

Literature Review on Self-efficacy and Chinese Learning Motivation of Deaf Students

Yang Yuliang

Qingdao Center School for the Deaf, Qingdao, Shandong, 266034, China

Keywords: Deaf students; Self-efficacy; Chinese learning motivation; Learning motivation

Abstract: The 14th Five-Year Plan of Action for the Development and Improvement of Special Education emphasizes the need to promote the high-quality development of special education. As an important object of special education, the learning condition of deaf students has always been the focus of scholars' attention. In order to further meet their own learning and development needs, deaf students need to continuously improve their learning ability, improve learning strategies, improve the motivation of Chinese learning, and enhance self-efficacy. In this paper, the literature on self-efficacy and Chinese learning motivation of deaf students is systematically reviewed. Among them, the self-efficacy of deaf students includes three aspects: the learning efficacy of deaf students in primary and secondary schools, the academic self-efficacy of deaf college students and their career decision-making self-efficacy. The Chinese learning motivation of deaf students includes two parts: writing motivation, learning strategy and motivation.

1. Introduction

In recent years, there are more and more researches on students' self-efficacy. The research width and depth have changed greatly compared with the previous studies. Bandura put forward the concept of self-efficacy, which means "the behaviors and feelings of an individual who can successfully complete an activity". And the perceived academic self-efficacy is an individual's ability to achieve a predetermined academic goal.

Research on self-efficacy among deaf students suggests that they tend to have lower self-efficacy as compared to their hearing counterparts.^[9] Chinese scholars generally study its relationship with academic achievement and independent learning. The study of He Dongtao shows that self-efficacy is related to students' academic achievement level. Throughout the studies of scholars on the factors affecting academic self-efficacy, it can be seen that researchers mainly conducted studies from the five aspects of students themselves, parents, teachers, culture and society and also gave guidance and suggestions on improving academic self-efficacy and independent learning strategies (Abdulrahman et al., 2018; Crowe, 2020; Michael et al., 2013).^[1-3]

1.1 Learning efficacy of deaf students in primary and secondary school

Studies on the learning efficacy of deaf students in primary and secondary school have found that deaf students with good academic performance have higher learning efficacy than those with average

academic performance and poor academic performance. There were gender-based differences in the self-efficacy of deaf students and hearing students in primary and secondary school, with higher scores observed among females(Hammad & Awed, 2022).^[6]

Therefore, to improve the learning efficacy of deaf students in primary and secondary school, special attention should be paid to poor-academic-performance students and the transformation of the students should be done well. Many measures can improve the learning efficacy of the students. In daily teaching, teachers can appropriately reduce the learning requirements for the students, patiently guide and help, and be more tolerant and understanding; For their progress, teachers can give timely encouragement and praise, treat all students equally, respect and trust poor-academic-performance students and often communicate with the parents of these students to understand the specific situation of them; Using free time to talk with these students so that they feel warm and existence, which has an important role in improving their learning enthusiasm and learning efficacy. Scholars have found that hearing-impaired primary and secondary school students face more setbacks than ordinary students due to their own particularity. If they can't face and solve these setbacks bravely, it will affect their learning efficacy and the construction of a good ideal self. Therefore, teachers should educate primary and secondary school students with hearing impairment to correctly understand setbacks, face setbacks, enhance their ability to withstand setbacks, hone their will, sum up experiences and lessons, tap their own potential and strengths, and improve their sense of learning efficacy, which is of great significance to their life and study(Cuevas et al., 2019).^[4]

1.2 Academic self-efficacy of deaf students in universities

Many studies on academic self-efficacy of deaf students in universities have found that compared with students with healthy hearing, students with hearing impairment have lower overall academic performance and lower academic self-efficacy. Therefore, exploring the factors that affect the academic efficacy of hearing-impaired students is of great practical significance for improving the academic self-efficacy of hearing-impaired students, and then improve the academic performance and achievement of hearing-impaired students, and enhance the education quality of hearing-impaired students. Hwang has found that academic self-efficacy is an important factor affecting academic achievement and can positively predict academic achievement. Scholars such as Jiang Kun found that compared with students with healthy hearing, students with hearing impairment are prone to encounter more difficulties and challenges, and thus have doubts about their sense of self-worth and self-efficacy. As a result, students with hearing impairment often fail to correctly understand and evaluate themselves and tend to underestimate their ability in the learning process. Wang Lifang's research shows that personal factors and situational factors can promote the improvement of academic self-efficacy of deaf students in universities, increase their learning confidence and motivation, improve their academic performance, and promote greater academic achievement. Among them, social support and psychological resilience are two important factors affecting individual academic self-efficacy.

According to the reciprocal determinism proposed by Bandura, social support is an important external environmental factor, and psychological resilience and academic self-efficacy are important internal factors. The research shows social support can not only directly affect the academic self-efficacy of hearing-impaired college students, but also indirectly affect academic self-efficacy through the mediating role of mental resilience(Kun et al., 2022).^[7] Although hearing-impaired students face more challenges in life, they are likely to have positive interactions with the external environment to improve resilience and stress resistance to achieve a higher level of psychological resilience.

1.3 Deaf college students' self-efficacy in career decision-making

Relevant studies show that there is a significant positive correlation between emotional intelligence and emotional management, and generally people with high emotional intelligence will also show higher emotional management ability. Emotional intelligence is closely related to career decision-making self-efficacy, and emotional intelligence will directly affect individuals' confidence when completing career decision-making related activities. By combing through previous studies, it is found that no scholars have further explored the impact of emotional intelligence on career decision-making. Emotion management is an important sign of emotional intelligence. Positive emotion management can promote the work and study of individuals, while negative emotion management hinders the development of individuals. Deaf college students are in the youth period of all-round development of physical, psychological and personality socialization, facing a series of life issues (such as academic, interpersonal and career decision-making, etc.) to be solved, often have inner conflict, annoyance, anxiety, depression and other negative emotions. In addition, the students' difficulties in hearing and speech expression may lead to their special psychological characteristics and behaviors. Therefore, deaf students in universities may face more challenges in emotional management. A few studies have found that the emotional management ability of deaf college students is different in gender, grade, place of origin, major and family factors(Ellalaa & Ellalab, 2020).^[5]

Self-efficacy in career decision-making not only affects the individual's assessment of their own ability and quality, but also affects the individual's confidence in the job selection and the persistence and effort after work. Deaf college students with differences in academic performance, thinking styles, integrated education and placement, and work experience also have significant differences in career decision-making self-efficacy(Cheng & Sin, 2020).^[2] They face greater employment pressure than healthy hearing college students. Therefore, to further explore the impact of deaf college students' emotional management ability on their self-efficacy in career decision-making can not only enrich the research results of emotional intelligence and career decision-making self-efficacy, but also seek factors to improve deaf college students' emotional intelligence and career decision-making from the perspective of deaf students' own emotional management, so as to reduce the employment pressure of deaf college students and improve their chances of obtaining ideal jobs.

2. Literature review of deaf students' Chinese learning motivation

2.1 Writing motivation of deaf students in Chinese learning

In the past ten years, the topic of writing for deaf students has attracted the attention of many researchers. Grammar rules are considered to be the biggest obstacle affecting deaf students' writing expression. Yoshinaga Itano and Snyder argue that deaf students' grammar, vocabulary and the rationality of writing content need to be improved. Other studies have shown that the writing ability of deaf students lags behind that of their normal hearing peers.

Holt believed that the reading and writing of most mute adolescents and adults were only at the level of senior primary school students. The true reading and writing level of deaf students does not correspond to the level required for age, and the period varies by three to eight years. Antia and Shirin D studied the writing data of 110 deaf students in public schools and found that no matter how impaired the deaf students were, their writing level was not ideal, and the writing teaching had to be improved. Nikolaraaizi and Magda proved through experiments that, compared with ordinary paper texts, writing materials displayed and used by multimedia have the advantage of stimulating deaf students' reading enthusiasm, thus improving their reading and writing ability.

Deaf students lose their hearing, rely on visual organs to intuitively perceive information, and have

limited social experience, resulting in one-sided understanding of things and interpersonal relations, unable to form correct logical thinking and abstract thinking, and writing compositions that are not full and three-dimensional. In the experiment of narrative writing, Bai Ruixia found that only 9 essays could achieve the writing goals of clear narrative focus, smooth sentences and correct material selection. Most students are not clear about the rules of writing, from the topic, intention, concept and material selection are done intuitively. Looking through the diary of the seventh grade deaf students, they found that most of the records are detailed records of the small things that happened every day, the emotional content and verbal organization were not enough, and occasionally moan without illness. The diary's lack of vivid plot makes it tedious to read.

Ha Ping 'an, Wei Xiaoman and other researchers have concluded that deaf students in the third grade do not care whether the composition meets the grammar norms, the phrase collocation is more casual, the use of words and sentences is very low, and they never carefully consider the sentences they write. Generally speaking, most junior high school students have no sense of composition structure. Gao Yanyi found that the language signs and cognitive styles of deaf students and deaf people are very different, which will cause negative transfer of deaf students' written language expression. Lv Fushuai and Chen Zhongjian found that most deaf students have a sense of fear and resistance to writing through the investigation of students' writing psychology. They either think that life is monotonous, so that there is no content to write; or think that their own level is limited, and then it is difficult to express the corresponding feelings; or can not grasp the characteristics of things; There are deaf students who know that writing should be focused, but they are unable to do what they want to do and have no desire to express their true thoughts. These factors lead deaf students to be full of fear, boredom and low interest in writing.

There are also many obstacles when teachers implement writing teaching. Through her research, Gao Yanyi found that many Chinese teachers in deaf schools have too low requirements for language training goals for deaf students, forcing writing tasks on class, and teaching deaf students to complete language learning activities with model essays and templates, which makes their writing practice disconnected from social life. In vocabulary teaching, the interpretation of word meaning is not clear or too simple, which makes it difficult for deaf students to acquire correct grammatical structure and expression meaning, resulting in high writing errors in deaf students' compositions." Liao Jianfang believes that the training model of school teachers is outdated and conservative. Generally speaking, the teacher first makes the examination request, the deaf students discuss and then complete the composition exercise. However, the teacher's critique mode can easily cause the deaf students' frustration in writing. In terms of composition guidance, teachers either explain composition methods in a water-style way, or use multimedia technology to project the same models for deaf students to memorize, which makes deaf students confused and difficult to grasp the essence of composition.

From the point of view of the research content: part of the research analyzes the composition of writing ability and improving methods; Some studies investigate the status quo of deaf students' writing and timely attribution. And other studies have also developed specific ways to optimize the writing of deaf students, and even formed an operable composition training model. However, on the whole, most studies do not combine theory and practice at the same time; some studies attach importance to theories, but suffer from no practical cases to verify the discussion; some studies write writing teaching narrative, but lack theoretical support, can not see through the essence of the writing status quo.

From the perspective of research methods: part of the research adopts the questionnaire survey method, and the data are analyzed in the preparation of questionnaires or scales to draw conclusions; Part of the study uses the object analysis method to analyze the finished writing of deaf students one by one, and analyzes the writing level of deaf students according to the type and quantity of the errors of words and sentences. Part of the research adopts the experimental method :the study has shown

that deaf students who received SIWI(Strategic and Interactive Writing Instruction) performed significantly better on standardized writing tests, recounting, and informational report writing samples compared to students who received regular writing instruction(Wolbers et al., 2021). Actually, only by using a variety of methods to study the deaf and ordinary students at the same time, in the same experimental environment to test their writing ability, can we reflect the differences in the teaching writing between two groups, and make the best use of research methods.^[12]

2.2 Learning strategies and motivation of deaf students in Chinese learning

Since 1956, the focus strategies and review strategies have been explored. Bruner has studied this strategy on the basis of the concept of artificial inquiry learning in the learning process, which laid a certain foundation for the subsequent strategy research. Since then, the study of "cognitive strategy" has emerged. With the development of cognitive psychology, general strategies that do not involve a series of disciplinary expertise have emerged in an endless stream, including memory strategies, organization strategies, and elaboration strategies. Since the 1970s, meta cognitive theory proposed by American psychologist Flavell has further enriched and supplemented the theoretical research and practical guidance of learning strategies. Due to the attention paid to the specific operation guidance of learning strategies in the past decade, a series of guidance courses have been developed:

For example: The training and guidance course of learning strategies proposed by Dansel Road: it mainly studies college students and takes supporting strategies and basic strategies as the research objects. The guidance of this course firstly stimulates students' interest in learning strategies, secondly, teachers give guidance on learning methods, and finally changes the situation to practice the strategies in the situation and conduct real-time assessment. In addition, there are some well-known learning strategy-related courses and their practical studies such as Weisstein's Cognitive learning strategy course. However, these courses were divorced from specific subjects and had little effect on improving training performance. Therefore, studies on learning strategies related to subjects began to emerge, especially those on language learning and reading strategies. Among them, researchers proposed the forms of reading comprehension, namely bottom-to-top and top-to-bottom interaction. It mainly focuses on the way of reading, the factors that affect reading and the construction of reading schema.

In our country, the study of learning strategy started relatively late. In general, based on investigation and experiment, we obtained relevant materials on the characteristics of students' learning strategies, combined with teaching experience, and summarized the guidance of learning strategies. Then, we expanded the scope of research, which was no longer limited to the study of learning strategies itself, but carried out research in combination with learning stages and levels, and paid attention to the change of content. From the development of the study of learning links to the study of cognitive strategies, and finally to the combination of teachers' teaching methods and students' learning methods.

The research on learning strategies of specific subjects began in the second half of the 20th century, mainly focusing on the second language and reading, and did not develop relatively systematic research until the second half of the 1990s. There are typical results of two aspects of research works: Research on Learning Strategies by Liu Dianzhi and Learning Strategies by Chao Ying. These two works reflect that their research began to be close to the general subject research and guide the relevant learning of learning strategies. Since then, Gu Shenghua and Xin Tao began to explore the relationship between junior high school students' learning strategies and their grades, and the learning strategies obtained from the study have a direct impact on their grades. The study of Zhou Guotao shows that there are differences in learning strategies between excellent students and poor students. When Liu Zhihua and Guo Zhanji studied the relationship between learning strategy, learning

motivation and learning achievement, they also found that students with different grades have significant differences in learning motivation and strategy. Especially in the aspects of various learning strategies studied by themselves, it is also confirmed that students at different learning levels have different learning strategies, indicating that these factors are one of the important reasons leading to the phenomenon of achievement differentiation. Zhang Luxiang and Qian Hanfen studied the learning strategies of primary school students and concluded that it is necessary and feasible to carry out learning strategy training.

Studies on learning strategies of hearing-impaired students are mostly concentrated in the 21st century, mainly focusing on a specific discipline, and they all put forward specific strategies according to the actual situation. For example, Shen Yihong discussed the art learning strategies of hearing-impaired students, pointing out that cognition, regulation, psychology, emotion and art practice strategies have achieved certain results. According to the phenomenon of deaf students pretending to understand what they don't know, Wangqi puts forward some learning strategies such as cultivating good learning habits. Another study verified the effectiveness of the Know-Want-Learned strategy for improving the reading comprehension skills of deaf students (Rizqita & Susetyo, 2023).^[11]

Before the 1960s, behaviorism received attention and development in foreign countries, so the theory of learning motivation was also influenced by this. It is believed that motivation is only affected by external environment, and there is no subjective initiative. However, with the further development of research, there are many behaviors about learning that cannot be explained by behaviorism. Later, individual consciousness was gradually paid attention to, and self-efficacy theory and achievement goal theory also became the focus of research.

In terms of theoretical analysis and research: Represented by Houle's three elements, learning activities can be divided into goal orientation, activity orientation and learning orientation. Houle's generalization of this theory has received great attention and discussion. Later, Weiner further elaborated the internal theory of the individual in the motivation theory: the desire to achieve success and the orientation of personal emotions, and the interpersonal theory. Linnenbrink & Printrich proposed the social cognitive orientation, which is based on several orientations such as self-efficacy and attribution theory. It is pointed out that in the current research on motivation, there are three hypotheses of social cognition. In terms of empirical analysis represented by Zimanerman and Tolleson: Zimanerman discussed changes in some aspects of learning in school students under the influence of self-efficacy. Nona Tolleson studied learning motivation in classroom teaching and found that students have a good response to teacher's motivation, which can promote the communication and interaction between them. At the same time, it also helps students to have a positive sense of achievement.

With the development of the era, people begin to study the influence of learning motivation on academic performance. Many studies have shown the internal motivation of students' learning and proposed that if teachers positively respond to students' independent decisions, students will have stronger learning motivation. Mager studied motivation, using timely and effective reinforcement to guide some unresponsive but eager students to gain a sense of accomplishment; Wolter proposed that motivation and learning are a process of causal influence, rather than one-way motivation affecting learning. In other words, in the teaching process, teachers do not need to wait until students have interest and motivation to start teaching them, but students may gradually develop a certain interest in learning under the influence of teachers during the listening process. Generate learning motivation. Later, Sheffield and Boshier discussed Houle's theory in detail and examined the content critically. In the 1880s, Biggs developed a learning process questionnaire and divided the learning motivation and strategy system into 6 dimensions. Learning strategies are divided into surface, depth and achievement. After some researchers' practice test, it is found to have credible validity and reliability. The compilation of this questionnaire has promoted the research on learning motivation to a certain

extent. The research has shown deaf students usually have poorer academic achievement than their hearing peers, as well as a lower level of motivation to learn (Mahmutović et al., 2020).^[8] But other results of study shows that deaf students who understood the significance of reading, writing and studying better had more positive attitudes, and thus their motivation for studying was higher as confirmed by their higher academic achievement (Povlakić-Hadžiefendić, 2019).^[10]

In China, the research on learning motivation is endless. The main subjects are college students, primary and secondary school students. For example, Yang Caixia and Xie Fazhong study the learning motivation of contemporary college students and find that gender and grade have significant effects on learning motivation; Li Binghuang's research on learning motivation in primary and secondary schools shows that family environment and parents' attitude have a certain impact on learning motivation, and there are differences between male and female primary and secondary school students in learning motivation. Most studies on learning motivation mainly focus on students in junior high school and compare them with a series of factors such as learning strategies.

Throughout the domestic research, there are a few studies on learning motivation of hearing-impaired students. Some of them have taken into account the influence of teachers' attitude on the learning motivation of hearing-impaired students, explored the issue of learning motivation. Some look for the factors that influence the motivation of deaf students' English learning, and pointed out the need to improve the learning motivation of hearing-impaired children.

In short, the study of learning motivation and learning strategy has been greatly developed, and these studies have provided rich theoretical materials for future generations to explore these aspects. Some of the research results have good implications for educational practice and training. However, it is not difficult to find that most studies on learning strategies and motivation mainly focus on the general population, including primary and secondary school students and college students, but rarely involve special children.

Among them, the research on Chinese learning strategies is mostly aimed at ordinary students, and the themes are mostly concentrated in reading and composition. Or focuses on mathematics and English, which are popular courses. Studies on hearing-impaired children mainly focus on the discussion their mental health, reading comprehension strategies and learning situation. The learning strategies involved are about English and math learning, but there is little detailed research on the learning strategies of other courses.

In terms of the age characteristics of the research objects, only a part of the studies on hearing-impaired students focus on important learning stages, such as the middle school stage. In my opinion, learning motivation is an important internal motivation that affects learning effect, and it can stimulate deaf students' learning and exploration. The cultivation of learning strategies and motivation should not only stay in the important learning stage, but should run through the whole learning stage, especially the learning stage where deaf students lay the foundation. Teachers consciously train them to realize their inner learning motivation and master certain learning strategies. Even if they don't fully understand why they are learning what learning strategies they are using. However, starting with the idea that actively learning to use learning strategies will become a good learning habit for them over time.

3. Conclusion

This paper summarizes the learning efficacy of deaf students in primary and secondary schools, the academic self-efficacy of deaf college students and their career decision-making self-efficacy. In addition, it also enumerates two aspects of the deaf students' Chinese learning motivation: writing motivation, learning strategy and learning motivation. From the summary of deaf students' self-efficacy and Chinese learning motivation, it can be found that there is a certain relationship between

them, and the problems can be found through follow-up researches, which can make contributions to promote the development of deaf students.

References

- [1] Abdulrahman, S. O., Razak, M. R. A., Yasin, M. H. M., & Dauwed, M. (2018). Validity and reliability questionnaire for social, environment and self-efficacy related of deaf adolescents physical activity. *Journal of theoretical and applied information technology*, 96, 7041-7054.
- [2] Cheng, S., & Sin, K. F. (2020). Thinking Styles and Career Decision-making Self-efficacy among Deaf or Hard of Hearing, and Hearing Students. *Exceptionality*, 29, 167-181.
- [3] Crowe, T. V. (2020). Factors Associated with Help-Seeking and Self-Efficacy among a Sample of Deaf Adults. *Journal of Developmental and Physical Disabilities*, 33, 51-63.
- [4] Cuevas, S. G., Vang, C. Y., Chen, R. K., & Saladin, S. P. (2019). Determinants of Self-Efficacy among Individuals Who Are Hard-of-Hearing. *Journal of Rehabilitation*, 85, 37.
- [5] Ellalaa, Z. K., & Ellalab, S. K. (2020). A Comparative Study of Emotional Intelligence between Deaf and Other Students and Its Correlation to Gender Variables. *International Journal of Innovation, Creativity and Change*, 11(4):627-648
- [6] Hammad, M. A., & Awed, H. S. (2022). Thinking styles and their relationship with self-efficacy among deaf and hard-of-hearing adolescent students. *Current Psychology (New Brunswick, N.j.)*, 1-14.
- [7] Kun, J., Zebo, L., Xiaotong, S., Xiaohui, D., & Jiayu, T. (2022). The Influence of Social Support on Academic Self-Efficacy of Hearing-Impaired College Students: The Mediating Role of Psychological Resilience. *Studies of Psychology and Behavior*, 20(1), 96-100. <http://doi.org/10.12139/j.1672-0628.2022.01.014>
- [8] Mahmutović, E. H., Herzegovina, Hadžiefendić, M. P., & Speech Rehabilitation, S. B. (2020). Developing The Motivation Of Deaf And Hard Of Hearing Students To Learn And Academic Achievement. *Journal Human Research in Rehabilitation*
- [9] Michael, R., Most, T., & Cinamon, R. G. (2013). The contribution of perceived parental support to the career self-efficacy of deaf, hard-of-hearing, and hearing adolescents. *Journal of Deaf Studies and Deaf Education*, 18 3, 329-343.
- [10] Powlakić-Hadžiefendić, M. (2019). Attitudes and motivation of deaf and hard of hearing students for studying. *Specijalna edukacija i rehabilitacija*
- [11] Rizqita, A. J., & Susetyo, B. (2023). Effectiveness of Know-Want-Learned Learning Strategies on Improving Comprehension in Deaf Students. *Edumaspul: Jurnal Pendidikan*
- [12] Wolbers, K., Dostal, H. M., Graham, S., Branum-Martin, L., & Holcomb, L. (2021). Specialized Writing Instruction for Deaf Students: A Randomized Controlled Trial. *Exceptional Children*, 88, 185-204.