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The Determinants and Role of Personal Agency in the Self-Regulation Empowerment Program (SREP): Influence of Social Cognitive Theory

El papel de la agencia personal en el Programa de Empoderamiento de la Autorregulación (SREP): Influencia de la teoría cognitiva socialIntroduction

O Papel da Agência Pessoal no Programa de Empoderamento de Autorregulação (SREP): Influência da Teoria Social Cognitiva

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Abstract

Albert Bandura is one of the most prolific and influential psychologists and researchers in history. In addition to championing the importance of people's perceptions of personal capability (i.e., self-efficacy), Bandura developed a complex, generative perspective of personality (i.e., Social Cognitive Theory [SCT]) that emphasizes the potential of humans to act with purpose, intentionality, and agency on the world in which they operate. In this paper, I review core principles and mechanisms embedded within SCT that stimulate and cultivate this notion of personal agency, such as self-efficacy, cyclical regulation, triadic reciprocality, and observational learning. I then discuss how these agency-enhancing principles were used to develop the procedures and activities of an applied academic intervention program designed to optimize middle school and high school student motivation, self-regulated learning, and academic achievement. By mapping Bandura's core principles to the activities of a school-based intervention, I hope to shine the light on how educators and school-based practitioners can similarly apply SCT principles in their professional roles.

Keywords: Social cognitive theory. Self-regulated learning. Agency. Self-efficacy. Educational intervention.

Resumen

Albert Bandura es uno de los psicólogos e investigadores más prolíficos e influyentes de la historia. Además de defender la importancia de las percepciones de las personas sobre su propia capacidad (es decir, la autoeficacia), Bandura desarrolló una perspectiva compleja, amplia y generativa sobre la personalidad (la Teoría Social Cognitiva [TSC]) que destaca el potencial humano para actuar con propósito, intencionalidad y agencia en el mundo en el que vive. En este artículo, reviso

los principios y mecanismos centrales incorporados a la TSC que estimulan y cultivan esta noción de agencia personal, como la autoeficacia, la autorregulación cíclica, la reciprocidad triádica y el aprendizaje observacional. Luego, discuto cómo estos principios que fomentan la agencia se utilizaron para desarrollar los procedimientos y actividades de un programa académico aplicado, diseñado para optimizar la motivación de los estudiantes de secundaria, el aprendizaje autorregulado y el rendimiento académico. Al relacionar los principios fundamentales de Bandura con las actividades de una intervención escolar, espero destacar cómo los educadores y profesionales que trabajan en escuelas pueden, de manera similar, aplicar los principios de la TSC en su rol profesional.

Palabras clave: *teoría social cognitiva. aprendizaje autorregulado. agencia. autoeficacia. intervención educacional.*

Resumo

Albert Bandura é um dos psicólogos e pesquisadores mais prolíficos e influentes da história. Além de defender a importância das percepções das pessoas sobre sua própria capacidade (ou seja, autoeficácia), Bandura desenvolveu uma perspectiva complexa, ampla e geradora sobre a personalidade (a Teoria Social Cognitiva [TSC]), que destaca o potencial humano de agir com propósito, intencionalidade e agência no mundo em que vive. Neste artigo, reviso os princípios e mecanismos centrais incorporados à TSC que estimulam e cultivam essa noção de agência pessoal, como autoeficácia, regulação cíclica, reciprocidade triádica e aprendizagem observacional. Em seguida, discuto como esses princípios que promovem a agência foram utilizados para desenvolver os procedimentos e atividades de um programa acadêmico aplicado, projetado para otimizar a motivação de estudantes do ensino fundamental e médio, a aprendizagem autorregulada e o desempenho acadêmico. Ao relacionar os princípios fundamentais de Bandura às atividades de uma intervenção escolar, espero destacar como educadores e profissionais que atuam em escolas podem, de forma semelhante, aplicar os princípios da TSC em seu papel profissional.

Palavras-chave: *Teoria social cognitiva. Aprendizagem autorregulada. Agência. Autoeficácia. Intervenção educacional.*

1 Introduction

Albert Bandura is one of the most influential psychologists of all time. In addition to the large volume of prestigious honors and awards he received throughout his distinguished career (e.g., National Medal of Science; Award for Outstanding Lifetime Achievement to Psychology), I believe the most notable and distinguishing aspect of his legacy is the generative and broad applicability of Social Cognitive Theory (SCT) across multiple disciplines and contexts. In a general sense, SCT reflects a model of human personality that emphasizes an agentic perspective about how people develop, adapt, and change (Bandura, 1986; 2023). In placing human agency as

the central guiding concept, Bandura structured SCT as a series of interconnected cognitive and self-referent processes (e.g., goals, self-efficacy, forethought, self-evaluation) that individuals use to purposefully, intentionally, and strategically influence their lives.

An indelible contribution of SCT is its broad applicability to schools and other applied contexts, specifically regarding instructional and intervention programs (Bandura, 2023; Cleary *et al.*, 2017; Graham; Harris, 2009; Zimmerman *et al.*, 1996). In this paper, I focus on one contemporary academic intervention, the Self-Regulation Empowerment Program (SREP; Cleary *et al.*, 2017; Cleary; Russo, 2024), to illustrate the direct application of SCT principles to cultivate human agency in under-served and academically at-risk middle and high school students. To begin, I provide a general overview of core SCT principles (self-efficacy, triadic reciprocal causality, modeling) underlying Bandura's notion of human agency. I then detail the primary characteristics and activities of the SREP instructional process and illustrate how SCT principles are foundational to the core activities, features, and overall operation of this intervention.

2 Overview of SCT Principles and Models

Bandura developed SCT as an integrated, agentic theory of personality that considers the complex interactions among personal beliefs and psychological processes, human behavior, and the social environment (Bandura, 1986). Of special relevance to SCT are the various principles and mechanisms through which individuals become active and empowered "agents" to direct their lives in meaningful ways – a concept called *personal agency* (Bandura, 2023).

Cultivating a strong sense of personal agency, particularly in adolescence, requires sustained efforts by schools to develop student's self-efficacy perceptions (i.e., a belief in one's capabilities to perform specific tasks) as well as their regulatory capacities to plan, set goals, gather information about their behavior and the world, and make self-evaluative judgments and adaptive reactions to constantly changing outcomes (Bandura, 1997; 2023). Acting with a sense of personal agency is not synonymous with personal freedom or the absence of environmental constraints or pressures (Bandura, 2023); rather, it involves a proactive, intentional, and purposeful attempt to achieve goals or some desired endpoint. In this section, I briefly review Bandura's conceptualization of human agency by emphasizing its key determinants (i.e., self-regulated

learning [SRL] processes, triadic reciprocal determinism, self-efficacy, and observational learning); principles which also represent the conceptual foundation for SREP.

2.1 Triadic Reciprocal Causality

Social-cognitive theorists espouse the premise that human functioning is largely determined by interactions among personal (e.g., beliefs and perceptions), behavioral, and contextual factors. Bandura (2023) distinguished three types of interactionism (unidirectional, partial bidirectional, and triadic reciprocal causation). *Unidirectional causation* reflects the direct and unique effects of personal (or intrapersonal) and contextual factors on behavior. Conversely, *partial bidirectional* models emphasize the bi-directional influences between personal and contextual factors and how the individual and combined effects of these two factors determine human behavior. While these types of causal explanations are plausible, Bandura espoused a third type of interactionism in SCT, *triadic reciprocality*, which focuses on the reciprocal, bi-directional influences among person, behavior, and context.

To illustrate the dynamic and bidirectional nature of triadic interactionism, consider a 10th grade student, Amanda, who has been struggling in chemistry class and has very low confidence in her ability to improve. Over the Fall semester, Amanda's parents began to notice her declining self-efficacy as well as her increased anxiety and feelings of hopelessness (personal influences environment). Amanda's parents initiated a conversation with her to offer general support and encourage her to seek assistance from her teacher. Amanda appreciated her parents' support (environment influences personal) and ultimately took their advice to speak with her teacher the following day (environment influences behavior). The conversation with the teacher went well. The teacher provided a few recommendations for how Amanda can prepare more effectively for tests, such as taking practice tests at home and arranging a quiet and comfortable place to study. Amanda showed interest in both suggestions (environment influences personal) and then initiated conversations with her parents when she got home from school (personal influences behavior). Her parents agreed to help her with these strategies but also conveyed how proud they were of her for having the courage to speak with her teacher and improve. Their reaction made Amanda feel more

relaxed and continued to enhance her belief that she could improve her grades (environment influences personal).

Although Bandura emphasized the cognitive aspects of human agency (e.g., goals, self-efficacy beliefs, self-regulation), he was careful to note that none of the three determinants (person, behavior, environment) act as the dominant influence in all contexts and situations, nor do these determinants operate simultaneously (Bandura, 1986, 1997, 2023). Ultimately, the influence of each determinant is determined by the situation or the learning activities in which students engage.

2.2 Centrality of Self-efficacy Beliefs

Although SCT is a complex, multi-layered theory of human personality, the concept of self-efficacy is likely its most recognized component and strongest determinant of human behavior and the exercise of personal agency (Bandura, 2023). To some degree, self-efficacy is aligned with other self-related concepts (e.g., self-esteem, perceptions of competency, self-concept) due to its focus on individuals' perception of their personal qualities or characteristics (Bandura, 1997). Self-efficacy is unique, however, due to its situational and context-specific nature and its direct focus on an individual's perceptions of personal capability to perform specific behaviors at a particular level of performance (Bandura, 1997). In a simplistic sense, self-efficacy beliefs reflect what individuals *can do* in a current or near future situation rather than what they "will do" (intentions).

Self-efficacy beliefs play a central role within SCT because of their direct influence on important outcomes (e.g., coping with fear, academic achievement) and their interaction with other determinants of human agency. Across diverse disciplines and domains of functioning, self-efficacy is a consistent and strong predictor of academic achievement, adaptive behavior, and clinical outcomes (Bandura, 1997; Cleary; Kitsantas, 2017; Pajares; Graham, 1999; Zimmerman; Kitsantas, 2005) but has also been shown to mediate relations between contextual factors, motivation beliefs, SRL behaviors, and student outcomes (Cleary; Kitsantas, 2017; Pajares; Kranzler, 1995; Sakiz *et al.*, 2012). In a study with 363 middle school students, Cleary and Kitsantas (2017) showed that self-efficacy beliefs exerted a unique and robust direct relation with student mathematics achievement after controlling for the effects of socioeconomic status, prior achievement, other motivational beliefs, and SRL behaviors. Importantly, students' efficacy beliefs

also predicted achievement through students' SRL skills and mediated the relations between two other motivational beliefs (i.e., school connectedness, task interest) and their achievement. In fact, self-efficacy *fully mediated* the effects of task interest on SRL behaviors and the effects of task interest on final mathematics grades (Cleary; Kitsantas, 2017).

2.3 Cyclical nature of Regulatory Processes

Bandura argued that regulated functioning is central to human agency. In contrast to perspectives that place greater emphasis on environmental contingencies, unconscious processes, or innate underlying needs to explain psychological functioning (Schunk, 2014), Bandura argued that humans possess the cognitive capacity to regulate behavioral, personal, and environmental causal determinants through self-observation (i.e., observing or tracking the key determinants of functioning), self-judgment (i.e., evaluating behavior or performance relative to standards and the reasons underlying performance), and self-reaction processes (i.e., affective and behavioral reactions to performance; Bandura, 1986, 2023). Other SCT scholars, such as Zimmerman, Schunk, and Pintrich, expanded Bandura's original regulatory model by including forethought processes and discussing the interconnectedness among regulatory processes that occur before, during, and after performance (Pintrich, 2000; Schunk, 2001; Zimmerman, 2000). Given that Zimmerman's three-phase cyclical model of SRL is a core conceptual and theoretical foundation of SREP, I briefly explain this particular model in greater detail.

According to Zimmerman (2000), SRL refers to self-generated thoughts, behaviors, and feelings that are planned and continually adapted to meet personal goals. His three-phase model represents an organizational structure that mirrors a before (forethought), during (performance), and after (reflection) perspective about regulating task performance. *Forethought* phase processes (e.g., task analysis, planning, goal-setting) occur before learning and are hypothesized to influence *performance* phase processes, such as using self-control strategies (e.g., learning strategies, attention control) and engaging in self-observation during learning. Thus, it is during the performance phase that individuals manage behavioral or environmental challenges and seek to optimize learning while concurrently self-observing or tracking how they are performing. As Bandura noted, self-observation is a critical regulatory process because it provides essential data

or information that individuals use to engage in *self-reflection*, such as evaluating success or struggle on a task (self-evaluation), reflecting on the factors influencing or causing a performance outcome (attributions), identifying emotional reactions, and making adaptive decisions about how to improve in the future (adaptive inferences).

Zimmerman's three-phase model is one of the most well-cited theoretical models of SRL in the literature (Panadero, 2017). Like all contemporary models of SRL, Zimmerman championed Bandura's central tenet that goals are central to regulatory functioning because of their motivational properties and their intersection with several self-referent processes, such as self-evaluations and reactions as well as perceptions of personal efficacy (Bandura, 2023).

2.4 Observational Learning (Modeling)

Another key aspect of SCT is *observational learning* or the extent to which individuals learn or acquire skills through observing others, either directly or through other mechanisms such as video or media (Bandura, 1986). More specifically, observational learning occurs when the display of behavior or the capacity to behave is greater than it was prior to the act of observing a model. From Bandura's perspective, observational learning is largely a cognitive activity governed by the observer's ability to attend, retain what is observed, and use mental representations of the modeled behavior to guide future behavior (Bandura, 2023). The effect of modeling is also influenced by the motivation of the observer (i.e., choosing to observe a model and sustain focus) and model characteristics (e.g., prestige, similarity to observer; Schunk, 2014). Over the past several decades, researchers have illustrated the powerful effects of modeling on student beliefs, behaviors, and outcomes (Schunk, 2003; Schunk; Hanson, 1985) but that these effects may vary depending on the characteristics of the model and observer (Bandura, 2023).

Zimmerman and Schunk (Schunk; Zimmerman, 1997; Zimmerman, 2000) incorporated observation learning as an initial level of a four-level model describing how sophistical strategic and regulatory skills develop over time. At this initial *observation level*, individuals observe models and form mental representations regarding the essence of the modeled behavior, skill, or strategy. Given that most complex skills are multi-faceted and challenging to master through mere observation, students typically need to emulate or practice these while receiving guidance,

prompting, and specific feedback (Cleary *et al.*, 2018; Schunk; Zimmerman, 1997; Zimmerman; Kitsantas, 2002). A student would have attained an *emulative level* of SRL skill when they can closely approximate the modeled target skill (Zimmerman, 2000).

As mastery of strategic and regulatory skills grows, students will be better able to proactively engage in the *self-control level*; that is, engaging in more self-directed and autonomous forms of strategic practice where teachers, peers, or other social agents are not consistently present or available. It is at this level that students begin to show greater freedom in making decisions about when and how to practice their skills. A student would have attained mastery at the self-control level when they can autonomously show mastery of the skill outside the presence of others, although they may occasionally seek help from others when confused or as new challenges arise. Finally, individuals attain mastery at the *self-regulated level* when they can proficiently display the target skills or strategies while also displaying skills in adapting their goals, practice, or use of the strategy in response to contextual, situational, or personal conditions (Zimmerman, 2000).

In summary, while the three-phase cyclical model represents the organizational structure emphasizing the different processes (goals, planning, self-monitoring, evaluation) that promote human agency, the four-level framework conveys the developmental progression that individuals often proceed through to become an empowered, agentic, self-regulated learner.

3 Self-Regulation Empowerment Program (SREP)

3.1 General Overview and Empirical Foundation

The SREP is a school-based assessment-to-intervention program designed to enable and empower middle and high school students to engage in academic activities in more agentic, strategic, and regulatory ways (Cleary *et al.*, 2017; Cleary; Russo, 2024). Although the program draws from multiple theoretical models (e.g., social cognitive, constructivist, information processing), it is primarily grounded in social cognitive principles. The diagnostic assessment component of SREP utilizes a context-specific multi-dimensional assessment approach whereby clinicians use *multiple SRL assessment methods* across *multiple sources* and *multiple contexts*. School-based practitioners or SREP coaches use this assessment approach to gather a diverse array of SRL data at varying levels of granularity (i.e., broad, task-specific) and across different

dimensions (e.g., strategy, motivation, metacognition) and processes (e.g., planning, self-evaluation). The coaches use the assessment data to generate hypotheses about students' SRL skills and processes and to guide their customization of the SREP intervention to best meet individual student needs (Cleary; Russo, 2024; Cleary *et al.*, 2023). Although the SREP diagnostic process has received much attention over the past couple of decades (see Cleary; Russo, 2024 for a review), I focus primarily on the SREP intervention component in this paper to illustrate how agency-promoting SCT processes and mechanisms represent the conceptual basis for SREP activities.

The SREP intervention adheres to a semi-structured instructional approach administered by trained coaches. The intervention is semi-structured in that certain components are fixed, but others are flexible, dynamic, and customizable. For example, SREP is administered multiple times per week to small groups of students over 3-4 months, with sessions varying from 30 to 45 minutes in length. While all SREP coaches focus on similar objectives of developing empowering beliefs and mindsets, enhancing student self-awareness about academic strengths and weaknesses, and strengthening their strategic skills to learn and overcome challenges, the specific content of SREP sessions and the nature of strategies taught to students will naturally vary based on student needs and preferences. Thus, an SREP coach working with students struggling to pass biology exams due to lack of effort and organization will likely model and emphasize different strategies and tactics than when working with highly motivated students who struggle to write effective persuasive or narrative essays.

Researchers have used different methodologies (mixed model case study designs, true experimental designs) to examine the effects of SREP on STEM achievement (e.g., mathematics, biology) and the SRL skills of academically at-risk middle school and high school students (Cleary; Platten, 2013; Cleary *et al.*, 2008; Cleary *et al.*, 2017). These studies targeted ethnically diverse adolescent youth exhibiting marginal to proficient academic skills and poor performance in mathematics or science classes. In general, students who received SREP demonstrate moderate to large positive changes in their classroom test performance as well as the quality of their strategic thinking and behaviors and reflection-phase process (e.g., attributions; Cleary & Platten, 2013; Cleary *et al.*, 2008; Cleary *et al.*, 2017). There is also evidence that students who attended SREP sessions regularly were more likely than those with inconsistent attendance to use regulatory and learning strategies, demonstrate more adaptive shifts in their strategic thinking, and exhibit the

largest gains in performance. When also considering that teachers, students, and SREP coaches perceive SREP to be an acceptable and important intervention for improving student success (Cleary, 2021), SREP offers promise as a viable intervention program for middle school and high school contexts.

3.2 Key Intervention Components and Activities

The title of the intervention, Self-Regulation Empowerment Program, grew out of my vision for creating an intervention that empowers individuals to assert greater control over their academic lives through the optimization of SRL and motivational skills and processes. Empowerment and human agency are similar terms in their focus on promoting greater self-direction, personal autonomy, and strategic control in students (Bandura, 2023; Perkins; Zimmerman, 1995). However, I conceptualized empowerment in terms of the instructional and contextual factors that can promote the development of personal agency. It is for this primary reason that SREP activities and procedures are intimately grounded in the four agency-promoting SCT principles previously reviewed in this paper (i.e., triadic reciprocality, self-efficacy enhancement, observational learning, and cyclical regulatory thought and action).

In the following sections, I provide a detailed overview of two broad components of the SREP intervention: (1) weekly SREP sessions and (2) reflection activities (Self-Refection Worksheet; Self-Regulation Graph). In addition to describing core features and characteristics of these two components, I illustrate how the four key agency-enhancing SCT principles are naturally infused within these activities (see Table 1 for an overview). Although SREP can be used for any academic learning activity, I base the following description of activities relative to test preparation and studying activities within science contexts.

Table 1 - Alignment between SREP Activities and Promotion of Human Agency.

SREP Component or Activity	Influence on Human Agency Determinants and Processes
Weekly RAPPS	• Triadic reciprocality – SREP coach structures sessions and provides modeling, feedback (environment → person and behavior); students support structuring of SREP sessions and leading activities at home (personal → environment); student beliefs and cognitive reactions to performance influence their adaptation (personal → behavior) and the coach's instructional reactions and feedback (personal → environment); student engagement in strategic behavior can influence their self-beliefs and evaluative reactions (behavior → person) • Enhancement of self-efficacy – is influenced by mastery experience (displaying improvement in using strategies each week; intensity of challenges decrease) and persuasion (encouragement and support from SREP coach and peers) • Observational Learning + - SREP coach models key strategies and tactics (observation) and provides structured guided practice sessions (emulation); students practice strategies and skills outside presence of the SREP coach (self-control and self-regulation); student observe peers discuss planning, use and adaptation of strategies • Cyclical regulatory thinking - Engagement in weekly feedback loops (RAPPS) helps students make strategic plans and process goals (forethought), implement strategies and monitor task effectiveness (performance), and evaluate effects of strategies and make strategic changes based on performance or self-observed feedback (reflection)
Self-Reflection Form	• Triadic reciprocality – SREP coach administers self-reflection form and structure discussions can influence student thinking and behavior (environment → person and behavior); peer collaboration and discussion regarding responses to reflection questions (personal ←→ environment); student response to reflection questions influence the nature of coach's feedback and instructional reaction (personal ←→ environment) • Enhancement of self-efficacy – is influenced by mastery experiences (student recognition that strategies and effort are key determinants of success); persuasion (encouragement and support from SREP coach and peers); and vicariously (observing feedback and responses from SREP coach to similar peers) • Observational Learning - SREP coach and peers provide models of adaptive evaluation approaches (personal standards), attributions (strategies are key determinant of success) and adaptive inferences (modification to goals or strategies following struggle) • Cyclical regulatory thinking – students begin to see logical connection between performance evaluations (success of failure), determinants of performance (type of attribution), and conclusions about changes to goals and strategy use (adaptive inferences)
Self-Regulation Graph	• Triadic reciprocality – SREP coach and peers provides feedback to students about reflection processes (environment → person and behavior); peer collaboration and discussion regarding changes in performance and the link to SRL processes shows reciprocal links (personal ←→ environment); student responses to interpretation of performance gains or declines influence the nature of coach's feedback and instructional reaction, with the coaches'

reactions influence student beliefs and subsequent behavior (personal ←→ environment)

- Enhancement of self-efficacy – is influenced by mastery experiences (student observations of grade changes resulting from their own behavior); persuasion (encouragement and support from SREP coach and peers); and vicarious experiences (observing responses/feedback of SREP coach to similar peers)
- Observational Learning - SREP coach and peers provide models of adaptive evaluation approaches (personal standards), attributions (strategies are key determinant of success) and adaptive inferences (modification to goals or strategies following struggle)
- Cyclical regulatory thinking – The SR graph visually documents student's short-term and long-term outcome goals and strategic plans (forethought), enables students to monitor both strategic process and outcomes over time (performance), and prompts students to evaluate performance relative to personal standards (goals, prior grades) and in relation to the strategies used to learn (strategic attributions)

Note: The author (2025).

Weekly SREP Sessions. Students receiving SREP receive between 60 to 90 minutes of instruction and training each week that is governed by the instructional acronym RAPPS (*R*eview, *A*nalysis, *P*ractice, *P*lan, *S*elf-direction). This instructional approach, which accounts for approximately 60% - 70% of all SREP sessions, reflects how the SREP coach engages students in cycles of strategic action and reflection to overcome personal learning challenges. The SREP coach begins the first session of a week with *Review* (R), a check-in activity during which students are prompted to discuss their use and effectiveness of targeted strategies to overcome personal challenges when preparing for tests (e.g., time management, memory, anxiety, etc.). During this step, the SREP coach gathers information about students' perspectives on their strategic engagement; information that the coach leverages to modify or structure SREP sessions during the upcoming week. This review activity is followed by *Analysis*; a step focused on identifying the upcoming content/activities/ assignments in the target course and the existing or emerging challenges that students wish to address. Collectively, the Review and Analysis steps of RAPPS take approximately 5-8 minutes to complete and are used to address the broad question, "*Which strategies are most helpful or need to be modeled to help students deal with their current challenges in school*?".

These initial two steps are followed by *Practice*, which consists of explanations and modeling from the SREP coach about strategies relevant to the core challenges experienced by

students. The coach also organizes structured opportunities for students to practice the modeled strategies (e.g., self-quizzing, use of a calendar, deep relaxation, positive self-talk). The Practice step is foundational to student agency and success given that learning and regulatory strategies and tactics are most directly responsible for enhanced student performance.

The Practice step continues throughout the week until the *Planning* step, which occurs during the last 5-7 minutes of the final SREP session of the week. As part of Planning, students make final decisions about their goals relative to the target challenges that they will focus on at home before the next SREP session the following week. The last step in the RAPPS approach, *Self-direction*, differs from all other steps because it occurs outside the presence of the SREP coach. As part of Self-direction, students experience the opportunity to make more autonomous decisions about when and how to implement and monitor the success of their strategic plan.

Alignment with Personal Agency. The RAPPS model encapsulates the four previously described agency-enhancing SCT principles including triadic reciprocality, self-efficacy, observational learning, cyclical SRL. As illustrated in Table 1, the influence of personal characteristics (i.e., beliefs, emotions) and the learning context can have deterministic influences on student behaviors. However, as Bandura emphasized in SCT, students possess the capacity to act on and influence their learning contexts and can modify or change their beliefs. The dynamic interplay among person, behavior, and environment naturally occurs during each SREP session throughout the entire program.

As SREP coaches proceed through RAPPS, they proactively target student self-efficacy on a daily and weekly basis. During the Review and Analysis steps, students receive feedback, encouragement, and support from their coach and peers regarding their use and refinement of their strategic skills. Consistent with SCT perspectives, as students self-observe and/or receive feedback about their mastery of certain skills or strategies, they will typically develop stronger beliefs in their ability to perform such actions (Bandura, 2023; Schunk, 2014).

Observational learning and the other three levels of SRL development (emulation or guided practice, self-control, and self-reflection) play a prominent role in RAPPS, specifically during the Practice step. Each week, the SREP coach explains and models one or more strategies and tactics that students can practice and use to overcome their personal challenges to learning. Peers in the

group are often invited to share and model strategies that they have used and found to be effective during learning activities. Because it is often unrealistic to expect students to master complex strategic skills from simple observations, the SREP coach structures guided practice activities for students to refine their strategic skills (emulation). It is during these practice activities that students ask questions and receive feedback about the quality of their skills; an essential step in developing their sense of efficacy and personal agency (Bandura, 2023; Zimmerman, 2000). Finally, by helping students make plans on how to use the strategies outside the presence of the SREP coach (self-control and self-regulation), students have additional opportunities to refine their skills. In short, modeling from the SREP coach and peers is a hallmark feature of SREP activities and is an initial step that enables students to learn more nuanced and complex ways to address the challenges they experience in school.

The concept of *cyclical feedback loop* is emphasized across all aspects and activities of SREP. RAPPS was created to reflect a special type of "weekly feedback loop" whereby students set a goal and strategic plan at the end of each SREP week (Planning step – *Forethought phase*), enact and monitor the use of the strategies in addressing personal challenges (Practice and Self-direction steps – *Performance phase*), and then evaluate their use and effectiveness of the strategies for achieving their goals in addressing their personal challenges (Review and Analyze steps – *Self-Reflection phase*). By repeatedly engaging in this cycle of strategic thinking and action on a weekly basis, it is assumed that students will, over time, internalize and more effectively engage in the regulatory process to manage and control their learning.

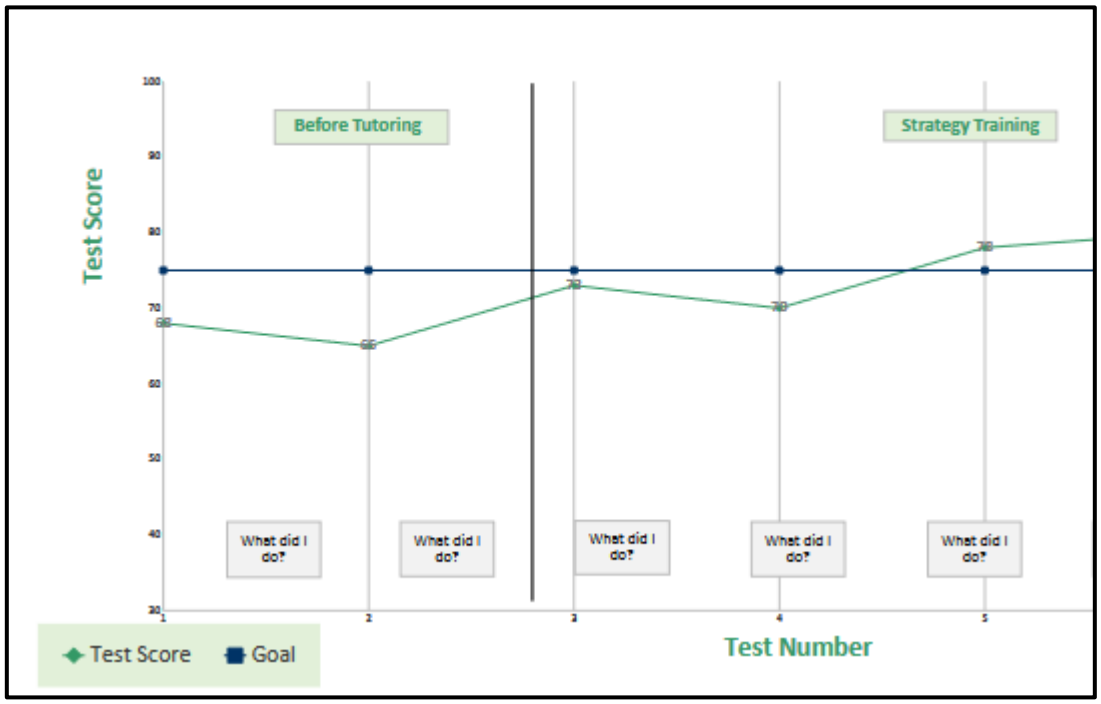
Self-reflection Activities. A series of self-reflection activities represent another core component of SREP instruction that occurs after students receive performance feedback on a target learning activity, such as grades on an exam, quiz, essay, or some other quantitative outcome. Generally speaking, the SREP coach leads students through a systematic process of individual and small group discussion and analysis to stimulate thinking about how students can refine the quality of their reflective judgments and reactions to performance.

To begin, the SREP coach asks each student to individually complete a Self-Regulation Graph and a Self-Reflection worksheet. These two documents are completed separately but are typically used in a complementary way. Further, although the information generated on each

document is private to the individual student, the coach encourages students to share their responses and reactions with the group to facilitate discussion, reflection, and further learning.

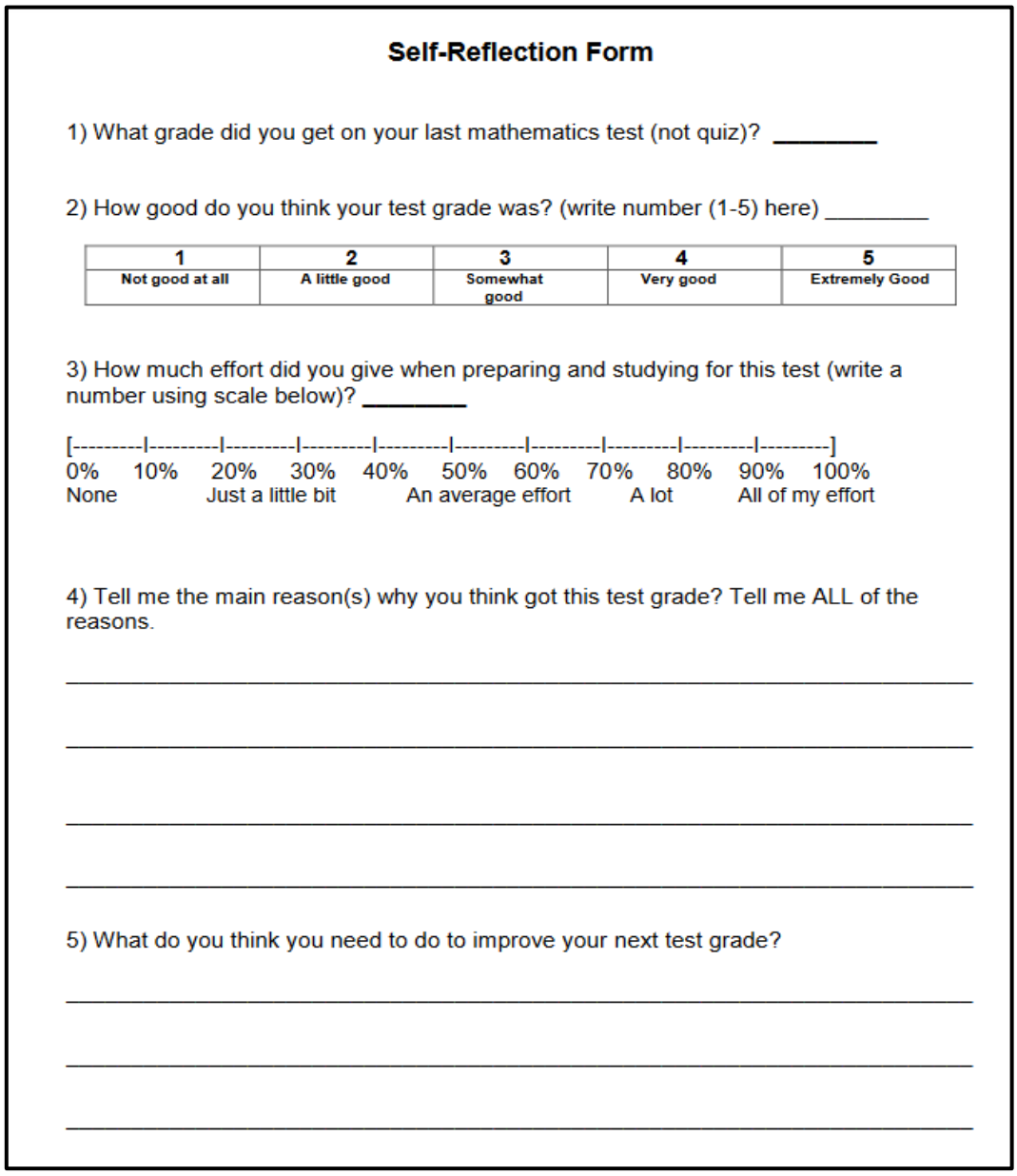
As part of the *Self-Regulation Graphing* procedures, students establish short-term and long-term performance goals, plot their grades for the target task over time, and then record the nature of the strategies they used to complete the target activity (e.g., studying and test preparation). Consider the Self-Regulation Graph presented in Figure 1. In addition to establishing a long-term goal to be accomplished by the end of the training, students set specific outcome goals before each performance (e.g., test, essay). Students are encouraged to maintain these goals but have the autonomy to adjust them depending on their previous performance. The *Self-Reflection Worksheet* includes questions targeting students' evaluative judgments about the quality of performance or level of success (self-evaluation), the reasons why they performed that way (attributions), their emotional reactions to performance (affect/satisfaction), and their conclusions about the behaviors or strategies that need to be adapted or improved before the next learning attempt (adaptive inferences; see Figure 2). The coach then asks students to share their responses to each question so they can identify areas of convergence or divergence in their thinking and so that all students can learn about alternative and more adaptive ways of thinking about performance. In short, the SREP coach guides students through a systematic process of self-reflection to nurture and cultivate adaptive and empowering forms of thinking and action.

Figure 1 - *Example of Self-Regulation Graph From SREP.*



Note: From "Self-Regulation Empowerment Program Manual", by T. J. Cleary, 2024, unpublished. Copyright 2024 Timothy J. Cleary.

Figure 2 - Self-Reflection Worksheet Used as Part of SREP Self-Reflection Activities.



Self-Reflection Form

1) What grade did you get on your last mathematics test (not quiz)? _____

2) How good do you think your test grade was? (write number (1-5) here) _____

1	2	3	4	5
Not good at all	A little good	Somewhat good	Very good	Extremely Good

3) How much effort did you give when preparing and studying for this test (write a number using scale below)? _____

[---------|---------|---------|---------|---------|---------|---------|---------|---------|---------]
0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%
None Just a little bit An average effort A lot All of my effort

4) Tell me the main reason(s) why you think got this test grade? Tell me ALL of the reasons.

_____

_____

_____

_____

5) What do you think you need to do to improve your next test grade?

_____

_____

_____

Note. From "Self-Regulation Empowerment Program Manual", by T. J. Cleary, 2024, unpublished. Copyright 2024 Timothy J. Cleary.

Alignment with Personal Agency. Similar to RAPPS, the various SREP reflection activities capture the four agency-enhancing SCT principles previously discussed. For example, the bi-directional and reciprocal influences among person, behavior, and environment are quite apparent during the reflection activities. To briefly illustrate, as students complete the Self-Refection

Worksheet and share their responses with their peer group and coach, the coach will develop ideas about the content and direction of subsequent instructional sessions (person influences environment). Conversely, statements and feedback provided by the peer group and coach can directly influence students' affect, self-efficacy beliefs, or perhaps modification of their personal goals (environment influences person). The dynamic nature of the reflection activities promotes an ongoing and evolving system of intersecting determinants.

The most prominent ways in which self-efficacy is targeted during the reflection activities are in evaluating goal progress or personal improvement. When evaluating performance on the target task, students are asked to review the Self-Regulation Graph and to use their personal goals or previous test grades on the graph as benchmarks against which to make evaluative judgments (did I do well or not?). Student self-efficacy is expected to change as students show a positive trend in their grades over time and/or as they approach or surpass their personal goals. When students do not show initial gains or improvement in outcomes, the SREP coach can maintain student confidence by emphasizing the improvements and growth shown from a process perspective; that is, their increased and more refined use of high-quality strategies. Thus, self-efficacy is targeted using a multi-pronged approach that focuses on mastery of strategic processes *and* desired outcomes.

While observational learning is an explicit and intentional focus during RAPPS weekly sessions, it occurs more informally through group discussions and shared experiences as part of the reflection activities. SREP coaches often encourage students who display adaptive SRL skills and processes to share their personal approaches to challenging circumstances as well as the specific strategies they use to overcome such challenges. For example, suppose a student improved their test grades during SREP (e.g., from a 70 to an 85) and concluded that the use of concept maps and having their parents quiz were the key factors influencing their growth (i.e., an adaptive attribution). The coach would seek to "spotlight" this evaluation judgment and encourage the student to describe their experiences and personal story to the group. There is evidence that these group discussions can have a positive impact on other group members as they recognize that growth and improvement may be possible for them (Cleary, 2021; Cleary; Platten, 2013).

The Reflection worksheet and the Self-Regulation Graph are used concurrently and in complementary ways to stimulate student engagement in a second type of cyclical feedback loop

emphasized in SREP. Unlike the RAPPS weekly cyclical loop, the Reflection cyclical loop is much broader in scope and focused on outcomes. Thus, during the reflection activities, students focus on the growth of their grades and performance in school rather than the development of strategic skills processes (as during RAPPS) as the standard against which to evaluate success or improvement. Each of these broader "cycles" starts when a teacher begins a new unit or content area and ends when students receive grade on the related exam for that unit. Thus, a cycle entails a multiple-week sequence of planning, strategy use, self-monitoring, and self-evaluation and reactions.

As illustrated in the Self-Regulation Graph, students establish an outcome goal that becomes the standard or benchmark against which they self-evaluate (see Figure 1). Students are also asked to record their strategic approach to the target task (e.g., use of concept maps, self-quizzing, and time management to enhance test performance). After students receive and plot the grade received on the task (e.g., test), the SREP coach then asks students to complete the Self-Reflection Worksheet and engages the group in a discussion about the reflection-phase responses. Students use this discussion and their own observations of trends in their performance to make judgments about goal progress (self-evaluation), the link between their use of strategies and the goal progress (attributions), and how they might need to adapt or change their strategies when not reaching expectations (adaptive inferences). When considering both RAPPS and the self-reflection activities, SREP illustrates how goal-directed, cyclical regulatory thinking can occur on a daily, weekly, and longer-time perspective. It is through consistently engaging in goal-directed process that individuals can develop and refine their ability to act in purposeful, agentic ways.

4 Conclusions

Within the scholarly community, Dr. Bandura will be remembered for his ground-breaking and pioneering efforts to delineate the social foundations of human thought and action, and for stimulating over fifty years of research and applied clinical and educational practice. In this paper, I underscored the importance of human agency within SCT and provided a real-life exemplar of how applied, school-based intervention program can be developed to utilize and promote the key SCT principles that promote human agency. It is my hope that scholars and educators alike can use

the principles and ideas presented in this paper as a springboard for applying SCT principles to the specific populations, contexts, and situations relevant to their professional roles and lives.

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