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Psychological Resilience and English Learning Strategy Use among Chinese Senior High School Students

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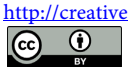

Abstract

Chinese high school students have long been under heavy academic pressure in English, and the rational use of learning strategies is particularly crucial to improving their English learning outcomes. Psychological resilience, as an important psychological resource, can influence the practical application of students' language learning strategies; however, the specific mechanism of action between the two has not yet been clearly elucidated. Therefore, this study systematically explores the overall correlation between psychological resilience and the use of English learning strategies, and further analyzes the corresponding relationship between various dimensions of psychological resilience and different learning strategies. The study selected 419 high school students as participants and conducted a questionnaire survey using the Chinese Adolescent Psychological Resilience Scale and the Language Learning Strategy Scale. The Pearson correlation analysis results show that, overall, there is a significant positive correlation between students' psychological resilience level and the frequency of English learning strategy use ($r = 0.26$, $p < 0.01$); Dimensional analysis presents differentiated features, with a strong positive correlation between goal focus and metacognitive strategies ($r = 0.515$, $p < 0.01$), while there is a significant negative correlation between emotion control and compensation strategies ($r = -0.138$, $p < 0.01$). Research has shown that the impact of psychological resilience on learning strategies is not a single fixed pattern, but rather works through multiple specific pathways. The conclusion of this study can provide empirical reference and theoretical basis for designing targeted teaching guidance and optimizing student strategy learning and training programs in high-pressure academic environments.

Subject Areas

English Education, Educational Psychology

Keywords

English Learning Strategy, Psychological Resilience, Chinese Senior High School Students

1. Introduction

Due to the high risk of the national college entrance examination (Gaokao), and a large proportion of English scores in their total exam results, Chinese high school students are under tremendous academic pressure. Recent educational surveys reveal that they are experiencing moderate anxiety about English language study (ELS) [1], feeling frustrated and helpless [2], which have exerted harmful effects on their learning outcomes and long-term learning motivation [1] [3]. Research shows that psychological resilience (PR) affects how learners cope with academic stress [4]. Therefore, understanding the role of psychological resilience in English language study is important which helps identify the sources of anxiety and alleviate it.

Even though there has been a growing body of scholarship about psychological resilience, scarce research explores how English language learners' psychological resilience relates to how they use strategies in language learning. This study aims to explore the relationship between psychological resilience and English learning strategy use among Chinese senior high school students. It particularly focuses on clarifying the subtle multidimensional connections between these two constructs. The research puts forward the following research questions:

- What is the overall correlation between Chinese senior high school students' psychological resilience and their use of English learning strategies?
- How do the five dimensions of psychological resilience (goal focus, emotional control, positive cognition, family support, and interpersonal assistance) correlate with the six types of English learning strategies (memory, cognitive, compensation, metacognitive, affective, and social strategies)?

2. Literature Review

2.1. Psychological Resilience (PR)

Early resilience research highlighted rare personal qualities enabling positive adaptation under adversity [5]. Recently, resilience is viewed as a malleable growth ability varying across individuals [6]. Three main perspectives exist: outcome-oriented [5], process-based [6], and dispositional [7]. The process-oriented view dominates educational research. Richardson [6] defined resilient adjustment as a balance between risk and support factors. The APA defines resilience as navigating adversity and achieving successful outcomes via cognitive, emotional, and behavioral flexibility [8]. Using ecological systems, Olsson [9] summarized three levels: individual (e.g., self-efficacy), family, and social environment. In China,

early Western scales proved culturally inadequate [10]. Hu and Gan [11] developed the Resilience Scale for Chinese Adolescents (RSCA) with five dimensions: goal focus, emotional control, positive cognition, family support, and interpersonal assistance. This study adopts this process-oriented, culturally grounded definition.

2.2. English Learning Strategies (ELS)

Since the 1970s, successful learners use different strategies [12]. O'Malley and Chamot [13] proposed three categories: cognitive, metacognitive, and social-affective. Oxford ([14], p. 8) defined learning strategies as "actions taken to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable", developing the SILL with six categories: memory, cognitive, compensation, metacognitive, affective, and social. SILL has shown cross-cultural reliability [14]. In China's EFL context, Wen [15] distinguished management and language learning strategies. This study adopts Oxford's [14] framework and SILL due to comprehensive coverage, validity among Chinese learners [16], and dimensional specificity.

2.3. Related Research on PR and ELS

Existing studies on PR have explored its influencing factors [17] [18], intervention methods [19], and links to academic performance [4] [20]. However, few focus on PR in EFL contexts, especially among Chinese senior high school students [21]. Regarding ELS, research has linked them to English performance [14] [22] [23] and investigated instructional methods like flipped classrooms [24] and strategy-based teaching [25]. Psychological predictors such as motivation [26] and self-efficacy [27] have also been identified. Notably, resilience closely relates to these factors and has been largely neglected in ELS research, despite its emotional regulation and social support mechanisms being vital for sustained strategic learning [4]. Emerging studies provide initial hints: Wang and Liu [21] found that academic buoyancy mediates the motivation-strategy use link; Gao, Wang, and Barry [28] showed that resilience sustains strategy use via flow experience in digital settings. However, limitations remain: these studies focus on limited aspects of resilience (e.g., academic buoyancy) rather than its multidimensional structure, explore specific rather than mainstream EFL contexts, and treat resilience as unidimensional, masking distinct relationships between specific resilience dimensions and strategy types. Crucially, no study has systematically examined dimension-level associations between Hu and Gan's [11] five resilience dimensions and Oxford's [14] six strategy categories among Chinese senior high school students. As Martin and Marsh [4] argue, understanding that resilience "matters" is less helpful than identifying which aspects matter for different learning behaviors. This study aims to fill this gap.

3. Theoretical Framework

3.1. Control-Value Theory

Pekrun's [3] Control-Value Theory (CVT) is a foundational framework of this

study. CVT holds that learners' achievement emotions come from two appraisals: control appraisals (subjective ability to meet academic demands) and value appraisals (judgments on task significance). These appraisals generate emotions that regulate motivation, attention, and learning behaviors [3] [29].

CVT explains how resilience influences strategic engagement. Resilient students maintain stronger agency when facing English learning challenges, increasing their use of metacognitive monitoring and plan adjustment [4] [23]. Such students experience positive activating emotions (e.g., enjoyment, pride) that promote deep learning [30], whereas low-resilience students tend toward anxiety and avoidance strategies [31]. Moreover, resilient learners typically attribute failure to insufficient effort rather than fixed ability, sustaining strategy use after setbacks [32] [33].

3.2. Social Cognitive Theory

Bandura's [34] Social Cognitive Theory (SCT) is a complementary framework of this research. SCT identifies self-efficacy—beliefs in one's capacity to execute actions and manage situations—as central to resilience. High self-efficacy reduces setback impacts and directly promotes advanced strategy adoption, particularly metacognitive monitoring [14] [23] [34]. SCT's triadic reciprocity also suggests resilience and strategy use mutually reinforce each other: successful strategy use builds confidence, strengthening future resilience [4] [6].

3.3. Integration

CVT and SCT jointly explain the resilience—strategy relationship. CVT addresses the emotional-evaluative pathway: resilient students hold adaptive appraisals and positive emotions, engaging strategies more frequently [3] [30]. SCT addresses the agentic-self-regulatory pathway: self-efficacy directly drives strategy selection and implementation [34]. Both frameworks support multidimensional, dynamic learning processes [6] [23], aligning with this study's dimension-level analysis.

4. Methodology

4.1. Research Design

This research design was chosen for its practical strengths. It allows researchers to collect data from a large group of participants at one time and identify basic covariation trends between psychological variables, without making causal judgments. Correlational methods cannot confirm causal links, yet they suit exploratory research well. Such designs help researchers check existing relationships and find patterns for later experimental or long-term follow-up studies. All data were collected within one fixed time point to reflect the current state of these variables and their interrelations. This method fits educational research contexts perfectly, since long-term tracking is often hard to carry out in school.

4.2. Participants

This study chose 419 senior high school students from an urban school located in Southeastern China. The school is a public key high school with approximately 2400 students. Among them, 189 were female learners (45.3%) and 230 were male learners (54.7%). Such gender proportions are close to the common distribution in Chinese high schools. The slight advantage of male participants also matches the overall demographic features across China. Every student taking part in this research was receiving formal EFL courses at school, aging between 15 and 19 years, with an average age of 16.5 years (SD = 0.9), covering grades 10 to 12 in the local schooling system. Specifically, the sample comprised 131 tenth graders, 133 eleventh graders, and 155 twelfth graders. This slightly larger number of twelfth graders reflects the natural grade distribution in the school. A convenience sampling method combined with grade-based stratification was adopted to recruit participants, so as to guarantee that all high school grades were represented in the sample. All the participants were native Chinese speakers, and they had studied English as a foreign language for a minimum of seven years.

4.3. Instruments

The current study utilized two selected questionnaires as the instruments to measure the PR and ELS use. They start with questions about responders' personal information, including gender and age etc. Two 5-point Likert scales were adopted, with all the items rated from 1 ("strongly disagree") to 5 ("strongly agree"). This response format was chosen for its simplicity and familiarity to Chinese students, who regularly encounter similar scales in school assessments.

The Resilience Scale for Chinese Adolescents (RSCA) developed by Hu and Gan [11] was selected to measure the PR of Chinese senior high school students. The original Chinese version was used without any modification, as it was specifically developed for Chinese adolescents. This 27-item scale was used intact, which comprises five aspects: 1) goal focus (e.g., "I set goals to help me advance"), 2) emotional control (e.g., "I adjust emotions easily in a short time"), 3) positive cognition (e.g., "I think adversity has an incentive effect on people"), 4) family support (e.g., "My parents always encourage me to try my best"), and 5) interpersonal assistance (e.g., "I confide annoyances to my friends"). These dimensions reflect the multi-level framework of resilience, incorporating both internal resources (goal focus, emotional control, positive cognition), and external support systems (family support, interpersonal assistance). RSCA has been shown to be reliable and valid, with an alpha coefficient of 0.85 in previous studies [11], and similar reliability estimates in subsequent applications with Chinese adolescent populations. Recent studies with Chinese senior high school and university samples have consistently reported Cronbach's alpha coefficients ranging from 0.83 to 0.86 [21] [35], alongside strong factorial and criterion validity, confirming its suitability for the present investigation.

The Strategy Inventory for Language Learning (SILL) developed by Oxford [14]

was adopted to examine ELS use. The Chinese version translated and validated by Pan [16] was employed in this study. It is the most widely used instrument for assessing language learning strategies globally and has been validated in numerous cultural and linguistic contexts. The 50-item questionnaire comprises six dimensions: memory strategies (items 1-9, e.g., "I think of relationships between what I already know and new things I learn in English"), cognitive strategies (items 10-23, e.g., "I say or write new English words several times"), compensation strategies (items 24-29, e.g., "To understand unfamiliar English words, I make guesses"), metacognitive strategies (item 30-38, e.g., "I try to find as many ways as I can to use my English"), affective strategies (items 39-44, e.g., "I try to relax whenever I feel afraid of using English"), and social strategies (item 45-50, e.g., "If I do not understand something in English, I ask the other person to slow down or say it again"). Previous studies have confirmed that the SILL questionnaire has high reliability among various groups of participants. For Chinese context, Pan [16] verified its reliability in his research on Chinese middle school students, with an alpha coefficient of 0.927. Its six-category structure is consistent with the theoretical taxonomy put forward by O'Malley and Chamot [13], which has been corroborated by factor analysis studies. The SILL questionnaire is comprehensive in scope, covering multiple dimensions, such as cognitive and metacognitive aspects, which makes it highly appropriate for exploring the full range of strategy use in relation to psychological resilience.

4.4. Data Collection

After obtaining approval from the Academic Ethics Committee of Guangdong University of Foreign Studies, data collection was carried out by the researcher through a systematic distribution of paper-based survey forms, accompanied by signed informed consent forms. Given that all participants were minors, their parents were informed of the study through school communication channels, and student assent was confirmed through signature before data collection. Surveys were distributed with the help of class teachers during the scheduled class hours, and before participants started filling out the forms, researchers clearly explained the purpose of the study and the measures taken to protect information confidentiality. Researchers collected data during a self-study session after the midterm exam in ordinary classrooms, which prevented any disruption to the participants' daily learning routine. This time period was selected because the participants had just gone through the midterm exam—a significant academic challenge—which made the roles of resilience and learning strategies more important. All participants filled out the questionnaires on their own, without any time constraints, and most of them finished within 25 - 30 minutes. For administrative convenience only, each participant was assigned a confidential student code (instead of using their real names) to connect their questionnaires, ensuring the anonymity of all participants in the dataset. Through this code system, it was confirmed that a total of 443 questionnaires were distributed and all were collected. After data cleaning,

419 valid responses were retained for final analysis (see Section 4.5 for specific cleaning methods). All collected data were processed and stored in an anonymous way, which ensured that no individual participant could be identified from the research data and fully meet the requirement of ethical research norms.

4.5. Data Analysis

This study adopted IBM SPSS Statistics 27.0 to carry out all statistical analysis. The data analysis was conducted step by step so as to guarantee valid and reliable research outcomes. Before running formal statistical tests, the original data was first sorted and cleaned up. Unqualified questionnaires were screened out according to clear standards: 1) regular patterned filling, defined as identical responses across five or more adjacent items; 2) extreme identical scoring, defined as selecting the same response option for 75% or more of all items; and 3) unfinished items, defined as leaving any item blank. The researchers then excluded 24 questionnaires based on these criteria: 8 for patterned filling, 6 for extreme identical scoring, and 6 for excessive missing responses. After data cleaning, Cronbach's alpha values were computed for RSCA, SILL and all their subdimensions to examine internal consistency among the present sample. In academic research, an alpha level around 0.70 is regarded as acceptable [36] [37]. Coefficients above 0.80 suggest good reliability, and those exceeding 0.90 represent excellent reliability performance. As the RSCA and SILL are established instruments with well-documented validity in previous research [11] [14], the present study did not conduct additional factor analyses but relied on the structural validity reported in the original scale development and validation studies.

Next, descriptive statistics, including means (M), standard deviations (SD), minimums and maximums, were computed for the main variables and all subdimensions, providing a summary of the central tendency and distribution of the sample's scores. Furthermore, the study tested the distribution normality of all key variables. Considering the large sample size (N = 419), the research evaluated distribution normality by checking the skewness and kurtosis values. In line with academic guidelines, absolute skewness values below 2.0 and kurtosis values below 7.0 mean there is no serious deviation from normality [38]. The central limit theorem states that when the sample size exceeds 30, the sampling distribution of means tends to be normal, regardless of population distribution. Even so, testing univariate normality offers extra confirmation for the suitability of parametric analysis methods. As shown in **Table 1**, the results indicated that the normality assumption was not violated.

Lastly, to answer the core research question about the relationship between PR and ELS use, Pearson product-moment correlation analysis was carried out. This analysis explored two aspects: the overall correlation between total PR scores and total ELS scores, as well as the detailed relationships between the five PR dimensions and six ELS categories. It thus provided a throughout understanding of how different resilience facets relate to various types of learning strategies.

Table 1. Descriptive statistic and normality indices for key variables.

	Mean	Standard Deviation	Minimum	Maximum	Skewness	Kurtosis
PR Total	3.42	0.49	1.56	4.85	−0.16	0.76
Goal Focus	3.44	0.75	1	5	−0.42	0.34
Emotional Control	3.09	0.84	1	5	−0.11	−0.47
Positive Cognition	3.64	0.59	1	5	−0.51	1.07
Family Support	3.66	0.72	1	5	−0.48	0.31
Interpersonal Assistance	3.12	0.78	1	5	−0.36	−0.11
ELSU Total	3.05	0.65	1.26	5.00	0.14	0.37
Memory	2.94	0.75	1	5	0.09	0.31
Cognitive	3.09	0.71	1	5	0.15	0.39
Compensation	3.14	0.69	1	5	−0.01	0.61
Metacognitive	3.06	0.81	1	5	0.03	−0.11
Affective	3.10	0.79	1	5	−0.09	−0.03
Social	3.00	0.82	1	5	0.06	−0.14

a. PR = Psychological Resilience. b. ELSU = English Learning Strategy Use. c. Scores represent mean scores per item (range: 1 - 5).

5. Results

Table 2 presents the Cronbach's alpha coefficients for the RSCA and the SILL. For the present sample, the overall RSCA achieved an alpha of 0.84, and the overall SILL achieved an alpha of 0.96, both indicating good to excellent internal consistency. The subscale reliabilities ranged from 0.71 to 0.80 for the RSCA dimensions, and from 0.65 to 0.89 for the SILL categories.

It should be noted that the Compensation subscale ($\alpha = 0.65$) fell slightly below the conventional threshold of 0.70. Given that this subscale contains only six items and its correlation patterns with other variables align with theoretical expectations, it was retained for subsequent analyses.

Table 2. Reliability of the questionnaires.

	Cronbach's Alpha	N of items
RSCA Total	0.84	27
Goal Focus	0.75	4
Emotional Control	0.78	5
Positive Cognition	0.71	6
Family Support	0.80	6
Interpersonal Assistance	0.79	6
SILL Total	0.96	50
Memory	0.84	9
Cognitive	0.88	14

Continued

Compensation	0.65	6
Metacognitive	0.89	9
Affective	0.81	6
Social	0.81	6

a. RSCA = Resilience Scale for Chinese Adolescents. b. SILL = Strategy Inventory for Language Learning.

Table 1 presents central tendency indices, dispersion parameters, and distributional shape statistics for principal study variables. Participants evidenced moderate resilience levels (M = 3.42, SD = 0.49) alongside somewhat lower strategic engagement frequencies (M = 3.05, SD = 0.65). Univariate normality diagnostics indicated that skewness and kurtosis absolute values fell within conventional tolerance thresholds, suggesting distributions sufficiently approximating normality for subsequent parametric analyses. Given the large sample size in this study (N = 419), the assumption of normality for parametric tests was assessed with consideration of the central limit theorem. It is well established that with large samples, parameter estimates tend to be normally distributed, making tests like Pearson's correlation robust [39].

Pearson product-moment correlation coefficients were used to analyze bivariate correlation between variables. As shown in Table 3, there was a statistically significant positive linear correlation between PR and ELS, with $r(417) = 0.26$, $p < 0.01$. After controlling for gender and grade, the partial correlation remained significant and of similar magnitude, $r(415) = 0.25$, $p < 0.01$. When evaluating this effect size based on Gignac and Szodorai's [40] standards for differential psychology research, it can be seen that this is a medium-sized correlation, slightly exceeding the typical effect sizes ($r \approx 0.20$) found in individual-differences studies. This finding shows that among the participants, higher psychological resilience levels are linked to more frequent use of English learning strategies, while the relationship is more subtle than previously supposed.

Table 3. Results of pearson correlation analysis.

	1	2
Psychological Resilience	1.00	
English Learning Strategy Use	0.26	1.00

a. $p < 0.01$.

To further explore the specific characteristics of the overall relationship between psychological resilience (PR) and English learning strategy (ELS) use, a more detailed analysis was carried out at the subdimension level. The researcher did additional Pearson correlation analyses. These analyses looked at the relationships between each resilience dimension and each English learning strategy cate-

gory. The goal was to find out which specific aspects of resilience are most closely linked to different types of strategy use. Table 4 shows the correlation matrix for these key subdimensions.

Table 4. Correlation between the subdimensions of psychological resilience and English learning strategies.

Psychological Resilience	English Learning Strategies					
	Memory	Cognitive	Compensation	Metacognitive	Affective	Social
Goal Focus	**0.423**	**0.449**	**0.146**	**0.515**	**0.445**	**0.328**
Emotional Control	0.086	−0.039	**−0.138**	−0.065	−0.023	−0.075
Positive Cognition	**0.429**	**0.375**	**0.139**	**0.369**	**0.367**	**0.250**
Family Support	0.115*	**0.124**	−0.03	0.088	0.085	0.060
Interpersonal Assistance	0.098*	0.087	−0.104*	0.090	0.079	0.102*

a. Bold numbers indicate $p < 0.01$. b. *$p < 0.05$.

Three main patterns were found from the detailed analysis:

- The strongest and most meaningful correlation was between Goal Focus and Metacognitive Strategies. Goal Focus was positively correlated with all six types of learning strategies. The correlation with Metacognitive Strategies was the strongest ($r = 0.515$, $p < 0.01$), which is a large effect size. There are also strong correlations with Cognitive Strategies ($r = 0.449$, $p < 0.01$), Affective Strategies ($r = 0.445$, $p < 0.01$), and Memory Strategies ($r = 0.423$, $p < 0.01$). These results show that goal-oriented resilience is a key psychological factor that helps resilient learners use advanced learning strategies.
- The relationship between Emotional Control and learning strategy use was complex. Unexpectedly, Emotional Control was significantly negatively correlated with Compensation Strategies ($r = -0.138$, $p < 0.01$). It showed no significant correlation with Affective Strategies ($r = -0.023$, $p = 0.633$) or Memory Strategies ($r = 0.086$, $p = 0.079$). This finding challenges the common belief that emotional regulation directly promotes the use of emotional management strategies in language learning. This suggests that other psychological factors may function in this relationship.
- The external support dimensions of resilience showed different patterns of correlation with learning strategies. Family Support had weak but significant correlations with Memory Strategies ($r = 0.115$, $p < 0.05$) and Cognitive Strategies ($r = 0.124$, $p < -0.01$). However, it showed no significant correlation with Metacognitive Strategies ($r = 0.088$, $p = 0.073$) or Affective Strategies ($r = 0.085$, $p = 0.084$). Interpersonal Assistance had only a few significant correlations. It was linked only to Memory Strategies ($r = 0.098$, $p < 0.05$) and Social Strategies ($r = 0.102$, $p < 0.05$). These weak correlations suggest that external support may work through indirect ways, such as building internal resilience factors, rather than directly affecting learners' strategy use.

6. Discussion

6.1. Overall Relationship between PR and ELS

This study took a cross-sectional look at Chinese high school students learning English, and two findings emerged. The overall resilience score correlated positively with strategy use frequency ($r = 0.26$, $p < 0.01$), accounting for about 6.8% of the variance. In behavioral science terms, that is a small-to-medium effect. But given how many factors influence strategy use, it is not trivial. Admittedly, this correlation is a bit weaker than what some previous studies have found, but it is still statistically reliable. In other words, the connection is real. More importantly, detailed analysis at the sub-dimensional level shows a subtle and distinct pattern of correlation. Goal focus had the strongest, most consistent correlations across strategies, especially with metacognitive strategies. Meanwhile, emotional control shows an unexpected negative correlation with certain strategies. And external support, including family support and interpersonal assistance, shows a weak to very small correlation. These results together show that not all resilience dimensions are equally associated with strategy learning; rather, specific psychological resources appear to be associated with different learning behaviors in different ways.

6.2. The Distinctive Role of Goal Focus

The correlation between learners' goal-oriented adaptability and their metacognitive self-regulation reaches a significant level, with the correlation coefficient calculated as $r = 0.52$ ($p < 0.01$). When sorting out all statistical results in the research dataset, this correlation result is the most obvious and prominent finding of the whole study. Goal-oriented adaptive, is a key psychological factor for student learning. It correlates with learners' ability to manage their own learning. In actual learning situations, students who have clear and long-term stable learning objectives are always more motivated. They also tend to exhibit a way of thinking that emphasizes planning, monitoring, and self-evaluation, which are basic parts of metacognitive ability [23]. This research conclusion matches Yeager and Dweck's [32] viewpoints to growth mindset. The growth mindset is closely related to goal-oriented adaptability. With the support of this mindset, students view learning difficulties as chances to improve not as obstacles. Therefore, the study suggests that goal focus is not just simply related to learners' daily use of various metacognitive strategies. On a deep level, it appears as a psychological correlate. This correlate is associated with students' initiation and maintenance of advanced self-regulated learning behaviors in a long run. This result differs from the early common understanding that only saw resilience as a broad protective trait. It also clearly indicates that goal focus is a targeted internal factor. This factor is associated with learners' strategic learning and self-regulation activities.

6.3. The Complex Pattern of Emotional Control

The research results about emotional control are quite different from the stable

correlation results of goal focus. This part shows an unexpected changing trend, and it still needs further discussion. One surprising finding is the negative correlation between emotion control and compensation strategies ($r = -0.14$, $p < 0.01$). This abnormal trend needs a detailed theoretical explanation. According to classic control value theory [3], learners who have strong emotional regulation skills are expected to use flexible ways to deal with various learning problems. We can take language learning difficulties as a typical example. When students face language understanding barriers in study, they will guess the meaning of unknown words actively or use simple body language to express their ideas. However, the current results reflect a more complex real situation. In actual task situation, those students with higher levels of emotional control often avoid using compensation strategies. We can put forward a reasonable explanation for this phenomenon. For learners with strong emotional control ability, they pay more attention to accuracy rather than flexible communication effects in the learning process. They consider compensation strategies as risky or potentially embarrassing behavior. For this reason, they choose not to actively use such strategies in daily study. This explanation can also be supported by another set of research data. There is no significant correlation between emotional control and emotional learning strategies in this study, where $r = -0.023$ and $p = 0.633$. This result challenges a common belief. Many scholars once believed that good emotional regulation ability is directly associated with more frequent use of emotional coping strategies during language learning practice.

To sum up all the above analysis, the study concludes that in high pressure language learning environments, the connection between learners' emotional regulation level and their choice of learning strategies does not entirely align with patterns summarized in general psychological research.

Besides, this study also analyzes two external support factors including family support and interpersonal assistance. The final data shows that these external support factors only have a weak correlation with strategy use. This finding further proves one core point. Compared with all kinds of external support resources, learners' internal psychological adaptability has a far stronger association with their use of learning strategies. Further studies should use qualitative methods or experimental frameworks to further explore these complex psychological interactions.

7. Implications and Limitations

This study is important for looking at the different parts of psychological resilience and English learning strategies. It goes beyond only showing a simple connection between psychological resilience and English learning strategy use. The finding shows that the relationship is not straightforward, and involves several different pathways. This detailed analysis challenges the idea that psychological resilience is a single structure and calls for more refined theoretical models in educational psychology research. Future research should identify which parts of re-

silience can predict different types of learning behaviors. This will help create a "component to process" understanding [4]. For English teachers, these research results can be directly used to practical teaching and form specific teaching strategies. There are three referential directions.

- Combine goal setting training with daily self-regulation guidance in classroom teaching. In actual teaching design, teachers need to integrate goal-setting practice and metacognitive ability training naturally during daily intervention. Specifically, after helping students set clear weekly learning goals, teachers can guide them to make plans and set up self-mornitoring ways to enhance their metacognitive abilities.
- Guide external supporting resources to better serve students' strategic learning process. Teachers can guide parents and students' peers to provide targeted and specific support, instead of general encouragement. For example, instead of saying "you can do it," teachers can teach parents to ask their children, "What's your plan for practicing listening this week?" This helps turn emotional support into conversations promoting strategic thinking.
- Adjust and optimize the traditional teaching ideas on emotional cultivation. Considering the negative correlation between emotional restraint and compensatory strategies, teaching should focus on cultivating students' flexible emotional regulation rather than rigid emotional control. Instead of banning students' emotional expression, teachers should guide them to use compensation strategies appropriately as a flexible way to cope with language learning difficulties, rather than regarding such strategies as a sign of insufficient ability.

This study does have some limitations. Firstly, the cross-sectional design used in this study cannot show the causal relationships. Although this study shows that psychological resilience can affect learning strategy use, a reverse causal relationship or interaction between these two variables is also possible. What's more, a statistically significant correlation between psychological resilience and effective learning strategies exists, but the effect size is only 0.26. This means that psychological resilience can only explain a small part of the differences in student strategy use. This also suggests that other psychological factors, like learning motivation, self-efficacy, and language talent, may similarly or even more strongly influence students' strategic learning behavior. Future research should combine these variables with psychological resilience to build more broad predictive models. In addition, this study mainly focuses on two-part correlation analysis. The weak correlation in the external support dimensions (family support and interpersonal assistance) strongly suggests the possibility of potential mediating variables. Future research should test integrated models to explore whether factors like self-efficacy or autonomous motivation act as mediators. Finally, researchers should conduct experimental research on psychological resilience interventions. For example, they could use cognitive behavioral training that focused on goal setting and emotion regulation, to help test whether improving specific aspects of resilience can

increase students' use of learning strategies and, in turn, improve their learning outcomes.

8. Conclusion

This study carried out a detailed empirical analysis to figure out the relationship between psychological resilience and English learning strategies in the context of senior high school English education in China. The study found a weak but statistically significant positive correlation ($r = 0.26$, $p < 0.01$) between them. However, the analysis shows that this general relationship is reflected in different association patterns. These patterns are theoretically distinct from each other. Thus, the relationship does not manifest one single, uniform association. To be more specific, the strong correlation between goal focus and metacognitive strategies ($r = 0.515$, $p < 0.01$) corresponds to a larger effect size and is the most prominent result. This suggests that goal oriented psychological resilience may be a central psychological correlate that is strongly associated with both resilience and strategic learning. In contrast, emotional control has an unexpected negative correlation with certain learning strategies. This challenges the traditional view that emotional regulation always promotes learning behavior. Similarly, external support (family support and interpersonal assistance) shows only a weak direct correlation. This suggests that these external factors may relate to strategy use mainly via internal adaptive factors. These findings strengthen the theoretical understanding of language learning psychology and emphasize the multidimensional nature of the PR-ELS relationship. They also provide specific and targeted guidance for educators. This guidance aims to help students become more strategic and adaptable in English learning. Future research should use longitudinal study designs and experimental intervention methods to help confirm causal relationships between variables. Researchers should also further explore the unexpected correlation patterns found in this study.

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Conflicts of Interest

The authors declare no conflicts of interest.

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