

An Empirical Study on Self-Efficacy of Online Learning of Overseas Chinese Children in Europe

Junyi Jiang¹, Yichen Wang², Chenlu Sun³, Zhiling Yang^{4*}
(School of Foreign Studies, Wenzhou University, Wenzhou)

Abstract: In the post-Covid-19 pandemic era, it is more difficult for some Chinese schools in Europe to provide online extra classes for overseas Chinese children after school hours, as they did previously. To meet students' multifaceted learning needs, online extra classes teaching, including online Chinese language classes and some online art classes, is increasingly being offered as a supplement to the diversity of teaching activities in Chinese schools in Europe, with the ultimate goal of improving the learning abilities of overseas Chinese children while relieving pressure on teaching resources in schools. Children's learning self-efficacy in online extracurricular courses has its own uniqueness, which can be considered from three dimensions, including learning confidence, learning ability, and self-assessment ability. This study aims to examine the factors influencing the self-efficacy of overseas Chinese children and to make optimization suggestions for better teaching methods. In search of that, an online questionnaire survey with 127 participants from overseas Chinese children aged 5 to 15 was collected. The findings indicate that the role of learning confidence in overseas Chinese children outweighs their learning ability and self-assessment ability. Gender and age have a negligible effect on self-efficacy but have an impact on learning confidence. Chinese schools in Europe do not need to show gender differences when conducting classroom activities in online teaching to improve the online self-efficacy of Chinese children, and efforts should also be made to keep the courage of older students to trial and error. Teachers are expected to investigate more aspects of their students' personalities in future classrooms rather than sticking to a consistent and unchanging teaching model.

¹Majored in English Education, Wenzhou University, Wenzhou, junyi_jiang7@163.com.

²Majored in English Education, Wenzhou University, Wenzhou, imyichen_wang@163.com.

³Majored in English Education, Wenzhou University, Wenzhou, suncl1107@foxmail.com.

⁴Lecturer in School of Foreign Studies, Wenzhou University, Wenzhou, zlyang@wzu.edu.cn

Keywords: overseas Chinese children, self-efficacy, online learning, gender differences, age differences.

1. Introduction

Perceived academic self-efficacy encompasses learners' subjective judgments and evaluations of their learning abilities in broad terms. It contains learners' personal beliefs and motivation to complete learning tasks in a more limited sense. According to current research, increasing learners' self-efficacy benefits students' use of learning strategies (McConnell et al., 2017), cognitive ability (Uus et al., 2022), thinking ability, and cooperative communication ability (Megayanti et al., 2020), and academic performance (Jiang, 2022). Attaching enough emphasis on learners' perceived academic self-efficacy, especially during online education in this pandemic era, will be critical in improving children's learning efficiency.

There have been many studies on self-efficacy and teaching efficacy by scholars at home and abroad, which provide an essential indication of students' learning performance and achievement. Different variables such as learners' conditions, learning environment, different family backgrounds, and educational policies have essential effects on developing self-efficacy and influencing students' self-efficacy to various degrees (Schunk, 1989; Wößmann, 2005; Hanham et al., 2021). For example, in the case of uneven distribution of educational resources, students' self-efficacy in resource-poor schools is significantly and positively correlated with available learning resources (Yang, 2016; Zysberg & Schwabsky, 2020). Meanwhile, students' daily life pressure and subjective well-being also have a specific impact (Schönfeld et al., 2018; Grøtan et al., 2019).

There have been studies on the self-efficacy of various types of learners. For medical students, self-efficacy with online learning is linked to confidence, the ability to use information technology applications,

and autonomous knowledge (Wu, 2021). There is also a strikingly positive relationship between appropriate learning strategies and academic self-efficacy. Metacognitive and effective strategies can help modern college students improve their academic self-efficacy more effectively. Learning self-efficacy is an important factor influencing college students' academic learning regardless of family or financial circumstances (Zhu & Zhang, 2021; Qi, 2019). Middle school students' academic performance is heavily influenced by their parents' educational methods and attitudes.

Meanwhile, there is a close connection between learners' self-efficacy and specific subjects. For middle school students learning Chinese, improving perception and depth of thinking about the text can enhance students' self-efficacy and motivation, thus promoting students' academic achievement (Nan, 2021); in contemporary junior high school students' mathematics learning, effectively improving their self-efficacy needs creating a relaxed and harmonious teaching environment and teachers' timely appropriate assessment of students' learning performance (Zhang, 2022).

Furthermore, learners' self-efficacy varies across countries and regions. For example, self-efficacy is closely related to students' learning environment and autonomous learning ability at British University, which can be effectively optimized by improving self-efficacy (Deng, 2015; Goke et al., 2021). Different learning strategies have different effects on the self-efficacy of English writing learning among Hong Kong primary school students (Bai & Guo, 2019).

The new learning style of online learning in the context of the pandemic era also impacts learning self-efficacy, which affects learners' performance in all

aspects. Enhancing learners' self-efficacy is conducive to the full development of their personal potential and improves their learning confidence and motivation (Yin & Xie, 2010; Ulfatun et al., 2021). Furthermore, in distance education, learners' engagement is also influenced by their self-efficacy; thus, enhancing students' psychological state can effectively improve their learning efficiency (Tan et al., 2021). Similarly, students' online teaching performance is closely related to their motivation, which can be increased through effective learning strategies (Joo et al., 2000). Furthermore, events such as relatives and friends suffering from severe diseases during the pandemic will affect students' sense of learning self-efficacy through negative emotions such as anxiety (Alemany-Arrebola et al., 2020).

Although the preceding studies have been relatively comprehensive thus far, the majority of them have a certain lag in self-efficacy. There has been little research on students' self-efficacy in overseas extracurricular courses in the context of the COVID-19 pandemic. Some studies concentrate on students' learning in single-subject culture courses, while others conduct brief surveys on students' self-efficacy in a variety of extracurricular activities. There are studies that are solely based on the perspectives of students, with no research from schools, parents, or teachers. Reflections on the incorporation of multi-perspective influencing factors remain insufficient. As a result, comprehensible studies of students' self-efficacy in multi-country, multi-course, Chinese-speaking, and extra-course investigations can provide a new perspective on self-efficacy research.

Previous research has extensively discussed the role of self-efficacy in students' adoption of learning strategies and methods. This study will concentrate on three new perspectives, including confidence, gender, and age differences, which will be fully reflected during independent research and indicate several dimensions covering the difference in self-confidence

between men and women. Our study aims to provide suggestions for Chinese language teachers on how to effectively conduct online teaching overseas, improve online learners' self-efficacy, and promote the overall teaching quality of overseas Chinese teachers through the effective use of research results.

2. Methods

An online questionnaire was used in this study. The questionnaire used has been revised in accordance with the questionnaire used in Yang's (2020) investigation. Questions were rearranged as three main factors affecting learning efficacy based on students' actual situations, considering the particularity of the respondents' age and knowledge level.

The first dimension of learning confidence mainly includes nine questions and reflects students' confidence in their learning ability and determination to overcome difficulties. The second dimension of learning ability primarily consists of seven questions and reflects students' overall learning ability and the effective use of strategies. The third dimension of self-assessment ability mainly includes four questions and reflects a subjective evaluation of one's learning ability. The questionnaire is on a five-point Likert scale, measured as 1 (extremely inconsistent), 2 (relatively inconsistent), 3 (uncertain), 4 (relatively consistent), and 5 (remarkably consistent), respectively, corresponding to the degree of conformity with the actual situation. Some of the questions are reversed by the scales and rearranged when calculating. The internal consistency coefficient of the questionnaire was 0.8787. In this study, $\alpha=0.811$.

The questionnaire will be distributed in an online questionnaire, which can provide real-time feedback to three Chinese schools in Italy and one Chinese school in France. For some young children who find it challenging to finish the questionnaire, professional teachers will first explain the content of

the questionnaire in detail. According to statistics, 130 students participated in the questionnaire, 127 valid and complete surveys were collected, and the data analysis used SPSS 26.0.

3. Results

Study results are described and organized as three dimensions: learning confidence, learning ability, and self-assessment ability. First, learning confidence includes attitudes towards the courses; confidence in using learning strategies; determination to overcome difficulties; confidence in self-achievement; confidence in the test results; confidence in applying; and confidence in trial and error. Second, learning ability is manifested in seven aspects, which include the ability of self-recognition, application to practice, self-correction, autonomous learning, learning stability, adaptability to teaching pace, and adaptability to teaching methods. Third, self-assessment ability includes assessment of learning tasks; assessment of mastery of knowledge; assessment of internalization of knowledge; and assessment of problem-solving ability.

One hundred twenty-seven participants in the survey have been included, including 64 boys and 63 girls. The gender ratio is basically balanced. The mean

score is 3.61, and most of the participants (54.7%) are relatively consistent with the questionnaire.

The survey participants' ages ranged from 5 to 15 years old. The majority of respondents are aged 8 to 11 years old. Children younger than or equal to 9 years old are classified as younger, while those older than 9 years old are classified as older.

The average score in this questionnaire for the dimension of learning confidence is 3.83, the dimension of learning ability is 3.42, and the dimension of learning self-assessment is 3.5. According to the findings of this study, overseas Chinese children have a high level of self-confidence when learning online. The student's learning confidence was 3.83, which was higher than the overall average of 3.61. The problem population standard deviation for this dimension is .069, implying that overseas Chinese children have roughly the same level of self-assessment.

The item of determination to overcome difficulties received the highest score of 4.39, indicating that participants generally felt resilient to frustrating losses. Adaptability to teachers received the lowest score (3.02), indicating that students perceived difficulty in quickly adapting to a new instructor or method of instruction.

When gender is used as a variable, there is a

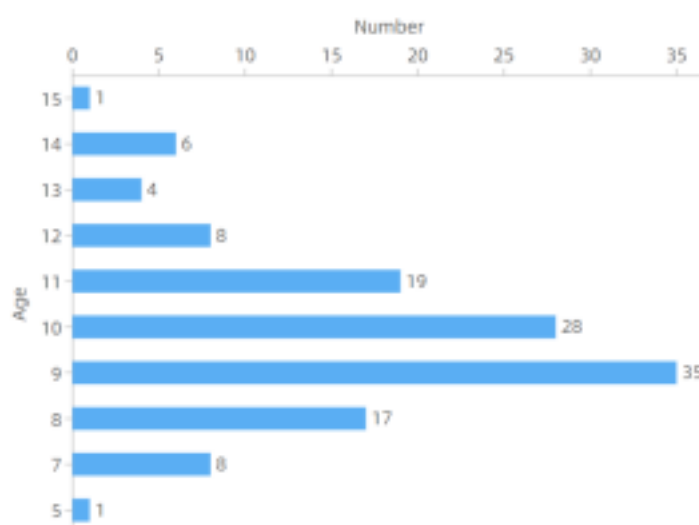


Table 1: The age distribution of overseas Chinese children in the survey

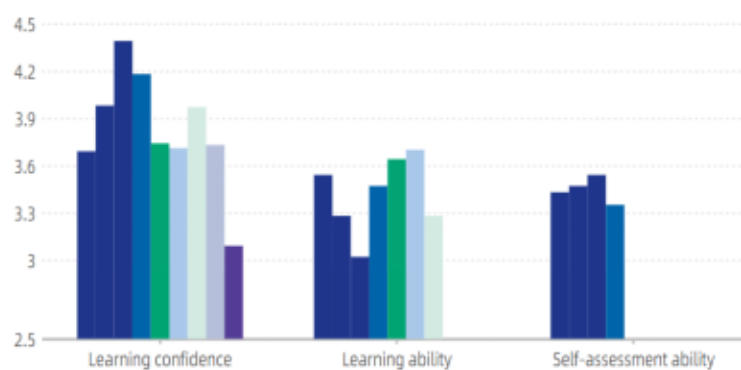


Table 2: The average score of each question in three dimensions



Table 3: The average score of each dimension

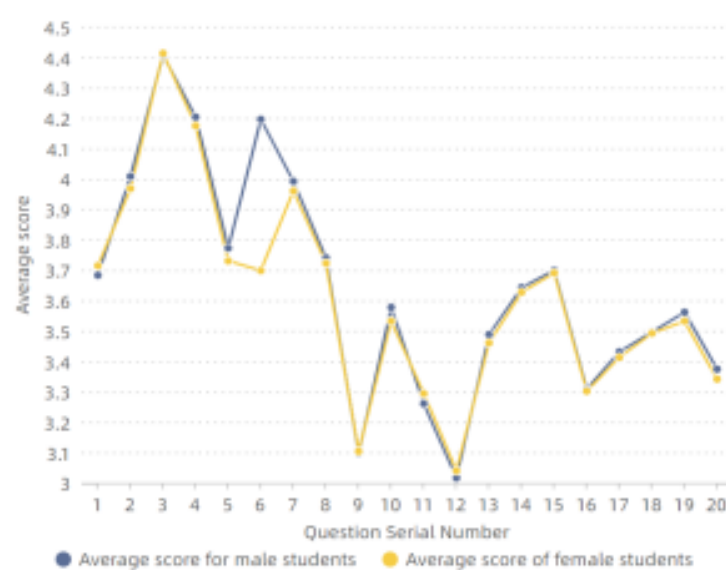


Table 4: Mean scores for each question when gender is the variable

significant difference in the dimension of confidence in using learning strategies (male students scored 4.2, female students scored 3.7), with females' confidence being lower and males' higher in this survey.

However, the gender differences in the other dimensions are very minor and have no discernible impact on the findings.

The mean scores for each question are similar when gender and grade level are taken into consideration as the variables. There is a significant difference between the two dimensions when using the lower and higher age groups as variables, with the higher age group being more transformative in their application (lower age group scored 3.72, higher age group scored 3.88) and the lower age group is more open to trial and error (lower age group scored 3.51, higher age group scored 3.09).

After the age or gender variables were fixed, the mean scores on the three dimensions remained similar to those without controlling for the variables, particularly in the learning ability (.005 standard deviation of mean scores after four control variables) and the self-assessment ability dimension (.011 standard deviation of mean scores after four control variables). It can be seen that age and gender

differences have a slight effect on learning ability and self-assessment ability. However, in the learning confidence dimension, males (who scored 3.9 higher than females 3.8) or those in their lower age group (who scored 3.88 higher than those in their higher age group 3.85) are more confident.

4. Discussions

4.1 Confidence over Ability and Self-Assessment Self-efficacy in learning ability

Unlike traditional education on the Chinese mainland, Chinese schools in Europe typically encourage and motivate students to participate in the learning process, which is beneficial for increasing students' learning confidence and fostering their expectations for current and future courses. In the Chinese mainland, trained foreign language teachers are likely to be more demanding of second/foreign language learners (Wen et al., 2005). Simultaneously, Chinese schools in Europe have discovered the benefits of Western education's emphasis on learning process-oriented assessment to stimulate students' continuity of learning (Tang, 2015), which helps cultivate children with a positive cognitive and emotional experience, willing to put forth effort in



Table 5: Mean scores for each question when age is the variable

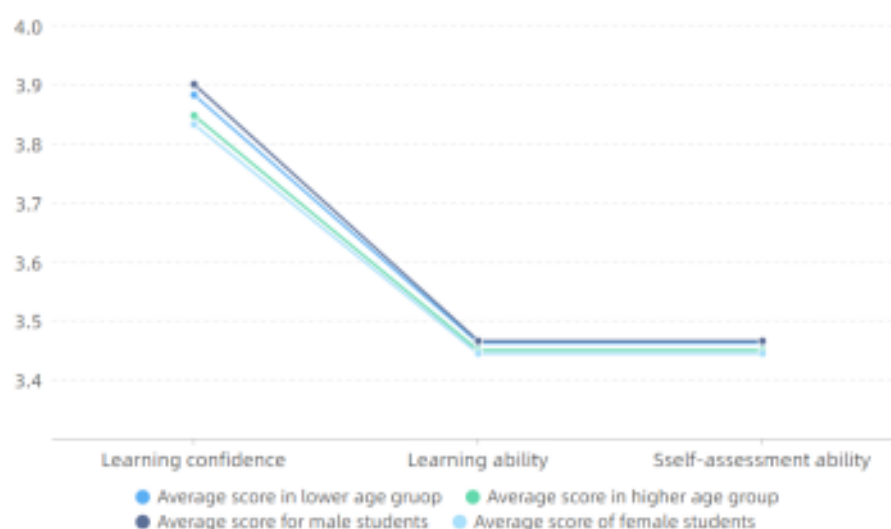


Table 6: Three-dimensional mean scores after controlling for age or gender variables

learning activities. Chinese schools in Europe should maintain a relatively high level of confidence in order to support students' interest and motivation in learning. Meanwhile, overconfidence can lead to a lack of awareness of their actual level, necessitating the development of a reasonable and effective self-assessment of their learning by the school.

The limited teaching history of Chinese schools in Europe brings about insufficient teaching experience and a curriculum, which has a direct negative impact on the learning ability of overseas Chinese children. Some students lack internalization of knowledge, and their actual ability is not improved after the courses. Therefore, students' knowledge reserves are not enough to achieve the expected achievement. It is even challenging to support their practical applications, such as doing corresponding exercises after class. So many students must learn to deal with psychological issues such as low learning motivation and learning burnout, and they gradually become unable to complete cognitive activities appropriately; after children develop learned helplessness, they have relatively negative opinions of their learning ability. Students generally report difficulty adapting to new teachers, as shown in Tables 2 and 3, so Chinese schools in Europe should minimize staff turnover

and lesson organization to reduce the time it takes for students to adapt to new teaching styles. Furthermore, teachers should emphasize developing students' ability to overcome obstacles on their own. In this regard, overseas Chinese schools should take advantage of Western education and develop children's creativity, imagination, and hands-on skills, with the teacher acting as a "mentor" rather than a "teacher" (Li, 2016)

, giving direction rather than being the dominant figure in the classroom, so that they are less dependent on teachers and can minimize the influence when staff or content of courses changes are inevitable.

Chinese overseas children have a similar level of self-assessment when it comes to learning. Chinese teachers, influenced by Chinese group culture, also tend to emphasize uniformity in education, using uniform teaching methods to teach the same content to different students (Duang, 2020), which impedes students' individual development. This unequal treatment demonstrates that the teacher's teaching method fails to cater to the students' needs and characteristics, does not assist each student in recognizing their own weaknesses and strengths, and results in approximations of the students' self-assessment ability. Students who lack teacher guidance in self-awareness cannot improve themselves

in a targeted manner on this basis. Teachers should frequently communicate with students to understand their needs, increase students' trust in their teachers (Meng & Wang, 2019), and better help them develop an objective understanding of their self-assessment ability.

4.2 Gender Differences in Learning Self-Efficacy

The ratio of males to females is balanced when gender is the variable. Males and females have slightly different self-efficacy levels, according to Tables 4 and 6. Males, on the other hand, are more confident in using learning strategies than females.

It differs from previous research findings. The subtle difference in self-efficacy between males and females may be that gender equality is the dominant consciousness today, and gender perceptions are developing in an equalizing trend (Yan, 2014). The difference between the attitudes of society, school, and family towards males and females has become less. The social stereotypes of males and females are gradually fading. Society forms correct gender perceptions, and the criteria for evaluating males and females become more comprehensive and diverse. Schools advocate gender equality education, and teachers focus on individual differences rather than gender differences in educating students and treating all students fairly. In addition, many families no longer cling to the idea that "the male is the symbol of the bloodline." As gender equality is developing, the education gained by males and females differs only slightly, so there is a slight difference in self-efficacy between them.

The reason males scored higher in the confidence of using learning strategies than females may be the psychological differences and the online teaching format. Brophy & Good (1984) found that males tend to field independence while females tend to field dependence. As the online teaching format is used

in the study, the students are generally alone with electronic devices during the class. The advantage of online courses is that they break the boundaries of time and space, allowing students to receive education conveniently. The disadvantage of online courses is that students are always left alone to attend classes using electronic devices, without face-to-face guidance and supervision from teachers, as well as the company and communication of other students. In this case, male students are less influenced by their surroundings and may perform better in online learning and apply learning strategies due to their field independence. Female students, on the other hand, are more influenced by their surroundings due to their field dependence. Female students may be more vulnerable to the disadvantages of online courses and more easily distracted. Thus, due to psychological differences and the online format of instruction used in this study, males may be more confident in using learning strategies than females.

Teachers of online courses can understand the strengths and weaknesses of students' learning strategies and accept the differences between male and female students in the face of these differences.

Teachers should identify students' needs and preferences for strategy use based on gender differences, encourage students to study appropriate learning strategies in light of their realities, and strengthen the development of female students' learning and use of learning strategies. Teachers can also use appropriate teaching strategies to overcome the inability of students and teachers to interact face-to-face in online course situations and take advantage of online teaching opportunities, such as providing students with timely and positive feedback to help them build confidence in using learning strategies. Furthermore, because there is a more negligible difference in self-efficacy between males and females, teachers should generally maintain a gender-equitable

perspective and treat students equally in the teaching process by conducting normal teaching activities.

4.3 Age Differences in Learning Self-efficacy

Using age as a variable, they are divided into a lower age group (≤ 9 years old) and a higher age group (≥ 10 years old). Based on Table 5 and Table 6, it is clear that the differences in self-efficacy between the lower and higher age groups are relatively subtle. However, when compared to the older age group, elementary school students in the younger age group are more confident in trial and error but less confident in applying their knowledge.

The slight difference in self-efficacy between the lower and higher age groups may be that children of all ages are receiving age-appropriate education, which can produce practical input and output, developing their learning abilities. Meanwhile, both younger and older students have appropriate ways of self-assessment. Lower-aged students generally form their evaluations of themselves through the evaluations of others, while higher-aged students generally favor self-assessment. Although the ways of obtaining evaluations differ, with the guidance and help from their families, teachers, and others, they generally receive positive feedback. They can evaluate themselves correctly and develop their learning confidence levels and self-assessment ability. Therefore, the differences in self-efficacy between the lower and higher age groups are not significant.

The differences in confidence in applying and confidence in trial and error between lower and higher age groups may be due to psychological differences between elementary school students at different ages. According to the psychological characteristics of elementary school students of different ages, those in the lower age group frequently have an excited brain, intense self-consciousness, and a shorter attention span; those in the higher age group have a greater need for knowledge and improved abilities such as logical thinking, but are prone to anxiety and frustration

(Liu, 2014). The younger age group is more prone to distraction and may have a higher frequency of distraction in the form of online courses due to the lack of direct teacher supervision, resulting in potentially poorer mastery and application of knowledge and less development of a sense of accomplishment from the application of knowledge, thus scoring lower in confidence in applying knowledge. Because the older group acquires more knowledge and has a better ability to apply knowledge than the younger group, their confidence in applying knowledge score is higher. Lower-level elementary school students frequently have excitable brains, a strong desire to perform, and a desire to receive attention, recognition, and praise from others. They have fewer setbacks, so they are more resilient.

In the face of these differences, teachers of online courses need to focus on the different psychological characteristics of students at different ages and facilitate students' development according to their differences. Teachers should focus on developing confidence in applying to the lower age group of elementary school students and promote their growth in this area. Teachers should strengthen the guidance and cultivation of trial and error for the older elementary students to be encouraged to develop the courage to face unknown problems.

5. Conclusion, Recommendations and Limitations

By focusing on the longitudinal comparison of the three dimensions and the cross-sectional comparison of gender and age, this study contributes to the lack of previous scholarly research on the self-efficacy of overseas Chinese children who take overseas online courses under the pandemic, as well as the lack of research on this group from the teachers' perspective. The empirical study discovered that the learning self-efficacy of overseas Chinese children in online learning is 3.61, which is in the upper-middle

range. To begin, among the three dimensions of self-efficacy, the score of learning confidence is 3.83, higher than the scores of learning ability (3.42) and self-assessment ability (3.5). Second, using gender as the variable, it is discovered that there is a significant difference between males and females in their confidence in using learning strategies, with males scoring 4.2 and females scoring 3.7. Finally, using age as a variable, elementary school students in the lower age group scored 3.72 in confidence in applying learning confidence, which is lower than elementary school students in the higher age group, who scored 3.88. Elementary school students in the lower age group scored 3.72 on the confidence in knowledge application scale, which is higher than elementary school students in the higher age group, who scored 3.88. These suggest that learning confidence is over learning ability and self-assessment ability in self-efficacy and that gender and age have less impact on the self-efficacy of overseas Chinese children who take online courses. However, in a cross-sectional comparison, males are more confident in using learning strategies than females. Compared to the higher age group, elementary school children in the lower age group are more willing to use trial and error but lack confidence in applying their knowledge. This is different from previous studies.

The findings of the preceding study may provide some suggestions for future online teaching for Chinese children living in other countries. Teachers should focus on developing students' learning abilities and self-assessment abilities during the online

teaching process, pay attention to the differences and similarities in learning confidence levels among different groups of students, and use teaching methods that are more appropriate for students' development to promote students' learning self-efficacy. Online teachers can boost students' learning confidence by providing timely and positive feedback and focusing on the development of females' appropriate use of learning strategies; developing the ability to apply what they have learned in the lower grades, and encouraging the courage of trial and error in the upper grades. This study and its recommendations can, to some extent, boost the self-efficacy of overseas Chinese children in online learning and improve the teaching quality of online courses.

However, there are some limitations to this study. First, the sample size of the respondents in this study was small. Only the children who participated in online courses in Italian and French Chinese schools were surveyed, which may have had some bias, resulting in the lack of some generalizability of the study findings. Second, this study was conducted only through the three dimensions of learning self-efficacy, which is not broad enough. Thus, subsequent studies can increase the sample, select research subjects with a more scientific sampling method, explore the learning self-efficacy of overseas Chinese children from more dimensions of learning self-efficacy, and draw more socially valuable research conclusions. Meanwhile, it is hoped that more studies will be conducted to supplement the shortcomings of this paper.

Fundings

This paper is funded by research project of National College Student Innovation and Entrepreneurship Project of Wenzhou University in 2022, “A Study of Teaching Practices and Validity of Online Extra Classes of Chinese Schools in Europe” under Project No. 202210351019 and research project of Wenzhou University Student Scientific Research Project (“Challenge Cup” Special Project) in 2022, “Qiaozhiqiao— Chinese Ethnic Identity Education of Overseas Chinese Children” under Project No. 2022kx220.

References

- Aleman-Arrebola, I., Rojas-Ruiz, G., Granda-Vera, J., & Mingorance-Estrada, Á. C. (2020). Influence of COVID-19 on the perception of academic self-efficacy, state anxiety, and trait anxiety in college students. *Frontiers in Psychology*, 11(1), 570017. PUB MED. <https://doi.org/10.3389/fpsyg.2020.570017>
- Bai, B., & Guo, W. (2019). Motivation and self-regulated strategy use: Relationships to primary school students' English writing in Hong Kong. *Language Teaching Research*, 25(3), 136216881985992. <https://doi.org/10.1177/1362168819859921>
- Brophy, J. E., & Good, T. L. (1984). Teacher behavior and student achievement. In M. C. Wittrock (Ed.), *Handbook of Research on Teaching* (3rd ed., pp. 376–391). Macmillan.
- Deng, Y. (2015). The relationship between English language self-efficacy and learner autonomy. *Journal of University of Shanghai for Science and Technology*, 37(4), 369–374.
- Duang, Z. Y. (2020). Analysis of the difference between Chinese and Western education and teaching Chinese as a foreign language. *English on Campus*, 1(4), 10.
- Goke, R., Berndt, M., & Rocker, K. (2021). Classroom culture when students are reluctant to learn online: Student dissent behaviors explained by their self-efficacy, control of learning, and intrinsic motivation. *Frontiers in Communication*, 6. <https://doi.org/10.3389/fcomm.2021.641956>
- Grøtan, K., Sund, E. R., & Bjerkeset, O. (2019). Mental health, academic self-efficacy and study progress among college students – The SHoT Study, Norway. *Frontiers in Psychology*, 10(45). <https://doi.org/10.3389/fpsyg.2019.00045>
- Hanham, J., Lee, C. B., & Teo, T. (2021). The influence of technology acceptance, academic self-efficacy, and gender on academic achievement through online tutoring. *Computers & Education*, 172, 104252. <https://doi.org/10.1016/j.compedu.2021.104252>
- Jiang, C. (2022). The effect of the classroom environment on academic performance: Mediating role of learning efficacy. *Advances in Social Science, Education and Humanities Research*. <https://www.semanticscholar.org>. <https://doi.org/10.2991/assehr.k.211220.147>
- Joo, Y.-J., Bong, M., & Choi, H.-J. (2000). Self-efficacy for self-regulated learning, academic self-efficacy, and internet self-efficacy in web-based instruction. *Educational Technology Research and Development*, 48(2), 5–17. <https://doi.org/10.1007/bf02313398>
- Li, S. Q. (2016). Analysis of the difference between Chinese and Western Education. *Ability and Wisdom*, 28, 48–51. Xinxueshu. <http://www.xinxueshu.com/journal/journal7703.html>
- Liu, Y. P. (2014). Analysis of the characteristics of elementary school students' psychological development and related education. *Technology & Management Consult*, 06, 153.
- McConnell, D. A., Chapman, L., Czajka, C. D., Jones, J. P., Ryker, K. D., & Wiggan, J. (2017). Instructional utility and learning efficacy of common active learning strategies. *Journal of Geoscience Education*, 65(4), 604–625. <https://doi.org/10.5408/17-249.1>
- Megayanti, T., Busono, T., & Maknun, J. (2020). Project-based learning efficacy in vocational education: Literature review. *IOP Conference Series: Materials Science and Engineering*, 830(4), 2075.

- Meng, Z., & Wang, T. (2019). Research on the Chinese learning anxiety of teenagers among new Thai Chinese immigrants. 9th International Conference on Education and Management (ICEM 2019), 31(1), 136–140. Web of Proceeding Series. <https://doi.org/10.25236/icem.2019.024>
- Nan, J. F. (2021). Use fine-grained reading to improve students' self-efficacy in language learning. *New Course*, 2021(36), 201.
- Qi, F. (2019). Study on the learning self-efficacy of college students with academic difficulties. China University of Petroleum (East China). <http://www.upc.edu.cn/>.
- Schönfeld, P., Brailovskaia, J., Zhang, X. C., & Margraf, J. (2018). Self-Efficacy as a mechanism linking daily stress to mental health in students: A Three-Wave Cross-Legged Study. *Psychological Reports*, 122(6), 2074–2095. <https://doi.org/10.1177/0033294118787496>
- Schunk, D. H. (1989). Self-efficacy and achievement behaviors. *Educational Psychology Review*, 1(3), 173–208. <https://doi.org/10.1007/bf01320134>
- Tan, J. C., Chen, L. L., & Feng, L. S. (2021). Study on the status quo of college students general self-efficacy, perceived social support and learning engagement under distance education. *China Medical Education Technology*, 35(06), 693–697.
- Tang, M. L. (2015). Comparative study on Chinese and American course teaching and evaluation mechanism. *Theory Research*, 27, 146–148.
- Ulfatun, T., Septiyanti, F., & Lesmana, A. G. (2021). University students' online learning self-efficacy and self-regulated learning during the COVID-19 Pandemic. *International Journal of Information and Education Technology*, 11(12), 597–602. <https://doi.org/10.18178/ijiet.2021.11.12.1570>
- Uus, Ö., Mettis, K., & Väljataga, T. (2022). Cognitive skills in adolescents' self-directed learning efficacy. *Creative Education*, 13(02), 583–598. <https://doi.org/10.4236/ce.2022.132035>
- Wen, Q. F., Liu, X. D., & Jin, L. M. (2005). Native and nonnative judgements of Chinese learners' English public speaking ability. *Foreign Language Teaching and Research*, 5, 337–400.
- Wößmann, L. (2005). Educational production in East Asia: The impact of family background and schooling policies on student performance. *German Economic Review*, 6(3), 331–353. <https://doi.org/10.1111/j.1468-0475.2005.00136.x>
- Wu, S. W. (2021). Analysis of the influence of medical students' self-efficacy and self-directed learning ability on teaching satisfaction in online learning. *Journal of Modern Medicine & Health*, 37(18), 3208–3211.
- Yan, B. (2014). A study on the correlation between parenting style and academic self-efficacy of middle school students. Inner Mongolia Normal University.
- Yang, J. (2016). The relationship between weak school classroom environment and academic self efficacy and learning motivation of middle school students. Northwest Normal University.
- Yang, J. H., Li, H. J., & Zhu, G. (2014). Changing trends in gender outlook in China from 1990 to 2000. *Collection of Women's Studies*.
- Yang, Z. Y. (2020). A study of English learning self-efficacy and its influencing factors. Southeast University.
- Yin, R., & Xie, Y. R. (2010). Introduction to the study of self-efficacy in online learning: Meaning, topics, and insights. *China Educational Technology*, 02, 26–30.
- Zhang, Y. F. (2022). Middle school students' self-efficacy in mathematics learning and development. *New Course*, 2022(06), 26.
- Zhu, H. Y., & Zhang, Y. (2021). A study on the correlation between learning strategies and academic self-efficacy of college students. *Survey of Education*, 10(37), 121–124.
- Zysberg, L., & Schwabsky, N. (2020). School climate, academic self-efficacy and student achievement. *Educational Psychology*, 41(4), 1–16. <https://doi.org/10.1080/01443410.2020.1813690>