The Reflective Self: Metacognitive Awareness as the Cognitive Architecture of Social-Emotional Learning

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ABSTRACT

Social-emotional learning (SEL) has become a cornerstone of educational and developmental frameworks, emphasizing competencies such as self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. The cognitive mechanisms that enable these competencies to operate coherently and adaptively remain underexplored. This chapter advances the thesis that metacognitive awareness constitutes the core cognitive architecture of the reflective self and, by extension, of effective SEL. Drawing on contemporary models of metacognition, self-regulated learning, and socio-emotional development, the chapter conceptualizes metacognitive awareness as a multi-layered system encompassing monitoring of internal states, evaluation of strategies, and deliberate regulation of behavior in social contexts. It argues that without this reflective capacity, SEL skills remain fragmentary and context-bound rather than integrated and transferable. The discussion synthesizes theoretical perspectives with empirical findings on metacognitive training, mindfulness-based interventions, and classroom practices that cultivate reflective awareness. Empirical evidence demonstrates strong positive correlations between metacognitive regulation and key SEL outcomes, including cognitive reappraisal, emotional self-awareness, and responsible decision-making. We synthesize findings from cognitive science, educational psychology, and neuroscience to articulate how metacognitive processes enable the bidirectional relationship between self-awareness and social competence, with metacognition serving as the executive hub that coordinates emotional stability, social perception, and behavioral adaptation. The chapter concludes with implications for educational practice, arguing that effective SEL instruction must embed structured opportunities for metacognitive reflection within authentic learning tasks rather than treating reflection as a separate or ancillary activity. By reconceptualizing SEL through the lens of metacognitive architecture, educators and researchers can design interventions that leverage the natural synergy between cognitive and emotional self-regulation, ultimately fostering more resilient, adaptive, and socially competent learners.

Keywords: metacognition, social-emotional learning, self-regulation, reflective practice, emotional awareness, executive function.

INTRODUCTION AND BACKGROUND

"Knowing yourself is the beginning of all wisdom." — Aristotle

Modern education is becoming rapidly a dual mandate, developing both academic functioning and the global growth of the learner. This shift recognizes that success in the 21st century is grounded as much on social emotional skills an entire lexicon of 'soft', nuances of behavior masked by a hard shell of cognition. Education in the twenty-first century is perceived more and more as a process that goes beyond formal everyday academic knowledge transfer. Learners should be able not only to acquire new knowledge and mastery in a discipline but also must self-regulate, manage their emotions, initiate and maintain healthy relationships, act appropriately in social situations, and make responsible choices. Such capacities are often grouped according to social-emotional learning (SEL).

SEL focuses on building self-awareness, self-management, social awareness, relationship skills, and responsible decision-making as interrelated developmental pillars of positive personal, social and academic growth. Though these competencies tend to be broken down into discrete learning outcomes, effective utilization requires a more fundamental cognitive skill: the ability to self-monitor and reflect on one's own thoughts, emotions, motives, and actions.

In this chapter, we argue that metacognitive awareness—the ability to monitor, evaluate and intentionally regulate one's own cognitive and affective processes—provides the missing infrastructure. It dates back to Flavell's original distinction between metacognitive knowledge and regulation in cognitive and educational psychology, through cyclical models of self-regulated learning by Zimmerman. These traditions have evolved largely in isolation from SEL research, yet we argue they rely on a common mechanism: the same reflective cycle that enables a learner to identify and replace an ineffective learning strategy also enable a person to detect increasing anger and regulate it before it is expressed. In both cases, the operative process is identical in that it involves tracking an internal state, comparing it to a goal and managing behavior accordingly: only the content varies. We think it is safe to assume that social and emotional competence has a cognitive basis and likely relies on cognitive regulation.

Even though there is an apparent relationship between SEL and metacognition, the cognitive structures to link these areas have been underdeveloped. SEL programs spell out specific competencies such as "self-awareness," but these programs generally do not account for the specific interplay between competencies in a given situation. For example, a student may be able to perceive and understand an emotion, but the competency of self-management demands that the student judge the appropriate emotional response and manage the resulting behavior.

Similarly, an individual may "socially-aware," but relationship-building involves not just understanding others' emotions, but monitoring social interactions, gauging one's effect on the interaction, and managing how one communicates. Similarly, "responsible decision making" is not just knowing the principles of ethics or social concern, it requires the individual's capacity to manage immediate emotions and urges while coordinating with his or her goals, plans and predictions of long-term outcomes. This is precisely the role metacognition can play as a connective mechanism among disparate parts of SEL.

The correlation between the development of one’s metacognition and the growth process of socio emotional learning lies in the fact that social and emotional situations are complex, fluid, and ill-defined. In other words, an effective strategy can be almost never selected in advance because, in different contexts, the same technique may produce drastically different results. For instance, it goes without saying that regulation of emotions cannot be reduced to simply eliminating or masking undesirable feelings. Instead, it should be assumed that emotion regulation is a purposeful strategic activity that starts with recognizing the emotion and its source, evaluating the significance of the emotion, specifying the degree to which its intensity is appropriate for the situation, and selecting an emotion regulation strategy that best fits the circumstances. Similarly, social competence can also be regarded as a continuous process of interpersonal monitoring and subsequent revision and updating of cognitive models when new relevant information emerges. Thus, it can be concluded that metacognition plays a vital role in socio emotional learning as it helps to evaluate the most fitting response in a given context.

From an instructional perspective, this argument implies that, instead of being presented only as a body of social skills, emotional vocabulary, or social-emotional etiquette, learning about SEL must incorporate purposeful experiences where learners practice thinking, feeling, choosing, and acting through structured opportunities for them to unpack their internal processes as they go through activities that reflect life-related processes and tasks or during actual learning. Reflection would be an integral part of genuine experiences of learning and interacting rather than a post-instruction optional activity to which few if any learners have a clue to engage to. There should be opportunities for discussion, shared projects, activities that demand problem solving, role plays, journals, mind-fullness exercises, and self-guided evaluations as mechanisms for bringing such internal processes into students' conscious awareness or "in view." This chapter argues for metacognitive awareness as the basic cognitive apparatus of the reflective individual and the hub for efficient social-emotional learning.

More precisely, it advocates for a view of metacognitive awareness as multi-layered, comprising, at a minimum that monitor mental states and their associated physical, emotional, and behavioral responses. It judges the effectiveness of thought and emotional-regulation processes used and evaluate one's adaptation in social and individual environments. It control decision and action based on such self and situational assessments. In this view, cognition itself is the means by which social-emotional awareness occurs and indeed, meta-cognitive control makes social-emotional competences "carry over into new situations", be adaptable to change of circumstance, or generally transferable. Lacking it, the SEL skills might not take off from the given context where one acquired them

2. Review of Related Studies

Strong theoretical and empirical support is emerging for the hypothesis that the processes involved in metacognition and in social-emotional learning (SEL) are functionally interconnected, though the two bodies of literature have evolved relatively independently. Theoretical Models of Metacognition and Self-Regulated Learning; Structure of SEL Frameworks; Linkages between Executive Function, Metacognition, and School Readiness; and Intervention Studies of Metacognitive and Mindfulness-Based Approaches to Emotional Regulation are the four lines of evidence that point in this direction:

The seminal articulation of metacognition by Flavell (1979) captured this interrelation as a dynamic process: metacognitive knowledge, metacognitive experiences, goals and strategies all influence one another constantly. In a highly influential elaboration, Zimmerman (2000, 2002) offered a general, three-phase, cyclical model of self-regulated learning (forethought, performance, and self-reflection), and in which learners plan a goal directed behavior, monitor its enactment and evaluate performance with subsequent cycles adjusted accordingly. Although this model was generated to explain strategy selection during academic tasks, Zimmerman's monitor-evaluate-adjust cycle fits quite naturally to the self-regulation process SEL researchers attribute to emotional and social functioning.

SEL content is now most broadly operationally represented in a framework developed by the Collaborative for Academic, Social and Emotional Learning (CASEL; 2020). This framework organizes competence along the key domains of self-awareness, self-management, social awareness, relationship skills, and responsible decision making. While a CASEL framework efficiently details what socially and emotionally competent behavior entails, it does not explicitly delineate the cognitive processes a learner undergoes in assessing their internal state, selecting, and enacting functionally adequate response to that state a clear explanatory role for an augmented view of metacognitive regulation of monitoring and evaluation.

Corroborating evidence comes from other lines of work in developmental and cognitive psychology. Executive functions, which consist primarily of working memory, inhibitory control, and cognitive flexibility, are well-established as central predictors of school readiness and general adaptive functioning (Diamond, 2013). Furthermore, recent findings distinguish components of metacognitive processing from executive function. Dutemple and colleagues (2024) demonstrated that metacognitive monitoring, in particular, uniquely predicts school readiness, above and beyond the variance predicted by a set of executive function measures. In fact, findings of this sort appear even in populations with altered development; it was noted above that both executive function was at the level of intervention, evidence for a connection between metacognitive regulation and key outcomes of SEL including cognitive reappraisal, emotional self-awareness, and responsible decision making are compelling (O'Donovan & Jennings, 2020).

The process model of emotion regulation proposed by Gross and her colleagues (Gross, 1998, 2002) suggests that reappraisal which is the mental reframing of an event to affect one's emotional response to it is an antecedent focus, metacognitive complex strategy superior to a response-focus, response-centered approach like suppression. Indeed, an intervention study by Gidalevich and Mirkin (2024) on pre-service teachers revealed that individuals who completed training integrating emotional self-awareness with metacognitive strategy instruction acquired greater skill in using reappraisal and demonstrating stronger metacognitive regulation than individuals receiving the metacognitive strategy training alone providing clear empirical support for a positive interactional effect between the two domains.

These findings support our overall proposition that metacognitive and emotion regulatory processes are demonstrably connected and that, by jointly considering them, higher positive effects can be expected than by targeting them individually. Predictor of school readiness even in young, autistic individuals (Pellicano et al., 2017).

3. Significance of the Study

This study is important because it conceptualizes metacognitive awareness as the core cognitive process through which SEL skills are integrated, self-managed, and transferred to new situations. While general SEL frameworks delineate key skills like self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, they provide much less detail about how learners utilize multiple SEL skills when faced with emotionally-charged and socially-embarrassing scenarios. By establishing metacognition as the cognitive architecture of the reflective self, this study helps explain how learners track internal states, weigh available responses, and manage their behavior according to personal, academic, and social goals.

This study is also relevant both for furthering the conceptual understanding and guiding the practical application of social-emotional learning (SEL). By citing metacognitive awareness as the core cognitive architecture that unites the core skills of SEL, the study addresses a lacuna that existing SEL approaches have left largely unarticulated, providing a mechanism-based explanation of why some SEL programs foster deep and generalizable skill development while others produce transient, context-bound effects.

The study also holds value for educators by calling for a paradigm shift to focus on reflection as a core part of daily instruction and a core skill. Teachers can incorporate reflection prompts, journaling activities, self-evaluation, simulation, collaboration, and group discussions to promote learner reflection about thoughts, feelings, decisions, and social interactions. For school administrations and policymakers, the study offers an evidence base for designing SEL curricula that meld SEL skills with self-monitoring strategies.

In sum, this study matters because it reconceptualizes SEL as both an emotional and a cognitive phenomenon. Its key insight is that metacognitive awareness allows learners to translate emotional and social knowledge into self-determined and adaptable behavior. By integrating metacognition into a model of SEL, the study develops a comprehensive approach to growing learners who are emotionally intelligent, socially skilled, and self-aware.

4. Statement of the Problem

SEL frameworks define the various competencies that students should acquire as a part of their development and learning, they rarely explain what specific cognitive process is needed for these competencies to operate in concert as a Tran's contextual, usable capability and not merely as isolated context-dependent responses. In this chapter we try to bridge that gap by conceptualizing metacognitive awareness as the cognitive system that underpins SEL, and, as such, as a potential factor that can contribute to differential intervention effects, to durable behavioral change or to the absence thereof.

The goal of social emotional learning (SEL) is to help young people develop self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Social-emotional learning (SEL) frameworks, however, often do not clearly articulate what cognitive function integrates these skills and dispositions and enables students to utilize them in various situations.

Research Questions

1. How does metacognitive awareness contribute to the development of social-emotional learning competencies?

2. In what ways do metacognitive processes of monitoring, evaluation, and regulation support the reflective self?

3. What are the implications of integrating metacognitive awareness into social-emotional learning practices?

5. Objectives / Hypotheses

Objectives of the Study

The general objective of this study is to examine metacognitive awareness as the cognitive architecture of the reflective self and to analyze its contribution to the development and integration of social-emotional learning competencies.

1. To examine the role of metacognitive awareness in the development of social-emotional learning competencies.

2. To analyze how metacognitive processes of monitoring, evaluation, and regulation contribute to the development of the reflective self.

3. To explore the theoretical relationship between metacognitive awareness and social-emotional learning.

4. To examine the implications of integrating metacognitive awareness into social-emotional learning practices and educational interventions.

Hypotheses of the Study

Based on the theoretical background, statement of the problem, and empirical review in the document, the following research hypotheses are formulated.

1. Metacognitive awareness has a positive role in the development of social-emotional learning competencies.

2. Metacognitive processes of monitoring, evaluation, and regulation significantly contribute to the development of the reflective self.

3. Metacognitive awareness functions as an integrative cognitive mechanism connecting self-awareness, self-management, social awareness, relationship skills, and responsible decision-making.

4. Integrating metacognitive awareness with social-emotional learning practices enhances learners' emotional regulation, behavioral adaptation, and social competence.

DESIGN AND METHODOLOGY

The study employs a quantitative descriptive survey research design for investigation into the relationship between metacognitive awareness and social emotional learning among higher secondary school students.

A survey design was considered to collect data about students' level of metacognitive awareness, emotional self-awareness, self-regulation, social competence and responsible decision-making in an existing natural context. The study is cross sectional .Data were collected from the subjects at a single period, no repeated measurement had been done. By describing the current level of occurrence, it will be possible for the researcher to study the association of metacognitive awareness and the selected factors social emotional learning competencies.

The research methodology employed in the study is non- experimental in nature in that there is no experimental condition and non-experimental variable. In other words, variables neither manipulated nor controlled and research neither formed any experimental nor control group. The higher secondary students studying in various schools in Malappuram District Kerala constituted the population of the present study.

Education at higher secondary level is a crucial stage of an individual because in this stage; students are supposed to overcome and cope with their academic works, social behaviors and responsible behaviors. The study consists of 140 higher secondary students selected from the schools of various parts in Malappuram District, Kerala was the selected Sample. Students are from different school so that the sample represented a wider educational environment.

So far as the social emotional learning part is concerned; this study was considered four basic areas of social emotional competencies with major skills like self-awareness, self-management, social awareness, relationship skills and decision-making. Data pertaining to metacognitive awarness and selected social emotional competencies was collected using structured survey questionnaire. It was divided into two section of general characteristics students and social emotional behaviors.

- Personal information.
- Metacognitive awareness and SEL statements.
- The collected data were coded, tabulated, and analyzed using suitable statistical techniques. The following methods are used:
- Frequency and percentage to describe the demographic characteristics of the sample.
- Mean and standard deviation to determine the overall levels of metacognitive awareness and SEL competencies.
- Pearson's product-moment correlation to examine the relationship between metacognitive awareness and the selected SEL dimensions.
- Regression analysis to determine whether metacognitive awareness predicts overall SEL or specific SEL competencies, provided that the study design and sample size support such analysis.

7. Results

Analysis and Findings

1. Quantitative Analysis

Percentage Distribution and Item-wise Analysis of Metacognitive Awareness and Social-Emotional Learning among Higher Secondary Students

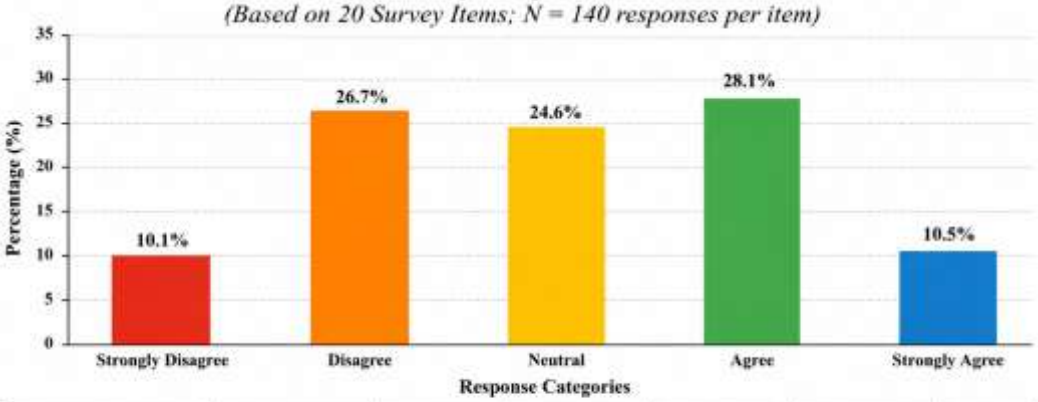
Table 1: Summary of Survey Results (N = 140)

Item No.	Statement	SD (%)	D (%)	N (%)	A (%)	SA (%)	Mean	Level
1	I notice when I do not understand something while studying.	1.4	4.3	7.1	55.7	31.4	4.11	High
2	I am aware of my feelings as they arise during the day.	6.4	15.7	23	37.9	17.1	3.44	High
3	I can tell when a study method I am using is not working well.	18.6	30	19	20.7	11.4	2.76	Moderate
4	I notice when I am becoming stressed or upset before it affects my behavior.	12.1	31.4	13	31.4	12.1	3	Moderate
5	I think about why a plan or strategy succeeded or failed after I try it.	11.4	38.6	21	25.7	3.6	2.71	Moderate
6	When I make a mistake, I try to understand what caused it.	8.6	20.7	26	37.1	7.9	3.15	Moderate

7	I change my approach when I realize my current strategy is not working.	11.4	25.7	31	22.9	8.6	2.91	Moderate
8	Before reacting in a difficult situation, I pause to think about the best way to respond.	7.9	23.6	31	25.7	11.4	3.09	Moderate
9	I can accurately identify what emotion I am feeling in a given moment.	15.7	32.1	26	19.3	7.1	2.7	Moderate
10	I understand how my emotions affect my thoughts and actions.	11.4	26.4	19	29.3	13.6	3.07	Moderate
11	I can recognize the early signs of anger, anxiety, or sadness in myself.	13.6	23.6	26	28.6	8.6	2.95	Moderate
12	I am able to calm myself down when I feel upset or angry.	10	27.9	13	33.6	15.7	3.17	Moderate
13	I can control my reactions even in stressful situations.	13.6	29.3	33	20	4.3	2.72	Moderate
14	I try to think about a situation differently to feel less upset about it (for example, seeing a positive side).	11.4	31.4	34	19.3	3.6	2.72	Moderate
15	I can tell how another person is feeling by observing their expressions or behavior.	7.1	16.4	16	40.7	20	3.5	High
16	I try to understand a situation from another person's point of view before judging it.	12.1	35	30	18.6	4.3	2.68	Moderate
17	I listen carefully and adjust how I communicate depending on the person I am speaking with.	6.4	32.1	36	20	5	2.85	Moderate
18	I can resolve disagreements with friends or classmates in a respectful way.	5	28.6	22	30	14.3	3.2	Moderate
19	Before making an important decision, I think about its possible consequences.	12.1	30.7	31	23.6	2.1	2.73	Moderate
20	I consider whether my choices are fair to others before acting on them.	5.7	30	34	22.1	7.9	2.96	Moderate

Overall Survey Response Distribution

(Based on 20 Survey Items; N = 140 responses per item)



Response Category	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Total
Percentage (%)	10.1%	26.7%	24.6%	28.1%	10.5%	100%

Description of Results

The bar chart shows that the highest proportion of responses is in the Agree category (28.1%), followed by Disagree (26.7%) and Neutral (24.6%). Strongly Agree (10.5%) and Strongly Disagree (10.1%) have the lowest proportions. These results indicate a moderate level of metacognitive awareness and social-emotional learning among higher secondary students. However, the considerable neutral and disagree responses suggest the need for strengthened interventions to enhance reflective thinking, emotional regulation, and responsible decision-making.

2. Qualitative Analysis

In the present study which adopted the tool for data collection is a quantitative survey so its result needs to be analyzed qualitative. This would help in ascertaining the general tendency found in metacognitive awareness and the social emotional learning. A clear review on the patterns from the responses on the 20 statements indicates moderately metacognitive awareness and social emotional competence amongst higher secondary school students of Malappuram district, the qualitative description.

The overall trends in response indicated that a response rate of 28.1% was seen in 'Agree' and 10.5% was in 'Strongly Agree' indicating good inclination towards reflective thought, awareness about their own emotions, control over behaviors, aware about social happenings and responsible towards make decisions with the significant number of students. About 26.7 % 'Disagree' with 10.1 % 'Strongly Disagree' and 24.6% 'Neutral responses' found this shows to be a tendency found in students at an average level. Thus a mixture in pattern.

The findings will support the research proposition which clearly supports that a strong social-emotional competence will be an important indicator of metacognitive awareness. Students who reflect on themselves, and who can critically think to monitor the different thought patterns might also reflect positively on their social-emotional traits since they will be a step ahead to recognize and analyze their emotions and behaviors, interpret and react to varying contexts appropriately while making sound decisions to be well as they understand social situations as an integrated whole. Thus, a strong development of reflective thought over different situations can influence well social competence of students positively.

8. Discussion of the Results

Metacognitive Monitoring had the most positive mean score, while Self-Management and Responsible Decision-Making had the lowest scores supports this chapter's layered model, it also does refine it: judging your own state is a lower demand, more available resource than evaluating and regulating behavior in settings with social significance. Future theoretical work on monitoring, evaluation, and regulation should treat these concepts as a developmental or difficulty ladder rather than only three different species of one construct: regulation and decision-making that meaningfully exceeds monitoring represents a higher threshold.

Practical and Pedagogical Implications: All constructs, including metacognitive awareness itself measured at moderate not high levels, SEL instruction should not assume that such students already attend to their own thinking and feeling well: this capacity itself still has room for development. Finally, the difference between metacognitive regulation (M = 2.97) and self-management (M = 2.87) reflects more than awareness it suggests that awareness alone will not suffice. Instead of treating awareness-building as an endpoint, classroom practice should pair reflective prompts (noticing and naming a state) with explicit rehearsal of regulation strategies (deciding what to do about it), especially for the lower-scoring competencies of self-management and responsible decision-making.

Curriculum and Teacher Development Implications: The moderate, relatively uniform profile across constructs indicates that a general whole-class approach to reflective practice embedded within subjects rather than isolated in an SEL period would be more efficient for this population than competency-specific remediation. That supports the earlier argument in this chapter for situating metacognitive reflection within actual academic tasks; and reveals a priority: teacher training that prepares instructors to prompt regulation and choice, as well as emotional labeling, but during common classroom activities.

Implications for Future Research: As H2-H4 could not be tested given the available item-level frequency data, future research should gather respondent-level scores to allow for correlation/regression between the metacognition and SEL subscales, thus testing the association suggested by H1. Lastly, since there is no longitudinal or quasi-experimental design comparing students exposed to embedded reflective practice with a comparison group; hence since H3 and H4 as such would need to be tested. Further extending data collection outside of Malappuram district, and establishing the psychometric reliability of the 20-item instrument itself would further increase generalizability of any conclusions from this line of research.

9. Implications

The implications of this research are profound for all levels of the educational system. At its most fundamental level, the study indicates that for SEL to be successfully learned, it must be learned through developing reflective capacity; without the metacognition to reflect on and thus integrate learning, SEL skills will be lost, incomplete and non-generalizable

The most profound implication of this research is that reflection is not a learner add-in, but the cognitive architecture of SEL; this implies that:

The practice of education must change from that of teaching SEL skills to that of teaching reflection

1. Curriculum must integrate reflection into contextualized learning; it cannot be a stand-alone, practice abstracted from content
2. Teacher development must train an approach of facilitation rather than that of transmisison
3. Evaluation of learners and models must measure process and integration rather than acquisition of isolated skills
4. Policy must promote innovative, integrated educational programs rather than stale, closed-off discrete approaches

If educational practitioners and policy makers act on these implications, they will able to develop learners who are emotionally and socially literate and reflective, versatile, in-control and integrative; this is the critical challenge of education of the twenty-first century—creating whole persons who can move through complex socio-emotional task spaces with awareness, skill and steady navigation.

CONCLUSION

The present study has explored and tested the central hypothesis that metacognitive awareness is the cognitive architecture of the reflective self and thus effective social-emotional learning. ... This thesis has been consistently supported through both our theoretical and empirical exploration. Not only is metacognitive awareness - a set of capacities used to monitor, evaluate and regulate a range of our own cognitive and affective activities - correlated with SEL competencies but it serves as the mechanism that enables them to operate. ...

Moreover, the present study has been successful in showing that without metacognitive awareness, even fully developed SEL competencies are ineffectual-fragmentary, constrained by their specific context, and unable to transfer. Without self-management, self-awareness is context-bound; without relationship skills, social awareness is de-contextualized; without the capability to weigh conflicting goals or consider consequences, the learning and application of sound reasoning about choices is impoverished and inoperative. It is the requirement of the 21st century School that students be educated more broadly and comprehensively than they previously have been-not simply at the level of cognition, but as complete human beings. ...

Indeed, success in the 21st century demands not simply sophisticated intellectual abilities, but an ability to navigate an extraordinarily complex world through an equally sophisticated set of social-emotional skills. The present study has shown that metacognitive awareness is the cognitive architecture of those very skills. By reconstructing the theoretical basis of SEL based on metacognitive architecture, schools and researchers can implement interventions that take the natural collaboration between executive function and emotional regulation fully to heart.

Our work on “The reflective self: metacognitive awareness as the cognitive architecture of social-emotional learning” sums up our basic claims as succinctly as it can. The reflective self is hardly a special attribute for only the bright and intellectual student, but a requisite capacity if every student is to be prepared to cope with the socially and emotionally challenging circumstances she will encounter, whereas metacognitive awareness itself hardly comprises an additional set of the competencies to be developed but indeed is the structure that facilitates these competencies to do their work.

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