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A Study of Accessible Reading among Visually Impaired University Students

Qiu Lingbo[1,a], Xu Juan[2,b,*], Zhang Luwen[1,c]

[1]*College of Special Education, Beijing Union University, Beijing, China*
[2]*College of Normal Education, Beijing Union University, Beijing, China*
[a]*20242045110705@buu.edu.cn,* [b]*sftxujuan@buu.edu.cn,* [c]*20232045110708@buu.edu.cn*
[*]*Corresponding author*

Abstract: *As China's efforts to develop accessible reading continue, improving the accessible reading system can promote the overall accessibility construction system toward maturity. Visually impaired university students, as the segment of visually impaired individuals receiving higher education, have a large demand for reading and place high requirements on the timeliness and professionalism of reading resources. Therefore, understanding the current state of accessible reading for visually impaired university students can provide forward-looking recommendations for the development of accessible reading in China. This study finds that visually impaired university students express a low level of satisfaction with the country's overall accessible reading infrastructure, and their needs for accessible reading are diversified. This research attempts to analyze the issue from the perspective of environmental construction of accessible reading in the digital era and from the perspective of textual construction of Chinese Common Braille, and offers relevant policy recommendations.*

Keywords: *Accessible Reading; Visually Impaired University Students; Chinese Common Braille*

1. Introduction

According to Article 52 of the ***Law of the People's Republic of China on the Protection of Persons with Disabilities***, the state and society shall progressively improve barrier-free facilities, promote barrier-free access to information, and create an accessible environment for persons with disabilities to participate equally in social life[1]. With China's economic development, the government has placed greater emphasis on the rights and interests of persons with disabilities, incorporating barrier-free construction as a fundamental measure to safeguard their rights and daily life. This ensures the efficiency and targeted nature of accessibility initiatives, enhancing the quality of life for persons with disabilities while improving the utilization rate of public facilities and reducing waste. The ***Marrakesh Treaty*** stipulates that providing accessible reading materials for visually impaired individuals is an integral part of human rights. China's accession to the treaty further upholds and protects the interests of individuals with print disabilities[2]. The advent of the digital era has facilitated the digitalization and informatization of accessible reading resources, leveraging digital accessible reading initiatives to promote resource sharing. Ensuring the reading rights of visually impaired individuals not only effectively improves their quality of life but also contributes to the professional advancement of China's overall barrier-free construction efforts.

As a group that has received higher education among the visually impaired population in China, understanding the reading habits and current reading status of visually impaired college students in the digital era can help universities improve the quality of accessible services, enhance the reading service system of university libraries, and provide recommendations for nationwide accessible reading construction using universities as a model. Cong Cai, from the perspective of information learning, identified four obstacles encountered by visually impaired college students in online learning: device access, technology use, content acquisition, and information comprehension, and subsequently proposed relevant suggestions[3]. Dayong Wang, based on the current reading situation of visually impaired college students, suggested that the meticulous and professional development of digital libraries can ensure their reading quality[4]. Jia Yao, integrating the psychological characteristics and reading traits of visually impaired college students, offered recommendations from the perspectives of universities, society, and individuals to provide professional digital reading strategies for this group[5]. This indicates that current research on the reading status of visually impaired college students in China focuses on digital

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construction and addresses their reading needs. However, it largely emphasizes experiential summaries and lacks large-scale, systematic quantitative analysis of their reading status.

This study aims to investigate the current reading status of visually impaired college students directly and objectively through quantitative data, while analyzing the contributing factors within the context of the digital era. It also seeks to provide relevant recommendations for the development of accessible reading, thereby contributing to the advancement of accessible reading initiatives nationwide.

2. Research Subjects and Methods

2.1. Research Subjects

The research subjects of this study are visually impaired undergraduate and graduate students. Questionnaires were distributed to universities in regions including Beijing and Jilin using a random sampling method via the platform Questionnaire Star. A total of 149 questionnaires were distributed, of which 8 were invalid, resulting in a response rate of 95%.

2.2. Research Methods

Due to the unique characteristics of the visually impaired population, a random sampling method was adopted to ensure the smooth progress of this survey. The survey content included basic demographic information of visually impaired college students, their current reading status, and their attitudes toward reading and the development of accessible reading in China. The final results were statistically analyzed using SPSS version 25.

2.3. Survey Results

The results of this survey are divided into three main parts: basic information, current reading status, and satisfaction with the development of accessible reading.

3. Basic Information of Visually Impaired College Students

The gender ratio of the visually impaired college students surveyed in this study is 6:4, indicating a relatively balanced and representative sample. In terms of age, the respondents range from 18 to 50 years old, covering a wide age span and demonstrating strong diversity among the participants. Regarding academic disciplines, the majors of the visually impaired students surveyed include teacher training, medicine, music, and computer science, which facilitates the identification of discipline-specific characteristics in accessible reading. Detailed information is presented in Table 1.

Table 1 Basic Information of Survey Respondents

Demographic Variables	Basic Information	Number of People	Percentage
Gender	Female	54	38.3%
	Male	87	61.7%
Age Range	Aged 18-23	97	68.8%
	Aged 24-30	33	23.4%
	Aged 31-50	11	7.8%
Academic Major	Normal Education	9	6.4%
	Medicine	108	76.6%
	Music	15	10.6%
	Computer Science	9	6.4%

3.1. Current Reading Status of Visually Impaired College Students

The survey on reading habits primarily encompasses three aspects: primary reading methods, channels for accessing free reading resources, and expectations for the future development of accessible reading. Detailed information is presented in Table 2.

In terms of reading methods, auditory reading constitutes the main approach among single-method

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readers, while a combination of audio-visual reading dominates among multi-method readers. Regarding channels for accessing free reading resources, the three most frequently chosen methods were: online downloads, assistance from friends, and libraries. A chi-square test was conducted, yielding χ^2=100.85, p=0.00<0.01, indicating a statistically significant difference.

Regarding expectations for the future development of accessible reading, the findings are categorized into two main areas: the most desired forms of support and assistance, and improvements to the internet. In terms of the most desired support and assistance, the three areas with the highest demand were significant others, government investment, and the development of reading devices. A chi-square test on the distribution of these expectations yielded $\chi^2 = 75.12$, $p = 0.00 < 0.01$, indicating a statistically significant difference. This suggests that visually impaired college students currently rely heavily on interpersonal relationships for accessible reading, while the role of government functions remains insufficiently realized. Regarding future internet development, the three areas of greatest demand were the functionality of reading platforms and the richness of reading materials, interconnectivity of accessible reading across various websites, and AI-powered screen readers. A chi-square test on the distribution of these expectations revealed χ^2=25.37, p=0.00<0.01, indicating a statistically significant difference and reflecting the substantial demand of visually impaired college students for the internet.

Table 2 Current Reading Status of Visually Impaired College Students

		Number of People	Percentage
Reading Methods	Auditory Reading	45	31.9%
	Visual Reading	32	22.7%
	Tactile Reading	7	5.0%
	Combined Auditory and Visual Reading	32	22.7%
	Combined Auditory and Tactile Reading	16	11.3%
	Combined Visual and Tactile Reading	9	6.4%
Channels for Accessing Free Resources	Online Downloads	102	42.1%
	Assistance from Friends	56	23.1%
	Library	49	20.2%
	Others	22	9.1%
	China Association of the Blind (CAB)	13	5.4%
Most Desired Forms of Future Support and Assistance	Significant Others	73	20.4%
	Increased Government Investment	70	19.6%
	Reading Devices (e.g., development of specialized reading equipment)	54	15.1%
	Library Services (e.g., provision of AI services such as virtual assistants)	54	15.1%
	Visually Impaired Associations (e.g., organizing reading clubs, etc.)	42	11.7%
	Others	31	8.7%
	Internet-Related Aspects	20	5.6%
	Reading Materials (e.g., diversity of available materials)	14	3.9%
Internet Enhancement	Functionality of Reading Platforms and Richness of Reading Materials	40	27%
	Inter connectivity of Accessible Reading Across Various Websites	38	26%
	AI-Powered Screen Readers	32	22%
	Ease of Use in Accessible Reading Operations	30	21%
	None	6	4%

3.2. Attitudes of Visually Impaired College Students towards the Development of Accessible Reading in China

The survey examined the satisfaction levels of visually impaired college students with accessible reading, which were categorized into four dimensions: overall satisfaction with accessible reading in

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China, satisfaction with accessible textbooks in China, satisfaction with accessible non-textbook reading materials in China, and satisfaction with the accessibility of free reading resources. A differential analysis of satisfaction levels across these four dimensions was conducted based on demographic variables. Detailed information is presented in Table 3.

The survey results indicate that among the four dimensions of satisfaction with China's overall accessible reading development, visually impaired college students reported a relatively low level of satisfaction with textbooks, while their satisfaction with the other dimensions was moderate. This suggests substantial room for improvement in the development of accessible reading in China.

Using age and academic major as independent variables, a homogeneity of variance test was conducted. For variables meeting the homogeneity assumption, a multivariate analysis of variance (MANOVA) was performed. For variables with unequal variances, Welch's test was applied, and post-hoc tests were conducted for those showing significant differences. The analysis revealed no significant differences in satisfaction with accessible reading in terms of free access channels across age groups and academic majors. However, significant differences were found in the other three dimensions. Post-hoc tests indicated that visually impaired college students aged 31–50 differed significantly from other age groups, and students majoring in medicine differed significantly from those in other majors, with the exception of music majors.

Table 3 Satisfaction Levels of Visually Impaired College Students with the Development of Accessible Reading in China

		Satisfaction with the Development of Accessible Reading	Satisfaction with the Development of Accessible Textbooks in China	Satisfaction with the Development of Accessible Non-Textbook Reading Materials in China	Satisfaction with the Development of Accessible Reading via Free Channels
Mean±Standard Deviation		M±SD	M±SD	M±SD	M±SD
Age	Aged 18-23	3.05±0.98	3.13±1.03	3.16±0.95	3.23±0.93
	Aged 24-30	3.30±1.05	3.06±1.30	3.09±1.18	3.24±1.12
	Aged 31-50	1.73±1.01	1.27±0.47	1.45±0.52	2.55±1.21
Academic Major	Normal Education	2.44±1.24	1.78±0.67	1.78±0.83	2.89±1.36
	Medical Education	3.19±0.93	3.29±0.99	3.31±0.88	3.24±0.86
	Music	2.60±1.40	2.27±1.39	2.47±1.41	2.93±1.49
	Computer Science	2.00±1.00	1.56±1.01	1.67±0.71	3.11±1.36
F/Test Statistic$^{\alpha}$	Age	10.56**	58.29**	14.92**	2.39
	Academic Major	5.92**	15.69**	20.66**	0.37

4. Analysis

This study reveals that visually impaired college students have a high frequency of reading, with auditory reading as the dominant mode and a combination of auditory and visual reading as the primary compound reading method. This differs from the findings in 2013, where single-mode reading methods such as auditory or visual reading were predominant[6]. Regarding access to reading resources, online downloads are the main channel, supplemented by assistance from friends and libraries. Except for visually impaired college students aged 31–50, who reported low satisfaction levels with accessible reading in China, the specific aspects of accessible reading development in China exhibit characteristics of considerable variation in satisfaction levels and the coexistence of individualized needs. This study attempts to analyze the current status and satisfaction with accessible reading among visually impaired college students by integrating the distinctive features of the digital era and the national standard braille, focusing on two dimensions: social context and written language.

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4.1. The Digital Era Shapes Reading Habits While Also Creating Barriers

The continuous advancement of technology in the digital era, coupled with the ongoing development of accessibility initiatives in China, has significantly shaped the reading habits of visually impaired college students. These habits are primarily characterized by auditory and combined audio-visual reading, a high reliance on the internet, and a continued dependence on interpersonal networks. The enactment of the Law on the Construction of Barrier-Free Environments in China mandates the provision of reasonable accommodations for persons with disabilities in public domains [7]. Institutions of higher education in China, such as Beijing Union University and Changchun University, which are specifically qualified to enroll visually impaired students, place greater emphasis on accessibility construction to meet student needs, thereby facilitating their mobility and other activities in physical spaces. The digitization of accessible reading, from the perspective of virtual spaces, provides conditions for reading and other activities among visually impaired individuals. With the advent of electronic devices such as mobile phones, the "digital accessible pathway" has emerged, enabling access to information beyond physical constraints and facilitating auditory information acquisition, thereby subtly transforming the reading habits of visually impaired individuals. They utilize electronic mobile devices, such as smartphones, to meet their reading needs through features like variable-speed playback[8]. With the development of artificial intelligence, university libraries are experimenting with digital virtual human services to enhance the professionalization, informational, and convenience of accessible reading[9]. Due to variations in the degree of visual impairment and differences in information reception speeds across sensory inputs[10], the needs of visually impaired college students regarding accessible reading also differ: students with residual vision prefer a combination of audio-visual methods for professional reading and primarily rely on auditory reading for leisure; students without residual vision prefer auditory reading as their main mode of leisure reading. Consequently, their reading habits have evolved to be predominantly auditory and audio-visual.

However, this does not imply that the reading needs of visually impaired college students are being adequately met. In addition to their daily reading requirements, visually impaired students also have demands for professional books with high timeliness due to their academic and professional development needs. Currently, challenges exist in the development of accessible reading in Chinese libraries, including issues related to copyright of accessible format works and deficiencies in the construction of collection and transmission channels[11]. Problems such as copyright constraints, resource timeliness, and the diverse reading needs of visually impaired students hinder the digital development of accessible reading in higher education institutions. The imbalance between the availability of accessible reading resources and actual demand, along with unreasonable design of official websites, prevents visually impaired college students from obtaining desired book resources from public libraries. As a result, they turn to peer borrowing, paid internet services, or informal channels to acquire reading materials. This diminishes the role of public libraries in accessible reading and increases the demand among visually impaired students for significant others, government investment, and device development. Among free channels, libraries are not the students' preferred choice. Furthermore, in terms of suggestions for improvement, the expectations for "significant others" and "government investment" are proportionally similar, consistent with the survey findings indicating a high demand for the richness of reading materials and website interconnection on the internet. Regarding access channels for reading materials, the predominance of free channels reflects significant progress in the digital development of accessible reading in China. However, the heavy reliance on assistance from friends and the relatively low proportion of expectations for support from official institutions such as libraries highlight the incomplete fulfillment of functions and inadequate support services provided by official agencies in China's accessible reading development. The demand for functionality and interconnection of reading platforms on the internet further reveals the lack of close collaboration and integration among official institutions in China's accessible reading development.

In summary, a demand-oriented approach should be adopted, emphasizing strengthened collaboration between public libraries and university libraries, further advancement of digital development, and enhanced rationality in resource allocation between public and university libraries. These efforts aim to promote the personalized and precise development of digital accessible reading construction.

4.2. National General Braille Both Empowers and Constrains Accessible Reading

The national standard braille, with its word-by-word tone marking, provides a textual foundation for the digitization of reading materials and the precision of braille publications. However, the lack of detailed rules for word segmentation and hyphenation in national standard braille affects the reading

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satisfaction of visually impaired college students. This ultimately results in the lowest satisfaction levels among visually impaired students aged 31–50 and relatively higher satisfaction among medical students in terms of academic majors.

In terms of tone marking, prior to the introduction of national standard braille, current braille was commonly used by visually impaired individuals in China. Current braille lacked clear specifications for tone marking, leading to inaccurate pronunciation and the need to infer content during reading. Visually impaired individuals had to first gain a comprehensive understanding of the text and then deduce specific details based on the general meaning, which slowed down their reading speed. In Chinese braille writing, word segmentation and hyphenation are employed, and the rules for word segmentation and hyphenation in current braille are detailed for different word classes, requiring a high level of linguistic knowledge[12]. The National Standard Braille Scheme was officially promulgated in 2018[13]. National standard braille inherits the character writing system of current braille but achieves word-by-word tone marking through the principle of zero marking, omitting tones for certain words. National standard braille demonstrates stability in writing and accuracy in pronunciation[14], promoting the standardization and normalization of Chinese braille. In the digital era, through the establishment of artificial intelligence and a national standard braille corpus, the information of paper-based braille resources can be realized. Visually impaired college students can read paper-based materials more quickly, and the digital conversion of braille books becomes more convenient. However, since national standard braille was introduced in 2018, older visually impaired college students need to relearn the tone marking rules of standard braille. This means that, in addition to mastering professional knowledge, older visually impaired students must also learn the rules of national standard braille, increasing their learning burden and adding to the workload when reading texts written in national standard braille by touch.

Regarding the rules for word segmentation and hyphenation, national standard braille currently has relatively few established rules. Based on the three fundamental principles of conforming to grammar, adhering to linguistic logic and convention, and ensuring an appropriate length of written output while appropriately reducing scattered monosyllabic words, the approach of "more connection, less separation" is adopted to minimize the impact of linguistic knowledge on visually impaired individuals in word segmentation and hyphenation rules. However, the limited number of word segmentation and hyphenation rules in national standard braille presents obstacles in handling certain details, necessitating the use of word segmentation and hyphenation rules from current braille. Consequently, the digital conversion of reading materials into braille books requires further manual processing, hindering the diversification of braille material types and the standardization of production processes. Currently, majors specifically offered for visually impaired college students in China include teacher training, medicine, and music, among others. The diversity of academic majors demands a variety of reading resources, and age differences result in varying channels for accessing reading materials. The medical major, due to its early establishment, comprehensive curriculum system, and accumulation of rich reading resources[15], provides more reference experience in the production of medical braille books. This, to some extent, mitigates the impact of imprecise word segmentation and hyphenation rules, making it more convenient for visually impaired students in medicine to access reading resources compared to those in other majors. Other majors, having been established later, have fewer reference experiences. Although the China Braille Library boasts abundant resources, its collection in terms of quantity and variety cannot effectively meet the needs of visually impaired individuals[16]. This has resulted in generally low satisfaction among visually impaired college students regarding the development of accessible reading in China, with significant differences in satisfaction levels based on age and academic major.

5. Recommendations

This study reveals that the current reading status of visually impaired college students is closely related to the era in which they live. Changes in the times drive shifts in individual habits, and changes in individual needs, in turn, propel the development of the era, with the two being mutually reinforcing. Therefore, this study attempts to propose recommendations from two dimensions—reading resources and national standard braille—to promote the development of accessible reading.

5.1. Collaborating with Provincial Libraries to Enrich Reading Resources

Public libraries, as public institutions providing reading resources to citizens, are a vital component of China's accessible reading development. Currently, public libraries are not the preferred channel for

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visually impaired college students to access free reading materials, and their service role remains underutilized. Provincial libraries, as key institutions within the vertical system of China's public libraries, implement administrative responsibilities, coordinate the development of public library services across the province, and provide high-quality documentary information resources and services. They play a demonstrative and leading role in the development of accessible reading within provincial library systems[17]. Therefore, collaboration between university libraries and provincial libraries can not only enrich the reading resources of university libraries but also enhance the capacity of public libraries in accessible reading development.

Collaboration between university libraries and provincial libraries can be tailored to the reading needs and characteristics of visually impaired college students, fully leveraging their proficiency and strong interest in using electronic devices such as mobile phones. This can promote the development of accessible reading in libraries towards personalized digital resources and cutting-edge information resources. Additionally, universities can utilize libraries to cooperate with third-party institutions, such as publishers, to provide visually impaired college students with timely, accurate, and legitimate reading resources. Using provincial libraries as a bridge, a three-party online multi-dimensional accessible reading service platform can be established, facilitating collaboration among university libraries, provincial libraries, and other institutions. This platform would integrate reading resources, diversify the types of reading materials, and meet the reading needs of visually impaired college students, as well as their demands for internet resources and screen reader software.

Provincial libraries can leverage the platform of university libraries to help visually impaired college students, particularly older students, develop an accurate understanding of the role of public libraries through outreach programs and on-site experiences. Utilizing the diverse user base and variety of assistive devices available in public libraries, they can popularize the use of electronic devices among older visually impaired students and provide guidance, while also organizing timely and regular seminars or lectures on national standard braille rules. Using university libraries as a springboard, provincial libraries can expand their sphere of influence, accumulate communication experience, and refine the accessible reading development system. This will enable them to provide timely and practical recommendations for the development of accessible reading in public libraries across the province, reduce resource waste, and enhance service capacity.

5.2. Refining the Word Segmentation and Hyphenation Rules of National Standard Braille

While the current braille system has a complete set of rules for word segmentation and hyphenation, it contains excessive detailed regulations based on different parts of speech, making it generally difficult for students to learn[12]. Therefore, the word segmentation and hyphenation rules of national standard braille must not only take into account grammatical logic but also be convenient for practical use. This requires that, in the process of refining the word segmentation and hyphenation rules of national standard braille, reliance should be placed not only on linguistic knowledge but also on consideration of whether the rules are easy for visually impaired individuals to use.

Therefore, in developing detailed rules for word segmentation and hyphenation in national standard braille, it is essential to assess their feasibility from multiple dimensions, including practicality, comprehensibility, and operability. A wide range of opinions should be solicited, particularly from teachers who have long been engaged in front line education for visually impaired students. These educators can propose concise and effective word segmentation and hyphenation rules from the perspectives of student learning and teaching practices, thereby supporting the enhancement of the feasibility of national standard braille rules from an educational standpoint. Extensive input should also be gathered from the visually impaired community to understand, from a social perspective, their attitudes towards word segmentation and hyphenation, as well as their unique characteristics and habits in this regard, ensuring that the rules for word segmentation and hyphenation in national standard braille are accurate and effective. Accurate and effective word segmentation and hyphenation rules for national standard braille can, at the textual level, reduce the difficulty of braille writing and expression, and at the screen reader level, improve the efficiency of AI in processing complex sentences. Establishing a comprehensive and user-friendly system for word segmentation and hyphenation in national standard braille serves to "safeguard" the digitalization of paper-based books from the perspective of written language usage, breaking down barriers for visually impaired individuals in information acquisition and knowledge learning. This will enable them to integrate more conveniently and efficiently into the digital era and share in the fruits of technological development and social progress.

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References

[1] Law of the People's Republic of China on the Protection of Persons with Disabilities [EB/OL]. (2021-10-29) [2025-10-26]. https://www.gov.cn/guoqing/2021-10/29/content_5647618.htm.
[2] Central People's Government of the People's Republic of China. Decision of the Standing Committee of the National People's Congress on Ratifying the Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled [EB/OL]. (2021-10-23) [2025-10-26]. https://www.gov.cn/xinwen/2021-10/23/content_5644495.htm.
[3] Cai C. Research on the Current Status of Information Accessibility in Online Learning for Visually Impaired College Students [J]. Modern Special Education, 2020, (12): 58-66.
[4] Wang D Y. Exploration on the Construction of Digital Libraries for Visually Impaired College Students [J]. Industrial & Science Tribune, 2018, 17(24): 279-280.
[5] Yao J. A Practical Study on Digital Reading for Visually Impaired College Students [J]. China Journal of Multimedia & Network Teaching, 2024, (04): 124-127.
[6] Lin Y. An Empirical Study on the Social Support System for Barrier-free Reading for Visually Impaired People: Based on a Questionnaire Survey of 112 Visually Impaired Individuals [J]. Library and Information Service, 2013, 57(24): 84-89+111.
[7] Law of the People's Republic of China on the Construction of Barrier-Free Environments [EB/OL]. (2023-06-29) [2025-10-13]. https://www.gov.cn/yaowen/liebiao/202306/content_6888910.htm.
[8] Wang Y S, Shan Q, Pan W J. Meeting at the Breakpoints: Technological Negotiation of Visually Impaired Reading in the "Digital Accessible Pathway" [J]. Publishing Research, 2022, (06): 79-83.
[9] Fu X, Qin Z Y. Innovative Practice Paths for Accessible Services in University Libraries Driven by Virtual Digital Humans [J]. Library Work and Study, 2025, (01): 96-102.
[10] Zhong J H. A Probe into the Theory of Intuitive Teaching in Schools for the Blind [J]. Chinese Journal of Special Education, 2005, (04): 81-86.
[11] Zhang Q, Yang Y. Analysis of the Challenges and Countermeasures for Cultural Service Institutions for Individuals with Print Disabilities in China Posed by the Cross-Border Exchange Obligation of the Marrakesh Treaty [J]. Library Science Research & Work, 2023, (02): 5-9+15.
[12] General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China, Standardization Administration of the People's Republic of China. Chinese Braille. Beijing: China Standard Press, 2009.
[13] Chinese Common Braille Scheme[EB/OL]. (2018-07-25) [2025-10-26]. https://hudong.moe.gov.cn/jyb_sjzl/ziliao/A19/201807/t20180725_343690.html.
[14] Zhong J H. Analysis of the Characteristics of the National Standard Braille Scheme [J]. Modern Special Education, 2018, (23): 23-25.
[15] Lu T, Feng Z T. Copyright Dilemmas and Solutions for Accessible Reading Services in Libraries in the Intelligent Era [J]. Library Work and Study, 2024, (02): 44-52+58.
[16] Qu X L. Construction and Development of Applied Higher Education for Persons with Disabilities: Practice and Innovation of the College of Special Education at Beijing Union University [J]. Disability in China, 2007, (08): 32-33.
[17] Wu Y C. Reflections on the Positioning of Provincial Public Libraries during the 14th Five-Year Plan Period [J]. Inner Mongolia Science Technology & Economy, 2022, (09): 118-121.