulary</b></p> <ul style="list-style-type: none"> <li>• Think with eyes</li> <li>• Body in the group</li> <li>• Expected/Unexpected</li> </ul> <p>etc.</p>
<p>Layer 5</p> 	<p><b>Activities</b></p>	<p>Individual activities for teaching strategies (literally thousands)</p>
<p>Layer 6</p> 	<p><b>Motivational/Developmental Tools</b></p>	<p>Superflex Curriculum series Incredible Flexible You Social Fortune/Social Fate etc.</p>



## Social Thinking Methodology: A deeper look at the evidence base underlying the practice

To truly understand the richness of the evidence base underlying the frameworks, strategies and activities of the Social Thinking Methodology, we've put together an extensive table to help illustrate these connections. Please refer to the table immediately following this text and progress through the columns from left to right:

**Column 1 (Layer 1):** This column represents theoretical **concepts, constructs, and therapies** (i.e., clearly recognized in the literature and possess an extensive research base). These form the foundation of the components of the Social Thinking (ST) Methodology.

*Note:* This column is all about what an **INTERVENTIONIST** (educators, therapists, and parents/caregivers) needs to understand to teach the content in columns 3, 4, 5 and 6. Theoretical **concepts and constructs** are not traditionally tools for teaching. \*Exception: some higher-level adults may benefit from learning about the research-base underlying the strategies.

**Column 2 (Layer 2):** The column represents the **conceptual frameworks** found within the ST Methodology that spring from, and are supported by, the research base in Layer 1.

*Note:* This layer is all about what an **INTERVENTIONIST** (educators, therapists, and parents/caregivers) needs to understand to teach in columns 3, 4, 5 and 6. These **conceptual frameworks** are guideposts for the interventionist to study to create and organize his or her own thinking about the process of social learning and social relatedness. Conceptual frameworks are not intended for direct use with clients/students. \*Exception: some higher-level adults may benefit from understanding and learning about the conceptual frameworks underlying the strategies.

**Column 3 (Layer 3):** This column represents *some* of the key **treatment frameworks** found within the ST Methodology. Each of these **treatment frameworks has a direct link to the conceptual frameworks** in column 2 and expands forward to the strategies in column 4. These frameworks serve two missions: 1) Provide the **INTERVENTIONIST** with a deeper understanding of the theoretical concepts, and 2) Create a structure for our clients/students to understand that the strategies we teach do not stand alone, but are part of a larger social process.

*Note:* **Treatment frameworks** were designed for **INTERVENTIONISTS** (educators, therapists, and parents/caregivers) to understand first *and* then utilize that knowledge to structure teaching for **CLIENTS, STUDENTS** and **INDIVIDUALS** with social learning challenges.

**Column 4 (Layer 4):** This column shows the intervention **strategies** related to the treatment frameworks in column 3. There are numerous strategies within the ST Methodology, but for the purposes of this paper and space, only Social Thinking Vocabulary (STV) and a handful of other strategies created by others are included.

*Note:* **Strategies** were designed to further build the knowledge of **INTERVENTIONISTS** while also

providing a structure for teaching this information to **CLIENTS, STUDENTS** and **INDIVIDUALS** with social learning challenges.

**Column 5 (Layer 5):** This column represents a multitude of **activities** based on the treatment and conceptual frameworks and include, but are not limited to, the ways in which we use the Motivational and Developmental Tools (column 6; layer 6); all of which are driven by the theoretical concepts, constructs and therapies.

*Note:* **Activities** represent how we make the concepts, conceptual/treatment frameworks and Motivational Tools come alive; they are to be adapted to create meaningful lessons for each of our **CLIENTS, STUDENTS** and **INDIVIDUALS** with social learning challenges. For example, we may teach the strategy of *thinking with your eyes* differently from one student to another based on the different learning needs of the individual.

**Column 6 (Layer 6):** The last column highlights the **Motivational/Developmental Tools**—the ways in which we've represented or "packaged" the theoretical concepts/constructs, frameworks, and strategies for dissemination and implementation. These are tools developed to enhance teaching the strategies in column 4.

*Note:* **Motivational/Developmental Tools** were designed for use when teaching **CLIENTS, STUDENTS** and **INDIVIDUALS** with social learning challenges.

**NOTE:** The following table was developed to show the research-based foundation of the Social Thinking Methodology and is not meant to show a 1:1 correlation between each column from left to right. The reality is that the social learning process is dynamic and synergistic, and many of the frameworks (both conceptual and treatment) overlap with a variety of research-based concepts, constructs and therapies.

In other words, use this table as a resource to help you understand the origins and connections to the literature within the lessons and activities you teach. To be clear, the pathways demonstrated in this table are NOT as unidirectional and linear as they appear - it's just not that simple. There is tremendous overlap, which makes sense! We have over-simplified the information to simply demonstrate theoretical research-based pathways.

**THIS TABLE IS NOT COMPREHENSIVE** by any means! This is particularly true as you read through the activities in column (5). Literally thousands of activities have been (and will continue to be) developed related to the strategies and motivational or developmental tools. Our hope is that these examples will guide your thinking, discussions with others, and ultimately your understanding of the deeper roots of the Social Thinking Methodology.

## Research to Frameworks to Practice: Social Thinking's® Layers of Evidence

Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6
CONCEPTS, Constructs & Therapies Theoretical (Research-based)	Conceptual Frameworks (Based on 1)	Treatment Frameworks (Based 1 & 2)	Strategies (Social Thinking Vocabulary + Others)  *Just a few examples (Based on 1, 2 & 3)	Activities  *Just a few examples (Based on 1,2,3,4)	Motivational/ Developmental Tools (Based on 1,2, 3, 4, 5)
<b>For Interventionists to learn. Each includes a rich evidence base</b>	<b>For Interventionists to learn</b>	<b>For Interventionists to learn as well as teach clients, students or individuals</b>	<b>FOR Interventionists to learn as well as teach clients, students or individuals</b>	<b>For teaching clients, students or individuals</b>	<b>For teaching clients, students or individuals</b>
Joint attention	ILAUGH <sup>1</sup> GPS <sup>2</sup> Cascade SA <sup>3</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup>	4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup>	Think with eyes, Social observation, Be a Detective,	Examples: Foam balls and eye gaze, follow my eyes to find the prize, choice making with objects, I SPY, relationship-based play, blurting lessons, etc.	☛TIFY SB Social Detective ☉WCMIB ♦WBLL comics ∞Superdecks/DD
Inferencing from abstract information	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> PSF <sup>h</sup> TS <sup>i</sup> SGM <sup>n</sup> Social Stories <sup>q</sup>	Smart guess, Read the plan, Expected/unexpected, Approachability curve, ST Vocab. Thinksheets, Social observation, Be a Detective, Flexible thinking, etc.	Examples: What's my plan, Smart guess formula, The hunt for hidden rules, etc. ➔Both reading comprehension of literature and written expression involve inferencing. Social communication also requires abstract understanding.	☛TIFY SB Social Detective ❖SIOSI Games ☉WCMIB
Initiation	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> Spirals <sup>e</sup> Me/We <sup>g</sup> PSF <sup>h</sup> GAP <sup>j</sup> 10 Org <sup>k</sup> TS <sup>i</sup> GR-DD <sup>o</sup> Zones <sup>m</sup> Social Stories <sup>q</sup>	ST Vocab. Thinksheets, Sticker Strategies, Share an Imagination, Wonder questions, Asking Questions, Add-a-Thought, Supporting Comments, etc.	Examples: Social Stories <sup>q</sup> for initiation, Asking for help lessons, Mind the GAP, "Do it" guide for turning in homework, Clarifying vs. help questions, etc.	☛TIFY SB ❖SIOSI Games
Theory of mind and perspective taking	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> Me/We <sup>g</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> TS <sup>i</sup> SGM <sup>n</sup>	People files, ST Vocab. Thinksheets, Expected/unexpected, Good/uncomfortable thought, Social rules change with age, Share an Imagination, Wonder questions, Flexible thinking, Add-a-Thought, Asking Questions, Supporting Comments, Feel it big	Examples: Thought bubbles lessons, I've got a secret, My brain and your brain, What do you already know, Who knows what I know, etc.  ➔Narrative language, reading comprehension of literature and written	Superflex Series Social Detective ☛TIFY SB SIOSI Games ☉WCMIB ∞Superdecks/DD ⌘ Problem poster

		Zones <sup>m</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	on the inside/express it small on the outside, etc.	expression involve perspective taking within the academic day.	
Problem solving	ILAUGH <sup>1</sup> GPS <sup>2</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> Cascade SA <sup>3</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> Me/We <sup>g</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> 10 Org <sup>k</sup> TS <sup>l</sup> SGM <sup>n</sup> GR-DD <sup>o</sup> Zones <sup>m</sup> 5 point <sup>p</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	Size of problem, Emotion expression compression, Emotion/reaction, ST Vocab. Thinksheets, Expected/unexpected, Social rules change with age, Body and brain in the group, Flexible thinking, Social Filter, Social Fake, etc.	Examples: How big is the problem, When is a problem a problem, creating a new problem  *Most lessons related to components of the methodology target problem solving on some level.  ➔Speaking/listening standards, reading comprehension and written expression all involve problem solving within the academic day.	Superflex Social Detective Zones posters & app ♣Fortune/Fate ⊙WCMIB ♦WBLL comics ∞Superdecks/DD ⌘ Problem poster
Intention reading	ILAUGH <sup>1</sup> Cascade SA <sup>3</sup> GPS <sup>2</sup> ST Tree <sup>4</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> Me/We <sup>g</sup> PSF <sup>h</sup> TS <sup>l</sup> SGM <sup>n</sup> Zones <sup>m</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	Read the plan, Expected/unexpected, ST Vocab. Thinksheets, Good/uncomfortable thought, Be a Detective, Flexible thinking, Emotion Compression Expression, Social Fake, Information Informer vs. Social Relater, etc.	*Lessons related to reading intentions are based on social attention and teaching social observation. Both reading comprehension of literature and written expression involve intention reading within the academic day.	⊙WCMIB Social Detective
Central coherence	ILAUGH <sup>1</sup> Cascade SA <sup>3</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> 3 Part <sup>8</sup>	4 STEP-C <sup>b</sup> SBM <sup>d</sup> PSF <sup>h</sup> GAP <sup>j</sup> 10 Org <sup>k</sup> TS <sup>l</sup> SGM <sup>n</sup> GR-DD <sup>o</sup>	ST Vocab. Thinksheets, Add a thought, Ask a question, Supporting comments, What I do affects how I think and feel (you think and feel), What's the problem?, etc.	Maintaining connections in conversations, problem solving, teaching organization skills.  ➔Speaking/listening, written language and reading comp. all require the ability to get the big picture rather than just the details.	Social Detective ⊙WCMIB
Self-regulation	GPS <sup>2</sup> ILAUGH <sup>1</sup> ST-SCP <sup>5</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> TS <sup>l</sup> Zones <sup>m</sup>	Body in the group, Expected/unexpected Whole body listening, Size of the problem, Emotion Expression Compression, ST Vocab. Thinksheets, Social rules change with age, Body and brain in the group, etc.	*Many lessons related to components of the ST Methodology target self-regulation. This may be in terms of regulating body, words, emotions, or expression based on the people and context.	Superflex ⊙WCMIB ♦WBLL comics ♣ Fortune/Fate ♣ SBM Poster ∞Superdecks/DD ⌘ Problem poster

		5 point <sup>p</sup> Social Stories <sup>q</sup>			
Cognitive Behavior Therapy	Cascade SA <sup>3</sup> ST Tree <sup>4</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> PSF <sup>h</sup> GAP <sup>j</sup> TS <sup>i</sup> F/R Pyramid <sup>f</sup> Me/We <sup>g</sup> Size Prob./R <sup>i</sup> Zones <sup>m</sup> Social Stories <sup>q</sup>	Most strategies and lessons provide the foundation for teaching using CBT principles	Most strategies and lessons either introduced or supported using CBT principles	Superflex ∞Superdecks/DD Social Detective ♣ TIFY SB ♠ SIOSI Games ⊙ WCMIB ⌘ Problem poster
Visual supports	GPS <sup>2</sup> SCIP <sup>6</sup>	IHAT/YHAT <sup>a</sup> SBM <sup>d</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> TS <sup>i</sup> SGM <sup>n</sup> GR-DD <sup>o</sup> Zones <sup>m</sup> 5 point <sup>p</sup> Social Stories <sup>q</sup>	Size of the problem, Incredible Flexible You Curriculum, Thinking lessons (Thinksheets), ST Vocab. Thinksheets, Emotion Expression Compression, etc.	*We strongly encourage the use of concrete visual supports for ALL lessons as well as the use of THINKSHEETS. Thinksheets are visual lesson plans that may include pictures, words or icons to support the strategies.	Superflex Social Detective ♣ TIFY SB ⊙ WCMIB ♠ SIOSI Games ♠ WBLL comics, ♣ Fortune/Fate ♣ SBM Poster ∞Superdecks/DD ⌘ Problem poster
Social skills	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> TS <sup>i</sup> SGM <sup>n</sup> F/R Pyramid <sup>f</sup> Me/We <sup>g</sup> Zones <sup>m</sup> 5 point <sup>p</sup> Social Stories <sup>q</sup>	Expected/unexpected, Good/uncomfortable thought, Be a Detective, Social rules change with age, Body and brain in the group, ST Vocab. Thinksheets, Share an Imagination, Wonder questions, Emotion Expression Compression, etc.  *Virtually all strategies were developed to target social skill development	*Most lessons related to components of the methodology target what are considered social skills. However, lessons do not simply tell the individual which skills to use and where, but instead focus on the thinking, feelings, context, and interpretation involved with social skill understanding and production.	Superflex Social Detective ♣ TIFY SB ♠ SIOSI Games ⊙ WCMIB ♠ WBLL comics ♣ SBM Poster ∞Superdecks/DD ⌘ Problem poster
Differentiated instruction	ST Tree <sup>4</sup> ST-SCP <sup>5</sup> GPS <sup>2</sup> Cascade SA <sup>3</sup> B Blocks <sup>7</sup>	IHAT/YHAT <sup>a</sup> Social Stories <sup>q</sup> TS <sup>i</sup> SGM <sup>n</sup> 5 point <sup>p</sup>	ST Vocab. Thinksheets  *Each strategy selected by the interventionist MUST consider the learning abilities of the client or student.	*Lessons are modified based on differing levels of social understanding rather than on diagnosis.	Superflex ∞Superdecks/DD ⊙ WCMIB Social Detective ♠ WBLL comics ♣ SBM Poster Kimochis® ⌘ Problem poster
Emotional regulation	ST Tree <sup>4</sup> ST-SCP <sup>5</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-PT <sup>c</sup> Spirals <sup>e</sup> GAP <sup>j</sup> TS <sup>i</sup> SGM <sup>n</sup>	Expected/unexpected, Good/uncomfortable thought, Size of the problem, Emotion Expression Compression, Zones curriculum, ST Vocab.	*Many lessons related to components of the methodology focus on teaching not only emotions, but how to understand and regulate based on the	Zones posters & app Superflex ∞Superdecks/DD ⊙ WCMIB Social Detective ♠ WBL comics ♣ SBM Poster

		Zones <sup>m</sup> Me/We <sup>g</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> 5 point <sup>p</sup> Social Stories <sup>q</sup>	Thinksheets, etc.  *Virtually all strategies were developed to support emotional regulation.	context.	Kimochis® ⌘ Problem poster
Hidden rules	ST Tree <sup>4</sup> ST-SCP <sup>5</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> Size Prob./R <sup>i</sup> TS <sup>i</sup> SGM <sup>n</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	Social rules change with age, Body and brain in the group, Expected/unexpected Read the plan, Be a Detective/Spy, ST Vocab. Thinksheets, etc.	*Lessons focusing on understanding the hidden social rules based on the people, place, and event begin with very young learners and continue though adulthood. Hidden rules change throughout life.	❖ SBM Poster Social Detective Superflex ∞Superdecks/DD ✦ Fortune/Fate ❖ SIOSI Games ©WCMIB ♦WBLL comics ⌘ Problem poster
Social-emotional development and learning	GPS <sup>2</sup> ST Tree <sup>4</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> SBM <sup>d</sup> Spirals <sup>e</sup> Me/We <sup>g</sup> Zones <sup>m</sup> Size Prob./R <sup>i</sup> TS <sup>i</sup> 5 point <sup>p</sup> Social Stories <sup>q</sup>	Incredible Flexible You Curriculum, Share an Imagination, Wonder questions, Emotion Expression Compression ST Vocab. Thinksheets, etc.	*Various lessons fall within CASEL's (www.casel.org) recommendations for encouraging and promoting social and emotional learning.	❖ SBM Poster Superflex ∞Superdecks/DD ♻️ TIFY SB ©WCMIB Kimochis® Social Detective ⌘ Problem poster
Mental health	Cascade SA <sup>3</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> TS <sup>i</sup>	ST Vocab. Thinksheets related to anxiety, size of thoughts, inner coach and self-defeater, etc.	*Important: Lessons related to mental health challenges such as anxiety and depression are best developed by a team that includes a mental health professional	∞Superdecks/DD Kimochis® Superflex (e.g., Worry Wall) ⌘ Problem poster
Executive functioning	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> 10 Org <sup>k</sup> TS <sup>i</sup> SGM <sup>n</sup> GR-DD <sup>o</sup> Zones <sup>m</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	Expected/unexpected ST Vocab. Thinksheets related to using and understanding strategies for <b>both</b> traditional executive functioning and social executive functioning.	Examples: Developing goals and action plans for social events, organizing myself to text, meet or work with others, doing homework is only half the battle: turning in homework, etc.	❖ SBM Poster ✦ Fortune/Fate ⌘ Problem poster
Nonverbal language	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> B Blocks <sup>7</sup>	4 STEP-C <sup>b</sup> F/R Pyramid <sup>f</sup> Me/We <sup>g</sup> TS <sup>i</sup> 5 point <sup>p</sup>	ST Vocab. Thinksheets related to reading others' nonverbal language and use of nonverbal language, reading the situational	Examples: Build a tower, entering and exiting groups, cell phones to read nonverbal information, etc.	❖ SBM Poster ✦ Fortune/Fate

		Social Stories <sup>q</sup>	cues, etc.		
Social cognition	ILAUGH <sup>1</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> SBM <sup>d</sup> Spirals <sup>e</sup> F/R Pyramid <sup>f</sup> Me/We <sup>g</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> GAP <sup>j</sup> TS <sup>l</sup> SGM <sup>n</sup> Zones <sup>m</sup> Social Stories <sup>q</sup> STOP Read <sup>r</sup>	Expected/unexpected, ST Vocab. Thinksheets, Good/uncomfortable thought, Social rules change with age, Share an Imagination, Wonder questions, etc.  *The vast majority of strategies include an emphasis on social cognition (i.e., social attention to thinking, interpretation, and application based on others and the context).	*Most lessons related to components of the ST Methodology have an underlying emphasis on the thinking and feeling components involved in the dynamic social interpretation that is at the heart of social skill understanding and production.	<ul style="list-style-type: none"> <li>☛ TIFY SB</li> <li>❖ SIOSI Games</li> <li>♣ SBM Poster</li> <li>Superflex Series</li> <li>∞ Superdecks/DD</li> <li>♣ Fortune/Fate</li> <li>☉ WCMIB</li> <li>⌘ Problem poster</li> </ul>
Play-based	GPS <sup>2</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup>	IHAT/YHAT <sup>a</sup>	Incredible Flexible You Curriculum, Body and brain in the group, Share an Imagination, 3 parts of play, etc.	Examples: Imitation games, follow my lead, group imaginative play, etc.	<ul style="list-style-type: none"> <li>☛ TIFY SB</li> <li>Kimochis®</li> </ul>
Social communication and narrative language	ILAUGH <sup>1</sup> GPS <sup>2</sup> ST Tree <sup>4</sup> ST-SCP <sup>5</sup> Cascade SA <sup>3</sup> SCIP <sup>6</sup> B Blocks <sup>7</sup> 3 Part <sup>8</sup>	IHAT/YHAT <sup>a</sup> 4 STEP-C <sup>b</sup> 4 STEP-PT <sup>c</sup> TS <sup>l</sup> SGM <sup>n</sup> Social Stories <sup>q</sup>	Add-a-thought, Whopping Topic Change, ST Vocab. Thinksheets for sharing information and conversations, People files, Sharing an Imagination, Wonder questions, etc.	Examples: Who, where and critical thinking triangle, What's in my brain vs. what's in yours, Thought/talk bubbles, Creating a conversation, etc.  *Most lessons related to components of the Methodology target social communication	<ul style="list-style-type: none"> <li>☉ WCMIB</li> <li>Kimochis®</li> <li>☛ TIFY SB</li> <li>❖ SIOSI Games</li> <li>Social Detective Superflex Series</li> <li>∞ Superdecks/DD</li> <li>♣ Fortune/Fate</li> <li>♣ WBLL comics</li> </ul>
PBIS/RTI	ST-SCP <sup>5</sup> ST Tree <sup>4</sup> B Blocks <sup>7</sup>	IHAT/YHAT <sup>a</sup> SBM <sup>d</sup> PSF <sup>h</sup> Size Prob./R <sup>i</sup> SGM <sup>n</sup> Zones <sup>m</sup>	Incredible Flexible You Curriculum, ST Vocabulary, Social Behavior Mapping for expected pathways, What I do affects how you think/feel (I think/feel), etc.	Many schools using the PBIS framework have adopted lessons within the ST Methodology for all students. (www.pbis.org)	<ul style="list-style-type: none"> <li>☛ TIFY SB</li> <li>Social Detective Superflex Series</li> <li>∞ Superdecks/DD</li> <li>♣ Fortune/Fate</li> <li>☉ WCMIB</li> <li>♣ SBM Poster</li> <li>♣ WBLL comics</li> <li>❖ SIOSI Games</li> <li>Kimochis®</li> </ul>
Video-modeling	ILAUGH <sup>1</sup>	IHAT/YHAT <sup>a</sup> Me/We <sup>g</sup>	ST Vocab. Thinksheets for video practice and review. Virtually all strategies can be explored via video modeling.	*Many lessons lend themselves to video-modeling and review Examples: Re-do stories, I CAN because I KNOW, Learning to watch ourselves, etc.	<ul style="list-style-type: none"> <li>Social Detective CD and app,</li> <li>☉ WCMIB</li> </ul>

**Conceptual Framework Key:**

<sup>1</sup>ILAUGH Model of Social Cognition/Thinking (I=Initiation, L=Listening with eyes/brain, A=Abstract/Inferential, U=Understanding Perspective; G=Gestalt/Getting the big picture, H=Human relationships and Humor)

<sup>2</sup>Social Thinking - Group Play & Problem-Solving (GPS)

<sup>3</sup>Cascade of Social Attention

<sup>4</sup>Social Thinking Social Learning Tree

<sup>5</sup>Social Thinking-Social Communication Profile



<sup>6</sup> Shared Collaborative Imaginative Play

<sup>7</sup> Social Thinking Building Blocks

<sup>8</sup> 3 Part Definition of Social Thinking

#### **Treatment Framework Key**

<sup>a</sup> I Have a Thought/You have a Thought (and feelings)\*\*\* precursor to others

<sup>b</sup> 4 Steps of Communication

<sup>c</sup> 4 Steps of Perspective Taking

<sup>d</sup> Social Behavior Mapping

<sup>e</sup> Spirals of Anxiety

<sup>f</sup> Friendship Pyramid/Relationship Pyramid

<sup>g</sup> Me Think versus We Think

<sup>h</sup> Problem-Solving Framework

<sup>i</sup> Size of the Problem/Reaction

<sup>j</sup> Goals and Action Plans

<sup>k</sup> 10 Aspects to Self-Organize

<sup>l</sup> Thinksheets

<sup>m</sup> Zones of Regulation (Kuypers)

<sup>n</sup> Story Grammar Marker (Rooney-Moreau)

<sup>o</sup> Get Ready, Do, Done (Ward and Jacobsen)

<sup>p</sup> 5-Point Scale (Dunn-Buron and Curtis)

<sup>q</sup> Social Stories (Gray)

<sup>r</sup> STOP and Read the Room (Ward and Jacobsen)

#### **Motivational and Developmental Tools Key**

♣ The Incredible Flexible You Storybooks

♣ Should I or Shouldn't I, Elementary and Middle/High School

⊙ We Can Make it Better! Stories

∞ Superflex Superdecks and Double Decks

♣ Social Behavior Mapping Poster

♣ Social Fortune or Social Fate (Manga)

⌘ Size of My Problem and Reaction Poster

♣ Whole Body Listening Larry comic books

We hope this paper helps you think in a more complex manner about the strategies and activities you teach. We also hope this information prompts you to have deeper conversations with colleagues, parents, and administrators about the core evidence base underlying and EBP infused within the Social Thinking Methodology.

Social Thinking: <https://www.socialthinking.com/research> for a more information related to evidence and Social Thinking methodology

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