Uncovering English Learning Self-Efficacy: Evidence From the Chinese Senior High School Students

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Abstract: Understanding the level of English learning self-efficacy (ELS) and its influencing factors is significant for cultivating students' self-confidence, enhancing their initiative, and stimulating their interest in English learning. Therefore, this study focused on levels of ELS levels and influencing factors among Chinese senior high school students. A mixed-method study was conducted using self-efficacy theory: a survey was administered to 325 high school students, and semi-structured interviews were carried out with nine students. Using the General Self-efficacy Scale (Schwarzer & Jerusalem, 1995), this paper explored the basic situation of senior high school students' ELS. It aimed to answer the following questions: 1) What is the level of Chinese senior high school students' ELS? and 2) What are the influencing factors related to Chinese senior high school students' ELS? The data analysis led to the following conclusions: 1) Chinese senior high school students showed a medium ELS level; and 2) the differences between the ideal and real selves, learning experiences, academic emotions, and learning strategies influence students' ELS.

Introduction

As humanistic psychology has developed, foreign language teaching research has changed from teacher-centred to student-centred, and learners' affective factors have attracted more and more attention. Moreover, this shift of emphasis is reflected in the English Curriculum Standard for Compulsory Education (hereafter, Standards) (Ministry of Education, 2020). It is therefore necessary to investigate self-efficacy, which is the emotional element demonstrated in the English learning process. A critical factor in social cognitive theory, self-efficacy refers to 'a person's judgment of his/her capability to accomplish a certain level of performance' (Bandura, 1986, p. 391). In fact, as self-efficacy is a critical affective factor affecting language learning, it has always been a research hotspot in language acquisition, and its impact on foreign language learning has been examined both in China and abroad (e.g., J. Chen & Zhang, 2019; Huo & Rui, 2020; Pawlak et al., 2020).

Senior high school English curriculum education in China focuses on developing cognitive ability and affective factors. However, although various teaching methods have been used, students' real-life English performance remains unsatisfactory. Teachers may focus more on training language skills and knowledge than students' affective factors. As the embodiment of self-efficacy in English learning, English learning self-efficacy (ELS) is 'important in learners' second language acquisition" (J. Chen & Zhang, 2019, p. 64) and a critical affective factor affecting senior high school students' language learning process.

Bandura's social cognitive theory provides the basis for self-efficacy theory. Self-efficacy refers to an individual's judgment on whether they can reach a certain behaviour level. Self-efficacy is a human behaviour theory, and it postulates that people reflect on their efficacy, the soundness of their thoughts and actions, and the meaning of their pursuits, and they make corrective adjustments if necessary (Bandura, 1986). People facing difficulties and challenges are more likely to have confidence in dealing with them if they have a high level of self-efficacy. Self-efficacy theory challenges traditional theory, which only pays attention to personal behaviour and ignores people's emotions and personal tendencies, by integrating personal needs, cognition, and emotion into an overarching system. Bandura (1986) holds that unless a

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person believes they can produce the desired effect through their actions, they rarely have the confidence to act. Furthermore, self-efficacy is directly related to behavior change and positively correlates with it (Bandura, 1986).

In China, studies of English education and learning have explored definitions and levels of self-efficacy and its correlations with other influencing learning factors. For example, H. G. Liu et al. (2021) investigated senior high school students' attitudes towards English in China and unpacked their negotiation and construction of identity through their English-language learning journey. H.-G. Liu et al. (2023) examined teacher self-efficacy in livestream teaching. Bian (2004, p. 1) emphasised that 'learning self-efficacy is the performance of self-efficacy in the field of learning'. Tang and Xu (2011) investigated the English writing self-efficacy of college students in China and found that it was generally at the medium level. Wei and Chen's (2022) study of 622 Chinese college students showed that self-efficacy played a positive moderating role between learning pleasure and second language communication intention.

Therefore, the current study used self-efficacy theory to explore the levels of ELS and influencing factors among Chinese senior high school students to answer the following research questions:

1. What is the level of Chinese senior high school students' ELS?

2. What influencing factors affect Chinese senior high school students' ELS?

Literature Review

There are abundant studies on learners' self-efficacy in second language acquisition. Most of them use self-efficacy theory (Bandura, 1986) as the theoretical framework, which encompasses two themes: the exploration of self-efficacy levels and exploring the correlation between self-efficacy and influencing learning factors.

Defining ELS

Bandura (1986, p. 391) proposed that self-efficacy is 'a person's judgment of his/her capability to accomplish a certain level of performance' and that the result of this judgment will directly affect the person's behaviours. Since Bandura (1986) put forward this concept, researchers have defined self-efficacy from different angles. Gist and Mitchell (1992, p. 2) defined it as 'the estimation of orchestration capacity', which was a complex generation process. Schunk (1990, p. 4) defined it as 'perceived competence and confidence in performing classwork'. Scholars in China and abroad have also defined self-efficacy in language learning, in particular, from many angles. Zimmerman (2000, p. 84) argued that language learning self-efficacy 'focuses on performance capabilities rather than on personal qualities, and depends on a mastery criterion of performance rather than on normative or other criteria' and that 'self-efficacy judgments specifically refer to future functioning and are assessed before students perform the relevant activities'. For Bian (2004, p. 1), 'learning self-efficacy is the performance of self-efficacy in the field of learning'.

To sum up, the definitions of self-efficacy in Chinese and foreign studies of language learning have mainly drawn on Bandura's (1986) self-efficacy theory and extended it to language, particularly English, learning. Therefore, as the embodiment of self-efficacy in English learning, ELS can be understood as students' judgment of their capability to learn English well.

Levels of ELS

Many researchers have explored levels of self-efficacy. Tang and Xu (2011) took 218 non-English primary first-year students in a subordinate key university in China as the research objects to investigate the English writing self-efficacy of college students and found that it was generally at the medium level. There were significant differences in writing achievement between the high- and low-level groups of task self-efficacy. Furthermore, E. X. Zhang (2010) investigated the self-efficacy of 200 students from Liaocheng University in Shandong Province. The study found that the ELS level was generally medium. Moreover, S. F. Zhang and Yu (2010) took 379 first-year students as the research objects to explore the ELS differences among them and the correlation between ELS and English achievement. The study found that the ELS of first-year students was generally at the medium level.

The above studies explored the ELS of Chinese college students, specifically, and there was a consistent trend among their findings: the ELS of Chinese college students was generally at the medium level.

ELS and Other Learning Factors

Some researchers have noted the correlation between self-efficacy and certain influencing learning factors (the differences between the ideal and real selves, learning experience, academic emotions, and learning strategies).

Firstly, researchers have found a significant correlation between the gap between the ideal and real selves and learning self-efficacy. Yan et al. (2012) used a quantitative research method to conduct a questionnaire survey on 483 undergraduates at Yanbian University. The results showed that the difference between the ideal and real selves negatively correlates with self-efficacy. Yang and Chen (2010) conducted a questionnaire survey among 173 university students, analysed the data through correlation analysis and t-test, and obtained the same results as Yan et al. (2012).

Secondly, research has explored the relationship between the learning experience and self-efficacy. Using a quantitative research method, Phan and Ngu (2016) conducted a six-year survey of 328 primary school students from a longitudinal perspective. The study found that successful learning experiences significantly positively impacted self-efficacy.

Thirdly, researchers have focused on the relationship between academic emotions and self-efficacy. Dong and Zhang (2023) used mixed methods to examine the relationship between learner self-efficacy and classroom anxiety and showed that classroom anxiety may positively affect self-efficacy. Cui and Meng (2023) explored the relationship between self-efficacy and enjoyment of learning foreign languages among 276 non-English major college students through questionnaire surveys and interviews and found that personal foreign language pleasure played a mediating role between self-efficacy and English proficiency. Using the structural equation modelling method, Wei and Chen's (2022) study was based on a questionnaire survey of 622 Chinese non-English primary first-year students. The results showed that self-efficacy plays a positive moderating role between learning pleasure and second language communication intention. In contrast, it plays a negative moderating role between learning anxiety and second language communication intention. Lin et al. (2020) conducted a questionnaire survey on 1030 college students and found that academic self-efficacy plays a partial mediating role between positive academic emotions and learning engagement. X. Y. Li and Yang (2015) surveyed 648 high school students and found that their academic efficacy partially mediates positive emotions and learning motivation. J. Li and Song (2011) investigated the relationship between academic emotions and academic self-efficacy among 334 college students through a questionnaire survey and statistical methods and found that pride, interest, and relaxation all have significant positive predictive effects on academic self-efficacy. In all dimensions of academic emotions, positive high-arousal and low-arousal emotions significantly positively predict academic self-efficacy.

Finally, research has also explored the relationship between learning strategies and self-efficacy. Gu and Li (2018) conducted a questionnaire survey to investigate the development level of English writing strategies, writing self-efficacy, and the relationship between the two among junior high school students. They found that six types of English writing strategies and the vast majority of specific English writing strategies have varying degrees of positive correlation with the three types of writing self-efficacy.

The above studies mainly focus on college students and use quantitative research methods to explore the learning factors that affect self-efficacy (differences between the ideal and real selves, learning experience, academic emotions, and learning strategies). Research has found that the difference between the ideal and real selves is negatively correlated with self-efficacy while learning strategies and successful learning experiences are positively correlated with self-efficacy.

To sum up, previous studies have largely focused on exploring definitions and levels of self-efficacy and its correlation with other influencing learning factors (differences between the ideal and real selves, learning experience, academic emotions, and learning strategies). The studies have found that students' self-efficacy is mostly at a medium level, which is of significance for this study. Regarding methodology, previous studies have mostly used quantitative methods (questionnaire surveys) and lacked detailed descriptions to understand students' English learning process. In terms of the participants, most existing studies have focused on college students. The relatively little focus on high school students drew our attention to the need to conduct research with this population; moreover, there is a relatively large number of senior high school students in China (about 39 million), and self-efficacy has a significant impact on their learning. However, due to the influence of exam-oriented education on teaching practices in high school, teachers have no time to consider the effective cultivation of students' self-efficacy. Hence, students tend to have low levels of autonomous learning ability. It is therefore important to examine the ELS of senior high school students to bridge the gap in existing research. To understand the levels and influencing factors of ELS among Chinese high school students, this study used mixed-methods research (questionnaires and interviews) with this group and proposed the following two research questions to explore the ELS levels of Chinese high school students and its influencing factors:

1. What is the level of Chinese senior high school students' ELS?

2. What influencing factors affect Chinese senior high school students' ELS?

Methodology

Research Design

This study used a mixed research method of questionnaire and interview. The questionnaire elicited demographic information (e.g., gender and grade) and used a scale to measure students' ELS. Supplementary interviews were conducted to provide possible evidence to explain and analyse the results of the questionnaire data in this study. The interview questions were designed based on the research questions.

Sample and Data Collection

Three hundred and twenty-five students from grade 1 to grade 3 of a senior high school in Xingtai City, Henan Province, participated in the research. Through random sampling, 390 students from nine classes were selected as subjects, and

325 valid questionnaires were received, namely, 117 in grade 1, 100 in grade 2, and 108 in grade 3. Table 1 presents the information on the research participants.

Table 1. Survey Participant Information

| | Gender | | | | | |
| | Male | | Female | | Valid Samples | |
	n	%	n	%	n	%
Grade 1	43	36.75	74	63.25	117	90.00
Grade 2	34	34.00	66	66.00	100	76.92
Grade 3	59	54.63	49	45.37	108	83.08
Total	136	41.85	189	58.15	325	83.30

After the questionnaire data were analysed, some representative subjects were interviewed to explore the underlying causes and situations of their feelings about ELS. The chosen interviewees were different in terms of gender and grade and had various levels of ELS to represent the different situations of senior high school students' ELS. In selecting the interviewees, we balanced gender and grade levels and tried to choose representative male and female students in each grade. The student interviewees were coded as Student A to I. Detailed information about these interviewees is presented in Table 2.

Table 2. Interview Participant Information

Student	Gender	Grade	Mean Value of ELS
A	Male	Grade 1	4.10
B	Female	Grade 1	2.80
C	Female	Grade 3	3.60
D	Female	Grade 3	3.90
E	Female	Grade 1	3.60
F	Female	Grade 2	2.30
G	Male	Grade 3	2.10
H	Male	Grade 2	3.50
I	Male	Grade 2	3.10

The ELS questionnaire for this study adopted the General Self-efficacy Scale (GSS) developed by Schwarzer and Jerusalem (1995), which consists of 10 items. According to the scoring principle of the 5-point Likert scale, the answers varied from 'Strongly Disagree' to 'Strongly Agree' where 5 = Strongly Disagree, 4 = Disagree, 3 = Uncertain, 2 = Agree, and 1 = Strongly Agree. Students were asked to answer each question with the appropriate number. The theoretical range of the questionnaire score was 10–50 points. In other words, the higher the score, the higher the student's self-efficacy. The Cronbach's Alpha of the GSS was 0.92.

Table 3 displays detailed information on the ELS scale, which includes the item distribution and Cronbach's Alphas of every item.

Table 3. The Items of Information of ELS Scale

Items	α	Item Distributions
I can always manage to solve difficult problems in English learning if I try hard enough.	0.92	1
If someone opposes me, I can find the means to get what I want in English learning.	0.91	2
It is easy for me to stick to my aims and accomplish my goals in English learning.	0.91	3
I am confident that I could deal efficiently with unexpected events in English learning.	0.91	4
Thanks to my resourcefulness, I know how to handle unforeseen situations in English learning.	0.91	5
I can solve most English learning problems if I invest the necessary effort.	0.91	6
I can remain calm when facing difficulties in English learning because of my coping abilities.	0.91	7
When I am confronted with a problem in English learning, I can find several solutions.	0.91	8
If I am in a bind in English learning, I can usually think of something to do.	0.91	9
No matter what comes my way in English learning, I'm usually able to handle it.	0.92	10

Table 4 below shows the average variance extracted (AVE) and composite reliability (CR) of ELS. The AVE value is higher than 0.5, and the CR value is more significant than 0.7, which indicates a satisfied convergent validity (Malhotra, 2010).

Table 4. AVE and CR of ELS

Factor	AVE	CR

ELS	0.54	0.92

Finally, interviews were conducted as supplementary instruments to provide possible evidence to explain and analyse the results of the questionnaire data in this study. The interview questions were designed based on the research questions. During the interviews, students were encouraged to provide a first-person narrative of their experiences of ELS (the researcher explained this term to students in advance and emphasised that all questions were based on English learning contexts). Then, the researcher asked further questions based on their answers. Each interview lasted about half an hour, including the respondents with different levels of self-efficacy from different grades. After the participants' permission was gained, the interviews were digitally audio-recorded for further analysis.

Analysing of Data

In all, 390 questionnaires were collected (collection rate of 100%), after which 65 were eliminated because some items were uncompleted. The data from the remaining 325 questionnaires were analysed through SPSS 23.0, and the total valid rate was 83%. As shown in Tables 3 and 4, the questionnaire used in this study had satisfactory reliability and validity. The researcher also conducted other analyses through SPSS 23.0, such as descriptive statistical analysis, AVE, and CR. The detailed results and analysis are presented in the 'Results' and 'Discussion' sections. Moreover, nine students were interviewed in their spare time and gave their permission for the interviews to be recorded and transcribed for further analysis. Depending on the nature of the data, thematic analysis was performed. Firstly, the crucial parts of the data were partially transcribed. After that, the researcher read the transcribed details carefully to detect the most frequently occurring themes concerning the research topics, such as students' perceptions of their ELS (e.g., being full of energy and enthusiasm) and the interaction between ELS and influencing factors (e.g., differences between the ideal and real selves, learning experiences, academic emotions, and learning strategies). Participants' real names were not used when the results were reported to protect their privacy.

Results

Table 5 shows the students' ELS levels from four aspects: maximum, minimum, means, and standard deviation. As shown in Table 5, the average value of senior high school students' ELS was 3.13 (SD = 0.73), indicating that senior high school students' ELS was at the medium level.

Table 5. Results of Descriptive Analysis of ELS

Variables	Minimum	Maximum	Mean	Standard Deviation
ELS	1.00	4.80	3.13	0.73

N=325

The interviews also reflected the thoughts of students with different ELS levels about English learning from which we can summarise the factors that affect ELS. For example, Extracts 1 to 4 reflect students' perceptions of ELS:

Extract 1

Researcher: How do you feel about your ELS?

Student A: I am very optimistic and sunny. I will take the initiative to participate in various activities. When I encounter any problem, I will take the initiative to face it rather than avoid it. (Male; ELS: 4.10)

Extract 2

Student B: I need strong self-confidence. For example, I need to take the initiative to answer questions in class. I am not particularly eager to show myself, so others regard me as introverted. Moreover, whenever there is a problem in English learning, I always solve it by myself, such as by looking up a dictionary. Even if I cannot solve these problems, I will not ask the teacher. (Female; ELS: 2.80)

Extract 3

Student D: When the teacher asks questions, I may take the initiative to answer simple questions, but I certainly will not take the initiative to raise my hand for difficult questions. (Female; ELS: 3.90)

Extract 4

Student H: I do not care what the teacher teaches. I will learn what teachers teach me. (Male; ELS: 3.50)

It can be seen from the above four extracts that the levels of students' self-efficacy affect their personal ability, personality, and initiative. Student A's high level of ELS level is shown in his comment that he is 'very optimistic and sunny'. Another level is shown in Student B's comment that she is 'not particularly eager to show herself' and that others

make her feel 'introverted'. At the same time, when encountering any problem, high-level student A 'will take the initiative to face it rather than avoid it' whereas Student D, with a low ELS level, is 'not very active in class' and 'may take the initiative to answer simple questions (but not) difficult questions'. Students also rarely take the initiative to put forward suggestions about teachers' teaching design. As Student H said, 'I will learn what teachers teach me'. All these comments reflect the vital influence of self-efficacy.

Regarding influencing factors, Extracts 5 and 6, below, illustrate the vital role of the differences between the ideal and real selves.

Extract 5

Student A: Several classmates and seniors performed excellently in the English speech contest. They set an example for me and made my English learning more directional. I am also more motivated and confident to learn. (Male; ELS: 4.10)

Student A realised the gap between himself and his role models, who 'set an example' for him and 'made his English learning more directional, motivated and confident to learn'.

Student E: I have been trying to become more active, just like some top students in our class. Gradually, I am getting closer to my goal and more confident and efficient (e.g., the correctness and speed of practising) in learning than before. (Female; ELS: 3.60)

It can be seen from this extract that Student E has been trying to become more active, like some of her class's top students, got closer to the goal, and become more confident and efficient.

Extract 6

Student A: My English learning is targeted. Benefiting from my apparent and firm understanding of future goals, I have always believed that my unremitting efforts will undoubtedly achieve the expected goals. (Male; ELS: 4.10)

It is precisely because of student A's 'apparent and firm understanding of future goals' and his firm belief that he will achieve these goals through his 'unremitting efforts' that his 'targeted' English learning has facilitated his high-level ELS.

In addition, the learning experience has a relatively significant impact on ELS. A successful learning experience will further improve students' self-efficacy, while a bad one has the opposite effect. This interaction is reflected in Extracts 7 and 8 below.

Extract 7

Researcher: What do you think of your English learning?

Student A: If I cannot answer teachers' questions or fail the test, I will be less confident. In the upcoming class, I will feel my head is blank and be unable to complete classroom tasks well. (Male; ELS: 4.10)

Extract 8

Student F: My English level is OK, but if my teachers, classmates, or parents do not recognise me, I will question my ability and feel that my efforts have yet to achieve the desired results. (Female; ELS: 2.30)

In Extracts 7 and 8, the students' responses show that the learning experience significantly impacts their ELS, which could also lead to a decrease in enthusiasm and initiative toward English learning in class, such as by Student A feeling that his 'head is blank' and his 'efforts have not achieved the desired results'.

Moreover, Extracts 9 to 11 showed the influence of academic emotions.

Extract 9

Researcher: What do you think of your English learning class?

Student B: The English class is long, tedious, and boring. During this period, I was also afraid of being asked a question by the teacher. The whole course is excruciating. (Female; ELS: 2.80)

With low self-efficacy, student B feels that 'the English class is long, tedious, and boring' and 'the whole class is excruciating'. These comments show the harmful impact of a negative emotion (boredom) on self-efficacy.

Extract 10

Student A: When we communicate in class, the other party's positive feedback makes me more enthusiastic, relaxed, and joyful. If the other party is willing to share with me, I will be more confident about my ability. (Male; ELS: 4.10)

Inspired by positive emotions (relaxation and joy), Student A is 'more enthusiastic, relaxed, and joyful' in class.

Extract 11

Student B: If the class content is interesting enough to attract me, I will feel the knowledge points are easy to learn, and I am interested in learning. If not, I may do nothing about many problems in English learning and avoid English classes. Then, I will keep my head down in class. (Female; ELS: 2.80)

In Extract 11, Student B believed that class content being exciting and attractive contributes to her enthusiasm and initiative. If it is not exciting and attractive, she feels she can 'do nothing about many problems in English learning and avoid English classes' and begins doing things unrelated to the classroom, such as day-dreaming and 'keeping her head down in class'.

What is more, the appropriate learning strategies also have an impact on students' ELS, as reflected in the following extract.

Extract 12

Student A: I like to speak English when I see what I have learned. In daily life, I am also accustomed to communicating in English. The more I speak, the more I learn. And the better my English is, the more confidently I will speak. This is a virtuous cycle.

Student A used the learning strategy of 'speaking more … speaking English when he saw what he had learned' and 'was accustomed to communicating in English in daily life'. The better he spoke English, the more confident about speaking he became.

Discussion

The questionnaire data showed that senior high school students' ELS levels were medium. The results were similar to the results of D. H. Chen et al.'s (2021) group counselling intervention experiment on senior students' academic self-efficacy, namely, that it was at a medium level. Tang and Xu (2011) investigated 218 first-year students in a subordinate key university and found that their ELS had reached the medium level. E. X. Zhang (2010) and S. F. Zhang and Yu (2010) also found that college students' self-efficacy was at a medium level, verifying my research results. Although the above research objects had different levels (senior school and college students), the conclusions partially support the results of this study.

The followings were also consistent with interviewees' responses. Students' perceptions of their ESL and English learning show that ESL affects their personal ability, personality, and initiative. Based on self-efficacy theory, those who develop their abilities and self-regulation skills and strongly believe in their effectiveness have broader choices and freedom of action than those with less developed institutional resources and can more successfully realise their future ideals (Bandura, 1997).

Regarding the influencing factors of ELS, the differences between the ideal and real selves, learning experiences, academic emotions, and learning strategies showed a significant impact.

Firstly, the differences between the ideal and real selves are critical in ELS, and they focus on learners' internal vision and has a clear guiding role in setting goals (Dörnyei, 2005), which is consistent with the research results of Yan et al. (2012) and Yang and Chen (2010), all of whom believed that a significant correlation exists between the gap between the ideal and real selves and learning self-efficacy. According to self-efficacy theory, self-efficacy affects setting goals (Bandura, 1991), is realised through the intermediary process of choice, cognition, motivation, and emotion, and is a powerful driving force for language learning. Therefore, a closer difference between the ideal and real selves will encourage students to move towards their goals and establish confidence. Doing so can improve their ELS and belief that they can complete completing specific learning tasks, for example, speaking clear and fluent English. Therefore, in class, outstanding students can be invited to step onto the podium to introduce their learning experiences and answer questions raised by classmates. On the one hand, this process can promote students' thinking; On the other hand, it can also set an example for students and promote their comprehensive development (H.-G. Liu, 2015).

Secondly, the learning experience has a relatively significant impact on ELS. Experiencing a suitable English learning process will further improve students' self-efficacy. This idea is consistent with Phan and Ngu's (2016) finding that successful learning experiences significantly positively impacted self-efficacy. Self-efficacy theory emphasises that self-efficacy is a critical individual resource for personal development and change (Bandura, 1997). People's learning experiences can affect their positive or negative emotions through self-improvement or self-weakening, which can affect self-efficacy. Therefore, teachers should pay attention to their words and behaviours in classroom teaching and observe students' nonverbal learning outcomes beyond their scores, that is, their emotional changes. Teachers also need to carry out various in-class activities to increase students' opportunities to practise English, encourage them to actively participate in English learning, and effectively cultivate their ELS (H.-G. Liu & Li, 2008).

Thirdly, academic emotions also have a significant influence on ELS. Positive emotions can promote students' recognition of their abilities and ELS, while negative emotions harm ELS, which is consistent with Wei and Chen's (2022) findings.

Therefore, when teachers evaluate and provide feedback on students' English learning, they should pay attention to the development of emotional factors, such as self-efficacy and motivation. For example, they can use a log to ask students to record their learning situations. This practice can verify students' knowledge mastery and help them understand the changes and emotions in their learning psychology. These measures are beneficial for improving students' ELS (H.-G. Liu, 2014).

Fourthly, appropriate learning strategies are a booster of ELS. In exploring English writing, Gu and Li (2018) confirmed that various English writing strategies have varying degrees of positive correlation with the three types of writing self-efficacy. This is reasonable based on self-efficacy theory (Bandura, 1986). When people believe they can control externalities on essential issues, their probability of success will increase. If people think the external factors are beyond their control, the experience of failure will increase. Therefore, teachers should guide students to find suitable learning strategies. For example, classroom design can add discussions to allow students to share good learning strategies (H.-G. Liu, 2015).

Conclusion

This study aimed to find the levels of ELS of a group of high school students in China and its influencing factors. The significant findings are presented below.

First, the ELS levels of Chinese high school students were medium, a finding similar to the research results of D. H. Chen et al. (2021). The result revealed that self-efficacy was a relatively obvious emotion in everyday English learning, influencing students' abilities, personalities, initiative, English learning performances, and so on. Sometimes, the students could complete the tasks given them by the teacher; however, they were not very active. For example, they usually responded passively to the questions asked by the teacher in class rather than raising their hands to answer. The reason they acted in this way may be related to their low self-efficacy levels and judgments of their capabilities. Therefore, teachers' guides for students to make correct self-suggestions and appropriate encouragement are good choices to improve their ELS levels.

Moreover, the differences between their ideal and real selves, learning experiences, academic emotions, and learning strategies influence students' ELS.

In conclusion, this paper extends the study of self-efficacy in foreign language education, verifies self-efficacy theory in the context of Chinese senior high school, and further enriches the relevant research on individual differences in second language acquisition at the level of positive psychology.

Finally, by exploring ELS levels and the correlation between ELS and influencing learning factors, this study enables teachers to better understand the levels and current situations of senior high school students' ELS and locate the problems in their English teaching, thus helping teachers guide students to improve their ELS, and then helping teachers adopt more feasible and flexible teaching methods, pay attention to the changes in affective factors, create a relaxed and harmonious classroom environment, enhance students' ELS, and ensure efficient learning.

Recommendations

Based on the findings from the collected data, the following recommendations are put forward. Regarding the first research question, this study found that students' ELS levels were medium. They could have been more active, although sometimes students could complete the tasks given them by the teacher. Therefore, it would make sense to establish an individualised and cooperative reward structure, even if doing so will inevitably damage the self-efficacy of students who perform poorly in the classroom. The individualised reward structure requires students to make self-comparisons, that is, to compare their current and past performances. As long as there is progress, they will be successful and rewarded. Self-efficacy can be enhanced by increasing the chances of success and self-confidence. The cooperative reward structure emphasises the comparison between groups, as groups work together to achieve a common goal and success. It should be noted that students with excellent classroom performance and students with poor classroom performance should be put into the same group, as doing so will increase the opportunities for students with poor classroom performance to experience success to enhance their sense of self-efficacy.

Regarding the second research question, this study found that differences between the ideal and real selves, learning experiences, academic emotions, and learning strategies influence students' ELS. Therefore, appropriate praise, criticism, and correct evaluation will facilitate students' willingness to learn English. Teachers' proper assessment and fair use of credit and criticism are also necessary to stimulate and cultivate students' ELS. This kind of praise and criticism is a form of evaluation that affirms and negates students' learning attitudes and academic achievement. Too much praise and encouragement, especially rampant or improper use, will also hurt learning motivation. In contrast, fair criticism, blame, or disciplinary punishment, especially criticism of students' shortcomings to ensure better learning, has a particularly positive effect. Therefore, in education and teaching, teachers should organically combine praise and encouragement, apply them appropriately, point out shortcomings when praising, and affirm good points when criticising. In evaluating students, teachers should strive to be objective, fair, and appropriate, have clear rewards and penalties, and convince

people with reason. In this way, teachers can achieve better education and teaching results, enhance students' learning enthusiasm, initiative, and consciousness, and cultivate students' interest in English learning.

In conclusion, much can be done to improve students' ELS. Teachers could establish an individualised and cooperative reward structure, create a good learning atmosphere, and evaluate appropriately. In addition, these need the efforts of the school, parents, and students themselves. More relevant and tangible solutions must be the outcome of a multifaceted contribution.

Limitations

Although some scholars have studied the ELS levels of senior high school students, this paper conducts a more in-depth study based on self-efficacy theory through mixed research methods and further explores the influencing factors of ELS. Despite the author's efforts, the study is subject to limitations.

Firstly, the participants were all senior high school students from Hebei Province, so the findings may not reflect the regional variations of students' ELS. To obtain a more comprehensive picture of students' emotions and performance, further research may broaden participant recruitment to various districts.

Secondly, although the present study used questionnaires and interviews to collect data, the instruments did not provide detailed and profound information on students' behavioural and psychological activities. Therefore, taking a micro-perspective and collecting data through a perfect palette of data collection tools, such as diaries, observation, and field journals, could be considered.

Thirdly, self-efficacy, being a complicated emotion, is difficult to fully understand over a short period. Its influencing factors may include other variables, such as classroom atmosphere, language proficiency, and teaching design. Researchers in the future can consider these factors more longitudinally.

Ethics Statements

The studies involving human participants were reviewed and approved by Northeast Normal University. The participants provided their written informed consent to participate in this study.

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Authorship Contribution Statement

Zheng: Conceptualization, data analysis, writing, and reviewing. Liu: Data collection, framework construction, critical revision, and supervision of the manuscript.

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