

# *A Review of Research on the Use of National Sign Language*

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**Abstract:** Sign language is an important medium for deaf people to communicate, learn, and work effectively, and the national universal sign language is a bridge for deaf people to communicate across regions. In the education system, schools are the main battlefield for using the national common sign language. For teachers and students, learning and using the national common sign language is very important. This article discusses the significance of sign language in deaf school teaching, and the use of national common sign language. Research has found that the national common sign language has been widely used in special education schools across the country, but there are also some problems.

## 1. Introduction

Sign language, a form of nonverbal communication, is a unique and complex symbol system that utilizes finger movements, spatial positioning, palm orientation, and even integrates facial expressions and body posture. Sometimes lip language is also required to effectively convey information and exchange ideas among the deaf community through a rigorous set of grammar rules<sup>[1]</sup>. There are various types of sign languages worldwide, such as American Sign Language and Chinese Sign Language, with the latter specifically referring to the unique communication methods commonly used by the deaf community in China. The National General Sign Language Dictionary, published in 2019, included a total of 8,214 words, and deleted the Chinese Sign Language (outdated and yet revised edition), and added 3,112 new words, including new things and concepts in politics, economy, culture, education, science and technology<sup>[2]</sup>. For teachers in deaf schools, mastering sign language is a very important basic skill. Especially for teachers who have just graduated from ordinary normal colleges and worked in deaf schools, they need to quickly master sign language<sup>[3]</sup> related to classroom teaching and communication between teachers and students.

In China, sign language has distinct regional characteristics and is known as Chinese Sign Language. Geographically speaking, this covers all administrative regions within China and is widely used by local deaf people; From a linguistic perspective, it represents a sign language system developed by the deaf community in China and possessing independent language characteristics; In terms of classification, Chinese sign language can be further divided into national standard sign language and local dialect sign language, which together construct a multilingual environment for the deaf community in China.

## 2. Research Status

### 2.1. National Common Sign Language

National Sign Language, as a unique communication method designed for people with hearing impairments, is regarded as an indispensable component of the national language and writing system. It covers multiple fields such as daily communication, official affairs, education, media communication, publishing, public services, information technology applications, and sign language proficiency assessment for the deaf community<sup>[4]</sup>. This standard was based on March 2018, and was strictly reviewed by a special committee of the National Language and Writing Work Committee and recognized by the Ministry of Education, the National Language Commission, and the China Disabled Persons' Federation. It was officially released in the form of language and writing standards, mainly referring to the "National Common Sign Language Commonly Used Vocabulary List" and the "National Common Sign Language Dictionary". For the deaf community, mastering and using the national common sign language is the key to integrating into society and achieving equal interaction, as well as a powerful driving force for promoting the prosperity and progress of the disabled cultural and educational industry.

### 2.2. Local Sign Language

Local sign language, also known as "local gestures", is the "dialect" of sign language, which refers to different ways of using the same concept in different regions. On a large scale, it can be roughly divided into two sign language dialects: "Southern Sign Language" and "Northern Sign Language"<sup>[5]</sup>. In addition, Shen Yulin pointed out that in addition to the self formed system of sign language in Xizang, there may also be sign languages in other minority areas; Further research is needed on the language families of Taiwanese sign language and Hong Kong sign language<sup>[6]</sup>.

### 2.3. Research on the Use of National Sign Language

Firstly, the use of language by teachers in the classroom exhibits a series of unique characteristics. Chen Lisi (2016) explored the speech behavior of Chinese language teachers in a deaf mute school in Liaoning Province during public teaching through observation and interview methods. Course videos from grades one to nine were selected as the observation objects. The research results showed that Chinese language teaching in deaf schools is generally dominated by oral language, supplemented by a small amount of sign language, with grammar sign language being dominant, but there is a small amount of borrowing of natural sign language elements, and there are problems in the application of grammar sign language, such as excessive reliance on finger letters instead of gesture expression, incomplete vocabulary and gestures, and translation omissions. In addition, the application of natural sign language in the classroom is very limited, while pure oral teaching accounts for a certain proportion, but the standing position of teachers may affect the understanding of deaf students. Therefore, suggestions include reforming the concept of deaf education, making reasonable use of Chinese Sign Language, enhancing teachers' sign language abilities, strengthening the status of natural sign language, and reconstructing the understanding of the deaf community in the social environment<sup>[7]</sup>. Research shows that deaf teachers generally use sign language in the classroom at a higher rate than teachers with normal hearing, and they have a higher understanding of instructions, questions, and closing sentences, and are more inclined to use natural sign language for effective communication. Based on this, to enhance students' understanding of sign language teaching and improve teaching language, it is first required to respect deaf people, choose suitable sign language types, advocate the use of natural sign language

by listening and deaf teachers in the classroom, and on the basis of understanding, standardize gesture Chinese and learn Chinese. Secondly, promote sign language research, form research teams, and facilitate collaboration between deaf and hearing individuals, fully leveraging the advantages of deaf teachers. Schools may consider introducing deaf teachers with special education backgrounds and implementing bilingual teaching strategies, which can help strengthen collaboration and complementarity among various sign languages<sup>[8]</sup>.

Secondly, the application of classroom language in different disciplines and contexts has its own characteristics. Guohua (2017) found through in-depth observation and analysis of teaching videos at Dalian School for the Blind and Deaf that its English teaching classroom presents diverse characteristics, with a small class system to enliven the classroom atmosphere, and the use of multimedia technology to enrich teaching content and stimulate students' interest. Teachers not only use spoken language, but also combine blackboard writing and gesture language (including gesture Chinese and gesture English) for teaching, to adapt to students with different levels of listening. In class, teachers mix spoken language and gesture language, explaining Chinese with gestures, and teaching English with gestures. By teaching gesture English, teachers help students deepen their understanding of vocabulary and enhance their oral expression skills. The successful application of this teaching strategy not only significantly improves the English learning effectiveness of deaf students, but also provides useful insights for teaching other subjects<sup>[9]</sup>. Li Xiangrong's (2020) research focuses on hearing-impaired middle to high school students at School A in Sichuan Province. She conducted the study through a combination of classroom observation and self-designed questionnaires. Research shows that although the national common sign language performs significantly in classroom communication, students have a lower willingness to actively use it. The survey results revealed the influence of factors such as grade, communication style, target audience, gender, listening level, and learning status on sign language use, and found significant differences in sign language use across different disciplines and contexts. This study emphasizes the need to pay attention to individual differences of hearing-impaired students and language choices in specific environments in practical teaching<sup>[10]</sup>.

Thirdly, there is a clear difference in the types of sign language usage between teachers and students. Zhang Jingyi's (2018) study was based on the "Teacher Sign Language Usage Survey Questionnaire" and "Deaf Student Sign Language Usage Survey Questionnaire" from the Chinese Sign Language and Braille Research Center. An in-depth survey was conducted on 51 teachers and 58 students at Chifeng Ethnic Special Education School, and it was found that teachers surpassed students in learning and mastering Chinese Sign Language. Higher grade students tended to use "local sign language", while lower grade students tended to use "standard sign language". It is noteworthy that 72.6% of teachers and 67.3% of students expressed their expectations for "standardized sign language"<sup>[11]</sup>.

Fourthly, the sign language patterns of deaf communities vary in different environments. Yi Yumin and Wu Haiyan (2012) used a combination of video surveys and questionnaires to investigate the use of sign language in Nanjing by deaf students in the Computer Science and Special Education Class of the School of Information Technology at Jinling University of Science and Technology, deaf students and sign language translation majors at Nanjing Vocational and Technical College of Special Education, as well as teachers and some adult deaf students at Nanjing School for the Deaf. In contrast, the sign language of deaf people in society is more flexible and influenced by Chinese language, and may use more Chinese character gestures and finger spelling for expression. In addition, there are significant differences in morpheme order, gesture form, and Chinese character influence between deaf students' sign language and healthy listeners' sign language. In the teaching environment, deaf school teachers combine oral and sign language during the teaching process, mainly using "Chinese Sign Language", while in their spare time, students

tend to mix natural sign language and "Chinese Sign Language" for communication.

## 2.4. Analysis of Existing Research Results

From the above research results, it can be seen that the popularization and application of National Sign Language in special education schools have formed a significant social impact, especially in the education field of ethnic minority areas and among adult deaf groups, becoming the main communication medium. Despite the positive promotion and support provided by the government, including legal safeguards, there are still several challenges. Firstly, there is a relative lack of in-depth exploration in the academic community on the promotion strategies and implementation of the national universal sign language. Research is often limited to individual factors and lacks a comprehensive examination of multidimensional factors. Moreover, there is insufficient research on the actual effects of sign language promotion and tracking studies after policy implementation.

Secondly, most existing research methods focus on theoretical analysis and empirical refinement, with a low proportion of empirical research. Compared with the study of spoken language, there is still room for improvement in the reliability and validity evaluation of research tools, as well as the selection of research methods. In terms of the setting of research objects, the attention to ethnic minority areas needs to be deepened, especially the detailed description and in-depth analysis of specific regions are still insufficient.

Therefore, future research should strengthen interdisciplinary cooperation, conduct systematic and comprehensive research on the promotion of national common sign language, in order to propose more effective strategies and optimize research design to ensure the accuracy and reliability of data. At the same time, further expanding the research sample size is necessary to better understand and address the unique issues in sign language education in ethnic minority areas.

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