Perceived teacher autonomy support and grit as predictors of ideal L2 self among Chinese EFL learners

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ABSTRACT: Although some research attention has been given to second language (L2) affective and emotion constructs recently, this research agenda is still in its infancy. In an attempt to shed more light on this area, the present researchers tested a structural model of ideal L2 self in which perceived teacher autonomy support and L2 grit served as predictors. For this purpose, 346 Chinese English as a foreign language (EFL) learners were requested to participate in an electronic survey. The collected data were analyzed using structural equation modelling (SEM). The construct validity of the used scales was verified by performing confirmatory factor analysis. The SEM results indicated that although both perceived teacher autonomy support and L2 grit significantly predicted the ideal L2 self, the former was a more powerful predictor in the final fit model. Additionally, it was revealed that perceived autonomy support had a slight effect on EFL learners' grit levels. The outcomes of this inquiry may have some significant implications for language teachers and teacher educators. To help learners develop their ideal L2 self, language teachers should give their learners a great deal of latitude in carrying out the learning activities. Teacher educators also need to hold some workshops and training courses on autonomy support strategies to teach in-service instructors how to efficiently support their learners' autonomy.
Keywords: perceived teacher autonomy support, L2 grit, ideal L2 self, EFL, SEM

El apoyo a la autonomía del profesor y el valor percibido como predictores del yo ideal de L2 entre los estudiantes chinos de ILE

RESUMEN: Aunque recientemente se ha prestado cierta atención a los constructos afectivos y emocionales de las segundas lenguas (L2), esta agenda de investigación está todavía en pañales. En un intento de arrojar más luz sobre esta área, los presentes investigadores probaron un modelo estructural del yo ideal de L2 en el que el apoyo a la autonomía del profesor percibido y el grit de L2 sirvieron como predictores. Para ello, se pidió a 346 estudiantes chinos de inglés como lengua extranjera (EFL) que participaran en una encuesta electrónica. Los datos recogidos se analizaron mediante modelos de ecuaciones estructurales (SEM). La validez de constructo de las escalas utilizadas se verificó mediante un análisis factorial confirmatorio. Los resultados del SEM indicaron que, aunque tanto el apoyo a la autonomía percibido por el profesor como el grit de L2 predecían significativamente el yo ideal de L2, el primero era un predictor más potente en el modelo de ajuste final. Además, se reveló que el apoyo a la autonomía percibido tenía un ligero efecto sobre los niveles de

agallas de los estudiantes de EFL. Los resultados de esta investigación pueden tener impli-
caciones importantes para los profesores de idiomas y los formadores de profesores. Para
ayudar a los alumnos a desarrollar su yo ideal en la L2, los profesores de idiomas deberían
dar a sus alumnos una gran libertad a la hora de llevar a cabo las actividades de aprendizaje.
Los formadores de profesores también deben organizar talleres y cursos de formación sobre
estrategias de apoyo a la autonomía para enseñar a los profesores en activo a apoyar eficaz-
mente la autonomía de sus alumnos.
Palabras clave: autonomía percibida del profesorado, en millones de toneladas, L2 ideal,
EFL, SEM

1. INTRODUCTION

Second language (L2) learning is largely dependent on learners' motivation and a
lack of adequate motivation can hinder even the most proficient students from reaching
their intended aims (Boo et al., 2015; Dörnyei, 1990; Henry, 2017; Kim & Kim, 2021).
Moreover, it is generally acknowledged that a foreign language is more than just a simple
communication system that can be acquired in much the same way as other academic sub-
jects (Johnson, 2017). As one prominent motivation theory, L2 Motivational Self System is
anchored in the previous research conducted in the field of L2 learning (Dörnyei, 2009). L2
motivation researchers have typically adopted paradigms that link the L2 to one's identity
as an individual (Gardner, 1985; Tseng & Gao, 2021). Ideal L2 self as a key component of
this model is the belief that L2 learners' motivation is affected by the reduction of the gap
between their current and future selves in order to gain further mastery. Various researchers
have reported that English proficiency was higher among learners with a stronger Ideal L2
(e.g., Feng & Papi, 2020; Kormos & Csizér, 2014; Papi et al., 2019; Taguchi et al., 2009;
Teimouri, 2017).

Autonomous supportive teaching as an instructional strategy refers to the state of allowing
students to take control of their own behavior by providing them with autonomy and support
(Deci et al., 1981; Reeve & Jang, 2006). The autonomy support style of teaching generally
leads to a greater sense of intrinsic motivation among students along with improved learning
outcomes, while a control style of teaching often leads to a decrease in student motivation
and classroom engagement (Carreira et al., 2013; Jang et al., 2009; Reeve, 2009; Wei et
al., 2020; Zhang et al., 2018). A student who is autonomously motivated is more engaged
in an activity not just for achieving an outcome, but for the sake of doing the activity it-
self. In addition, studies have shown that students with higher intrinsic motivation tend to
employ better learning strategies and do better in school (Vansteenkiste et al., 2005; Zhang
et al., 2018). Although teachers are in a position of authority, autonomy-supportive learning
environments allow students to express their perspectives, respect their feelings, especially
their negative feelings, and decrease the tendency to make requests and place pressure on
students (Deci et al., 1994; Reeve & Cheon, 2021; Reeve et al., 2004; Skinner & Belmont,
1993). When teachers support students' autonomy to guide their learning and activity, they
strengthen students' engagement through presenting meaningful learning goals, providing
various challenges, presenting interesting as well as relevant learning activities, and supporting
students' approval of classroom behaviors (Chirkov & Ryan, 2001; Reeve & Cheon, 2021;
Reeve & Jang, 2006; Shih 2009).

As defined by Duckworth et al. (2007), grit is the perseverance and passion for long-term goals and this concept refers to individuals' willingness to work continuously and persistently to achieve pre-planned and frequently challenging objectives. As argued by Duckworth et al. (2007) individuals with strong grit not only accomplish tasks more successfully, but they also pursue long-term goals. Grit is characterized by two facets (Duckworth et al.,2007): Consistency of Interests (COI) which refers to a person's persistent passion, which sustains despite failures, disappointments and challenges for a long time; Perseverance of Effort (POE) which refers to a person's continued investment of energy in long-term activities. Additionally, grit has the characteristic of being malleable, which means that it can be improved in the classroom through intervention (Credé et al., 2017). A number of researchers have indicated that grit is associated with L2 achievement, motivation, emotions, and willingness to communicate (Changlek & Palanukulwong, 2015; Duckworth et al., 2007; Teimouri et al., 2020).

Although motivational and emotional constructs have recently received some attention by L2 researchers (e.g., Derakhshan et al., 2022; Dewaele et al., 2022; Greenier et al., 2021; Li et al., 2022; Mohammad Hosseini et al., 2022; Papi et al., 2019; Teimouri et al., 2020; Wang & Guan, 2020; Wei et al., 2019), this research agenda is in its infancy. Thus, more empirical investigations need to be conducted in this area. More precisely, little research effort has been dedicated to examining the L2 self of language learners and its internal or external predictors. Furthermore, to the best of the researcher's knowledge, no research study has ever examined the interplay between autonomy support and L2 grit with respect to EFL learners' ideal L2 self. Therefore, whether autonomy support and L2 grit can predict EFL learners' ideal L2 self is open to debate. To fill these gaps, the present study intends to examine the power of perceived teacher autonomy support and grit in predicting Chinese EFL learners' ideal L2 self. To meet this purpose, two research questions were formulated as follows:

RQ$_1$:   Is there any significant association among perceived teacher autonomy support, L2 grit, and ideal L2 self?

RQ$_2$.: Do perceived teacher autonomy support and L2 grit significantly predict Chinese EFL learners' ideal L2 self?

2. Literature Review

2.1 Teacher Autonomy Support

An important instructional strategy, grounded in self-determination theory (SDT; Deci et al., 2017), is autonomy support teaching, in which students have psychological freedom in deciding how to behave (Reeve, 2009; Skinner & Belmont, 1993; Wei et al., 2020). In order to create a motivating and supportive learning environment, teachers should offer students choices and explain the rationales for learning tasks, introduce meaningful learning goals, incorporate interesting activities, listen to students' voices, and refrain from excessive control (Dupont et al., 2014; Jang et al., 2010; Skinner & Belmont, 1993). In order for students to experience autonomy in learning, supervisors must demonstrate autonomy-supportive behaviors, and in autonomy-supportive learning environments, although the teachers remain the authority in class, they support students' ideas, perspectives, feelings, and try to minimize

the control over the class (Pan et al., 2023; Reeve et al., 2004; Wang et al., 2022; Zhi & Wang, 2023; Wei et al., 2020). According to the findings of some studies (e.g., Carreira et al., 2013; Vansteenkiste et al., 2005), teachers who promote autonomy-supporting strategies are more likely to motivate their students intrinsically and autonomously and, in turn improve academic achievement and other learning outcomes. Students who are autonomously motivated get engaged in an activity not for the purpose of obtaining a separate outcome but for the sake of the activity itself (Carreira, 2012; Noels et al., 2000; Vansteenkiste et al., 2009). In addition, researchers have found that students with greater intrinsic motivation use deeper learning strategies, which lead to higher grades (Carreira, 2012; Noels et al., 2000; Vansteenkiste et al., 2005). For instance, Zhang et al. (2018) indicated that Chinese students with higher levels of autonomy support showed higher levels of intrinsic motivation towards learning, leading to their greater academic achievement in both Chinese and mathematics. In another study carried out by Reeve et al. (2004), it was revealed that the more teachers supported autonomy behaviors, the more student participation was seen during the intervention.

In accordance with self-determination theory, teacher's instructional style can be conceptualized along a continuum that ranges from highly controlling to highly autonomy-supporting (Guo et al., 2023; Jang et al., 2010; Ryan & Deci, 2000). As a general rule, teachers who support their students' autonomy are more likely to engage students by facilitating a constant congruence between their autonomy sources and their classroom activities at any given moment (Deci et al., 1981; Jang et al., 2010). Students' autonomy is facilitated by autonomy-supportive teachers who take their perspective into account, identify their needs, concerns, and priorities, provide them with ideal challenges, emphasize meaningful learning goals, and provide them with interesting, relevant, and enriching activities (Jang, 2008; Jang et al., 2010; Reeve, 2009; Wang & Hemchua, 2022). Autonomy-supportive teachers create opportunities for students to take the ambition during learning activities by developing students' inner motivational resources. Instead of relying on external motivations like outcomes and deadlines, autonomy-supportive teachers build instruction around students' interests, priorities, personal goals, choice-making, and sense of challenge as well as a curiosity (Cheon et al., 2020). These teachers use noncontrolling informational language to provide explanatory clarification for tasks and communicate through instructive, pliant, competence-related messages. In lieu of neglecting clarifications and communicating with messages that are evaluative, controlling, pressuring, or rigidly coercive, autonomy supportive teachers communicate through messages that are valuable, flexible, and prosperous in competence-related information (Reeve & Cheon, 2021). Moreover, these teachers value the perspectives of students, support students' autonomy, acknowledge their viewpoints as well as emotions, acknowledge their feelings, and accept students' reports of negative affect as a potentially legitimate reaction to classroom requirements, imposed structures, and activities that are tiresome or depreciated.

An engaging classroom is a combination of behavioural engagement, emotional engagement, and cognitive engagement (Shernoff, 2013). Behavioural engagement refers to pupils' learning behaviors such as finishing their homework at the appointed time, as well as their involvement in school activities. Emotional engagement relates to students' curiosity, enjoyment, and their emotive impression regarding learning outcomes. Finally, cognitive engagement is related to pupils' opinions about learning (Fredricks & McColskey 2012; Fredricks

et al., 2004; Wei et al., 2020). As reported in previous studies, classroom engagement is closely associated with teacher autonomy support. As an example, Oga-Baldwin and Nakata (2015) pointed out a positive impact of autonomy supportive context on students' classroom engagement. Also, Jang et al. (2010) revealed that it is likely that students would be more engaged in collective behavior if teachers were rated by observers as providing autonomy support. Moreover, Dupont et al. (2014) indicated that the likelihood of students' cognitive engagement increases if they perceive their supervisors to be autonomy supportive. Similarly, Hospel and Galand (2016) conducted a study and recruited 9th grade French speaking learners and their results revealed that there was an association between teachers' autonomy support and learners' emotional engagement.

2.2 Grit

Having been comprised of perseverance of effort and consistency of interests, grit enables individuals to achieve their goals in spite of obstacles and challenges (Derakhshan, Dewaele, & Azari Noughabi, 2022; Duckworth et al., 2007). Grit relates to maintaining interest, curiosity, and passion for accomplishing one's goals over a long period of time regardless of barriers and failings (Duckworth, 2016; Lan et al., 2021; Lee, 2020; Pan, 2022). It has been shown that grit is among the factors that contribute to outstanding performance in numerous human activities and personal pursuits, including learning a new language (Duckworth, 2016; Lee, 2020). The relationship between grit and ideal L2 self has been examined in some studies and the findings have indicated a positive interconnection between these two constructs (Feng & Papi, 2020; Lan et al., 2021; Papi & Teimouri, 2012). Some researchers have also reported that grit is positively correlated with academic results, scholastic achievements, self-belief, participation, and students' motivation (Akos & Kretchmar, 2017; Chen et al., 2018; Hodge et al., 2018). Conversely, the results of some other studies have demonstrated that is not substantially associated with academic achievement (Ivcevic & Brackett, 2014). For instance, using POE and self-efficacy as models, Usher et al. (2019) discovered that POE did not significantly affect academic achievement. It can be argued that as well-defined and challenging tasks require more grit, the inconclusive findings could be due to the role of different moderators; therefore, the nature of the domain might affect grit on easy tasks in a different way (Credé et al., 2017; Khajavy et al., 2021). Additionally, this relationship might be affected by other individual differences such as the given ability or metacognition. This implies that high grit is ineffective when self-regulation and ability are not present. Also, high levels of grit may not be appropriate due to decreased help-seeking behaviors that have been shown to promote achievement in some cases (Khajavy et al., 2021). Concerning L2 learning, Wei et al. (2019) reported that grit is associated with foreign language performance in both a direct and indirect manner. In another study, Feng and Papi (2020) found that perseverance of effort predicted L2 persistence and motivation. Given the mixed findings of the studies reviewed, further research evidence is still needed to extend our understanding of grit especially in EFL contexts in order to determine whether it can be applied to language learning, which involves a lengthy process where errors and other challenges are common.

2.3 Ideal L2 Self

It was Robert Gardner who significantly influenced and inspired primary research on L2 motivation (Gardner, 1985). Historically, numerous concepts of L2 motivation had been based on Gardner's socioeconomic model, which is considered a classic conceptualization of the integrative motive (Gardner, 1985). Although the construct of integrativeness has been of considerable importance, it has been frequently criticized since the 1990s (Dörnyei, 2010). In the case of foreign language learning contexts where students are primarily exposed to the target language as a curriculum subject, integration is not feasible (Fathi & Mohammaddokht, 2021). Since Gardner's (1985) model could not be widely applied to educational settings, particularly EFL contexts, Dörnyei (2005, 2009) proposed a new theory of L2 motivational self-systems based on Gardner's (1985) original theory. L2 motivational self-systems canbe applicable to multiple linguistic and cultural contexts (Dörnyei, 2010; Taguchi et al., 2009). In the past decade, investigators have focused on examining the two core components of proposed construct by Dörnyei (2005, 2009), the ought-to and ideal L2 self, in various L2 contexts. To uncover and realize the concept of motivation regarding language learning, ideal L2 self has been considered essential, which is referred to as a pleasing self-image that L2 learners seek to achieve in the future once they are fluent in their L2 learning process (Dörnyei, 2009; Kim & Kim, 2012; Zhang et al., 2022). According to Dörnyei (2010), when one attempts to fill the gap between their actual L2 skills and their future goals of L2 learning, the ideal L2 self acts as an effective motivator. Numerous studies have been carried out to investigate the relationship between deal L2 self and foreign language learning (Dörnyei, 2009; Dörnyei & Ushioda, 2009; Ueki & Takeuchi, 2013). For instance, Dörnyei and Chan (2013) found that those students with high motivation and more obvious ideal L2 self-image were more likely to accomplish their L2 learning goals more effectively. Additionally, Kong et al. (2018) carried out a study to explore the link between ideal L2 self and foreign language enjoyment (FLE) in the Korean EFL context. Their results showed that students with higher ideal L2 self showed greater FLE. Also, the findings indicated that, unlike ought-to L2 self, ideal L2 self had a significant effect on students' FLE as well as their attitudes toward L2 learning. Similarly, Ueki and Takeuchi (2013) highlighted the considerable influence of ideal L2 self on L2 learning motivation.

2.4 Related Studies

As far as teacher autonomy support, L2 grit, and ideal L2 self are concerned, a number of researchers have investigated in these constructs in empirical studies. For example, in a study done by Shen et al. (2009), a number of 253 participants were recruited to investigate the impact of teacher autonomy support and students' motivation on physical education learning. Their results revealed that students' classroom engagement and learning achievement enhanced as a result of offering more student autonomy support. Similarly, Ljubin-Golub et al. (2020) carried out a study to examine the role of teacher autonomy support and students' autonomous motivation. A number of 213 university students were selected as the participants of this study. The findings indicated that students who perceived more autonomy support from their teachers experienced more motivation to learn independently. In another

study, Yeşilyurt (2008) investigated the relationship between students' autonomy support and motivation in an English writing course. A number of 275 English major students took part in this study. The results showed that autonomy support in learning environments enhanced students' intrinsic motivation as well as their achievement in English writing classes. In another study, Dincer et al. (2012) examined the effect of autonomy support environments on Turkish EFL students' achievements in English speaking classrooms. The findings of this research revealed that the autonomy supported environment provided by the teacher improved students' competence in speaking and resulted in higher levels of engagement in English speaking classroom.

More recently, Wu et al. (2022) investigated the effect of motivation and grit on students' English language performance. A number of 624 students were selected randomly as the participants of this study. The results revealed that motivation, grit, and English language performance were all positively correlated. In another study, Changlek & Palanukulwong (2015) examined the role of motivation and grit in influencing language learning achievement. The results of this study revealed that a significant and positive relationship was observed between motivation and grit among high achiever students. In addition, recruiting a number of 191 participants, Teimouri et al. (2022) indicated that L2 grit was positively associated with students' motivation and their achievement in L2 learning. Also, Kiatkeeree and Ruangjaroon (2022) explored the relationship between grit and engagement of L2 learners among 563 EFL learners. Their results demonstrated that there was a positive correlation among grit, language achievement, and engagement.

Furthermore, Lozano-Jiménez et al. (2021) examined the impact of autonomy support and grit on life satisfaction. The results showed that autonomy support and grit perceptions positively predicted intrinsic motivations, which in turn predicted life satisfaction of the participants. Likewise, Huéscar Hernández et al. (2020) explored the impact of perceived autonomy support and grit on academic performance of 474 students. Their findings showed that as a result of perseverance, intrinsic motivation appeared to mediate the effect of perceived autonomy support on academic performance. In a recent study, Shen & Guo (2022) also examined the role of teacher respect and support in increasing EFL learners' grit. The participants of this study were 613 EFL learners from China. The results revealed that significant links existed between teacher support, teacher respect, and grit. More specifically, teacher respect and teacher support influenced L2 grit positively.

3. Method

3.1 Participants

As for the purpose of this study, 346 Chinese EFL learners were selected through convenience sampling. The sample included male (n = 159) and female (n = 187) English major students from various provinces in different parts of the country. Having asked for the cooperation of some friends, colleagues, and university instructors, most of the respondents were selected from Chinese national universities. the first language of the participants was predominantly Chinese and they reported to have studied English before from 5 to 13 years. Their age varied from 20 to 31 (M = 23.74, SD = 4.79).

3.2 Instrument

Perceived Teacher Autonomy Support Scale

In order to measure EFL learners' perception of teachers' autonomy support, the short version of Learning Climate Questionnaire used by Jang et al. (2012) was adopted in this study. This abridged version of the questionnaire has been previously used to measure students' perceived autonomy support (Jang et al., 2009). The questionnaire includes six self-report items. A sample item is 'My teachers encourage me to ask questions'. Each item is measured on a 7-point Likert-type scale (1 = strongly disagree, 7 = strongly agree). The psychometric properties of this scale were confirmed by Jang et al. (2012).

L2 Grit Scale

The L2 grit scale validated by Teimouri et al. (2020) was used to measure participants' grit levels. This scale includes two inter-related components including Consistency of Interest (COI; 6 items) and Perseverance of Efforts (POE; 6 items) in L2 learning. The first component measures the L2 learners' interest consistency while learning and the second component taps into the learners' level of persistence in accomplishing their L2 objectives. A sample item for COI is "My interests in learning English changes from year to year" and a sample item for POE is "I will not give up learning English until I master it".

Ideal L2 Self Scale

To gauge EFL students' ideal L2 self, an eight-item questionnaire developed by Papi and Abdollahzadeh (2012) was administered to the Chinese EFL students of this study. The items of this questionnaire assess EFL students' future picture of themselves as perfect users of L2. Every statement is assessed on a 6-point Likert scale varying from 1 ('strongly disagree') to 6 ('strongly agree'). A sample item is "I imagine myself being a person known as a fluent speaker of English."

3.3 Data Collection Procedure

The data for this non-experimental study were gathered by distributing the electronic versions of the three scales of perceived teacher autonomy support, L2 grit, and ideal L2 self to a sample of Chinese EFL learners. Having been created via Google Forms, the electronic surveys were shared with various Chinese EFL learners from different provinces. At the beginning of the surveys, some explanations regarding how to complete the scales were provided. For the sake of more homogeneity, the respondents were selected from English major students. Informed consents for participation were obtained from the participants who were also informed that their confidentiality would be ensured. For the convenience of the participants, no deadline was set for returning the filled questionnaires. The data collection lasted about three months, from June to September 2022.

3.4 Data Analysis

First, an initial data screening was performed and it was demonstrated that no outliers, non-normal data, and missing values were found. Then confirmatory factor analysis (CFA)

was conducted to confirm the factor structure of the scales in this study. Ultimately, structural equation modeling (SEM) was performed employing AMOS version 23 to explore the causal associations among EFL learners' perceived teacher autonomy support, L2 grit, and ideal L2 self

4. Results

First, descriptive statistics and the correlations among the constructs were calculated (Table 1). Afterwards, the required assumptions for performing CFA and SEM were checked. The investigation of the dataset revealed no significant violation of the assumptions (i.e., adequate sample size, outliers, and univariate as well as multivariate normality of the data). Then, CFA was performed to measure the construct validity of questionnaires and the potential associations among the constructs. The results are presented in the table below (Table 1).

Table 1. *Descriptive statistics, correlations, and reliabilities of the constructs*

	M	SD	A	Skeweness	Kurtosis	1	2	3
Autonomy support	3.75	.65	.81	-.46	-.51	1		
L2 grit	4.12	.57	.89	-.52	-.62	.36**	1	
Ideal L2 self	4.38	.71	.83	-.61	-.51	.63**	.51**	1

As shown in Table 1, a positive, significant association was found between teacher autonomy support and ideal L2 self (r = .63, n = 346, P < .000). Likewise, a strong, favorable connection was discovered between L2 grit and ideal L2 self (r = .51, n = 346, P < .000). A number of fit indices were then used for model evaluation. The comparative fit index (CFI), the goodness of fit (GFI), the Tucker–Lewis index (TLI), and the root mean squared error of approximation (RMSEA)were examined. An acceptable RMSEA is between 0.05 and 0.08 (Xia & Yang, 2019). Also, the acceptable ranges of CFI and TLI are between 0.90 and 0.95 (Byrne, 2010; Hu & Bentler, 1999). According to Byrne (2010), an acceptable range for χ^2/df is also between 2 and 5. To test the measurement models of EFL learners' perceived teacher autonomy support, L2 grit, and ideal L2 self, a number of confirmatory factor analyses were carried out. Concerning the perceived teacher autonomy support scale, the standardized factor loadings varied from 0.52 to 0.83. For the L2 grit scale, the factor loading varied from 0.55 to 0.88. Concerning ideal L2 self scale, the factor loadings also varied from 0.61 to 0.85. As seen in Table 2, the measurement models showed good fit to the data (Kline, 2016), thereby verifying the factor structure of the used measures.

Table 2. *Measurement model of the talent constructs*

	χ^2/df	CFI	GFI	TLI	RMSEA	SRMR
Autonomy support	1.85	.97	.91	.96	.04	.05
L2 grit	1.92	.95	.89	.94	.05	.03
Ideal L2 self	2.13	.91	.89	.90	.06	.07

In the follow-up analysis, SEM analysis was performed to determine the significance of the causal associations among the three constructs. It is noteworthy that due to the relatively small sample size, the variables were considered as observed rather than latent constructs (Rosseel, 2020). In the first analysis of the initial model, the fit indices were not very acceptable ($\chi2/df$ = 2.97, p < 0.001, CFI = 0.91, GFI = 0.90, TLI = 0.89, RMSEA = 0.09. Afterwards, some modifications were suggested to be applied to the initial model. To this end, the error terms of some items in L2 grit and PTAS scales and were covaried (Kline, 2016). The final model demonstrated a more acceptable fit ($\chi2/df$ = 2.12, p < 0.001, CFI = 0.94, GFI = 0.92, TLI = 0.93, RMSEA = 0.06, SRMR = 0.03. Figure 1 illustrates the final model. L2 grit had a significant effect on ideal L2 self (β = .37, $R2$ = .13). The results also showed that perceived autonomy support was a more powerful predictor of ideal L2 self (β = .51, $R2$ = .26). In addition, perceived teacher autonomy support had a slight significant effect on EFL learners' ideal L2 self (β = .28, $R2$ = .07).
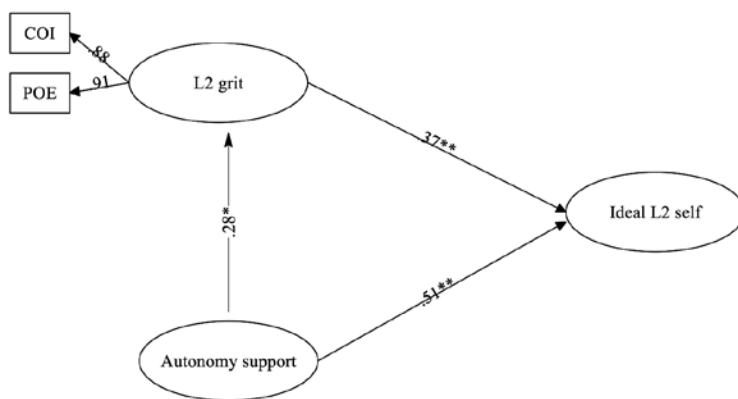

Figure 1. *The Final Model of Ideal L2 Self, Autonomy Support, and L2 grit. *p < .05. ***p < .001.*

5. DISCUSSION

This study was set to investigate the associations among the three constructs of perceived teacher autonomy support, L2 grit, and ideal L2 self. To this end, both measurement and structural models were tested. SEM results indicated that perceived teacher autonomy was a significant predictor of ideal L2 self. The findings of this study is partially in line with some previous empirical studies (e.g., Changlek & Palanukulwong, 2015; Dincer et al., 2012; Huéscar Hernández et al., 2020; Kiatkeeree & Ruangjaroon, 2022; Lozano-Jiménez et al., 2021; Ljubin-Golub et al., 2020; Shen & Guo, 2022; Shen et al., 2009; Teimouri et al., 2022; Wu et al., 2022; Yeşilyurt, 2008). This finding indicated that if learners perceive that they have been assigned adequate autonomy by the teacher, they will have more motivated L2 behavior. It is worth mentioning that learners must also feel autonomous in order to enhance motivation as motivated learning behavior enhances learner autonomy too. This is also in line with Reeve et al. (2004) who proposed a positive association between teacher autonomy

support and students' engagement in the classroom. It can be argued that by assigning freedom to pupils, their self-esteem, and responsibility increase, and this may foster their motivation in the L2 learning process. Likewise, Ljubin-Golub et al. (2020) found that students who perceived more autonomy support from their teachers experienced more motivation to learn independently. In the autonomy supported learning environment, teachers might feel more responsibility towards students' emotions and provide more friendly learning context, leading to their heightened L2 motivation. It can be argued that students' motivation is likely to develop as a result of having greater perceived freedom and self-controlled learning process.

The second finding of SEM analysis was that grit significantly predicted students' ideal L2 self. This supports the outcomes of Kiatkeeree and Ruangjaroon (2022) who found that there was a positive interconnection between grit, language achievement, and engagement. In other words, EFL learners who show greater consistent interest as well as perseverant efforts are more likely to visualize themselves as proficient users of English in future. Changlek and Palanukulwong (2015) also found a significant and positive relationship between motivation and grit among high achiever students. Similarly, Gardner et al. (2004) and Dörnyei & Ushioda (2011) have highlighted the significant association between L2 students' motivation and their efforts in achieving L2 learning outcomes. This was approved by Teimouri et al. (2022) who founded that L2 grit was positively associated with students' motivation and L2 achievement. Also, Sharrock (2013) reported that both forms of motivation (intrinsic and extrinsic) were linked to students' grit, the finding which was recently verified by Wu et al. (2022). Additionally, the results revealed that perceived teacher autonomy support had a slight effect on L2 grit. This supports the findings of Shen & Guo (2022) that found that teacher support positively influenced L2 grit. This outcome implies that perceived autonomy assigned by teachers contributes to learners' devotion of energy and efforts in achieving their goals. The link between perceived teacher autonomy support and grit has been partially affirmed by Huéscar Hernández et al. (2020) and Lozano-Jiménez et al. (2021).

Finally, it is worth noting that the outcomes of this inquiry should be interpreted with regard to some limitations. The sample size recruited in this research was relatively small and included only Chinese EFL learners, thereby limiting the generalizability of the obtained results. As such, future researchers are encouraged to replicate similar studies by recruiting bigger EFL samples from other contexts. In addition, the present researchers employed cross-sectional designs which fail to capture the dynamic and mutable nature of L2 emotions and affective constructs. Since the three constructs are likely to change over time, conducting longitudinal studies by future researchers can trace the change of these constructs over time more vividly. Finally, purely quantitative research methods which use only self-report scales may not shed adequate light on the true nature of the associations among the given constructs. Therefore, future researchers are recommended to use mixed methods studies in order to give a more accurate and thorough understanding of the findings.

6. CONCLUSION AND IMPLICATIONS

Overall, the findings of this study indicated that both perceived teacher autonomy support and L2 grit exerted significant effects on ideal L2 self of Chinese EFL learners. The results of the present study might offer some pedagogical implications. Given the sig-

nificant effects of perceived autonomy on both grit and ideal L2 self of the EFL learners, EFL practitioners are encouraged to provide their learners with autonomy-supportive learning contexts in which learners feel agency and responsibility, which in turn enhances their L2 motivated behavior and grit. This is not easily achievable unless EFL pre-service teachers are appropriately trained on how to assign autonomy to their students. Teachers can also try to make the learning environment stress-free, enjoyable, and friendly not only to make learners motivated to learn, but also to help them foster their L2 grit. Moreover, giving the right feedback at the right time, providing students with tasks of reasonable difficulty levels, and normalizing failures as an inseparable part of learning as well as success might be some strategies which can help students keep their perseverance and L2 grit.

Furthermore, given the important role of ideal L2 self in EFL contexts, it is crucial for instructors to encourage students to establish an ideal picture of themselves in the future as qualified and competent L2 users. In order to improve students' grit and ideal L2 self, instructors can remind them of the possible future accomplishments like studying abroad, various job offers both in and out of the country, traveling, getting to know different cultures, and communicating with people all around the world. Also, instructors are better to help students in goal setting, as goals should be reasonable and achievable, otherwise, students will have difficulty achieving those goals and they are more likely to give up.

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