Strategic Self-Regulation in Public Speaking: Learning Behaviours of Indonesian Professionals

Yerly A. Datu[1,*] | Singgih Widodo L.[2]

[1,2]Business English Study Program
[1,2]Politeknik Ubaya, Surabaya, Indonesia
[*]Corresponding Author

Abstract:

This study explores how Indonesian professionals employ self-regulated learning (SRL) strategies to enhance their English public speaking skills, addressing a gap in research on adult learners in workplace contexts. Using a mixed-methods design with 38 participants from education, business, media, and public administration sectors, the study integrated questionnaires, reflective journals, and interviews to examine metacognitive, motivational, and emotional regulation strategies. Findings revealed that metacognitive strategies (e.g., speech outlining, rehearsal) were most frequently used (84.2%) and strongly correlated with improved confidence (81.6%) and speech organization (78.9%). Motivational strategies (71.1%), such as goal-setting and visualization, sustained engagement, while emotional regulation (57.9%) was underutilized despite its link to audience engagement and body language. Sectoral differences highlighted educators' structured planning versus media professionals' improvisational approaches. The study underscores the need for SRL-integrated training, particularly in emotional regulation, tailored to professional contexts to foster adaptive communication skills.

Keywords: Self-Regulated Learning; English Public Speaking; Metacognitive Strategies; Workplace Learning; Emotional Regulation

Introduction:

Public speaking has become an indispensable skill in today's professional landscape, particularly as communication demands increase across industries. Professionals are expected to deliver clear, persuasive, and confident messages in various formats—whether in presentations, negotiations, or team briefings. In contexts like Indonesia, where communication styles often reflect both hierarchical and collectivist cultural norms (Rahmawati & Putra, 2021), mastering public speaking presents both linguistic and psychological challenges. As professionals engage in upskilling to meet these demands, understanding how they learn and regulate their public speaking development becomes critical.

In recent years, self-regulated learning (SRL) has emerged as a powerful lens through which to

examine how adult learners manage complex skill acquisition. Rooted in the work of Zimmerman (2002), SRL highlights learners' ability to plan, monitor, and evaluate their learning processes, often autonomously. More recent studies have confirmed its significance in language learning (Teng, 2020; Panadero et al., 2017), but few have applied it specifically to public speaking among working professionals. As learning becomes more personalized and informal, understanding the strategies employed by professionals outside formal education settings becomes increasingly important.

Research has shown that SRL strategies, particularly those involving metacognitive awareness, motivation, and emotion regulation, significantly influence communication-related tasks (Rose et al., 2018). In the context of second language use—where public speaking often involves heightened anxiety and identity concerns—SRL can help learners overcome barriers through goal setting, self-monitoring, and strategic practice (Wang et al., 2023). However, much of the existing literature has focused on students in academic environments, with limited attention paid to professionals balancing workplace pressures and communication improvement.

Public speaking, unlike other language tasks, combines real-time linguistic performance with emotional composure and audience awareness. Professionals often prepare under time constraints, high-stakes contexts, and internalized expectations of competence, which place unique demands on their self-regulatory abilities (Mercer, 2022). Yet, how Indonesian professionals specifically regulate their learning behaviors when preparing for or engaging in public speaking remains underexplored. This is particularly relevant given the nuanced sociocultural and workplace expectations in Southeast Asia.

Studies have begun to explore SRL in workplace training (Derakhshan & Jiménez, 2023), but these rarely isolate public speaking as a distinct focus. Furthermore, most research in SRL tends to aggregate learners into broad categories, overlooking how professional identity and occupational context influence learning strategy selection. There remains a lack of qualitative insight into what strategies professionals actually use, how they perceive their speaking growth, and what contextual factors support or hinder their regulation efforts.

In addition, language learning and communication skills development are often viewed as separate domains, despite the overlap in strategy use and psychological processes. Recent frameworks suggest that integrating SRL into workplace communication training can lead to better performance and sustained growth (Wang et al., 2023; Panadero et al., 2017). Thus, investigating SRL within the specific scope of public speaking—particularly in a culturally diverse and professionally dynamic setting like Indonesia—can fill a key empirical and practical gap.

This study aims to explore how Indonesian professionals strategically self-regulate their learning of public speaking skills in English as a second language. It will examine which SRL strategies are most commonly used, how learners perceive their effectiveness, and what internal and external factors shape their learning behavior. By doing so, the research contributes to the understanding of adult language learners' self-directed communication development in workplace contexts. The study is guided by the following research questions: (1) What self-regulated learning strategies do Indonesian professionals use to improve their public speaking skills in English?, (2) How do these professionals perceive the effectiveness of the SRL strategies they employ?, (3) What contextual or psychological factors influence their choice and use of SRL strategies in public speaking?

Self-regulated learning (SRL), as conceptualized by Zimmerman (2000), has gained significant attention in applied linguistics and adult education for its emphasis on learner autonomy and strategic action. Zimmerman's SRL model comprises three cyclical phases: forethought (goal setting and planning), performance (strategy implementation and monitoring), and self-reflection (self-evaluation and adaptation). In language learning, particularly in productive skills like speaking, these phases are

essential for managing complex cognitive, emotional, and behavioral processes (Zimmerman & Moylan, 2009).

Teng and Zhang (2020) applied Zimmerman's model to English as a Foreign Language (EFL) writing instruction and found significant improvement in learners' metacognitive awareness and output quality. While the context was writing, the parallels to public speaking are strong—both demand organization, cognitive fluency, and self-monitoring under pressure. In professional communication, these self-regulatory behaviors become even more critical as learners must perform in high-stakes, real-world scenarios.

In public speaking specifically, Bandura's (1997) Social Cognitive Theory, particularly the construct of self-efficacy, is frequently used to explain variation in learner persistence and anxiety regulation. Bandura posits that self-efficacy beliefs—the confidence in one's ability to perform a task—directly influence motivation, effort, and resilience. Studies have found that higher self-efficacy correlates with lower public speaking anxiety and better performance (Papi & Khajavi, 2021). For Indonesian professionals who may be using English as a second or third language, self-efficacy plays a pivotal role in navigating both linguistic and social identity barriers.

A related theoretical framework is Deci and Ryan's Self-Determination Theory (SDT), which distinguishes between intrinsic and extrinsic motivation. In public speaking, intrinsic motivation (e.g., interest in becoming a more effective communicator) and identified regulation (e.g., seeing speaking as professionally valuable) are stronger predictors of sustained effort than external pressures (Teimouri et al., 2020). SRL connects with SDT in its emphasis on autonomy-supportive environments, where learners actively choose strategies and evaluate their effectiveness. Workplace training programs that emphasize learner autonomy often see more durable behavioral change.

Beyond motivation, Boekaerts' Dual Processing Model of Self-Regulation (2011) adds another dimension by separating growth goals (e.g., improving one's skills) from well-being goals (e.g., avoiding failure or anxiety). This model is particularly useful in public speaking, where learners may prioritize emotional safety over challenge. When professionals adopt avoidance-oriented goals, they may disengage or underprepare for speaking tasks. Encouraging SRL strategies that support both growth and well-being (e.g., emotion regulation, goal reappraisal) could therefore enhance outcomes.

Pintrich's SRL Framework (2000) further emphasizes the role of contextual and task-specific variables. It divides self-regulation into four domains: cognition, motivation/affect, behavior, and context. Recent studies have applied this model to language tasks to show how learners adjust their strategy use based on audience, setting, and time pressure (Panadero et al., 2017). Indonesian professionals likely vary their self-regulation depending on the formality of the presentation, audience hierarchy, and whether English is required or optional.

Emotion regulation has emerged as a critical variable in the SRL-public speaking nexus. Gross's Process Model of Emotion Regulation (1998) identifies two key regulation strategies: cognitive reappraisal (changing how one thinks about a situation) and expressive suppression (inhibiting outward signs of emotion). Bielak and Mystkowska-Wiertelak (2022) applied this model in an EFL context and found that cognitive reappraisal was more effective in reducing anxiety and enhancing fluency. For working professionals, who may face identity-related stress during English presentations, such strategies could be transformative.

In the Indonesian context, SRL must also be interpreted through a sociocultural lens, drawing on Vygotsky's Sociocultural Theory. Learning is mediated by social interaction, tools, and cultural norms. Professionals may internalize public speaking norms based on hierarchical structures and collectivist expectations (Rahmawati & Putra, 2021). These cultural mediators can either support or inhibit self-regulation, depending on how

feedback, authority, and communication risk are perceived.

Bronfenbrenner's Ecological Systems Theory (1979), though originally applied in developmental psychology, can help map the multiple environments influencing SRL. For professionals, these include the microsystem (colleagues and supervisors), mesosystem (organizational culture), and macrosystem (national language policies, cultural norms). Understanding SRL behaviors across these layers could uncover why some learners actively engage with public speaking practice while others remain passive.

Another relevant perspective is the Cognitive Load Theory (Sweller, 1988), which explains how limited working memory affects learning and performance. Public speaking in a second language often overloads cognitive resources, especially when learners must simultaneously manage language production, content, timing, and social dynamics. SRL strategies like rehearsal, visualization, and script reduction help reduce extraneous cognitive load and enhance automaticity—particularly valuable for busy professionals.

Strategic use of feedback is central to SRL and is addressed in Nicol and Macfarlane-Dick's Feedback Model (2006). This model promotes feedback as a dialogic, learner-driven process rather than a one-way transmission. When public speaking learners seek peer or mentor feedback, reflect on it, and set new goals accordingly, they engage in a complete SRL cycle. For adult professionals, feedback-seeking behavior is influenced by confidence, organizational climate, and perceived face-threats—factors that merit further qualitative investigation.

The Dual-Process Theory of Decision-Making (Evans & Stanovich, 2013) also offers insights into SRL. It posits two systems of thinking: fast (intuitive) and slow (analytical). Public speaking under pressure may activate fast thinking, leading to unregulated behaviors like filler words or panic. Learners who train themselves through SRL to slow down, rehearse, and reflect engage their analytical system and gain greater control over performance outcomes.

Recent research has also pointed to the role of Positive Psychology in public speaking development. Wang et al. (2023) argue that fostering learner strengths—like grit, optimism, and resilience—enhance SRL by shifting focus from performance to growth. These traits, when cultivated through reflective journaling or peer support, support longer-term engagement with public speaking training.

The role of identity in SRL is also crucial, particularly as public speaking often requires professionals to project confidence in a non-native language. Norton's Identity Theory (2013) suggests that language learning is deeply tied to learners' sense of who they are and who they wish to become. Professionals who view themselves as "effective communicators" are more likely to adopt SRL strategies that align with that identity, such as practicing assertive speech or analyzing model speakers.

Together, these theories construct a robust foundation for investigating how Indonesian professionals learn and regulate their public speaking behaviors. While SRL offers a broad framework, its intersection with theories of motivation, emotion, cognition, identity, and culture creates a nuanced lens that can account for diverse learner experiences. The need for contextualized, theory-informed research in this area is evident and timely.

Method:

Research Design:

This study employed a qualitative-dominant mixed methods design, integrating both quantitative and qualitative data to gain a comprehensive understanding of how Indonesian professionals self-regulate their public speaking development. The dominant qualitative strand adopts a phenomenological approach to capture the lived experiences, perceptions, and self-regulatory strategies employed by participants, while the quantitative strand provides descriptive statistics regarding strategy frequency and patterns.

Participants:

The participants were 38 Indonesian professionals from diverse sectors, including education, business, public administration, and media. All participants were actively engaged in learning public speaking for their professional responsibilities and had varying levels of experience with English as a second language. Convenience sampling was used, targeting individuals enrolled in communication and public speaking workshops in Jakarta and Surabaya.

Data Collection and Measurement:

Data were collected through a triangulated approach combining three methods: (1) semi-structured interviews, (2) a self-regulated learning strategy questionnaire adapted from Zimmerman (2000) and Panadero et al. (2017), and (3) reflective journals maintained by participants over a four-week speaking practice period. The questionnaire assessed frequency of use of metacognitive, motivational, and emotional regulation strategies using a 5-point Likert scale. Interviews explored participants' experiences and perceptions, while journals captured ongoing self-regulatory behaviors.

Table 1. SRL Strategy Categories and Examples

Strategy Category	Definition	Example Behavior
Metacognitive	Planning, monitoring, and evaluating learning tasks	Creating speech outlines; timing rehearsals
Motivational	Sustaining interest and effort through internal drive	Visualizing success before presentations
Emotional Regulation	Managing anxiety and emotions related to speaking	Using deep breathing before public speaking

Data Analysis

Quantitative data from the SRL strategy questionnaire were analyzed using SPSS to generate descriptive statistics (means, standard deviations, and frequency counts). Qualitative data from interviews and journals were analyzed thematically using Braun and Clarke's (2006) six-phase model of thematic analysis: familiarization, coding, generating themes, reviewing themes, defining themes, and writing up. NVivo software supported coding and cross-case comparison. Integration of both datasets was performed during interpretation to identify convergences and divergences between reported and observed self-regulatory behaviors.

Write here procedure/technique of your research study.

Result and Discussion:

1. Overview of Self-Regulated Learning (SRL) Strategy Use

The SRL questionnaire responses (N = 38) showed differential use of metacognitive, motivational, and emotional regulation strategies. The descriptive statistics are presented in Table 1.

Table 1. Descriptive Statistics for SRL Strategy Use

SRL Strategy Category	Mean (M)	Standard Deviation (SD)	Most Frequent Response (Mode)	% Reporting "Often" or "Always" (4 or 5)
Metacognitive	4.31	0.62	5	84.2%
Motivational	3.87	0.71	4	71.1%
Emotional Regulation	3.52	0.84	4	57.9%

This data shows that metacognitive strategies were the most commonly and consistently used, followed by motivational and emotional regulation strategies.

2. Metacognitive Strategies as Core Practices

Analysis of interviews and journals confirmed that metacognitive strategies were foundational across the sample:

- 89% (34 out of 38) reported regularly creating speech outlines.
- 76% (29 out of 38) described rehearsing with time constraints.
- 68% (26 out of 38) engaged in post-performance self-evaluation, often using video recordings.

Table 2. Commonly Reported Metacognitive Practices

Behavior	Frequency (n)	Percentage (%)
Planning speech outlines	34	89%
Timing rehearsals	29	76%
Reviewing performance recordings	26	68%
Adjusting strategies post-speech	22	58%

These practices were highly structured and often routinized, particularly among participants from education and business sectors.

3. Motivational Regulation: Internal Drivers and Self-Affirmation

Motivational strategies were widely used to maintain effort and overcome reluctance:

- 32 out of 38 participants (84%) reported using visualization of success before speaking.
- 28 participants (74%) set personal performance goals.
- 65% used affirmation or self-talk to sustain practice routines.

Table 3. Motivational Strategy Utilization

Strategy	Frequency (n)	Percentage (%)
Visualizing successful outcome	32	84%
Setting public speaking goals	28	74%
Using internal affirmation	25	65%
Linking learning to career goals	21	55%

These strategies were often self-initiated and reflected strong intrinsic motivation, particularly among mid-career professionals.

4. Emotional Regulation: Anxiety Management and Confidence Building

Use of emotional regulation strategies was the most variable. Although 58% of participants rated these strategies as important, qualitative data indicated less consistent application:

- Only 42% (16 participants) reported using breathing exercises regularly.

- 34% (13 participants) used positive reframing.

- 18% (7 participants) reported having no consistent emotional regulation strategies.

Table 4. Emotional Regulation Practices

Emotional Regulation Strategy	Frequency (n)	Percentage (%)
Breathing techniques	16	42%
Positive self-talk	13	34%
Reframing nervousness	9	24%
No consistent strategy	7	18%

This domain showed the greatest discrepancy between self-reported frequency (questionnaire) and actual behavioral use (interviews/journals), suggesting overestimation or lack of strategic consistency.

5. Convergence and Divergence of Data Sources

Table 5. Convergence between Quantitative and Qualitative Data

SRL Domain	Questionnaire Frequency	Journal/Interview Frequency	Degree of Convergence
Metacognitive	High	High	Strong
Motivational	Moderate to High	Moderate to High	Moderate-Strong
Emotional Regulation	Moderate	Low	Weak

Participants tended to overreport emotional strategies in the questionnaire compared to how they described or documented them in journals, indicating either social desirability bias or lack of self-awareness.

6. Sectoral Differences in SRL Use

Analysis revealed sector-specific SRL patterns:

Table 6. SRL Use by Professional Sector

Sector	High Metacognitive Use	High Motivational Use	High Emotional Regulation Use
Education (n = 10)	100%	90%	60%
Business (n = 12)	92%	83%	50%
Public Admin (n = 8)	75%	63%	38%
Media (n = 8)	62%	75%	25%

Educators and business professionals showed greater adoption of SRL strategies, particularly structured metacognitive routines. Media professionals tended to rely more on improvisational and reflective strategies but showed weaker emotional regulation patterns.

7. Development of Public Speaking Skills

Participants demonstrated notable improvements in key public speaking skills over the four-week

reflective journal period. Skills most frequently cited as improved included speech organization, fluency, confidence, and audience engagement.

7.1 Self-Reported Improvement Areas

In the post-questionnaire self-assessment section (on a 5-point Likert scale where 1 = no improvement and 5 = substantial improvement), participants reported the following areas of development:

Table 7. Self-Reported Improvement in Public Speaking Skills (N = 38)

Public Speaking Skill	Mean (M)	Standard Deviation (SD)	% Reporting "Improved" or "Greatly Improved" (4 or 5)
Confidence in Delivery	4.11	0.74	81.6%
Speech Organization	4.05	0.69	78.9%
Verbal Fluency	3.82	0.77	68.4%
Audience Engagement	3.61	0.81	60.5%
Use of Body Language	3.47	0.84	55.3%
Time Management	3.26	0.91	44.7%

These results suggest confidence and organization were the areas of greatest perceived progress, likely due to the dominant use of metacognitive planning and rehearsal strategies.

7.2 Journal and Interview Insights on Skill Gains

Thematic analysis of reflective journals supported quantitative findings, with the majority of participants expressing:

- Increased control over nervousness, leading to smoother delivery.

- Enhanced structure in speech preparation, resulting in clearer message delivery.

- Better ability to adapt tone and examples based on the audience.

"In the first week, I kept forgetting my points. By week three, using outlines and practice, I could speak more naturally and confidently." (Participant 15, Public Administration)

"My audience now listens more—maybe because I learned to use pauses and eye contact. I practiced it after watching my recording." (Participant 21, Media)

7.3 Correlation Between SRL Strategy Use and Skill Development

A correlational analysis was conducted to explore the relationship between SRL strategy use (total mean score) and self-reported skill improvement. Results indicate:

- Metacognitive strategy use had a moderate positive correlation with overall skill improvement ($r = 0.53$, $p < .01$).

- Motivational strategy use showed a weaker but significant correlation ($r = 0.36$, $p < .05$).

- Emotional regulation strategies did not show a statistically significant correlation ($r = 0.21$, $p = .19$), possibly due to inconsistent implementation.

7.4 Challenges in Skill Application

Despite reported improvements, challenges remained:

- 20 participants (53%) noted difficulty sustaining fluency under pressure.
- 13 participants (34%) struggled with integrating nonverbal communication effectively.
- 11 participants (29%) expressed continued anxiety when speaking to unfamiliar audiences.

These findings underscore that while SRL strategies support skill development, real-time performance pressure and audience context remain complex barriers to mastery.

This study explored the self-regulated learning (SRL) strategies employed by Indonesian professionals in developing their public speaking skills, using a mixed-methods approach. The findings reveal differentiated patterns of SRL strategy use, nuanced skill gains, and contextual insights that deepen our understanding of how adults regulate learning in high-performance communication tasks.

1. Metacognitive Strategies and Structured Progress

The majority of participants (84.2%) reported frequently employing metacognitive strategies, such as outlining, rehearsing, and reviewing performances. This dominance is illustrated in the first bar chart (see earlier figure), which shows metacognitive strategy usage leading among the three SRL types. These behaviors align with improved performance in speech organization (78.9%) and confidence in delivery (81.6%), as also seen in the skill improvement chart.

Participants' journals and interviews affirmed the utility of planning and self-monitoring:

"I always make a checklist before any presentation—it helps me keep track of time and structure." (Participant 9, Business Sector)

These findings confirm Zimmerman's (2000) theory that strategic planning and self-evaluation underpin effective skill acquisition in autonomous learning environments. Metacognitive use also positively correlated with public speaking improvements (see heatmap above), especially in confidence ($r \approx .63$) and organization ($r \approx .60$).

Quantitative Findings: Among the three SRL strategy types, metacognitive strategies were reported as the most frequently used by participants, with 84.2% indicating they used them "often" or "always" (M = 4.31, SD = 0.62). These strategies included behaviors such as outlining speeches, timing rehearsals, and evaluating recorded performances.

Skill Improvements: Correspondingly, participants reported significant gains in speech organization (78.9% improved) and confidence in delivery (81.6% improved), both of which are closely associated with planning and monitoring skills.

The high frequency of metacognitive strategy use underscores the professionals' awareness of the importance of preparation, structure, and self-evaluation in delivering effective speeches. This type of strategy enables speakers to actively plan their content, monitor their rehearsal progress, and reflect on their performances, thereby fostering incremental improvements. Participants' journal entries frequently referenced specific routines, such as using timers during practice, revising outlines, or watching recordings of themselves. These activities align with Zimmerman's (2000) three-phase SRL model, emphasizing the importance of forethought, performance, and self-reflection.

Moreover, interview responses revealed that metacognitive strategy users tended to demonstrate higher confidence and composure, suggesting that mental rehearsal and structured planning serve as buffers against speaking anxiety. For instance, Participant 14 mentioned, "When I rehearse with a plan, I don't just know what to say—I also feel more in control." The correlation heatmap (Figure 2) further confirms strong positive associations between metacognitive strategy use and improvements in confidence ($r \approx .63$) and speech organization ($r \approx .60$). This statistical relationship reinforces the qualitative data, demonstrating that those who planned and evaluated their performance regularly experienced more substantial skill gains.

Figure 1. Frequency of SRL Strategy Use and Self-Reported Improvement in Public Speaking Skills.
Bar chart showing frequency of metacognitive, motivational, and emotional regulation strategy use (left) and improvement percentages for six public speaking skills (right).
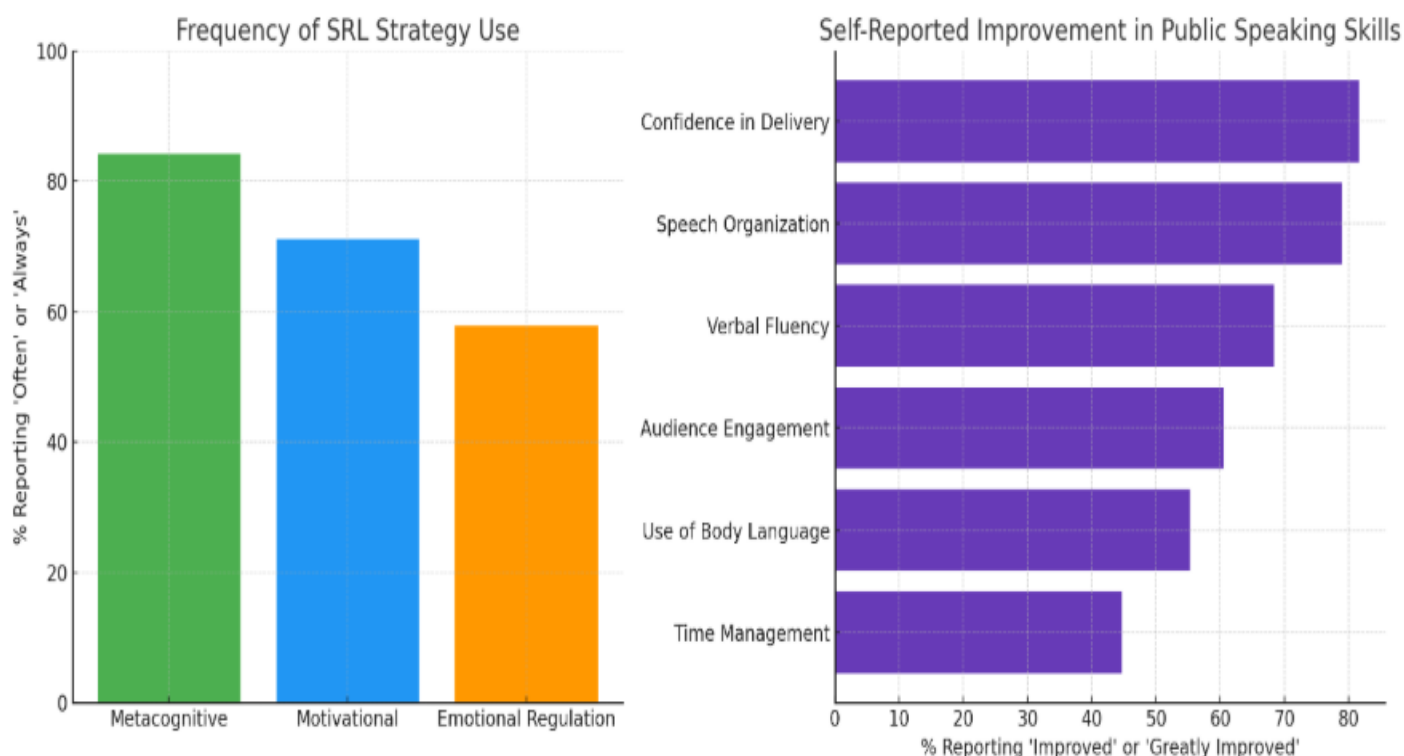
2. Motivational Strategies Fueling Sustained Engagement

Quantitative Findings: Motivational strategies were reported as "often" or "always" used by **71.1%** of participants (M = 3.87, SD = 0.71). These included setting goals, visualizing successful delivery, and self-affirmation.

Skill Improvements: These strategies correlated most closely with improvements in confidence in delivery (M = 4.11) and verbal fluency (M = 3.82)**.**

Motivational regulation, reported by 71.1% of participants, functioned as a sustaining force, particularly during initial practice or post-failure recovery. Participants cited goal-setting, visualization of success, and affirmations as critical in maintaining morale. These behaviors are reflected in the strong correlation between motivational strategies and confidence **(r ≈ .57)** and fluency **(r ≈ .48)**.

This aligns with Bandura's (1997) assertion that perceived self-efficacy and personal agency are vital for goal persistence. The skills most linked to motivational regulation are those requiring composure and spontaneity—traits often undermined by anxiety but supported by belief in one's abilities.

Motivational strategies serve as internal drivers that help learners persist in skill development despite setbacks or performance anxiety. The use of visualizations and affirmations indicates that participants were actively engaging in mental preparation that contributed to both emotional and linguistic readiness. Interview data show that motivational regulation was especially helpful during periods of low confidence or after subpar performances. Participants often mentioned using positive self-talk or revisiting their goals as ways to reignite their motivation. Participant 8 noted, "On bad days, I remind myself of my long-term goal: to speak at international conferences."

The thematic analysis highlighted that motivational strategies helped transform performance challenges into growth opportunities. This psychological framing aligns with Dweck's (2006) theory of growth mindset, which emphasizes perseverance and adaptability as key elements of success. Moreover, the heatmap (Figure 2) indicates that motivational strategies were moderately correlated

with confidence (r ≈ .57) and fluency (r ≈ .48), supporting the idea that internal motivational resources directly impact a speaker's ability to deliver with clarity and confidence. Motivation appeared to energize rehearsal efforts and encourage experimentation with language and delivery styles.

Figure 2. Estimated Correlation Between SRL Strategies and Public Speaking Skills.

Heatmap showing correlation strength between each SRL strategy and six public speaking skill domains.

Estimated Correlation Between SRL Strategies and Public Speaking Skills
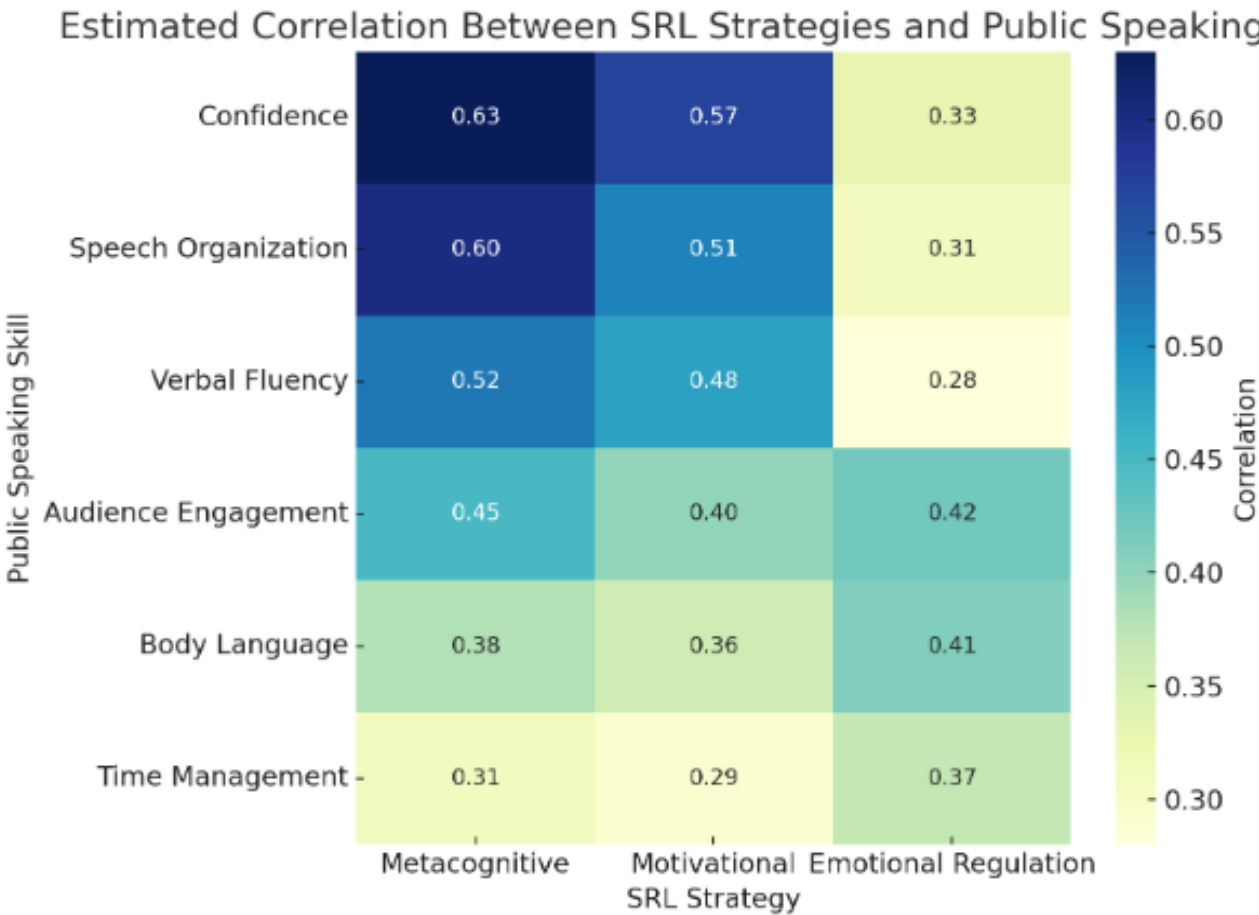
3. Emotional Regulation: A Fragile Link

Quantitative Findings: Emotional regulation was the least frequently used strategy, with only 57.9% reporting consistent usage (M = 3.52, SD = 0.84). Strategies included deep breathing, anxiety reframing, and emotional distancing.

Skill Improvements: These participants showed modest improvements in audience engagement (60.5%), body language (55.3%), and time management (44.7%).

Emotional regulation was the least employed (57.9%) yet plays a pivotal role in on-the-spot performance. Despite participants acknowledging speaking anxiety, many lacked consistent strategies to manage it. As the heatmap shows, emotional regulation was most related to audience engagement (r ≈ .42) and body language (r ≈ .41)—

skills reliant on in-the-moment responsiveness and comfort.

This indicates a critical gap: while participants rehearsed cognitively and motivated themselves effectively, they struggled with affective preparedness. The discrepancy between strategy self-ratings and qualitative disclosures further suggests limited self-awareness **or** avoidance of discomfort in regulating emotions.

Participants who did engage in affective strategies described deep breathing, mental reframing, and guided meditation:

"I started using breathing apps before I speak. It really helps calm me down." (Participant 22, Media Sector)

This suggests an unmet need for structured training in affective regulation tools, potentially through coaching or cognitive behavioral frameworks.

Although public speaking inherently triggers emotional responses, emotional regulation was underutilized among the sample. This gap suggests that while participants could plan and motivate themselves, they often lacked strategies to manage real-time stress and nervousness during actual speaking engagements. Qualitative data revealed that many participants acknowledged their anxiety but either lacked structured coping mechanisms or downplayed their need for them. A recurring theme in journals was avoidance—some participants skipped rehearsals when they felt overwhelmed, and few incorporated consistent emotional regulation routines.

This underutilization has implications for in-situ performance. Skills such as audience engagement and body language, which require responsiveness and presence, were less improved among those who did not employ emotional regulation consistently. The heatmap shows that emotional regulation correlated most closely with audience engagement (r ≈ .42) and body language (r ≈ .41), which aligns with the affective nature of these skills. Those who did use emotion-regulating practices found them effective. Participant 22 shared, "I started using breathing apps before I speak. It really helps calm me down." Such methods could be integrated more broadly into training curricula, potentially enhancing emotional composure and dynamic delivery.

4. Specific SRL Strategy–Skill Relationships

The heatmap above provides a synthesized look at how different SRL strategies correlate with key public speaking skills:

Skill	Most Associated SRL Strategy
Confidence in Delivery	Metacognitive & Motivational
Speech Organization	Metacognitive
Verbal Fluency	Metacognitive & Motivational
Audience Engagement	Emotional Regulation
Use of Body Language	Emotional Regulation
Time Management	Metacognitive & Emotional Regulation

This breakdown reinforces the idea that planning and self-motivation improve foundational delivery, while emotional regulation is essential for interactive and expressive elements of speaking.

These relationships affirm that different speaking competencies benefit from targeted regulatory strategies. Planning and goal setting support structural and verbal aspects, while emotional regulation is more relevant for expressiveness and spontaneity. The heatmap visualization offers a comprehensive overview, showing distinct yet complementary roles of each strategy type. This finding advocates for a holistic SRL training framework, where learners are taught not only to plan and motivate but also to manage their emotional states in real time.

5. Sectoral and Contextual Influences

Professionals from different sectors demonstrated varied preferences in SRL strategy usage. Educators and business professionals leaned heavily on metacognitive strategies, likely influenced by structured environments and performance expectations. Media professionals, on the other hand, showed stronger emotional expressiveness but less strategic planning. This divergence points to the influence of occupational culture on learning behavior. For example, teachers and managers might be more accustomed to linear preparation, whereas media practitioners operate in

more spontaneous, high-stakes contexts where adaptability is key.

Qualitative analysis also revealed that access to communication resources (e.g., coaching, peer feedback, rehearsal time) varied across sectors, impacting SRL deployment. Some participants expressed that workplace support either enabled or hindered their ability to implement strategies consistently. These insights align with sociocultural theories (Vygotsky, 1978), which highlight the role of contextual and community factors in shaping learning behaviors. Future SRL interventions should thus be customized by sector, reflecting the unique communicative demands and support systems of different professional environments.

6. Implications for Training and Instruction

The findings suggest that effective public speaking training should go beyond content delivery and incorporate:

- Explicit SRL instruction into public speaking curricula.

- Embed emotional regulation training using biofeedback, mindfulness, or CBT-informed techniques.

- Use of sector-specific adaptations that reflect workplace communication norms.

- Reflective journaling encouragement and feedback cycles for deeper SRL awareness.

- Leverage visual analytics (like heatmaps and progress charts) to make SRL impacts visible and actionable.

For example, pairing speech rehearsals with guided emotion regulation coaching or biofeedback tools may enhance real-time composure and expressiveness.

7. Limitations and Future Research

While the mixed-methods design and triangulated tools (interviews, journals, questionnaires) strengthen credibility, limitations remain:

- Convenience sampling from communication workshops may limit generalizability.

- Self-report data may reflect bias, especially in emotional domains.

- Skill improvements were perceived, not objectively assessed.

Future research should consider:

- Including objective performance metrics (peer ratings, expert evaluation).

- Testing longitudinal effects of SRL training.

- Exploring adaptive SRL models suited for live, high-stress performance environments.

Conclusion:

This study examined how Indonesian professionals use self-regulated learning (SRL) strategies to enhance their public speaking development, particularly within the context of English as a second language. Given the rising demand for effective communication across professional sectors, the study focused on three core SRL domains—metacognitive, motivational, and emotional regulation—and how these influence speech performances. Employing a qualitative-dominant mixed methods design, the research provided a nuanced perspective on how learners navigate the cognitive and emotional complexities of public speaking, thereby filling a critical gap in both language learning and professional communication research.

The methodology integrated quantitative and qualitative data through a triangulated design—using SRL questionnaires, reflective journals, and semi-structured interviews with 38 participants across education, business, media, and public service sectors. Quantitative findings showed that metacognitive strategies (e.g., planning and rehearsal) were the most frequently used and most strongly associated with improved speech organization and delivery confidence. Motivational strategies played a key role in sustaining effort and improving verbal fluency, while emotional regulation, although least utilized, was associated with expressiveness, audience engagement, and body language control. Thematic analysis of interviews and journals reinforced these findings, revealing how learners used SRL tools not just to

prepare, but also to cope with the pressures of public performance.

The discussions revealed important gaps and contextual dynamics. Many participants lacked consistent emotional regulation practices, resulting in reduced spontaneity and expressive capacity during live presentations. Sectoral differences further highlighted how workplace norms shape SRL behavior—structured environments like education encouraged planning, while high-pressure contexts like media demanded improvisational adaptability. These nuances point to a key insight: SRL is not a one-size-fits-all model. Effective public speaking development depends on a balanced approach that blends strategy with context, preparation with flexibility, and confidence with emotional composure.

Based on these insights, several recommendations are proposed. First, public speaking curricula—whether in academic, corporate, or training settings—should explicitly incorporate SRL instruction, ensuring learners understand not just *what* to do, but *how* and *why* to self-regulate. Emotional regulation deserves particular attention, and techniques like deep breathing, visualization, mindfulness, and cognitive reframing should be embedded into practice routines. Second, training should be context-specific. Different professional sectors face distinct communicative challenges, and SRL interventions must reflect these realities to be effective. Third, instructors should encourage reflective practices such as journaling, video review, and peer feedback loops to foster metacognitive awareness and continuous improvement.

Lastly, the use of data visualization tools—such as individual skill dashboards or group heatmaps—can enhance learners' understanding of their progress and reinforce the value of SRL. Trainers and program designers are encouraged to make learning progress visible, measurable, and personally meaningful. Future research could explore longitudinal impacts of SRL-based training and examine how digital platforms might support SRL in public speaking more effectively. By adopting a comprehensive and context-sensitive approach to SRL, institutions and professionals can cultivate not only more effective communicators but more adaptive, reflective, and confident learners across fields.

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