Cultural Identity in Global Context: Validation of a Social and Emotional Learning Model for Thai Adolescents

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Abstract. This research aimed to develop and validate a measurement model of Social and Emotional Learning (SEL) by bridging universal conceptual frameworks with the Thai cultural context. A sample of 684 lower secondary school students from the upper northern region of Thailand participated in the study, with data collected through questionnaires and analyzed using confirmatory composite analysis. The findings revealed a culturally-specific SEL structure for Thai students comprising five core components with 20 indicators: self-awareness (3 indicators), self-management (5 indicators), social awareness (4 indicators), relationship skills (5 indicators), and responsible decision-making (3 indicators). Intriguingly, while all components demonstrated equal significance in explaining SEL consistent with universal frameworks, the indicator weights varied significantly, reflecting the profound influence of Thai cultural values and contexts. Notably, emotion recognition and management emerged as the most influential indicator within self-awareness, empathy dominated social awareness, while conflict management showed the lowest weight in relationship skills, a clear reflection of Thailand's conflict-avoidant cultural orientation. This study highlights the critical importance of cultural context in SEL structure and provides valuable insights for developing culturally responsive assessment tools and intervention programs that authentically address the needs of Thai students in the post-COVID-19 era.

Keywords: Social and Emotional Learning, Confirmatory Composite Analysis, Adolescent Development

1. Introduction

Social and Emotional Learning (SEL) has emerged as a pivotal turning point in 21st-century educational reform, where schools must cultivate emotional and social skills beyond academic knowledge (OECD, 2021). Empirical evidence demonstrates that SEL not only enhances academic achievement but also promotes positive social behaviors and serves as a crucial shield against risk behaviors such as aggression, bullying, depression, and substance use (Durlak et al., 2022). It also functions as psychological immunity that helps learners adapt and develop resilience. These skills are increasingly valued in the "jobs of tomorrow" as they represent human capabilities that technology cannot replace (World Economic Forum, 2020).

SEL is the process through which students develop skills to express emotions and social interactions appropriately, understand and empathize with others, build positive relationships, and make responsible decisions (CASEL, 2015). The

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Collaborative for Academic, Social, and Emotional Learning (CASEL) proposed a framework comprising five core competencies: self-awareness, self- management, social awareness, relationship skills, and responsible decision-making (Greenberg et al., 2017).

Despite international interest in SEL, developing measurement and assessment tools faces significant challenges, including inconsistencies in components within the CASEL framework, insufficient questionnaire items, and limited testing contexts (Cavioni et al., 2023), as well as complexity in components and indicators. In the Thai context, studies on SEL components and indicators for instrument development remain limited. The lack of validated measurement tools specific to the Thai context impedes not only accurate developmental assessment but also undermines effective SEL promotion efforts for Thai students. Furthermore, unique cultural and social contexts influence students' emotional expression and social relationship patterns (Hayashi et al., 2022). Additionally, the COVID-19 pandemic has severely impacted learning patterns and social interactions, increasing negative emotional and behavioral changes in children and adolescents, with one in seven Thai adolescents experiencing deteriorated mental health (UNICEF Thailand, 2022).

SEL research in Thailand faces significant gaps: (1) Lack of culturally sensitive instruments: Most studies develop SEL models in Western contexts, neglecting cultural differences that may affect SEL indicators in Asian contexts, particularly Thailand with its distinctive culture and educational system; (2) Lack of crisis impact studies: Limited research exists on SEL structural changes following the COVID pandemic in Thailand, especially among middle school students experiencing critical biological and psychosocial transitions.

Therefore, to address these research gaps, this study aims to develop and validate the structural validity of an SEL measurement model to identify theoretically and statistically sound components and indicators within the context of middle school students in upper northern Thailand following the COVID-19 pandemic. This will lead to the development of an SEL conceptual framework that integrates universal principles with local cultural dimensions, helping to develop precise and specific assessment tools and SEL promotion programs aligned with learners' actual needs.

2. Objectives

To develop and validate the structural validity of a Social and Emotional Learning measurement model for middle school students in upper northern Thailand.

3. Method

3.1 Population and sample

This research utilized a sample of 684 lower secondary school students from various schools in the upper northern region of Thailand, obtained through multi-stage sampling to ensure diversity and representativeness of the population. The researcher determined the sample size using calculations from the website https://www.danielsoper.com/statcalc, specifying an effect size (f^2) of 0.25, a statistical power of 0.80, a significance level (α) of 0.01, with 10 latent variables and 42 observed variables. The calculation indicated a minimum sample size of 355 participants. The

actual collected data yielded 684 participants (316 males, 368 females), distributed across grades 7-9, with ages ranging from 12-16 years (mean age 13.89 years) and academic performance ranging from 1.50 to 4.00.

3.2 Research instrument

This research employed a 5-point rating scale questionnaire (5 = most accurate/most frequently practiced, 1 = least accurate/never practiced) as the data collection instrument. The developed instrument underwent content validity assessment by four experts before being pilot-tested with 100 students. The collected data were analyzed for discriminative power using item-total correlation through Pearson correlation coefficient (rxy), and reliability was analyzed for each observed variable using Cronbach's alpha coefficients (α). The overall reliability of the entire instrument was 0.958, with quality verification results for each component: Self-awareness (9 items, α = 0.796), Self-management (15 items, α = 0.845), Social awareness (14 items, α = 0.766), Relationship Skills (15 items, α = 0.908), and Responsible Decision-making (10 items, α = 0.873).

3.3 Data Collection

The research received ethical approval from Chiang Mai University (COA No.053/66, CMUREC No. 66/085). Students took approximately 15-20 minutes to complete the questionnaire. Of 700 distributed questionnaires, 684 complete responses remained, representing a 97.71% completion rate.

3.4 Data analysis

Structural validity analysis of the measurement model using Confirmatory Composite Analysis (CCA). Parameters were estimated using the PLS Algorithm with ADANCO version 2.3.2 software (Henseler & Dijkstra, 2017). The measurement model had a Formative-Formative structure and employed the Disjoint Two-stage Approach to reduce the impact of complex relationships and prevent multicollinearity issues.

For model evaluation, two key approaches were used: (1) Overall Model Fit assessment based on SRMR, dG, and dULS values, which should be less than the Bootstrap critical value at 99% (HI99). If all three exceed the critical value, SRMR should be less than 0.08 (Henseler & Schuberth, 2020; Hu & Bentler, 1998); and (2) External model evaluation based on indicator weights with statistical significance (T-Weight > 1.96), but in cases without statistical significance, Loading > 0.50 would be considered, and multicollinearity would be checked using Variance Inflation Factor (VIF) < 5 (Hair et al., 2011).

4. Results

4.1 Results of the development of components and indicators for the SEL measurement model

From the synthesis of components and indicators based on CASEL's theoretical definition and related research, the scope of Social and Emotional Learning

components was established with 5 components and 20 indicators as follows:

Self-awareness (SEA) consists of 3 indicators: emotional recognition and management (SEA1), recognition of personal strengths, weaknesses, needs, and abilities (SEA2), and self-confidence and self- belief (SEA3).

Self-management (SEM) consists of 5 indicators: self-control for appropriate expression (SEM1), stress management (SEM2), self-discipline (SEM3), self-motivation (SEM4), and setting and achieving positive goals (SEM5).

Social awareness (SOA) consists of 4 indicators: understanding and respecting others' perspectives and attitudes (SOA1), empathy for others (SOA2), recognition and understanding of social and cultural diversity (SOA3), and awareness of support factors from family, school, and society (SOA4). Relationship Skills (RES) consists of 5 indicators: effective communication (RES1), building and maintaining relationships (RES2), working collaboratively with others (RES3), conflict management
(RES4), and seeking and providing help to others (RES5).

Responsible Decision-making (RDM) consists of 3 indicators: decision-making based on ethics, safety, and social norms (RDM1), generating appropriate behavioral alternatives for personal and others' well-being (RDM2), and evaluating and reflecting on personal decisions (RDM3).

4.2 Results of the structural validity verification of the SEL measurement model

First-Order Measurement Model Evaluation: The Overall Model Fit evaluation based on SRMR=0.0292, dULS=0.1793, dG=0.0642. All three parameters exceeded the HI99 threshold. However, the SRMR value of 0.0292 was significantly below the acceptable threshold of 0.0800, indicating that the hypothesized model demonstrated good fit with the empirical data. All indicators showed statistical significance at the 0.05 level, and no multicollinearity issues were detected. Detailed results are presented in Table 1 and Table 2.

Second-Order Measurement Model Evaluation: The analysis of component weights in the second-order measurement model revealed identical values of 0.2470 for all components. This uniformity resulted from using standardized component scores from the first step of the analysis. All components demonstrated statistical significance at the 0.05 level. Detailed results are presented in Table 2 and Figure 2.

Table 1: Results of model fit assessment for first-order and second-order measurement models

Parameters	Lower-Order		Higher-Order	
	Value	HI99	Value	HI99
SRMR	0.0292	0.0278	0.0000	0.0000
dULS	0.1793	0.1625	0.0000	0.0000
dG	0.0642	0.0652	0.0000	0.0000

Table 2: Analysis results of observed variable weights in first-order and second-order measurement models

Analysis Level	Indicators	Weight	T-Weight	Loading	VIF
Lower-Order (First-order)	SEA1	0.6269	13.3833	0.8283	1.1323
	SEA2	0.3555	6.4394	0.6340	1.1302
	SEA3	0.3988	7.6587	0.6402	1.1029
	SEM1	0.3799	7.5613	0.7169	1.2858
	SEM2	0.3505	8.0195	0.6453	1.1528
	SEM3	0.2884	6.3540	0.6397	1.2347
	SEM4	0.2262	4.7849	0.5829	1.2254
	SEM5	0.2737	5.6769	0.6763	1.3297
	SOA1	0.4057	7.8307	0.6361	1.0895
	SOA2	0.5011	9.9335	0.7415	1.1291
	SOA3	0.4225	8.5466	0.6732	1.1187
	SOA4	0.2013	4.0610	0.4274	1.0637
	RES1	0.3472	8.5138	0.7805	1.4811
	RES2	0.2439	5.7156	0.7451	1.5768
	RES3	0.2991	5.9934	0.7948	1.7007
	RES4	0.1999	4.5228	0.6827	1.4540
	RES5	0.2310	4.7657	0.7491	1.6431
	RDM1	0.4314	8.7991	0.7667	1.3393
	RDM2	0.3796	7.4634	0.8166	1.5741
	RDM3	0.4592	8.4283	0.7824	1.3250
Higher-Order (Second-order)	SEA	0.2470	95.7156	0.7698	1.7355
	SEM	0.2470	95.7156	0.8198	2.0348
	SOA	0.2470	95.7156	0.7741	1.7590
	RES	0.2470	95.7156	0.8573	2.4560
	RDM	0.2470	95.7156	0.8283	2.1428

Note: T-Weight > 1.96 indicates statistical significance at the .05 level

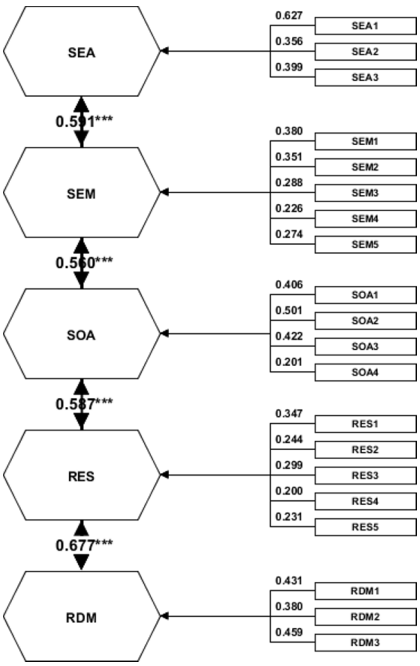

Figure 1 First-order measurement model

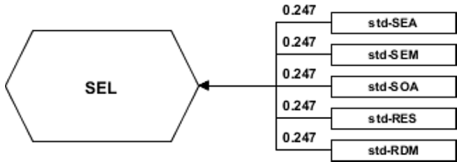

Figure 2 Second-order measurement model

5. Discussion

The first-order measurement model analysis confirms that all 20 indicators demonstrate good fit with empirical data, indicating the appropriateness of the model for measuring SEL in the Thai student context. However, the varying weights of indicators within each component reflect the significant influence of cultural context on SEL structure.

In the Self-Awareness component, results demonstrated emotional recognition and management (SEA1) as the dominant indicator (weight = 0.6269), suggesting this forms the foundation of self-awareness. This finding aligns with the US study (Frye et al., 2024) but contrasts with Italian research emphasizing emotional communication (Cavioni et al., 2023), reflecting Thai cultural preferences for internal emotional processing over external expression.

For the Self-Management component, prioritized appropriate self-control (SEM1) and stress management (SEM2) with weights of 0.3799 and 0.3505 respectively, consistent with Thai cultural values of emotional restraint and composure. Notably, self-motivation (SEM4) and goal-setting (SEM5) showed reduced importance compared to pre-pandemic Thai studies (Inta & Chomya, 2017), likely reflecting COVID-19's heightened emphasis on emotional stability over achievement-oriented behaviors (UNICEF Thailand, 2022).

In the Social Awareness component, highlighted empathy (SOA2) as

paramount (weight = 0.5011), consistent with both American and Italian findings (Cavioni et al., 2023; Frye et al., 2024). This universal pattern reflects the fundamental nature of empathy development during adolescence, particularly within peer-centered educational environments that foster inclusive social relationships (Miklikowska et al., 2022). Recognition of adult support systems (SOA4) ranked lowest (0.2013), characteristic of adolescent developmental priorities that favor peer connections over adult guidance.

In the Relationship Skills component, revealed conflict management (RES4) as minimally weighted, diverging from CASEL-based Western models (2015). This distinctly reflects Thai cultural emphasis on harmony maintenance and indirect communication, contrasting with Western educational systems that promote constructive confrontation. This pattern aligns with traditional Thai pedagogical approaches that emphasize workbooks/activity sets over inquiry-based or problem-based learning (Sukjaroen & Yoonisil, 2015). When examining the Responsible Decision Making component, results showed balance among different dimensions. This hierarchy reflects Thailand's collectivist orientation toward shared social norms, differing from Italian contexts emphasizing individual responsibility (Cavioni et al., 2023).

The second-order analysis confirmed equal component importance (weight = 0.2470), validating CASEL's universal framework applicability while accommodating cultural adaptation. The model's dual-dimensional structure—awareness (self and social) and management (self and relational)—demonstrates SEL as an integrated competency system requiring balanced development across awareness and implementation domains.

6. Recommendation

Based on the study results, the researchers offer the following recommendations for practical applications and future research:

1. Teachers can select indicators based on context appropriateness. Components with fewer indicators can be assessed comprehensively, while those with more indicators may focus on prominent indicators.

2. Schools should allocate resources to develop SEL curricula emphasizing high-weight indicators such as emotional recognition and management, empathy, and decision evaluation through systematic reflection and empathy training.

3. Schools should develop culturally-appropriate SEL assessment frameworks using criteria consistent with Thai cultural norms and community contexts.

4. Future research should examine variance across Thai sub-cultures, conduct longitudinal studies tracking SEL changes, and use mixed-methods approaches to discover potentially unique Thai- specific components.

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