Working hard, working smart and working consistently: Towards conceptualising and measuring foreign language tenacity

Athip Thumvichit
Research Institute for Languages and Cultures of Asia, Mahidol University

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ABSTRACT: Academic tenacity, at its most fundamental level, is about how hard and how smart an individual works over a long period. While this notion is meant for a broad range of academic contexts, it is particularly recognizable to those who make a lifelong commitment to learning a foreign language (FL). This study reports an initial attempt to conceptualise and measure foreign language tenacity (FLT). The Foreign Language Tenacity Scale (FLTS)—a self-report instrument—was developed and validated with a sample of 272 tertiary-level students studying English as a foreign language (EFL). FLT emerged as a multifaceted construct that positively correlated to foreign language enjoyment (FLE), mental well-being (MWB), language achievement and self-perceived language proficiency, and negatively correlated to foreign language classroom anxiety (FLCA). Tenacity appears to represent the key characteristics of successful FL learners effectively. A hierarchical multiple regression analysis revealed that FLT and FLCA were significant predictors of language achievement and that including FLT in the analysis (rather than solely FLE and FLCA) explained additional variance. Tenacious FL learners consistently display great effort, remain in control and effectively deal with emerging hurdles to achieve their objectives.
Keywords: foreign language tenacity, individual difference, personality, second language acquisition

***Trabajando duro, trabajando inteligentemente y trabajando consistentemente*: Hacia la conceptualización y medición de la constancia en el aprendizaje de lenguas extranjeras**

RESUMEN: La constancia académica, en su nivel más fundamental, se refiere al nivel de exigencia y al nivel de inteligencia con que trabaja un individuo durante un largo período. Si bien esta noción está destinada a una amplia gama de contextos académicos, es particularmente reconocible para aquellos que se comprometen de por vida a aprender una lengua extranjera (FL). Este estudio informa sobre un intento inicial de conceptualizar y medir la constancia en el aprendizaje de idiomas (FLT). The Foreign Language Tenacity Scale (FLTS), un instrumento de autoinforme se desarrolló y validó con una muestra de 272 estudiantes de nivel terciario que estudiaban inglés como lengua extranjera (EFL). FLT surgió como un constructo multifacético que se correlacionó positivamente con el disfrute en el aprendizaje de idiomas (FLE), el bienestar mental (MWB), el rendimiento en el idioma y la autopercepción del dominio del idioma, y se correlacionó negativamente con la ansiedad en el aula de idiomas (FLCA). La constancia parece representar efectivamente las características claves de los estudiantes con éxito en el aprendizaje de FL. Un análisis de regresión múltiple jerárquico reveló que FLT y FLCA eran predictores significativos del rendimiento del lenguaje y que incluir FLT en el

análisis (en lugar de solo FLE y FLCA) explicaba la variación adicional. Los estudiantes constantes de FL muestran continuamente su gran esfuerzo, mantienen el control y se enfrentan con eficacia a los obstáculos emergentes para lograr sus objetivos.
Palabras clave: constancia en el aprendizaje de idiomas, diferencia individual, personalidad, adquisición de un segundo idioma

1. Introduction

Foreign language (FL) learning is an ongoing and complex process "intertwined with a myriad of factors beyond cognitive processes" (Suzuki et al., 2019, p. 6). However, until recently, less effort has been devoted to understanding non-cognitive individual difference factors than to understanding cognitive factors such as mental processing capabilities (Oga-Baldwin et al., 2019). In fact, learners bring a variety of individual characteristics to the learning process, all of which have an impact on how they learn (Williams & Burden, 1997). Individual differences and their interconnections can be linked to "success" in FL learning (Danesh & Shahnazari, 2020). Yet although individual difference factors have attracted growing attention, the field of second language acquisition (SLA) has so far been dominated by only a handful of these factors. Despite its crucial role in the FL learning process, *personality*—one of the individual difference factors (Ellis, 2004)—is still in its infancy in SLA research. L2 learning behaviours are a function of learners' personality characteristics within the language learning context, and therefore more research is needed on personality traits in this domain (Teimouri et al., 2022). This paper introduces the notion of *foreign language tenacity* (FLT), a personality trait factor with the potential to advance personality research in SLA and to determine the likelihood of FL learners reaching their goals.

The personality factors that contribute to long-term learning and accomplishment can be united under the umbrella concept of *academic tenacity* (Dweck et al., 2014). While this concept was developed for general academic settings, it is instantly recognizable to those who make a lifelong commitment to learning a second/foreign language. One personality trait that has previously been associated with goal striving and achievement in L2 learners is *grit* (Teimouri et al., 2022). Grit and tenacity differ in several ways, despite sharing certain characteristics. Dweck et al. (2014) noted that grit, along with self-regulation and self-control, is one of the constructs of tenacity (Dweck et al., 2014). Tenacious learners are actively engaged in learning, value effort and sacrifice immediate pleasures for long-term learning (Dweck et al., 2014). These individuals view disruptions as learning opportunities or challenges, rather than as humiliation or a judgment of their personal abilities or value. In other words, tenacious learners know how to stay engaged in learning over a long period and how to employ various strategies to progress towards their goals.

This study is an initial attempt to conceptualise and measure tenacity in relation to FL learning. This investigation is important for several reasons. First, while previous research has investigated tenacity in broad educational contexts, no study has attempted to advance scholarly knowledge of tenacity in the FL learning domain in particular. Second, SLA scholars have yet to reach a strong consensus on the relationship between individual personality traits and FL learning (Dörnyei & Ryan, 2015). Exploring the relationship between tenacity and well-established SLA concepts will improve our understanding of the function of personality in FL learning. Third, the development and use of domain-specific measurement

tools have resulted in more consistent results (Teimouri et al., 2019). Therefore, even if a general measure of academic tenacity exists, the creation of a specialise measure focused on FL learners is justified. The development of a measure of FLT is based on Dweck et al.'s (2014) theoretical concept of academic tenacity and Kannangara et al.'s (2020) measure of academic tenacity.

As part of my aim is to address a gap in the literature and conceptualise tenacity in the context of FL learning, I begin by discussing the theoretical underpinnings of academic tenacity. Subsequently, I measure FLT and explore its relationship with other influential variables, namely foreign language enjoyment (FLE), foreign language classroom anxiety (FLCA), mental well-being (MWB) and language achievement. I hypothesise that FLT significantly correlates with these variables.

2. Academic Tenacity

The term "academic tenacity" was originally derived from the College Readiness Indicator Systems (CRIS) project, a US-based project that aims to afford New Visions for Public Schools an opportunity to reflect upon college readiness systems and practices. The researchers of the CRIS project proposed that true mastery of the Common Core—an initiative that establishes aligned curriculum modules in mathematics and English for primary and secondary students in the United States—necessitates students demonstrating academic tenacity, as the standards assist them in understanding the skills and knowledge they need and self-regulating their progress (Carrano, 2013). Academic tenacity was not widely understood until Dweck et al. (2014) explicitly introduced the term in their publication "Academic Tenacity: Mindsets and Skills that Promote Long-Term Learning," which describes it as the non-cognitive constructs that facilitate long-term learning and achievement. Based on this premise, tenacious learners are equipped with the mindsets and skills that enable them to put short-term concerns on hold and overcome hurdles to achieve higher-order goals (Dweck et al., 2014). Short-term concerns such as isolation from classmates and unwillingness to participate in class activities can make learners less engaged and more passive with regard to learning opportunities. Tenacious learners are immune to such setbacks and seek challenges that help them reach their goals. Most academics now understand academic tenacity, at its most basic level, as "working hard" and "working smart" for a lengthy period. However, tenacity is often misunderstood as perseverance or grit. Tenacity differs from these qualities in that it necessitates self-regulatory behaviours, such as self-control, self-discipline and short-term impulse control (Lucas & Spencer, 2018). This raises the question: How can tenacity manifest itself in action? Lucas and Spencer (2018) listed five characteristics of tenacious learners: viewing effort positively; being able to defer gratification and sacrifice immediate pleasures in favor of education; viewing difficulties as opportunities for learning; being able to use self-regulation strategies to maintain engagement over a long period; and seeing education as a path to accomplishing personal goals. These characteristics constitute a "growth mindset" as opposed to a "fixed mindset." Learners with a growth mindset frequently view issues or setbacks as learning opportunities. They respond to obstacles with constructive ideas (e.g., *Perhaps I should alter my approach or strive harder*), feelings (e.g., joy at a challenge) and behaviour (e.g., endurance and persistence).

Kannangara et al. (2020) developed a specific scale to measure academic tenacity through six relevant constructs: grit, mindset, resilience, self-control, strength-use and well-being. This 12-item scale was assessed using international learners from 30 countries (n = 1,043) (Kannangara et al., 2022). Persistence (e.g., *I consider myself to be persistent and hard-working*) and self-composure (e.g., *I know my actions are wrong, but sometimes I cannot stop myself*) were found to be subcomponents of academic tenacity. The authors contend that the measure of academic tenacity has great potential to predict academic success. Since this measure was very recently developed, no further validation research has yet been reported. What remains to be determined is how to adequately portray and measure tenacity in FL learning in particular. In this study, I developed a measure of tenacity aimed at determining success in FL learning based on the concept of academic tenacity (see Dweck et al., 2014; Lucas & Spencer, 2018).

3. Research Questions

This study was designed to answer the following questions:

1: To what extent does the FLTS demonstrate internal validity?
2: To what extent does the FLTS demonstrate internal consistency?
3: Does the FLTS function equivalently with female and male students?
4: To what extent does the FLTS demonstrate external validity, that is, to what extent is it documented to be significantly related to FLE, FLCA, MWB, language achievement and self-perceived language proficiency?
5: What are the aspects of language learning that induce tenacity of students?

4. Methodology

In conformity with psychometric practices (DeVellis, 2003), this study involved construct conceptualization, item generation, dimensionality and internal consistency testing and validity evaluation. It also followed the mixed-methods sequential explanatory design (Creswell et al., 2003), which began with a quantitative phase and then moved on to a qualitative phase. In the quantitative phase, data were collected using a self-report questionnaire. In the qualitative phase, data from a series of semi-structured interviews were then used to support the results from the quantitative phase.

4.1. Participants

A sample of 272 undergraduate students, who are English as a Foreign Language (EFL) learners, was obtained from a public university in Thailand, including 170 female and 102 male students. This university has a well-established language institute that provides English courses and related services (such as tutoring and language assessment) to students across faculties. This institution was chosen for three reasons: (1) the lecturers had access to all first-year students who took compulsory English foundation courses; (2) the lecturers were qualified English teachers with master's degrees (or higher) in relevant disciplines; and (3) the instructional materials were of a high standard.

4.2. Instruments

4.2.1. Foreign language tenacity

The development of the Foreign Language Tenacity Scale (FLTS) began with a basic conceptual understanding of academic tenacity. The four components of FLT—perseverance, persistence, self-control and self-regulation—served as a starting point to generate content-related items. A panel of three experts was assembled to review the initial pool of items and ensure they were free from structural issues (Devellis, 2003). After the review and several rounds of screening, 10 items were retained for the pilot test. All the items were positively phrased and altered specifically to refer to English language learning in a way that Thai university students could understand.

The scale was pilot tested on 110 undergraduate students, as a sample of around 50 to 100 participants with similar demographics to the main study's participants is required in a pilot study (Dörnyei & Csizér, 2012). The items were presented in a 6-point scale format, ranging from *strongly disagree* (1) to *strongly agree* (6). At the end of the questionnaire, respondents were invited to report any ambiguities in the items or other concerns. The dimensions of FLTS were explored, yielding three factors with eigenvalues of 4.75, 1.72 and 1.26 respectively, explaining 77.40% of the total variance.

The internal consistency of the scales was then examined using Cronbach's alpha (α) and McDonald's omega (ω) to assess its composite reliability. All the subscales demonstrated Cronbach's α coefficients greater than .70, meaning that they were internally consistent (see Table 1). At this point, I decided to retain all 10 items representing the three subconstructs: intensity of learning effort (ILE) (e.g., *I try as hard as I can to be great at English*), self-control in learning (SCL) (e.g., *When it comes to learning English, I can concentrate for a long time*) and self-regulation of learning (SRL) (e.g., *When it comes to learning English, I try to think about my strengths and weaknesses*) (see Appendix).

Table 1. *Reliability estimates of FLTS and its subconstructs (N = 110)*

	Cronbach's α	McDonald's ω
ILE	.932	.932
SCL	.702	.712
SRL	.871	.872
Global FLT	.864	.849

4.2.2. Foreign language enjoyment

Participants' enjoyment of FL learning was measured with the Short-Form Foreign Language Enjoyment Scale (S-FLES) (Botes et al., 2021), which was adapted from the original FLES (Dewaele & MacIntyre, 2014). The S-FLES is composed of three dimensions: personal enjoyment (e.g., *In class, I feel proud of my accomplishments*), teacher appreciation (e.g., *The teacher is encouraging*) and social enjoyment (e.g., *We laugh a lot*). Each dimension includes three positively phrased items (see Appendix). The short scale is recommended when time

is limited or for studies that investigate multiple variables. For this study, the participants rated the items on a 6-point scale, ranging from *strongly disagree* (1) to *strongly agree* (6).

4.2.3. Foreign language classroom anxiety

Participants' language anxiety was measured using the eight-item version of the Foreign Language Classroom Anxiety Scale (FLCAS) validated by MacIntyre (1992) and stipulated by Dewaele and MacIntyre (2014) based on the concept of FLCA (Horwitz et al., 1986) (e.g., *I always feel/felt that the other students speak the foreign language better than I do*; *I can feel my heart pounding when I am going to be called on in a language class*). The FLCAS used here comprises three subdomains: physical anxiety-related symptoms, self-confidence and nervousness. I replaced the terms "foreign language" and "language" with "English" throughout the questionnaire (see Appendix). As with the FLTS and FLES, the items were presented on a 6-point scale (1 = *strongly disagree*; 6 = *strongly agree*).

4.2.4. Mental well-being

Since students' well-being strongly affects their academic motivation, performance and success (Pekrun et al., 2002), participants' MWB was also measured in this study, using the Short Warwick-Edinburgh Mental Wellbeing Scale (SWEMWBS) (Gremigni & Stewart-Brown, 2011). This scale was developed to assess MWB in the general population, covering both the feeling and functioning features of MWB. This short version contains seven positively phrased items presented on a 5-point scale (1 = *not at all*; 5 = *all of the time*). Formal permission to use this scale for a non-commercial purpose was obtained from the developer via email.

4.2.5. Language achievement and pro iciency

Language achievement was measured based on students' grades and self-perceived English proficiency. The participants were asked to report their grades for their most recent English course in a traditional grading system. Taguchi et al.'s (2009) self-reported language proficiency measure, which divides language learners into five levels (*beginner, post-beginner, lower-intermediate, intermediate* and *upper-intermediate and over*), was employed to assess the participants' self-perceived English proficiency.

4.3. Data collection and procedure

All original scale items (in English) were translated into Thai and then back-translated by a translation expert. The back-translated items were compared to the original items to ensure that the Thai versions conveyed the intended meanings. After receiving formal approval from the Institutional Review Board, in compliance with international guidelines in human research protection, I sent the invitation poster, which contained the link to the final version of the questionnaire, to the lecturers teaching English courses (since the questionnaire was administered online). The lecturers were requested to share the poster with their students. On the questionnaire's first page, participants were informed about the research objectives, potential risks, benefits, confidentiality and anonymity. In the rating scale sections, the participants were instructed to rate each statement based on their level of agreement. The

participants were given three weeks to respond, after which point I began data analysis. The questionnaire was completed and submitted by 272 students. Statistical analyses were performed using SPSS Statistics 27 and AMOS 24. A series of semi-structured interviews was then conducted with 17 students who reported high levels of FLT and volunteered to provide further information. The interview data were coded into different themes for thorough content analysis (Dörnyei, 2007). The purpose of these interviews was to capture aspects of language learning that induce learners' tenacity.

5. RESULTS

5.1. Internal validity of the FLTS

Results from the Kolmogorov-Smirnov (K-S) and Shapiro-Wilk (W) test of normality indicated that all 10 of the FLTS items were significantly non-normal distributed (K-S range = .126−.232, $p < .001$; W range = .895−.933, $p < .001$). Two models were tested with assumptions about higher-order FLT constructs. The single-construct model assumed that FLT was a unidimensional concept, whereas the multi-factor structural model assumed that FLT comprised three factors, namely ILE, SCL and SRL (Figure 1). Goodness-of-fit indices were considered in the evaluation of how adequately the models fit the data. Model fit was evaluated with (1) the Chi-square test (χ^2), (2) the comparative fit index (CFI), (3) the Tucker-Lewis index (TLI), (4) the root mean square error of approximation (RMSEA) and (5) the standardised root mean square residual (SRMR). The cutoff criteria for a fit model include: CFI values of .95 or higher; TLI values of .95 or higher; SRMR values of .09 or lower (Hu & Bentler, 1999); and RMSEA values of .06−.08 (a good fit) (Browne & Cudeck, 1989).

Fit indices for the structural models indicated that the multi-factor structural model, in which each variable loaded on its respective factor as indicated by the pilot test, yielded better-fit indices than the single-factor structural model, which fell short in terms of CFI, TLI, RMSEA and SRMR (see Table 2). In addition, all items in the multi-construct model had satisfactory factor loadings .40 or higher (Stevens, 2002).

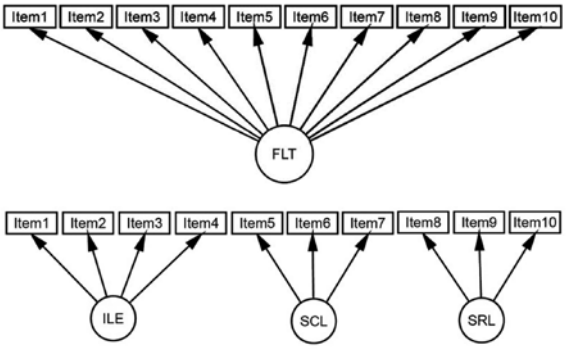

Figure 1. *Two conceptual models of FLT*

Table 2. *Goodness-of-fit summary for the two FLT models*

Index	*Model*	
	Single-factor structural model	*Three-factor structural model*
CFI	.752	.971
TLI	.682	.959
RMSEA	.204	.073
SRMR	.126	.045
χ^2	430.331	78.701
df	35	32

5.2. Descriptive statistics and internal consistency of the FLTS

The mean values of ILE, SCL, SRL and FLT were 4.269, 3.752, 4.116 and 4.068 (out of 6), respectively (see Table 3). Among the subconstructs, the upper-half values of ILE and SRL indicated that FLT is dominated by intense effort and self-regulated learning. Reliability was examined as internal consistency, using Cronbach's α and McDonald's ω. While the former is widely used in social sciences research, the latter is recommended as a related but superior alternative (Hayes & Coutts, 2020) because when data are multidimensional, coefficients tend to underestimate genuine reliability (Osburn, 2000). Cronbach's α and McDonald's ω for the FLTS and its all subscales were above the cutoff point (.70), confirming the reliability of the scales.

Table 3. *Descriptive statistics and internal consistency of the FLTS (N = 272)*

Scale	No. of items	Mean	Sd	Cronbach's α	McDonald's ω
ILE	4	4.269	1.086	.922	.923
SCL	3	3.752	1.021	.704	.706
SRL	3	4.116	1.141	.864	.866
Global FLT	10	4.068	.880	.884	.877

5.3. Controlling for gender differences

Multi-group confirmatory factor analysis was performed to determine if the factor structure was consistent across gender. Factorial invariance exists if the following conditions hold true: the construct is related to the same cohort of items in each group (configural invariance); the relations between the items and the construct, as depicted by the factor matrix, do not significantly differ across group variables (metric invariance); and both the factor structure coefficients and intercepts are equivalent across groups (scalar invariance) (Campbell et al., 2008). Simply put, these models would determine whether male and female students interpreted the items in the same way. Changes (Δ) in χ^2, CFI and RMSEA values were calculated and then compared across the models. For uneven samples of 300 or smaller, Chen (2007) recommended the following cutoff criteria for invariance: ΔCFI of −.005 or higher, complemented by ΔRMSEA of .010 or lower. In addition to this, a significant value of $\Delta\chi^2$ is required (Cheung & Rensvold, 2002).

The data were divided into two sample groups by gender, with 170 female and 102 male participants. The configural invariance model had a satisfactory model fit to the data (see Table 4), implying that female and male students had similar understandings of FLT. Once configural invariance was endorsed, the factor pattern coefficients were required to be identical across the groups. The results supported metric invariance, meaning that the two groups responded to the items in the same way. The intercepts of items were then constrained to be equal across the groups, resulting in supported scalar invariance. In sum, gender differences were not found to be a source of heterogeneity in the factorial structure of the measurement model; the FLTS appears to function equivalently with female and male students. Moreover, results from a series of independent samples *t*-tests showed no effect of gender differences on any of the constructs.

Table 4. *Fit statistics for the FLTS invariant models across gender*

INVARIANT MODEL	χ^2	*df*	CFI	RMSEA	$\Delta\chi^2$	Δdf	*p*	ΔCFI	ΔRMSEA
Configural	107.396	64	.973	.050	-	-	-	-	-
Metric	115.566	71	.972	.048	8.169	7	<.001	.001	.001
Scalar	124.471	77	.970	.047	17.074	13	<.001	.002	.001

5.4. External validity of the FLTS

The external validity of the FLTS was tested with well-established language learning and mental well-being constructs. First, the Pearson product-moment correlation coefficient (*r*) was computed to assess the strength of the associations between the constructs. The value of *r* ranges from −1 (negative relationship) to +1 (positive relationship), with 0 denoting no relationship. Effect sizes were also reported on the basis of Plonsky and Oswald's (2014) corresponding figures of .25 for small effects, .40 for medium effects and .60 for large effects. Results showed that FLT had positive associations with FLE (r = .535, medium effect) and MWB (r = .416, medium effect) (see Table 5). FLCA appeared to be negatively associated with FLT (r = −.182) and MWB (r = −.266, small effect).

Table 5. *Correlations among FLT, FLE, FLCA, MWB, language achievement and self-report language proficiency*

	1	2	3	4	5	6	7	8	9
1. ILE	1								
2. SCL	.473**	1							
3. SRL	.505**	.453**	1						
4. Global FLT	.856**	.761**	.797**	1					
5. FLE	.465**	.370**	.451**	.535**	1				
6. FLCA	−.260**	−.128*	−.023	−.182**	−.106	1			
7. MWB	.444**	.246**	.284**	.416**	.406**	−.266**	1		
8. Achievement	.355**	.241**	.159**	.322**	.216**	−.232**	.310**	1	
9. Proficiency	.353**	.226**	.196**	.330**	.224**	−.277**	.327**	.448**	1

Note: * p < .05; ** p < .01

Second, hierarchical multiple regression analysis—a form of a multiple linear regression analysis in which more variables are added to the model in separate steps—was performed to isolate predictors with a significant influence on language achievement. Two models were tested to determine whether FLT explains additional variance in language achievement beyond that which is explained by FLE and FLCA. FLE and FLCA were entered first (Model 1), followed by FLT (Model 2). The interpretation of effect sizes was based on Cohen's (1992) guidelines (f^2) (i.e., ≥ .02, ≥ .15 and ≥ .35 denoting small, medium and large effects, respectively). It is worth noting that these guidelines were provided as a rule of thumb to follow given the lack of knowledge in the area under study (Volker, 2006). The results showed that in the first model, FLE and FLCA accounted for 9.09% of the variance in language achievement [F (2, 269) = 13.461, $p \leq .001$; adjusted R^2 = .084] (see Table 6). Between them, FLCA was found to be the stronger predictor of language achievement (β = −.211, t = −3.613, p < .001, Cohen's f^2 = −.042, small effect). The second model (adding FLT) explained 13.69% of the variance in language achievement [F (3, 268) = 14.289, p < .001; adjusted R^2 = .127). Furthermore, among the tested variables, FLT emerged as the strongest predictor of language achievement (β = .257, t = 3.780, p < .001, Cohen's f^2 = .070, small effect), followed by FLCA (β = −.179, t = 3.093, p = .002, Cohen's f^2 = −.031, small effect).

Table 6. *Two conceptual models for a hierarchical multiple regression analysis*

Model	Predictor	β	t
1	FLE	.194	3.321
	FLCA	−.211	−3.613***
F (2, 269) = 13.461*** Adj. R^2 = .084			
2	FLE	.060	.897
	FLCA	−.179	−3.093
	FLT	.257	3.780***
F (3, 268) = 14.180*** Adj. R^2 = .127			

Note: *** p < .001

5.5. Aspects of language learning that induce tenacity

Responses to the first interview question (*Why do you feel that you need to put in so much effort to learn English?*) were clustered into two major themes: *language* factors and *social* factors. Language factors relate to the difficulty and importance of the English language. Since mastering an FL (English in this case) requires a great deal of work, some students felt that they needed to push themselves harder to reach their goals. This point is exemplified in the following interview excerpts:

> Student 6: *English is not an easy language to learn. We spend so many years learning English at schools and universities, but we still find it very hard […] English and Thai*

are very different […] This makes it hard for me to be good at English […] So I think if I don't do anything about it, I'll never be good at it.

Student 10: *I don't think we would be able to speak English fluently by just coming to class or getting good grades. It's a lot more than that […] It's not all about remembering grammar rules […] I know I have to study harder and practice outside of class.*

These students were fully aware of the challenges inherent in learning English. In response to this awareness, instead of quitting, they invested more effort than others, who relied heavily on classroom teaching, to avoid falling into the same trap. Although the differences between their L1 and L2 (Student 6) and questionable classroom teaching (Student 10) might not directly contribute to FLT, recognising these factors highlights the need to work hard to achieve language goals.

The importance of English seems to be the most vital determinant of FLT. English has become a prevalent FL in Thailand, especially in recent years, and several students reported that they derived FLT from recognising its value. The following responses illustrate this perspective.

Student 2: *English is a very important language. If I can speak English well, I can get a good job. I think I'll have many opportunities in my life […] I'm not an English major, but English is still one of the subjects I study seriously.*

Student 3: *We can see the difference between those who can speak English and those who can't. You can work for an international company anywhere in the world […] I don't know what will happen in the future. Maybe I'll decide to work in a different country.*

These students clearly acknowledge the pervasive role of English in their lives. They believed that English would become even more important in the near future and thus that it was crucial for them to take it as seriously as their specialised subjects. Another factor elicited by the first interview question concerns learner-perceived social pressure. Some students reported acting based on the beliefs of others, as described in the following excerpts:

Student 1: *English appears in every class these days. Some teachers tend to use English textbooks and often ask us to read English documents […] One of my (non-English) teachers even suggested that I improve my English skills to gain access to more information.*

Student 9: *When I was little, my parents often told me that English was a necessity, and they pushed me very hard to do well in English classes […] They wanted me to be good at English […] I didn't want to disappoint them, and I know I should be able to use English effectively.*

Student 12: *My friends are very active when it comes to English. I could see that their English was getting better […] They talked about going to English tutoring schools, buying English books and preparing for English exams […] Some of them want to study abroad after they graduate.*

Social influence emerged as a determinant of FLT. As shown in the responses above, students may take a more active approach to English learning if they are repeatedly reminded of its importance by parents, teachers and classmates. Although social pressure can sometimes

lead to undesirable outcomes (e.g., embarrassment, shyness, inhibition in class) (Aragão, 2011), tenacious learners accept this guidance and are committed to lifelong FL learning.

While the first question concerns the decision to commit (working hard for a lengthy period), the second question (*What was your biggest challenge in learning English and how did you manage to overcome it?*) was designed to address how FL learners overcome hurdles on their way to higher-order goals. Responses to this question were categorised into three factors: *lack of exposure*, *quality of classroom teaching* and *language difficulty*. Lack of exposure to the target language appeared to be the most common challenge among the participants. Several students described how they overcame this challenge.

> Student 15: *I know if I don't use it, I'll never improve. The problem is that I'm a quiet person so it's even harder for me […] But reading helps a lot. I like reading fiction in English. At first, I couldn't finish many of the books because they were too difficult for me […] The language was too hard. Now that I have more experience, I only buy books that are easy for me and enjoyable to read […] I think my reading and overall English skills have improved.*

> Student 17: *All my friends are Thai, and no one speaks English at all […] I've tried different ways of learning English. I often practice by myself. That's the only way for me now. I imitate movie characters […] I also take notes in English.*

Setbacks related to lack of exposure did not discourage these students from improving their language skills. As the responses from Student 15 show, although the student failed in her first attempts to overcome a hurdle, as her tenacity developed, she found a balance between working hard towards her language objectives and maintaining good mental well-being, which reflects her improved FLT.

A number of the participants commented on the quality of classroom instruction. These students considered inadequate instruction at the pre-tertiary levels as their biggest challenge, and the following excerpt is an example of how one student overcame this hurdle.

> Student 1: *When I was in high school, I heard a lot of people complaining about poor classroom teaching. I understand because we focused too much on grammar and vocabulary […] I took this as a good thing because I could use English more accurately […] To me, grammar and vocabulary are the foundation of learning English. I was able to practice with more confidence.*

Student 1 viewed a challenge related to the quality of instruction as a chance to improve his language abilities and focus on his higher-order goals. He appears to have relied on his own effort more than classroom teaching.

The last barrier is the English language itself. Several students agreed that English is difficult to master and that overcoming this challenge requires a significant amount of time and effort, as illustrated in the following excerpts.

> Student 6: *Because Thai and English are two very different languages, it's hard for me to learn English. It's not as easy as just going from Thai to English or English to Thai word by word. […] Thai speakers don't have to worry about subject-verb agreement, countable and uncountable nouns, etc. […] Now, I think of English as a totally different language and try not to translate Thai directly into English.*

> Student 11: *English is more complicated than I originally thought. The more I learn about it, the harder it is to understand […] I always encounter new rules and words. But I'm not worried about that. I don't need to know everything about it. I only focus on what I need.*

The various factors above were found to be major factors to FLT among Thai EFL learners. How FL learners respond to these factors can indicate their tenacity. Tenacious FL learners consistently display great effort, remain in control and effectively deal with emerging hurdles to achieve their objectives.

6. Discussion

To address the research questions, FLT was empirically conceptualised as a personality construct in its own right and explored in relation to hypothetically associated constructs, namely FLE, FLCA, MWB, language achievement and self-perceived language proficiency. The FLTS, a 10-item domain-specific measure of tenacity, was created with the goal of providing consistent results in SLA research. To this end, the FLTS was subjected to a series of tests to confirm its validity and reliability with 272 undergraduate students. The procedure began with a comparison between a single-factor and three-factor model. The results showed that the three-factor model fit the data acceptably, confirming the internal validity of the scale and supporting the pre-conceptualization of FLT. This model allowed each of the items to load onto one of three subconstructs: ILE, SCL and SRL. ILE describes how hard (intensity) and long (persistence) a learner works, so it represents one side of tenacity (i.e., working hard for a long period). Based on Dweck et al.'s (2014) conceptualization of academic tenacity, success in FL learning requires more than cognitive factors. It requires mindsets that allow learners to grow "through sustained hard work" (Dweck et al., 2014, p. 4). Intensity and persistence are two critical components of motivational outcomes, which provide observable performance output (Kanfer, 1990).

SCL, which was derived from Baumeister and Heatherton's (1996) notion of self-control, concerns learners' capacity to resist pervasive reactions such as impulses, urges and temptations in favor of a more distant objective that is adaptive but requires more effort and time. Simply put, SCL determines how well learners adhere to their language goals. Tenacity, as pointed out by Lucas and Spencer (2018), necessitates developing habits of self-control, which in turn assists learners in avoiding distractions. Controlled learners can manage their impulses, delay pleasure and adhere to a routine. The capacity of SCL to predict learning success (e.g., Duckworth & Seligman, 2005) and psychological well-being (e.g., Hofmann et al., 2012) justifies its inclusion in the measure of FLT. SRL relates to self-directed processes that allow learners to translate their mental abilities into performance capabilities (Zimmerman, 2008). Tenacious learners utilise self-regulation strategies to boost their motivation and limit distractions while remaining focused over the long term (Dweck et al., 2014). Previous studies have found that learners' self-regulation is closely related to their language achievement (e.g., Park, 1997). I propose that the combination of SCL and SRL constitutes the "working smart" notion of tenacity.

After identifying the subconstructs of FLT, an inspection of Cronbach's α and McDonald's ω coefficients across all subscales (ILE, SCL and SRL) revealed that the FLTS exhibited adequate levels of internal consistency, showing promise as a reliable instrument for measuring

FLT. The gender invariance of the scale was then tested to ensure that the construct is assessed sufficiently similarly among male and female students. The results indicated that the FLTS can be used with undergraduate students of different genders to make unbiased comparisons.

As evidence of external validity, significant correlations between FLT and hypothetically relevant constructs were observed. The results indicated that FLT was positively related to FLE, MWB, language achievement and self-perceived language proficiency and negatively related to FLCA. This implies that the more tenacious learners are, the more they enjoy FL learning, accomplish their language goals and believe in their language ability, the less anxiety they experience. FLT emerged as the strongest positive correlate to MWB. This is consistent with Kannangara et al.'s (2020) finding that academic tenacity is highly positively related to MWB. FLE and FLCA—*the right and left feet of the language learner* (Dewaele & MacIntyre, 2016)—have previously been recognised as constructs that are positively and negatively related to language achievement, respectively (e.g., Papi & Khajavy, 2021; Legac, 2007).

The results of the hierarchical multiple regression analysis showed that FLT and FLCA emerged as significant predictors of language achievement and that adding FLT to the analysis explained additional variance in language achievement beyond that which can be explained by FLE and FLCA alone. Although FLE has consistently been found to be a strong predictor of language achievement (Dewaele & Dewaele, 2017; Dewaele & Alfawzan, 2018), other factors—in this case, FLT and FLCA—also have the potential to predict language achievement. Plausibly, higher tenacity and lower anxiety can contribute to greater language achievement among FL learners. Tenacious learners advance further within a classroom environment in which they feel safe and supported.

This study ended with an analysis of the interview data, which contributed to a better understanding of FLT. The intensity of effort invested in learning an FL language was dictated by the language itself as well as social influence. While mastering an FL language already requires intense effort, learners were coaxed into working even harder by stakeholders such as parents, peers and teachers. Working hard explains just one aspect of tenacity, however; other factors, such as lack of exposure, the quality of classroom instruction and language difficulties, demonstrate why working smart is also necessary to achieve one's language goals. As Dweck et al. (2014) argued, tenacious learners are equipped with self-regulatory skills that allow them to "rise above the distractions and temptation of the moment, stay on task and navigate obstacles to long-term achievement" (p. 12).

7. Conclusion

In this study, I combined the notion of academic tenacity with empirical findings to conceptualise a novel construct and develop a measure of tenacity specific to FL learning. Since learning a language is a never-ending process interwoven with a plethora of elements besides cognitive processes, tenacity effectively represents key traits of successful FL learners, supporting the stated hypothesis. The results from the analyses reveal that FLT is a multifaceted construct that characterises tenacious learners as individuals who invest persistent effort, view setbacks as learning opportunities, resist the urge to give up when learning becomes difficult and incorporate varied strategies to stay on track and reach their

long-term higher-order language goals. While existing constructs in SLA largely focus on learning outcomes, FLT concerns not only academic success but also mental well-being. As such, it can reflect a learner's success as a well-rounded individual.

Despite these contributions, this study is not without limitations. First, as is typical of most survey-based research, the participants were derived from a sample of undergraduate students from a single public university, and the findings are therefore not representative of the larger population of interest (i.e., all undergraduate students in Thailand). To address this sampling limitation, future research could expand on the FLTS, employing random and weighted sampling methods with more representative samples of students. Investigations of measurement invariance could be conducted across relevant individual and contextual factors, such as age, gender, major and type of higher education instruction. Second, this study only investigated relationships between FLT and a few other associated SLA constructs. Future research is needed to examine the relationship of FLT to other well-established constructs such as willingness to communicate, curiosity and boredom. Third and finally, since this study's scope was confined to conceptualising and developing a measure of FLT, classroom factors that could influence learners' FLT were not investigated. I encourage future research to explore the effects of specific classroom teaching practices (e.g., tasks, materials, teaching methods) on FLT.

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10. Appendix

The Foreign Language Tenacity Scale (FLTS)

Intensity of learning effort (ILE)

1. I consider myself a diligent English language learner.
2. I try as hard as I can to be great at English.
3. After years of hard work, my English has improved.
4. Obstacles do not discourage me from improving my English skills.

Self-control in learning (SCL)

5. When it comes to learning English, I can concentrate for a long time.
6. When it comes to learning English, I spend my time wisely.
7. I always think about how to improve my English skills.

Self-regulation of learning (SRL)

8. When it comes to learning English, I have figured out my goals and what I need to do to accomplish them.
9. When it comes to learning English, I try to think about my strengths and weaknesses.
10. When I am confronted with a problem related to learning English, I usually find several solutions.

The Short-Form of the Foreign Language Enjoyment Scale (S-FLES)

1. My English teacher is encouraging.
2. My English teacher is friendly.
3. My English teacher is supportive.
4. I enjoy studying English.
5. I have learnt interesting things in my English class.
6. In my English class, I feel proud of my accomplishments.
7. In my English class, my classmates and I form a tight group.
8. In my English class, my classmates and I have common jokes.
9. In my English class, my classmates and I laugh a lot.

The Foreign Language Classroom Anxiety Scale (FLCAS)

1. Even if I am well prepared for my English class, I feel anxious about it.
2. I always feel that the other students speak English better than I do.
3. I can feel my heart pounding when I am going to be called on in my English class.
4. I worry about making mistakes in my English class.
5. I am not confident when I speak in my English class.
6. I get nervous and confused when I am speaking in my English class.
7. I start to panic when I have to speak without preparation in my English class.
8. It embarrasses me to volunteer answers in my English class.