

Examining Factors in Thai EFL Learners' Receptivity to Corrective Feedback in Writing Through Factor Analysis

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Article information	Abstract
Article history: Received: 2 Nov 2025 Last revised: 31 Mar 2026 Accepted: 2 Apr 2026 Available online: 8 Apr 2026	<i>This study aimed to explore the factors in Thai EFL learners' receptivity to corrective feedback (CF) in writing. The study employed a questionnaire based on previous literature, which was sent out to 1,000 Thai EFL students. The factors determined from the data were analyzed through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA), with the KMO measure of sampling adequacy being very high (0.947) and Bartlett's test for sphericity confirming the significance of the results ($p < .000$). The analysis revealed seven factors in students' receptivity to CF in writing: self-regulated feedback engagement (SRFE), comprehensive feedback expectation (CFE), contextual feedback preference (CFP), peer feedback acceptance (PFA), affective feedback sensitivity (AFS), feedback usability preference (FUP), and feedback application awareness (FAA). The CFA confirmed that the proposed seven-factor model demonstrated an acceptable fit to the empirical data ($\chi^2 = 2250.855$, $df = 807$, $CMIN/DF = 2.789$, $RMSEA = 0.067$, $CFI = 0.853$, $GFI = 0.801$, $AGFI = 0.756$, $RMR = 0.027$), indicating a theoretically sound and statistically valid structure. These findings indicate that EFL learners respond to CF through multiple interrelated dimensions shaped by their self-regulatory capacity, affective sensitivity, cultural orientation, and usability preferences. The study concludes with a discussion of theoretical implications, pedagogical applications, and directions for future research.</i>
Keywords: Factor analysis Receptivity Corrective feedback Written corrective feedback	

INTRODUCTION

Writing development requires corrective feedback (CF) because it allows learners to correct their language errors while learning proper usage (Ellis, 2009). CF has been a topic of interest in language teaching and learning research for decades. Research shows consensus that CF plays a crucial role in helping learners develop their second language skills (Bitchener & Storch, 2016; Hyland & Hyland, 2019). However, providing CF alone does not guarantee language acquisition, as the effectiveness of CF largely depends on how learners perceive and respond to it in their learning process (Liu & Feng, 2023). While engagement with CF involves behavioral, cognitive, and affective dimensions (Hyland & Hyland, 2019), each learner demonstrates these aspects in unique ways (Shen & Chong, 2022).

Multiple studies have reported different factors affecting learners' perceptions of CF. Learner engagement with CF significantly depends on individual factors, context (such as classroom, nature of the task, and culture), feedback type, and learners' perceptions of CF (Shen & Chong, 2022). Constructive feedback makes students feel more motivated, increases task interest, and can be perceived as a reward if the CF is truly useful (Jansen et al., 2025). Other studies have found that students' perceptions and responses to CF vary widely and depend on their beliefs about CF (Zhang et al., 2022), previous experiences (Jinowat & Wiboolyasarini, 2022; Shen & Chong, 2022), type of feedback (Du et al., 2024; Jinowat & Wiboolyasarini, 2022; Sinha & Nassaji, 2021), confidence (Tsao, 2021), emotional reactions (Dobson & Sojisirikul, 2023), and cultural background (Sinha & Nassaji, 2021).

Although researchers have pointed to several variables that influence the way students receive feedback, an integrated framework for understanding learners' receptivity to corrective input, specifically in an EFL context is still incomplete. Existing studies do not sufficiently clarify how contextual, cognitive, and affective elements interact when learners process and apply written comments in English classrooms. To address this gap, the present study uses exploratory and confirmatory factor analyses to uncover and test the core dimensions that determine students' openness to feedback. By examining factors such as scope of CF (focused or comprehensive CF), specificity, timing, affective response and cultural norms, the analysis seeks to identify which elements are most important in motivating engagement. The study aims to provide a validated set of receptivity dimensions that educators and researchers can use to improve the practice of CF in Thai EFL writing courses.

LITERATURE REVIEW

Students' receptivity to CF

Students' receptivity refers to how open and receptive they are to instructional methods and feedback. It plays a crucial role in the effectiveness of teaching and learning, particularly in the development of skills such as writing (Hyland & Hyland, 2019). When students are receptive, they are more likely to engage with feedback, understand its purpose, and use it to improve their work. Teachers who recognize students' preferences can adapt their CF strategies to achieve more effective results (Carless & Boud, 2018). Several variables influence students' receptivity to CF.

Factors influencing learners' receptivity to CF

Although there has been growing evidence of the essential role of CF in language learning, the effectiveness of different CF types has yet to be clearly established, partly due to the complexity of feedback (Sinha & Nassaji, 2021). Therefore, it is essential to investigate factors that influence feedback's success and its limitations. A large body of research has been done to explore various factors affecting learners' receptivity to CF. These factors, which often interact with one another, have been categorized based on their functions and are presented below.

Affective factors

Many researchers have studied multiple affective factors influencing CF perception. Beliefs and attitudes have been repeatedly reported as significant factors in CF receptivity. Learners with L2 growth mindsets (beliefs about the malleability of one's language learning abilities) tend to value CF and develop feedback-seeking behavior (Papi et al., 2020). Learners' engagement, especially affective engagement (feelings and attitudes), is a key indicator of CF processing and effectiveness (Liu & Feng, 2023).

Self-confidence in one's own abilities also influences receptivity. Tsao (2021) studied the relationships between different types of writing self-efficacy (a form of self-confidence) and CF engagement. Results showed that self-efficacy for writing self-regulation was the only significant predictor of CF engagement. In addition, learners with positive CF perception are more likely to have higher self-efficacy as they are more confident in performing subsequent tasks due to their prior successful experience. Previous studies have also found that a positive attitude towards CF is significantly correlated with learning motivation (Jansen et al., 2025). In contrast, inappropriate CF can lead to increased learning anxiety, reduced willingness to communicate and poor learning motivation. Teachers' tone and manner in delivering feedback have been found to influence learners' affective responses and their perception of CF, determining whether it is viewed as supportive or threatening (Dobson & Sojisirikul, 2023).

Cognitive factors and CF application

The true measure of receptivity lies in how feedback is processed. The provision of CF alone does not lead to language acquisition; instead, CF effectiveness is significantly related to how learners apply or respond to the CF in their learning process (Liu & Feng, 2023). CF attention and metacognition are key cognitive factors influencing CF receptivity (Liu & Feng, 2023; Sato & Loewen, 2018; Yang et al., 2022). Metacognition has been found to promote CF effectiveness. The provision of CF together with explicit metacognition instruction (how to plan, monitor, and evaluate CF) significantly enhances learning gains (Sato & Loewen, 2018). CF designed to promote self-regulation (metacognitive strategies) enhances both learners' CF engagement and learning outcomes (Yang et al., 2022). Research has found significant differences between learners with different proficiency levels in their preferences for metalinguistic clues, self-correction, and feedback delivered in public (Wiboolyasarini et al., 2022).

Experiential factors

Previous experience with CF is an important determinant. Students with positive past experiences tend to be more receptive and engaged, while those who have had negative experiences resist or ignore CF. To promote CF uptake and receptivity, learners need to develop feedback literacy —four inter-related features, including appreciating feedback, making judgments, managing affect, and taking action (Carless & Boud, 2018). The perceived usefulness of CF is another influential factor. It is shaped by learners' experiences, goals, and beliefs about the role of CF role in their learning outcomes (Sinha & Nassaji, 2021).

Cultural expectations and individual experiences influence how feedback is interpreted and responded. In some cultures, direct feedback is valued, while in other cultures indirect and supportive approaches to CF are more effective (Hyland & Hyland, 2019). The student-teacher relationship also plays an important role in receptivity to feedback (Carless & Boud, 2018), as respectful and supportive communication increases trust and willingness to accept feedback (Carless & Boud, 2018; Shen & Chong, 2022).

Contextual features of CF

Contextual features of CF include all external, situational, and interactional dimensions that influence how CF is delivered, perceived, and responded. These dimensions are different from learner factors such as beliefs, cognition, and affection factors. Previous studies found that learners' perception of the usefulness of CF is significantly shaped by the type of CF. For example, Sinha and Nassaji (2021) found that direct written corrective feedback (WCF) was perceived by ESL learners as more effective and useful compared to indirect WCF. The results correspond with Jinowat and Wiboolyasarin's (2022) study in Thai higher-education context finding Thai EFL learners preferred direct WCF as it was perceived as clearer and more actionable in making writing revision. In addition, language proficiency levels affected learners' perception of CF types as lower proficiency learners showed their preference towards more explicit CF (Wiboolyasarin et al., 2022).

Feedback focus and manageability also affect learner receptivity to CF (Bitchener & Storch, 2016). Repeated studies have found learners' positive attitude towards focused feedback. Focused CF targeted at specific linguistic features is often viewed as clearer, easier to handle, and more beneficial for revision, whereas unfocused feedback addressing multiple error types may be perceived as overwhelming but valuable for enhancing overall language awareness (Deng et al., 2022; Shen & Chong, 2022).

Timing in providing CF is another factor to learners' receptivity. According to Fu and Li (2022), immediate CF can facilitate language learning better than delayed CF. Synchronous CF provided via online platforms can be particularly effective in real-time writing tasks, although its effect may vary with learners' proficiency levels as learners' preferences for timing of CF may relate to their levels of proficiency. Higher-ability learners may prefer delayed CF where they can take full control of their own task while working, while lower-ability learners may prefer immediate CF as teachers can provide support as they work (Nipaspong, 2022)

In a recent study, Liu et al. (2025) examined the role of automated CF in peer assessment and found a significant impact in promoting learners' intrinsic motivation. Reasons for learners' preference for online CF are in line with previous studies in that online CF offers interactive learning experience, accessibility and flexibility, allowing learners to learn from CF at their own convenience (Nipaspong, 2022). Specific and comprehensible feedback also increases receptivity. Comments that clearly state problems and give actionable advice are more beneficial than general remarks (Hattie & Timperley, 2007). Constructive CF is perceived as very useful and rewarding, thereby increasing learners' motivation and task interest (Jansen et al., 2025). As for clarity, using the learner's native language in feedback can promote understanding and reduce anxiety (Dobson & Sojisirikul, 2023).

The interpersonal quality of the CF or the way in which feedback is delivered, including such factors as the manner and tone of voice in giving feedback, significantly affects learners' emotional reactions and receptivity to CF (Hyland & Hyland, 2019). Respectful and supportive feedback increases receptivity and engagement, while harsh CF can trigger anxiety and undermine engagement (Carless & Boud, 2018; Dobson & Sojisirikul, 2023). Several studies found the important role of supportive CF in learners' receptivity. CF that shows teacher empathy and care is positively perceived (Chen & Liu, 2021).

The literature review shows that learners' receptivity to CF is not a single trait but a complex construct involving various factors. Key factors shaping CF receptivity include affective, cognitive, contextual, and experiential elements. Affective factors encompass dimensions such as feelings, attitudes, mindsets, self-efficacy, motivation, and anxiety, all of which influence learners' openness to receiving CF. Cognitive factors, such as attention, metacognition, and application strategies, determine how CF leads to actual writing improvement. Contextual factors involve how CF is delivered, perceived, and responded to, including aspects like timing, CF type, and characteristics, which affect the usability and clarity of CF. Experiential factors, such as learners' past experiences with receiving and processing CF, feedback literacy (the ability to judge and act on CF), cultural expectations, and rapport with the teacher, serve as filters influencing learners' trust, psychological safety, and perceived usefulness of CF. Studying learners' receptivity, responses, and reactions to CF is therefore important, as it can help identify strategies for providing personalized CF that better addresses learners' needs (Shen & Chong, 2022).

However, despite numerous studies on factors influencing CF perception, previous literature has explored multiple factors separately across diverse contexts, resulting in disconnected and inconsistent findings. There remains limited understanding of the holistic feedback process, how these factors interrelate, or whether they significantly impact learners' perception of CF. Therefore, there is a need for objective evidence through exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to identify, categorize, and validate the underlying dimensions and relationships among these factors. Understanding these factors and their relationships is essential for teachers to provide the most effective CF tailored for individual learners and thus improve their engagement and writing performance.

The study addresses the following research questions:

1. What factors underlie Thai EFL learners' receptivity to corrective feedback in writing?
2. To what extent can the identified factors of corrective feedback receptivity be validated and refined?

METHOD

Participants

During the second semester of the 2024 academic year, 1,000 first-year students of different faculties of a public university of Thailand, enrolled in an English course, were surveyed. With

respect to the participants, almost all of them were of the ages 19 to 20, and the cohort included all genders. Selected classes had an average participant count of 33 students. For sampling, there was the support from 20 course instructors, each of whom had teaching responsibilities for at least two different groups. According to Hair et al. (2018), the participant to variable ratio for factor analysis should be between five and twenty. Given the involvement of 54 observed variables, the minimum sample size necessary, based on this ratio, was determined to be 810, which was 15 participants per variable. To ensure a more complete data set and to mitigate the impact of missing data, a 10% decrease in data set size was predicted, and therefore the sample size at 891 was set. In the end, there were 1,000 complete and usable responses, which exceeded the sample size by 12.23%.

Research instrument

In order to investigate how EFL learners rate their own receptivity to feedback on their writing, a structured questionnaire entitled “Student Receptivity to Corrective Feedback in Writing” was developed. The instrument drew on previous research (e.g., Ellis, 2009; Hattie & Timperley, 2007; Hyland & Hyland, 2019) to capture the key variables that determine learners’ attitudes to different CF formats, features and methods.

The survey was separated into two parts. The first part had asked for demographic information (gender, age, area of study), and the second part had 54 items that asked for information about the receptivity to feedback using Likert-type statements. The participants were asked to respond using four options, including “strongly agree,” “agree,” “disagree” and “strongly disagree.” The statements were grouped into several categories, including how students planned to use the feedback from assignments in the future, feedback correction methods, and feedback received, including the timing, tone of the feedback, and the emotional or motivational reactions that were associated with feedback.

After completing the first draft of the questionnaire, a set of experts reviewed the questionnaire using the Index of Item-Objective Congruence (IOC) method. The experts provided feedback, which resulted in a few adjustments to enhance the clarity of the questionnaire items, the refinement of some of the wording, and the strengthening of the overall instrument’s conceptual coherence. The IOC values obtained were between 0.67 and 1.00, showing a good level of agreement between the questionnaire items and the underlying concept designed to measure.

The next phase included a pilot study involving thirty EFL students at the university. This questionnaire focused on measuring the effectiveness of the tool before large-scale application. To check the internal consistency of the questionnaire, the Cronbach’s alpha method was employed, resulting in a coefficient of .943, which demonstrates excellent reliability. However, after closely reviewing the individual items, there were six items that either repeated similar concepts, overlapped in a similar way, or had very little response variability. In order to enhance the questionnaire’s focus, clarity, and overall psychometric quality, these six items were all omitted.

To put it another way, the refinement of the items was done in stages. First, 54 items were crafted from the literature reviewed. Second, these items underwent an expert assessment through the IOC method to evaluate the content clarity. Third, the researchers used the data from the pilot testing to determine the reliability of the items using the evidence of internal consistency. This stage of the research aimed to enhance the number of items by removing the ones that seemed to have weak or repetitive indicators. Upon completion of the editing process, the instrument finally had 48 items. The instrument was translated into Thai in order to ensure the use of simple and clear language to minimize the use of terms that would be confusing.

Data collection

In alignment with ethical research guidelines, participants were required to provide informed consent prior to commencing the questionnaire. The consent form and the survey were both accessible online, allowing them the opportunity to review the document at their convenience. Prior to the commencement of data collection, brief information sessions were conducted to clarify the purpose of the study, the procedures instituted to safeguard the confidentiality of participants' data, and to emphasize that participation was completely optional. The research received approval from the university's Institutional Review Board (IRB No. 359/67).

During the second semester of the 2024 academic year, the survey was launched after a period of three months. The Google Form was used as it was free and easy to access. Participants were given set procedures to help them understand the process of securing their private information and respond to the questionnaire as thoughtfully as possible. The researchers anticipated that it would take participants no more than 15 minutes to respond to the questionnaire. The researchers reviewed the survey after the survey period was completed. They reviewed the survey and removed the ones that were unfinished, or the ones that had responses that were inconsistent or irrational, or data sets that had responses that were outside of the expected range to set quality indicators.

Data analysis

This study employed EFA followed by CFA in order to determine and confirm the underlying structural dimensions related to CF in writing and to establish the resulting structure as a valid measurement model, respectively.

EFA identified significant variables relating to Thai EFL learners' receptivity to CF in writing. For sampling adequacy, the Kaiser-Meyer-Olkin test was used in reference to Hair et al. (2018) where KMO more than 0.5 is considered acceptable. Also, Bartlett's test of Sphericity was set to $\alpha = .05$ to ascertain the correlation matrix does not deviate significantly from an identity matrix. For factor extraction, principal component analysis (PCA) was used, retaining components with eigenvalues more than 1 which, in total, accounted for 60 per cent of cumulative variance. Although PCA is mostly a data-reducing technique and common factor methods are usually preferred when the aim is to determine the latent constructs, it is still true that PCA supplies

preliminary data about the dimensionality of the data set, especially when the purpose is to determine coherent clusters of items for refinement (Hair et al., 2018; Tabachnick & Fidell, 2019). To improve interpretation, varimax rotation, which is an orthogonal method that yields clearer, non-overlapping factor loadings, was applied. Loadings equal to, or greater than, 0.30 were considered in deciding the assigning of items to the corresponding factors, and a commonality (h^2) of greater than 0.50 was deemed justifiable for the subsequent stages of analyze. The designated factors were subsequently labeled in accordance with the shared emerging themes of the most highly loaded items.

Next, CFA was conducted to assess empirical support for the factor structure derived from EFA. A variety of widely used goodness-of-fit indices such as the chi-square to degrees of freedom ratio (χ^2/df), the Goodness of Fit Index (GFI), the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) were used to assess how well the model fits the data. A model was said to fit the data adequately if the following criteria were satisfied: $\chi^2/df < 3.0$, GFI > 0.90 , CFI > 0.90 , and RMSEA < 0.06 .

Model fit was assessed using various indices. The researchers regarded standard recommended guideline ranges for these indices (e.g., RMSEA around 0.06–0.08) was considered, but given the sample size and model dependent fit regrettable issues, the researchers took these metrics on a case by basis (Hu & Bentler, 1999; Kline, 2016). Due to this, the researchers attempted to balance statistical metrics with theoretical reasoning to arrive at conclusions (Brown, 2015).

RESULTS

Table 1 below contains the KMO results alongside the Bartlett’s test of Sphericity results.

Table 1
KMO and Bartlett’s test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.947
Bartlett’s Test of Sphericity	Approx. Chi-Square	26265.015
	df	1128
	Sig.	< .000

$p < .05^*$

The KMO value of 0.947 surpassed the benchmark of 0.6, which confirms that the sample can undergo factor analysis. This also suggests that the correlations among the variables can be accurately constructed using other variables present in the dataset. Also, the Bartlett’s test of Sphericity yielded a chi-square result of 26265.015, which dismisses the hypothesis where the correlation matrix is an identity matrix. Together, these findings demonstrate that the data was appropriate for conducting EFA.

Table 2 below shows the results of EFA, which focuses on the total variance explained by different components in the data.

Table 2
Total variance explained by CF receptivity factors

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	15.628	32.558	32.558	15.628	32.558	32.558	8.949	18.645	18.645
2	3.314	6.904	39.463	3.314	6.904	39.463	5.401	11.251	29.896
3	2.584	5.383	44.846	2.584	5.383	44.846	2.994	6.237	36.133
4	1.666	3.470	48.316	1.666	3.470	48.316	2.774	5.779	41.912
5	1.528	3.182	51.499	1.528	3.182	51.499	2.751	5.730	47.642
6	1.366	2.845	54.344	1.366	2.845	54.344	2.537	5.284	52.927
7	1.240	2.582	56.926	1.240	2.582	56.926	1.433	2.986	55.913
8	1.098	2.287	59.213	1.098	2.287	59.213	1.339	2.790	58.703
9	1.013	2.110	61.324	1.013	2.110	61.324	1.258	2.621	61.324
10	0.931	1.941	63.264						
...									
...									
47	0.182	0.379	99.646						
48	0.170	0.354	100.000						

The analysis started with calculating eigenvalues showing the amount of variance explained by each component. Components whose eigenvalues were above one were treated as important. In the current case, the first nine components satisfied this requirement, the first of which had a very high eigenvalue of 15.628, which explained 18.645 percent of total variance. The accumulated variance explained by these nine components was 61.324 percent, which was above the generally accepted 60 percent benchmark for factor analysis.

The scree plot in Figure 1 shows the eigenvalues for every component. The plot demonstrates a steep drop off from the first component, which has an approximate eigenvalue of 15, to the second, which is just over 3. From the third component onwards, the eigenvalues form a nearly horizontal line signifying a lack of increasing change in variance.

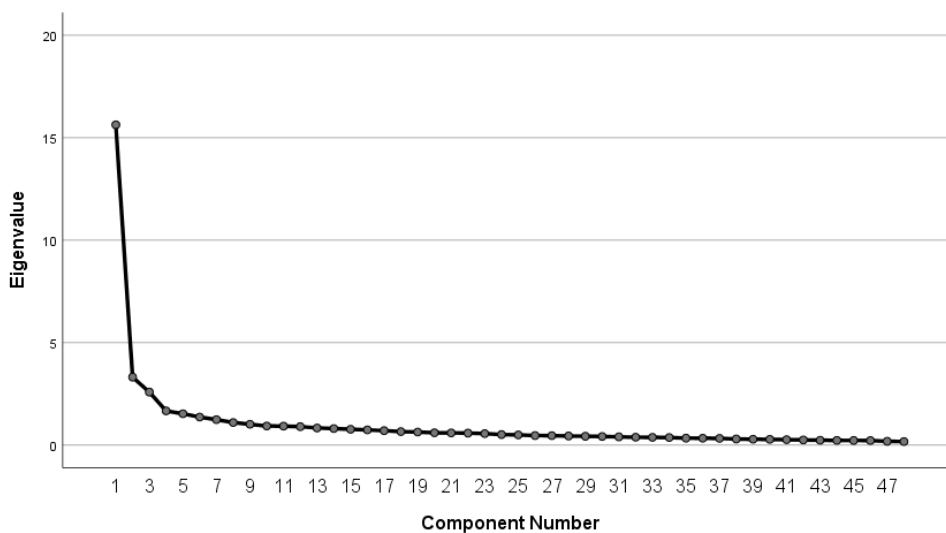


Figure 1 Scree plot

The rotated component matrix from the principal component analysis (PCA) with the varimax (orthogonal rotation) method is displayed in Table 3 below. This matrix demonstrates the loadings of individual items on the nine identified components after rotation.

Table 3
Rotated component matrix

Variables	Components								
	1	2	3	4	5	6	7	8	9
SRFE 1	0.826								
SRFE 2	0.813								
SRFE 3	0.805								
SRFE 4	0.747								
SRFE 5	0.736								
SRFE 6	0.719								
SRFE 7	0.698								
SRFE 8	0.670								
SRFE 9	0.627								
SRFE 10	0.603								
SRFE 11	0.598								
SRFE 12	0.577								
SRFE 13	0.553								
SRFE 14	0.532								
SRFE 15	0.463								
SRFE 16	0.449								
SRFE 17	0.315								
CFE 1		0.792							
CFE 2		0.773							
CFE 3		0.724							
CFE 4		0.703							
CFE 5		0.679							
CFE 6		0.660							
CFE 7		0.516							
CFE 8		0.465							
CFE 9		0.370							
CFP 1			0.748						
CFP 2			0.731						
CFP 3			0.573						
CFP 4			0.442						
PFA 1				0.812					
PFA 2				0.801					
PFA 3				0.749					
AFS 1					0.719				
AFS 2					0.634				
AFS 3					0.602				
AFS 4					0.590				
AFS 5					0.420				
FUP 1						0.592			
FUP 2						0.538			
FUP 3						0.477			

Variables	Components								
	1	2	3	4	5	6	7	8	9
FUP 4						0.316			
FAA 1							0.522		
FAA 2							0.515		
FTP 1								0.696	
FTP 2								0.607	
FFE 1									0.748
FFE 2									0.355

The rotated component matrix revealed nine groups representing latent components of receptivity to CF in writing among EFL learners. These components were identified through EFA and then confirmed through CFA.

To confirm the nine-components structure, CFA was conducted in AMOS. The model fit indices indicate a reasonably moderate fit: $\chi^2 = 3476.201$, $df = 1044$, $p < .001$, CMIN/DF = 3.330, RMSEA = .076, CFI = .766, GFI = .727, AGFI = .693, and RMR = .029, as shown in Figure 2. While CFI and GFI are somewhat below the .90 cutoff, the RMSEA value suggests a reasonable error of approximation, indicating that the hypothesized model fits the data reasonably well and was acceptable within the constraints of the model. The model's convergent validity was assessed by examining factor loadings. Most standardized factor loadings exceeded the .50 threshold (Hair et al., 2018), indicating that the indicators were valid representations of their constructs. However, two issues in the model required modification. First, the variable FFE1 had a standardized loading of .05, which was very low, meaning FFE1 was not significantly explain the variance in the latent construct FFE. Second, the error variances (e45 and e46) for FTP1 and FTP2 are negative, indicating a Heywood case. Negative error variances were not possible in a CFA model, as variance cannot be negative. This issue likely arises from the extremely high correlation between FTP1 and FTP2, suggesting some degree of multicollinearity or redundancy between these two variables.

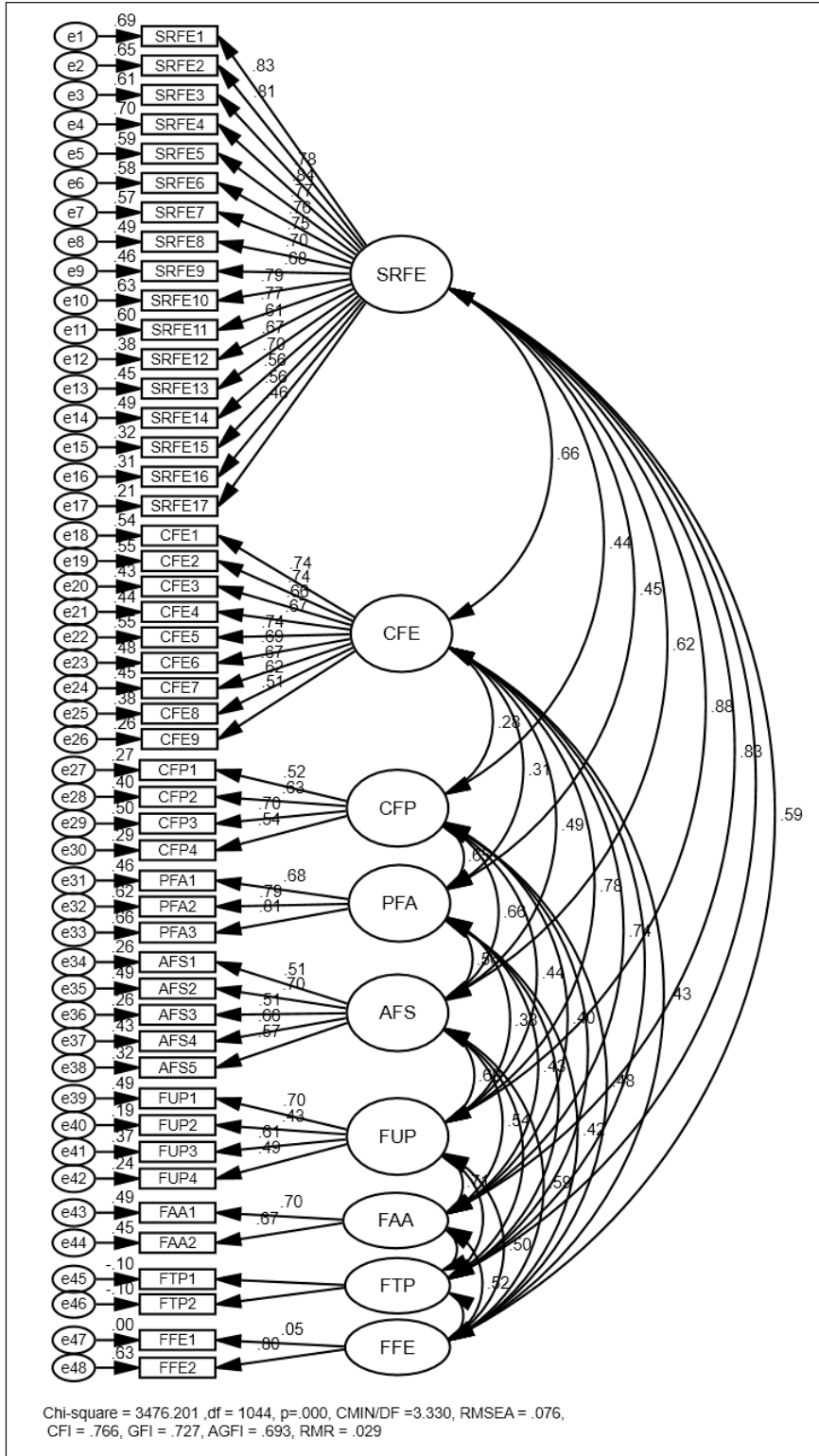


Figure 2 Initial CFA model

After removing these indicators, the model was re-specified to ensure improved fit and reliable parameter estimation, as shown in Figure 3.

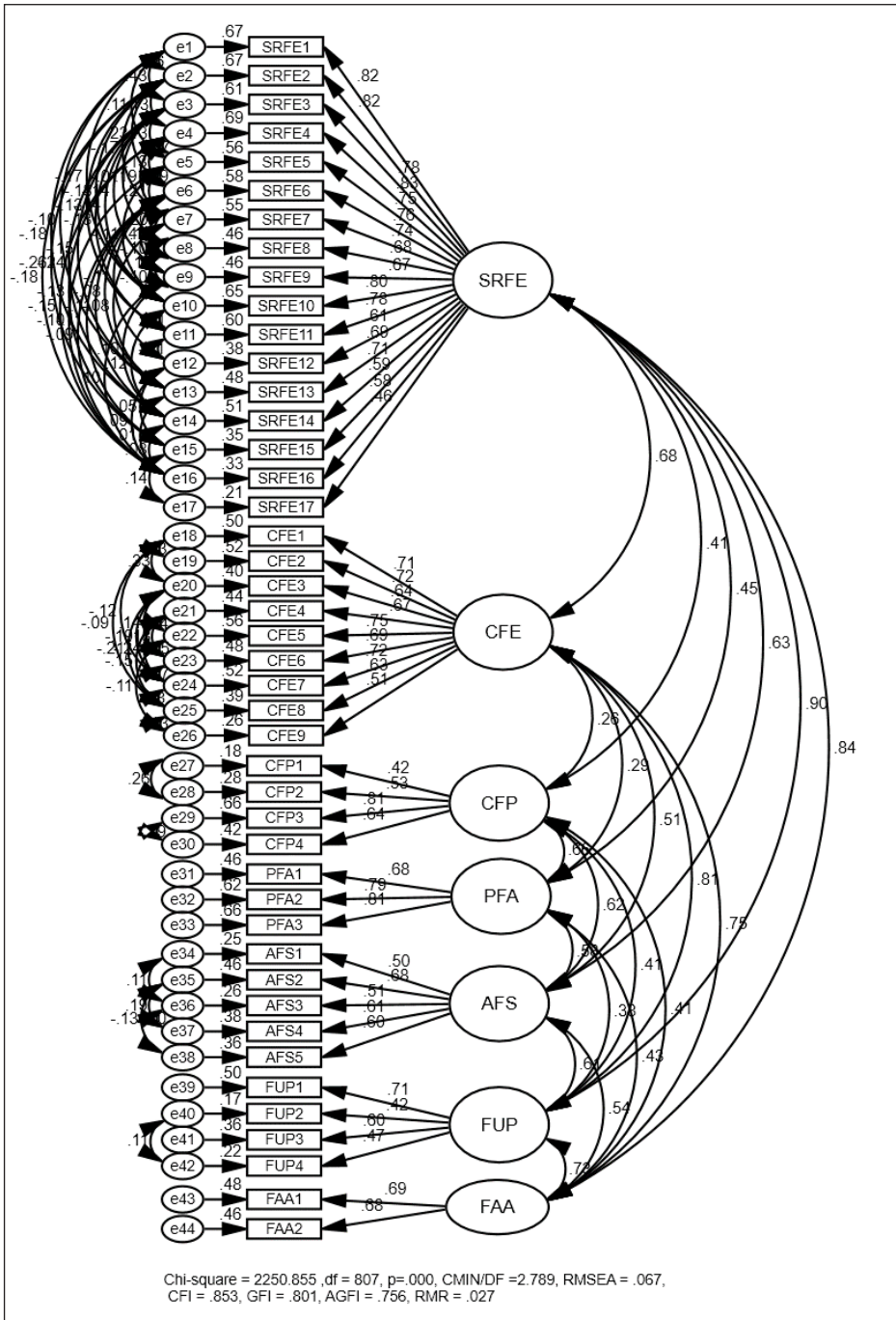


Figure 3 Re-specified CFA model

The re-specified CFA model results which excluded the problematic observed indicators identified in the previous version indicated that the model of receptivity to CF in writing demonstrated a moderate fit with the empirical data. Overall model fit was supported by several fit indices. The Chi-square (χ^2) test results in a value of 2250.855 with 807 degrees of freedom (*df*) resulting in a CMIN/DF ratio of 2.789 which was below the threshold of 3, thus it reflects acceptable model fit. The CFI score 0.853 is reasonable but does not reach the ideal criterion of 0.90 (Hair et al., 2018). The GFI of 0.801 and AGFI of 0.756 show reasonable fit to the data model. The RMSEA of 0.067 was a value below the acceptability threshold (≤ 0.08) making it so the model represents the population covariance matrix. The RMR of 0.027 was a little error value which was below 0.05 indicating there is little error between the actual and the predicted value in the residual matrices. In sum, with the indices, the model quite fits the data.

To justify the results of the CFA, despite the first extraction yielding nine components with an eigenvalue above one, distinct criteria were used for the final structure. One criterion was analyzed from the scree plot with an “elbow” feature around the seventh factor. This is in line with the principle behind the scree test. Meaningful factors would appear before the curve levels off. The next criterion consisted of assessing the rotated loading pattern for interpretability of the factors. From this step, weak and cross loadings were analyzed. Therefore, the EFA result was narrowed down to seven factors, and this was the structure used for the CFA as a more stringent confirmatory procedure (Brown, 2015; Kline, 2016). This explains the discrepancy between the EFA and the final validated measurement model; the EFA proposed nine components, while the final model contained seven factors that were deemed interpretable and stable.

Regarding reliability, the internal consistency of the final seven-factor model was evaluated using Cronbach’s alpha for all factors. Given the limitations of Cronbach’s alpha when it comes to certain measurement scenarios, composite reliability (CR) and the average variance extracted (AVE) were used to justify convergent validity. While AVE values of around 0.50 or greater indicate the construct accounts for half or greater of the variance in the indicators, in the case of AVE values marginally below 0.50, convergent validity is still justifiable provided CR is good, the factor loadings are significant as shown in Table 4, and other conditions are met.

Table 4
Reliability and convergent validity evidence

Factors	Cronbach’s Alpha	Composite Reliability (CR)	AVE
SRFE	0.942	0.95	0.51
CFE	0.876	0.88	0.45
CFP	0.687	0.70	0.38
PFA	0.801	0.81	0.58
AFS	0.708	0.72	0.34
FUP	0.638	0.64	0.32
FAA	0.632	0.64	0.47

The CFA results revealed seven factors underlying learners’ receptivity to CF in writing. Table 5 summarizes the conceptual focus of these seven factors.

Table 5

Conceptual focus and key indicators of the seven factors of CF receptivity

Factors/Clusters	Conceptual Focus	Key Indicators & Factors
Self-Regulated Feedback Engagement (SRFE)	Using CF as a strategic tool for self-regulated writing	<ul style="list-style-type: none"> Using CF to plan, monitor, and evaluate tasks Reflecting on previous CF during new assignments Willingness to accept negative feedback for goal-setting
Comprehensive Feedback Expectation (CFE)	Desire for detailed and comprehensive corrections across multiple dimensions	<ul style="list-style-type: none"> Expecting CF across all error types Valuing CF linked to explicit marking criteria
Contextual Feedback Preference (CFP)	Preferences shaped by cultural, linguistic, and educational backgrounds	<ul style="list-style-type: none"> Preferring CF delivered in the native language (Thai) Valuing group feedback sessions and socially supported platforms
Peer Feedback Acceptance (PFA)	Willingness to trust and value comments from classmates	<ul style="list-style-type: none"> Viewing peer feedback as credible and nearly as valuable as teacher feedback Motivation derived from collaborative learning and community dynamics
Affective Feedback Sensitivity (AFS)	Emotional and interpersonal responses to the tone and delivery	<ul style="list-style-type: none"> Sensitivity to teacher-student rapport and trust Preferring supportive or softening language in CF
Feedback Usability Preference (FUP)	Focus on the practical logistics and accessibility of the CF	<ul style="list-style-type: none"> Emphasizing the importance of timing (immediate vs. delayed) and accessibility Appreciating concrete examples that show how to improve
Feedback Application Awareness (FAA)	Cognitive readiness and literacy to interpret and act on CF	<ul style="list-style-type: none"> Understanding how to translate CF into revision strategies High engagement when CF is clear and concise

DISCUSSION

The study findings identify seven groups of factors that influence learners' CF receptivity. The evidence indicates that learners respond to CF through multiple interrelated dimensions, including cognitive, affective, experiential, and cultural backgrounds. Factor analysis demonstrates that these factors cluster to form a learner's "receptivity profile." Rather than operating independently, these factors interact to shape how learners respond to CF, whether by disregarding, resisting, or actively engaging with it.

This section examines the interrelationships among the sub-elements of the seven factors identified through CFA. These seven factors were confirmed and statistically ordered based on the strength of their interrelationships, not their relative importance. Specifically, a learner who scored highly on one aspect of the first group was more likely to score highly on other dimensions within the same cluster compared to those in the seventh group.

Factor 1: Self-Regulated Feedback Engagement (SRFE)

The first group combines metacognitive strategies (planning, monitoring, and evaluating) with a long-term view of CF as a developmental resource. The group connects learners' goal orientation with their willingness to use CF as a tool to self-regulate and improve their writing skills. Items loading highly on this factor, such as *"I can use previously received corrective feedback to monitor my writing"* (0.826) and *"I can use previously received corrective feedback to*

evaluate my writing" (0.805), suggest that learners who score highly on this dimension tend to perceive feedback not as a one-time correction, but as a long-term developmental resource.

It may be argued that these items are interrelated because they all relate to metacognitive strategies—particularly goal-setting, planning, monitoring, and self-evaluation, which are essential elements of self-regulated learning (Zimmerman, 2002). Learners who adopt such strategies might be more receptive to CF because they see it as instrumental in achieving personal learning goals rather than as external criticism.

Also, the findings correspond well with the four components of receptivity to instructional feedback (RIF) (Lipnevich et al., 2021). According to Lipnevich et al.'s model, the four RIF components include: 1) learners' experiential attitudes towards feedback (willingness to receive CF), 2) instrumental attitudes (their perceived value of CF), 3) cognitive engagement with feedback (knowing how to use CF to improve their work), and 4) behavioral engagement (engagement in reading or acting on the CF). All four dimensions were grouped together through the confirmative factor analysis from the study findings.

Furthermore, items like *"When working on a new assignment, I think about the feedback I got previously"* (0.719) and *"Feedback helps me set realistic goals for writing improvement"* (0.698) imply a transfer of feedback knowledge across tasks as learners view feedback as part of a continuous cycle of improvement. This aligns with the idea that feedback is most effective when it feeds forward into future performance (Carless & Boud, 2018), and if students find CF meaningful, they are likely to consider it as a helpful instrument for improving their writing skills (Bitchener & Storch, 2016).

Factor 2: Comprehensive Feedback Expectation (CFE)

The second group represents a pattern of learner preferences for a wide range of CF, covering all areas of writing errors (content, organization, grammar, vocabulary, punctuation, and spelling) along with their need for transparent marking criteria. High-loading items such as *"I want my teacher to point out spelling errors"* (0.792) and *"I want my teacher to point out organization errors (e.g., paragraph structures, sentence orders, transitions)"* (0.773) suggest that these learners may expect CF that is extensive in scope and precise in nature, covering not only linguistic errors but also content and structural issues. Learners in this group tend to view the teacher as an authoritative source of knowledge, which is not uncommon in EFL contexts (Lee, 2017).

The results complement the findings of Bitchener and Storch (2016) and Deng et al. (2022), which found that learners prefer focused CF targeting specific linguistic features at a time. This is because this study focused on affective receptivity (what learners want and expect), while Bitchener and Storch (2016) and Deng et al. (2022) focused on cognitive processing and learning outcomes (what actually works for language development). Therefore, this study complements the two previous studies, as learners may affectively desire comprehensive feedback, but targeted or focused feedback is often more effective because it reduces cognitive load and allows learners to manage a few types of errors at a time.

Apart from the scope of feedback, respondents indicated that they valued comments linked to explicit marking criteria. For instance, the item *“I value feedback that is based on clearly defined marking criteria.”* (0.370) highlights the importance of transparent expectations and model-driven guidance. It could be argued that this group of items falls under the same factor because learners who seek CF across multiple writing components are likely to value clarity and justification in the CF. This is because these qualities help translate the CF into interpretable and actionable information, which are key conditions for CF implementation (Carless & Boud, 2018).

Factor 3: Contextual Feedback Preference (CFP)

The third group brings together factors related to cultural norms, linguistic comfort, and instructional style. For example, a preference for feedback in learners’ native language was found to be closely linked to their preference for group-based learning sessions. Items such as *“I find corrective feedback delivered in Thai more effective than the feedback given in English.”* (0.748), *“My cultural background influences how I perceive corrective feedback.”* (0.442), and *“Group feedback sessions are helpful for my learning.”* (0.573) suggest that students’ responses to feedback are not purely cognitive or academic in nature but are also shaped by their sociocultural and linguistic environment. This aligns with previous literature indicating that culture plays a critical role in CF receptivity (Ha & Nguyen, 2021). The results suggest that for CF to be effective, it must align with the cultural norms and linguistic comfort of the learner.

In Thai EFL settings, where social harmony and respect for authority are highly valued, feedback in the local language and in culturally familiar formats may be seen as more acceptable and easier to internalize. The results also show a clear preference for structured, socially supported forums. Such preferences are likely the result of school experiences in group-oriented learning where students prefer working in groups rather than performing individually. Learners seem to value feedback that provides a sense of psychological safety, is cognitively manageable, and aligns with their cultural expectations. The emergence of CFP as a distinct factor demonstrates that CF receptivity is context-dependent.

Factor 4: Peer Feedback Acceptance (PFA)

The fourth factor coordinates learners’ belief in the value of collaborative learning with their social motivation through their willingness to accept and evaluate comments from their classmates. This reflects a mindset where peer input is seen as a credible supplement to teacher CF. Items with high loadings, such as *“I am willing to accept peer feedback on my writing.”* (0.812), *“Peer feedback on my writing is as useful as teacher feedback.”* (0.801), and *“Feedback from my peers is helpful to my writing improvement.”* (0.749) indicate that students who rated this factor highly view peer input as credible and helpful. This pattern may be due to a general and increasingly widespread belief in the pedagogical value of collaborative learning, particularly in writing courses where shared reflection on drafts can aid revision.

In contexts like Thai EFL classrooms, where peer relationships are often characterized by cooperation and mutual support, this type of feedback may feel less intimidating and more

relatable than teacher-centered critique. However, the findings reveal notable differences from previous studies, even within the same Southeast Asian region. Conducted in the Vietnamese context, Ha and Nguyen's (2021) study found that students generally feel uncomfortable or unconfident in peer correction, fearing judgment or inaccurate advice. This may be explained by differences in social interaction styles between the two contexts. While Vietnamese students focus on the traditional teacher-student relationship, where the teacher delivers knowledge to the student, Thai students in this study view group and peer feedback as socially supported forums that help maintain psychological safety. Another study with different results is Lee's (2008), which found that in classrooms in collectivist cultures such as China and Japan, where group consensus and harmony are valued, students were uncomfortable giving and receiving peer reviews. These differences in findings underline the pivotal roles of culture and learners' experiences in perceiving peer feedback.

In summary, the PFA factor reflects learners' confidence in the value of peer input, their readiness to integrate it, and their positive attitude toward peer-supported writing improvement, which may serve as a powerful supplement to teacher feedback in fostering learner implementation of CF. However, this factor is strongly influenced by culture and may vary across educational and cultural contexts.

Factor 5: Affective Feedback Sensitivity (AFS)

The fifth cluster links interpersonal relationships (trust and rapport) with the specific tone of delivery. The factor suggests that learners are more motivated when CF is delivered using softened language or focuses on effort rather than ability alone. Items loading highly on this factor are such as *"Relationships with teachers affect how I receive feedback."* (0.719), *"I am more motivated to learn after receiving positive feedback."* (0.634), *"I prefer the feedback and comments that are given in a softening language."* (0.602), and *"Feedback that focuses on my effort in writing rather than my ability is more motivating."* (0.420).

The cluster suggests that the emotional framing of feedback – especially praise, tone, and encouragement – may play a significant role in how learners interpret and respond to CF. Softening language, such as hedging and indirect suggestions, is another factor that can mitigate potential embarrassment and align with the cultural emphasis on face-saving prevalent in many Asian societies. This aligns with existing literature, which indicates that Asian students perceive effective CF as feedback that raises students' awareness of errors within a mitigating and supportive teacher-student environment (Chen & Liu, 2021; Du et al., 2024), reflecting the focus on face-saving and politeness in Asian cultures such as Chinese and Thai.

Factor 6: Feedback Usability Preference (FUP)

This cluster combines practical factors such as clarity, timing, and accessibility of feedback. The findings suggest that these factors may work together to determine whether CF is manageable. If the CF is clear, easy to understand, and provided while the task is still fresh in the mind, the feedback is more likely to be taken on. High-loading items such as *"I think timing of feedback delivery (while writing or after writing) affects my learning differently."* (0.538),

“I appreciate feedback that includes examples of how to improve my writing.” (0.477), and *“I prefer feedback that I can access any time.”* (0.316) suggest that learners value feedback not only for its content, but also for its practical usability within their writing process. That is, learners are more receptive to feedback when it is delivered in ways that promote clarity, independence, and ease of use.

It is possible that these items group together because they reflect students’ awareness of how feedback format, timing, and presentation can facilitate or hinder their learning. Research has indicated that feedback is most effective when it is not only informative but also manageable and actionable (Hattie & Timperley, 2007). This factor may also reflect a growing preference for student-centered learning, where learners want CF that enables them to self-correct and revise without always depending on teacher explanation. Appreciation for teacher comments and a preference for flexibility in accessing them might indicate learners’ tendency to integrate feedback into their ongoing writing strategies. These factors contribute collectively to the clarity, application, and motivational value of CF, which positively affect learners’ receptivity and internalization (Carless & Boud, 2018).

However, it should be noted that while clarity and timing are important, learners may vary in their ability to interpret feedback meaningfully. Thus, feedback usability is not only a feature of how feedback is designed, but also of how it matches learners’ readiness and ability to act on it.

Factor 7: Feedback Application Awareness (FAA)

The seventh group combines learners’ cognitive readiness with their perceived ability to interpret and apply CF to improve their writing. The high-loading items in this group—*“I know how to use feedback comments to improve my work.”* (0.522) and *“I am more likely to act on feedback that is clear and concise.”* (0.515)—suggest that learners tend to engage with feedback in a strategic and purposeful way when it is easily interpretable. That is, students’ willingness to act on CF is very much influenced by the clarity and conciseness of the feedback they receive. Hyland and Hyland (2019) argued that clear feedback decreases cognitive load and hence students can concentrate on improving their work. This in turn helps to sustain their engagement in CF and willingness to consult it as a learning resource in the future (Ellis, 2009).

This grouping may be interpreted as representing learners who are feedback-literate, that is, they are not only receptive to feedback but are also aware of how to translate it into meaningful revision strategies. This interpretation aligns with the notion of feedback literacy proposed by Carless and Boud (2018), which includes the capacity to interpret, internalize, and act upon feedback. When learners possess this awareness, feedback becomes an integral part of the learning process rather than an external judgment. It could be argued that these items cluster together because they both reflect a cognitive readiness to use feedback effectively, especially when that feedback is delivered with clarity and focus.

Although both the sixth and seventh groups focus on CF practicality, this cluster differs from the sixth group in several important ways. The FUP cluster centers on the behavioral or

logistical aspects of feedback delivery (Is the CF easy to read and timely?), while the FAA cluster reflects the cognitive or strategic dimension of CF implementation (Do I know what to do with the CF?). They also reflect different influencing factors and the teacher's role in giving feedback. The FUP cluster combines timing, accessibility, and examples as influencing factors for CF usability, which informs the teacher's role in designing the "package" of the feedback. In contrast, the FAA group reflects different influencing factors, such as learners' prior experience, writing proficiency, and feedback literacy. This group also highlights the teacher's role in scaffolding learners' CF understanding and implementation.

Nonetheless, it is important to acknowledge that feedback application is influenced not only by learners' awareness but also by their prior experiences, writing proficiency, and instructional support. While learners may express confidence in applying feedback, they may still struggle to do so effectively without appropriate scaffolding, especially in EFL contexts where linguistic and academic writing conventions may be less familiar.

CFA model

The initial and revised CFA models show improved model fit following re-specification. The first model had several issues, including low factor loadings and negative error variances. In contrast, the re-specified model displayed better fit indices and more stable parameter estimates. These differences indicate that the re-specified model more accurately captures the structure underlying the construct of receptivity to CF in writing. One of plausible explanations for this improvement lies in the theoretical and statistical refinement process. Improvement resulted from removing low-loading indicators (e.g., FFE1) and eliminating error variance in indicators (FTP1 and FTP2), which reduced model complexity caused by excessive multicollinearity. Models with weaker or redundant items tend to produce more variable residuals and parameters (Brown, 2015; Hair et al., 2018; Kline, 2016). By removing problematic items, the re-specified model achieved better convergence and easier interpretability.

There may have been some measurement redundancy and conceptual overlap among items in the initial model from a psychometric perspective. The items for FTP showed extreme covariance, which may have caused the negative variance problem. This phenomenon is often interpreted as a signal that the items are not statistically distinguishable—in other words, they are too similar in meaning. When items assess nearly identical content, they may distort the model's covariance structure. Therefore, the revised model enhanced construct distinctiveness by limiting indicator overlaps and adding free covariance to each latent factor.

Also, it is also possible that the observed improvement results from greater theoretical coherence among the other seven factors. In revision, each latent variable, such as SRFE, CFE, and FAA, showed well-defined boundaries and improved internal consistency. This aligns with theoretical perspectives that view receptivity to feedback as a multidimensional and encompass cognitive, affective, and behavioral process. The refined structure appears to better capture this complexity while maintaining the empirical distinctiveness of the constructs. The re-specified model's moderate but reasonable fit indices also highlight the practical challenges of modeling psychological constructs in applied linguistics. Thus, the

re-specified model was both statistically and theoretically permissible and reasonably represents EFL learners' responses to CF in writing.

Theoretical contributions

1. Shift from isolated variables to an integrated structure

This study's primary contribution to the field of CF is the development of a validated, integrated conceptual structure that identifies seven interrelated dimensions of feedback receptivity. Previous studies examined learner factors influencing feedback receptivity, such as timing, feedback type, or preference, in isolation across various contexts. This study used EFA and CFA to demonstrate that feedback receptivity is not a collection of fragmented or isolated variables, but a multidimensional and interrelated construct encompassing metacognitive factors, cultural norms, and cognitive readiness.

For example, SRFE is the cluster of multiple factors related to learners' ability to use CF to regulate their writing improvement. The EFA and CFA analyses confirm that the ability to use CF in planning, monitoring, evaluating one's own work, setting writing goals, and applying CF in subsequent tasks are interrelated factors within the same cluster. If a learner possesses one of these abilities, it is likely they have developed the others in the cluster as well. Similarly, the last cluster—FAA—shows that a learner's ability to incorporate CF into revision strategies (cognitive readiness) and their engagement with clear CF are closely related. This suggests that when feedback is clear and concise, learners are more likely to be cognitively prepared to apply it to improve their writing; likewise, learners with higher feedback literacy are more likely to understand and engage with CF. These findings may inform teachers' practices in providing practical CF and preparing learners to respond to it effectively.

2. Statistical foundation of feedback receptivity

Statistical validation identifies SRFE as the conceptual basis of feedback receptivity. This indicates that a learner's ability to use CF to plan, monitor, and evaluate their own work is the strongest predictor of how they will engage with other feedback dimensions within that cluster, compared to the other six factors. Therefore, fostering metacognition in receiving and acting on CF may be key to promoting learners' receptivity to CF.

3. Distinct separation of affective and cognitive factors

While previous literature noted that emotions play a role, this study statistically validates AFS as a latent factor distinct from cognitive dimensions. This provides evidence that CF has a dual function – it must be emotionally supportive and avoid feeling threatening so that learners can engage in cognitive processing.

Additionally, while the results show the need to address both affective and cognitive dimensions of CF, they suggest that affective preference does not always lead to better cognitive outcomes. Contrary to previous studies recommending focused feedback to manage

cognitive load (Bitchener & Storch, 2016; Deng et al., 2022), this study reveals that Thai learners have strong CFE, as seeing all errors may increase their overall awareness of language mistakes. However, this preference might not lead to effective feedback utilization due to cognitive demand. Therefore, teachers should balance both affective and cognitive dimensions of feedback receptivity when providing CF.

4. Validation of feedback literacy

The study expands on the concept of feedback literacy – the ability to understand, interpret, and apply feedback effectively to improve one’s learning and performance (Carless & Boud, 2018). The results validate FAA as a specific dimension of CF receptivity, demonstrating that learners’ cognitive readiness, or their ability to translate clear and concise feedback into revision, is a latent construct of their openness to teacher correction.

5. Validation of cultural and contextual construct

The emergence of CFP as a distinct factor confirms that receptivity is not purely academic but is culturally and contextually bound. This highlights the importance of a contextualized approach to giving feedback, as learners’ prior educational experiences and expectations about cultural norms in teaching and learning play a significant role beyond simply shaping preferences. These factors also influence their willingness to interpret and respond to feedback. Therefore, uniform feedback may be less effective than contextualized approaches in providing CF.

Pedagogical implications

As the study results confirm that CF is multidimensional, the real pedagogical challenge is to integrate core dimensions when providing CF to best address learners’ profiles. Based on the results, there are several pedagogical implications worth considering:

1. Promote self-regulation in utilizing feedback (SRFE)

The pedagogical implications of SRFE center on shifting the learner’s role from a passive recipient of corrections to an active manager of their own improvement. Teachers may explicitly prompt learners to set writing goals before receiving feedback, monitor their use of CF during revision, and evaluate their improvement after applying CF. Scaffolding and modeling the self-regulatory process can help learners become more self-regulated in their revisions. Since SRFE is the conceptual foundation of CF receptivity, promoting this dimension may activate other receptivity factors.

2. Balance comprehensiveness and usability (CFE + FUP)

Since learners may want to see all errors but can also be overwhelmed by them, teachers should prioritize and categorize errors. Highlighting recurring patterns and encouraging learners to self-regulate their revisions rather than marking every mistake can make CF more

manageable while satisfying learners' need for comprehensive feedback. Timing also matters – CF should be provided while the task remains fresh in learners' minds. When immediate feedback is not feasible due to workload, teachers can briefly remind learners of the task context before returning written comments to help them reconnect with their work.

3. Emphasize cultural responsiveness (CFP + PFA)

Learners' cultural backgrounds, prior educational experiences, and language proficiency strongly influence how they perceive and respond to feedback. Teachers should recognize that the acceptability of direct CF varies across cultures. In many Asian EFL contexts, such as Thailand, students often expect and value correction due to established teacher–student role norms. However, when giving direct CF, teachers must be aware of how the CF is delivered. They should ensure the direct CF is respectful in tone, appropriately delivered in public or private, and linguistically accessible. For lower-proficiency learners, written feedback in their native language can enhance clarity and understanding.

4. Balance affective and cognitive dimensions (AFS + FAA)

The results show that both emotion and cognitive readiness are two latent factors, confirming that harsh CF may lead students to reject it, while unclear CF may hinder processing. Thus, when giving CF, teachers should focus on building growth mindsets by encouraging students to view corrections as opportunities to improve rather than as signs of failure. This can be achieved by acknowledging learners' effort and strengths before providing specific, actionable steps for improvement.

While universal CF focuses only on corrections (part of CFE), the challenge is for teachers to integrate and balance the seven factors in their feedback provision. Based on the results, effective CF should be comprehensive yet usable, standardized yet culturally responsive, cognitively clear yet emotionally supportive, and designed to promote self-regulated engagement in feedback.

Future research recommendations

In this study, the latent factors of learners' receptivity to CF are statistically organized according to the strength of their associations within each group. Future research should further examine the relationships among these factors, such as whether certain dimensions serve as prerequisites for others and whether strongly connected clusters, like SRFE, activate or coordinate other factors. Another direction is to investigate contextual variations in these seven factors, such as differences among learners with varying proficiency levels or educational settings (e.g., ESL vs. EFL). Another important line of inquiry is to explore the links between each latent factor and learning outcomes, for example, identifying which receptivity dimensions best predict writing progress, or how these seven factors relate to actual writing performance, revision quality, or long-term writing development.

Mixed-methods research that integrates questionnaire data with writing samples, teacher observations, or think-aloud protocols could offer deeper insight into how students apply

feedback in real time. Moreover, longitudinal studies could explore how students' feedback preferences and behaviors evolve over time, particularly in response to instructional interventions aimed at enhancing feedback literacy and self-regulated learning.

CONCLUSION

The present study aimed to investigate and validate factors influencing Thai EFL learners' receptivity to CF on their writing. The analysis revealed seven different dimensions that influence the way learners receive and process WCF. The seven factors include: SRFE, CFE, CFP, PFA, AFS, FUP, and FAA. From a pedagogical perspective, these seven factors highlight the differences in learners' responses, which appear to be moderated by learners' self-regulation abilities, emotional sensitivity, cultural orientation, and preferences for the usability and manageability of feedback. In practice, teachers should therefore tailor their CF methods to the profiles of individual learners.

However, there are some limitations to this study. This study was conducted among Thai EFL learners within a specific educational and cultural context. While the seven identified factors offer meaningful insights into how these learners perceive and respond to CF, the findings may not be fully generalizable to other EFL populations. Conducting EFA and CFA on the same sample might also result in sample-specific solutions. To strengthen evidence for structural validity, future research should cross-validate the model by splitting the sample or testing the structure in independent populations. Moreover, cultural values such as deference to teachers, communication norms, and feedback expectations can differ significantly across countries and institutions. Therefore, teachers should exercise caution in applying these results directly to learners in different sociolinguistic or institutional settings without further validation.

Declaration of AI use

The authors declare that AI tools, specifically Instatext and ChatGPT, were used solely for grammar checking, reference formatting, and minor language refinement, respectively. The authors declare that no AI tools were used for data analysis or interpretation of the research findings. The authors take full responsibility for the content.

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