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Evolving Scripts: A Comprehensive Review of Chinese Writing Reforms

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Abstract

Tämä opinnäytetyö käsittelee Kiinan kirjoitusjärjestelmän historiaa ja kiinan kielen fonetisoinnin mahdollisuutta. Opinnäytetyö kuvailee ensin romanisointijärjestelmien ja muiden vaihtoehtoisten foneettisten kirjoitusjärjestelmien kehitystä, alkaen lähetyssaarnaajien vaikutuksesta ja jatkuen Pinyinin kehitykseen 1950-luvulla. Tämän jälkeen opinnäytetyössä pohditaan erilaisia mielipiteitä kiinalaisten merkkien korvaamisesta Pinyinillä sekä kiinalaisten kirjainten käytön eduista ja haitoista. Tämän opinnäytetyön johtopäätös on, että vaikka kiinalaisilla merkeillä on etunsa, kuten eri Kiinan murteiden välisten esteiden ylittäminen, koska merkit ovat riippumattomia ääntämismuodostaan (Monroy, 2022), ja vaikka ne ovat tärkeitä kiinalaiselle kulttuurille (Cao, 2024), tuhansien merkkien kirjoittamisen opettelu ja niiden muistaminen rasittaa kiinan kielen lukemisen ja kirjoittamisen oppimista jopa alkuperäisasukkaille (Moser, 2006), (Moser, 2016). Silti, vaikka aakkosjärjestelmä olisikin kätevämpi, merkkien täydellinen korvaaminen Pinyinillä ei todennäköisesti tapahdu pian, koska se kohtaisi vastustusta ja vaatisi muutoksia kielen rakenteeseen (Moser, 2006).

Key words: Chinese writing system, Chinese characters, Chinese alphabetization, Writing reform, Pinyin.

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1   Introduction

This paper aims to describe the history of writing reforms and alphabetization attempts for the Chinese writing system. It describes the history of writing reforms from the early missionary influence in the mid-16th century to the forming of Pinyin in the 1950s. I have collected literature written by sinologists and historians. In this paper I will think about whether the alphabetization of Chinese is possible or necessary. The proponents of phonetic alphabets argue for a more accessible and universally applicable writing system. Skeptics, on the other hand, posit that the richness of Chinese, woven into the intricate characters, needs to be preserved. The reader may contemplate whether the future of Chinese writing lies in the continuation of traditional characters or in the embrace of a more phonetic future.

The significance of a writing system and writing reforms is multifaceted and extends across various domains, including linguistic, cultural, educational, and technological aspects. A writing system acts as a cultural anchor, capturing the essence of a language. It is a tangible representation of a community's identity, traditions, and historical narratives. Without a writing system, there is a risk of losing the richness and depth of a language, hindering the intergenerational transmission of cultural knowledge. The cultural significance of a writing system has been discussed, for example, by Ince (2023) and Palmer (2009). The connection between writing systems and cultural evolution has also been studied by Trigger (1998). Writing is a powerful tool for expressing complex thoughts and emotions. It enables individuals to articulate ideas in a structured and detailed manner. The permanence of the written word allows for reflection, analysis, and a more profound exploration of concepts compared to oral communication alone. Diane et al. (2008) and Janczyk (2018) have studied the cognitive aspects of a written system. Education relies heavily on the written word. A well-established writing system facilitates the creation and dissemination of educational materials, textbooks, and scholarly works. Literacy, closely tied to writing, is a key driver of individual empowerment and societal progress. The impact of a written system on literacy and education has been discussed by Verhoeven et al. (2023). The distinct characteristics of a writing system contribute significantly to cultural identity. Calligraphy, script styles, and unique characters become symbols of a culture's aesthetic and artistic expression. Writing reforms, while aiming to enhance functionality, must delicately balance the preservation of cultural identity. In the digital age, writing systems intersect with technology. The adaptation of writing systems to digital platforms, coding languages, and online communication is

crucial. The role of technology in writing has been analyzed by Kruse and Anson (2023) and Raut et al. (2016). Writing reforms may involve creating new characters or symbols to accommodate technological advancements and ensure seamless integration. Writing reforms are sometimes driven by a desire to enhance accessibility. Simplifying complex characters or scripts can make written information more inclusive, benefiting individuals with diverse linguistic backgrounds, learning disabilities, or limited literacy skills. A standardized writing system facilitates international communication. It serves as a lingua franca, allowing people from different language backgrounds to communicate effectively. Reforms become necessary to adapt to societal changes, linguistic shifts, and emerging needs. Balancing tradition with adaptation ensures that a writing system remains relevant and functional in contemporary contexts. The social and significance of changes in writing systems has been discussed by Collin (2014)

The significance of writing systems and writing reforms for the Chinese language is particularly profound, given the unique characteristics of Chinese script and its historical evolution. Chinese characters are integral to China's cultural identity. Writing reforms must find a balance between preserving this rich cultural heritage and ensuring the script's adaptability to modern needs. The significance of Chinese characters to Chinese culture has been discussed by Cao (2024). According to Luo (2014), opponents of simplifying Chinese characters believe that simplified Chinese has lost a significant degree of cultural connotation. Luo (2014) also says that the simplified characters are tied to the identity of the PRC, while the retaining of traditional characters represents the identity of Hong Kong, Macau and Taiwan. Learning Chinese characters can be demanding due to the sheer number of characters and the complexity of the script. Writing reforms may aim to address educational challenges by introducing simplified characters, as seen in the adoption of Simplified Chinese, to enhance literacy rates and make education more accessible. Pan et al. (2023) have studied the challenges in learning Chinese. Goldstick (2014) says that China's language and writing reforms of the 1950s to 1970s gave access to education to the common people. Ai and Ai (1950) have described the attempts to simplify the Chinese language and hasten the learning process. In the digital era, the adaptability of Chinese characters to technology is crucial. Writing reforms may involve considerations for digital interfaces, typing methods, and the integration of Chinese characters into coding languages to ensure that the language remains relevant in a technologically advanced world. Zhao (2005) has studied the modernization of Chinese characters in the digital era. Moser (2006) and Moser (2016) have mentioned the role

of digitized writing systems in keeping the Chinese written system viable. Wu and White (1990) have also written about how the characters are processed with computers. As China plays an increasingly prominent role on the global stage, the writing system's accessibility to an international audience becomes crucial. China is linguistically diverse, with various dialects spoken across different regions. Writing reforms, while maintaining a standard script, should also consider how to accommodate regional linguistic variations and promote linguistic diversity. The use of traditional Chinese characters in Taiwan and some overseas Chinese communities adds a political dimension to reforms in writing. Imafuku (2012) mentions that Taiwan and other overseas Chinese communities never went through character simplification, since they were never under PRC control. Hong Kong and Macau were also exempted from character simplification for the same reason. Luo (2014) says that the use of traditional characters gives the Taiwanese people a sense of being distinguished from mainland China. Zhao (2005) also says that the reform of the Chinese characters is, in some ways, a political process driven by politicians. Goldstick (2014) says that character simplification and the promotion of a standard vernacular during the 1950s to 1970s was based on the concept of "One State, One People, One Language" and brought a sense of unity to the country. Chinese characters are ideographic, often requiring a deeper understanding of the language to interpret. Writing reforms might explore ways to balance tradition with the promotion of creativity and innovation in language use, allowing for the evolution of the language without losing its essential character.

2   Background and context

When talking of writing reform, most people think of the English spelling reforms. This comparison can be misleading because it completely disregards the significance of the Chinese writing reforms. It is not simply a matter of editing the Chinese written characters but a major change that could be considered the most tremendous cultural revolution in Chinese history (De Francis, 1984). The Chinese language phonetization movement can be argued to be one of the most important undertakings of modern China. Language reform was historically so intriguing because it was a fiercely contested area. (Cheng, 2001)

The sinologist Simon Leys believed that the ideographic written word, which has hardly changed over two thousand years, accounts for the longevity of the Chinese civilization. Jing Tsu, a Chinese scholar at Yale University, observes that China has connected writing with authority for a long time, which is why proficiency in classical Chinese used to be so important. But regardless of the continuity of the Chinese writing system, zealots have often attempted to erase previous iterations of China's civilization to pave the way for their own ones, often targeting the writing system as well. The Chinese script was standardized under the first Qin emperor (259-210 B.C.) (Buruma, 2022)

The endurance of written Chinese may be a great achievement for the Chinese civilization, but it has also become a burden. Between the late 19th and early 20th century, several Chinese started to think that learning the Chinese characters was so time-consuming that they would impede China in a world dominated by the Latin alphabet. To achieve literacy in the Chinese language, one must memorize 3000 characters or more. Learning to write requires memorizing and visualizing ability, since a Chinese character consists of several strokes drawn in a particular sequence (Buruma, 2022).

The standard written Chinese before the 20th century was unique in that it was based upon the Old Chinese from more than 2000 years ago and diverged from contemporary colloquial Chinese. Dialects that had no mutual intelligibility were spoken across China, but the same written language was used in the entire country. The continuity of the Chinese civilization was seen as made possible by the traditional written Chinese. The reason was that it used a logographic writing system that differentiated the pronunciation of the characters in different Chinese dialects. This kind of writing system required much more time to learn than a writing system based on colloquial speech, making it inconvenient for a society that needed to raise

its literacy level in order to modernize. As it was based on Old Chinese, it was considered to be too constrained and insufficient in vocabulary to be used in modern society (Chen, 2015).

 The Chinese language reform movement began in 1890 and continued through 1911(Cheng, 2001). After violent rebellions, humiliating losses in the Opium Wars, and being forced to give privileges to foreign countries, the dynasty was about to break. Chinese intellectuals began to wonder whether the Chinese language or civilization and its inconvenient written system would last. Many intellectuals hoped for a total change in Chinese tradition in this cultural panic. The Qing dynasty ended in 1911, but reformers attempted to purge imperial culture itself. Classical Chinese was practiced only by a handful of highly educated people, and reformers saw it as a hindrance to the rising literacy rate and political progress. During the Ming dynasty (1368-1644), a more colloquial form of the language, called baihua, had already been introduced. Baihua was a precedent for making written Chinese easier to learn (Buruma, 2022).

More radical modernizers wanted to eliminate the characters completely and replace them with a phonetic written system, either with the Latin alphabet or phonetic symbols derived from characters. A linguist, Qian Xuantong, argued that only by eradicating the Chinese characters could Confucian thought be abolished. Lu Xun predicted that China would perish unless the Chinese script was abolished (Buruma, 2022).

Hopes for the potential of a phonetic writing system were high among those who attempted to develop a phonetic script and among intellectuals who were captivated by the potential of its reformist possibilities. During the end of the Qing period, 29 phonetization proposals came out. The transcription methods varied from adaptation of the Latin alphabet to the development of new phonetic characters derived from character radicals and from short-hand strokes to mathematical numbers. While the notion of a Chinese phonetic written system might be interesting in itself, one must keep in mind the larger reformist context of the late Qing Dynasty. It was no coincidence the language reform movement coincided with the rise of a new reformist way of thinking in the 1890s. (Cheng, 2001).

There have been many attempts to adapt Chinese to the Latin alphabet. Among these are the Wade-Giles system developed in the 19th century and the Pinyin system created by linguists in the PRC. There are also different forms of Romanization used in Taiwan. All of these systems have faced difficulties, such as the great amount of homonyms in the Chinese language and the question of how to convey tones. Although characters were never abolished,

problems remained, like how to accommodate them in a typewriter or how to create a telegraph system. There was also the question of which characters or Romanized transliterations should prevail (Buruma, 2022).

2.1 Historical background

2.1.1 Missionary influence

The Chinese characters have evolved throughout China's history. The original pictographs used during the Shang dynasty evolved into the formalized characters of Zhou, which were eventually replaced with standardized characters as China evolved into a united monarchy that began from the Qin dynasty (221-106 B.C.) and continued until the end of the Qing dynasty in 1911. During the 3000 years from the Shang Dynasty to the Qing Dynasty, the reforms in the writing system were restricted to changing the appearance of Chinese characters while retaining the structure of the writing itself. At the end of the 19th century, a fundamental change was deliberated due to the influence of Western missionaries and the failure to confront outside powers. Some reformers came in contact with missionaries and wanted to reform the written system as a part of a universal education reform to modernize and save China (De Francis, 1984).

The idea of writing Chinese with a phonetic system came from contacts with Western languages, which arrived in China with the Jesuits (Cheng, 2001). Jesuits first came to China in the mid-16th century. They compiled what was to be the first bi-lingual European-Chinese, or "Portuguese-Chinese" dictionary. On the basis of the Romanization scheme devised by its authors, it is possible to prove that they were learning to speak Mandarin. A later, different dictionary, or "the Chinese-Portuguese dictionary," included Romanization that showed the tones for syllables with diacritical marks. Others of the same kind soon followed these Sinological premieres, some of them using the same Romanization scheme (Camus, 2007). However, the Jesuits of the 16th century mostly used the alphabetic systems they had created for Mandarin to study the language rather than attempt to educate the illiterate people. The Protestant missionaries planned different Romanized writing systems for different local forms of speech (De Francis, 1984)

After China was defeated in the Opium War, China was opened to Protestant activity, which increased the activity of missionaries in China and their concern with Chinese writing. Late Qing language reformers drew their inspiration from their experience of the Protestant

missionary community in the 19th century. The language reformers were from regions where the Western and missionary influence was the strongest (Cheng, 2001).

The missionary connection was more than geographical. The Protestant missionary operation had two problems in China: the high illiteracy rate among the Chinese population and the difficulty of learning the Chinese ideograph. The missionaries' answer was the Roman alphabet. By teaching the Roman alphabet to the people, they converted more people to Christianity. The language reformers of the late Qing dynasty wanted to use phonetization for popular enlightenment (Cheng, 2001).

2.1.2 Late Qing dynasty

During the late Qing Dynasty, China was burdened by internal problems and foreign pressure. While European nations had developed significantly since the Industrial Revolution, China had remained stagnated and isolated from the rest of the world. China had suffered continuous military defeats since the first and the second Opium War (Chen, 2015). It was only after the second Opium war that the Western threat and the crisis China was facing became truly clear to the Chinese (Cheng, 2001).

The Opium War of 1839-1842 may have changed China's and the West's relations, but it was only after the conflict with Britain and France in 1856-1860 that China truly started to understand its situation. The more the feeling of emergency grew, the more urgent the demand for change and the more extreme the contents of the reform (Cheng, 2001). The nation realized it had fallen behind other countries in terms of national strength, which created a sense of urgency for dramatic changes in all important facets of society. Many were of the opinion that the Chinese language and its writing system had largely caused the low educational and intellectual level of the population because the written characters were too difficult for the people to learn and use. With China's illiteracy rate exceeding 80%, it was thought the Chinese language had to be completely reformed. The reform of the Chinese language is made of three main components: the establishment and spreading of a standardized written language based on contemporary Northern Mandarin to replace the traditional written standard, the establishment and spreading of a standardized spoken language, and the reforming the traditional logographic writing system (Chen, 2015).

The policy of reforming the Chinese written system for universal literacy and furthering a standard national language originated from the Wuxu reform that started in 1898 after the first

Sino-Japanese War. China's defeat was humiliating and troubling for the Qing government. At first, the reform was mainly interested in learning Western technology, which resulted from the Industrial Revolution. The reform focused only on learning technology, and the Chinese elite kept clinging to Confucianism and resisting Western ideas. Due to the repeated defeats of the Qing government on the battlefield, the Qing dynasty initiated the "Self-Strengthening Movement", which used Western science, knowledge, and products to protect China from foreign powers. The movement ended after China was defeated by Japan in the first Sino-Japanese war. China's defeat by a small Asian nation made China look weak in front of Europeans. China's defeat was the cause of the first significant political reform in the Qing dynasty. The Wuxu reform was the Qing dynasty's first attempt to modernize China and become a constitutional monarchy (Wan, 2014).

After the first Sino-Japanese War, growing dissatisfaction with the Self-strengthening Movement began to emerge. Many started to doubt the principle of the movement of learning only Western technology. Yan Fu, China's first social Darwinist, wrote a series of essays in 1895. He argued that the strength of the nation must be based on the quality of its people and that any self-strengthening program could not succeed until the citizens were modernized. A general and total raising of the people to a modern civilization would be the principal solution to the nation's problems. The enlightening of the Chinese people became the most important goal of the Qing (Cheng, 2001).

Chinese reformers were fascinated with how Japan had modernized itself so quickly. Only acquiring Western technology no longer sufficed. China's defeat in the war led to the Wuxu reform. Raising literacy rates and mass education were considered fundamental to making the nation strong, and language reform became needed. Lu Zhuangzhang made the first proposal for language reform. His proposal had three main points: first, everyone in a country should be literate to learn; second, a phonetic system of writing led to the development of science, which was essential for the wealth and strength of the nation; third, a non-phonetic written system was too difficult to learn and so impeded the mass literacy of the population, which led to backwardness. A standardized written and spoken language for all Chinese dialects was considered the most essential factor for a nation's scientific development. Zhuangzhang saw the high illiteracy rate as the reason for China's defeats (Wan, 2014).

During the 1890s, some Chinese who cooperated with missionaries started to work on new phonetic systems derived from the Roman alphabet as an easier method of reaching mass

literacy. These attempts created controversy caused by numerous key issues. One such issue was the question of what kind of form the phonetic characters should take. Several schemes of Romanization used the Latin alphabet as their basis. Some schemes took inspiration from the Japanese kana and based their symbols on Chinese characters. Inspiration for schemes was also sought from other sources, some of which were somewhat bizarre in their appearance (De Francis, 1984).

Another issue was whether the phonetic scheme should be used independently or with the Chinese characters. Reformers who thought that the traditional writing system was too complicated for the masses to learn wanted to scrap the traditional characters completely and implement a phonetic system in their place. Others wanted to limit the use of a phonetic system as only a tool for learning the characters by providing a simple method to indicate how the characters are pronounced (De Francis, 1984).

Perhaps the most important issue was which Chinese dialect the new alphabet should be used to represent. Some only wanted to use them to represent Mandarin. Others had the opinion that achieving literacy even in alphabetically written Mandarin was too difficult and insisted on planning independent phonetic systems for the different dialects and using the Mandarin-based written system only in situations where a national written system was necessary (De Francis, 1984).

2.2   Writing reform in the Republic of China

2.2.1   Zhuyin Zimu

In 1913 the Conference on Unification of Pronunciation was held in order to resolve these issues. The majority decided to create a set of 39 phonetic characters from Chinese characters, to use them alongside the Chinese characters, and to restrict their use to represent the Mandarin-based pronunciation of the Chinese characters as the national standard (De Francis, 1984). The symbols were easy to learn due to their simplicity. The method of using ancient basic characters as phonetic symbols had previously been suggested by Zhang Binglin in 1908 (Haishu, 1988). These symbols were originally named Zhuyin Zimu (Phonetic Alphabet) or Guoyin Zimu (National Phonetic Alphabet), and they were also known as the "Bo-po-mo-fo alphabet" (De Francis, 1984). Zhuyin Zimu was made public as the national standard in 1918, and its use continued until 1958, when the Hanyu Pinyin System replaced it in the PRC (Theobald, 2011). In 1930, the symbols were renamed Zhuyin Fuhao (Phonetic

Symbols) in order to prevent them from being thought of as an alphabetic system independent of the characters. These symbols have been mainly used to indicate the standard pronunciation of Chinese characters in printed material meant for people who do not understand the characters without them. They have mostly been used as an independent alphabetic writing system. They have had little effect on Chinese writing reform (De Francis, 1984).

The Zhuyin Zimu is among the oldest Chinese-made phonetic scripts for Standard Chinese. Its origin can be traced back to the qieyin (phonetic alphabets) systems that were used in the late Qing period. 27 alphabets have been developed to increase the literacy rates in China. The most significant among them was the guanhua hesheng jianzi (simple signs for a unified pronunciation of the Mandarin language). In 1910 it was suggested that it could be used as the national standard and to be cultivated in schools. This alphabet system would be included in all textbooks to indicate the pronunciation of the Chinese characters. This would make learning the Chinese characters more accessible to the entire population and the non-Chinese people living in China. It would also help to spread a standardized pronunciation of Chinese (Theobald, 2011).

The Conference for the Unification of Pronunciation was opened on the 15th of February, 1913. The conference members decided upon the national standard pronunciation of 6500 characters. Some representatives suggested using a fixed set of characters to indicate the pronunciation, others supported the use of signs, and a third group advocated using the Roman alphabet. A group of scholars from Zhejiang brought forward a writing system that was ultimately chosen as the standard. The group included Ma Yuzao, Zhu Xizu, Xu Shoushang, Qian Daosun, and the famous writer Lu Xun. All textbooks had to include this new national alphabet, and schools had to teach the national standard language. The new system was to be introduced on the 25th of November, 1918 (Theobald, 2011).

2.2.2 Baihua Movement

The Baihua movement, or the Literary Renaissance, started in 1917. It gained momentum in 1919 when it united with the May Fourth movement. The Literary Renaissance got its name from the European Renaissance. Its central principle was the opinion that the outdated writing style of Classical Chinese should first be replaced with a colloquial style or Baihua (vernacular) to make a reform of the written system itself possible. The classical form of writing was substituted with a colloquial, derived mostly from the Peking dialect (De Francis,

1984). Baihua had meant "local speech" until the 1890s, but the term was redefined as the writing style of vernacular novels made in the past few centuries, which were themselves elevated in status from popular entertainment to literary classics (Weng, n.d).

The term "baihua" now refers to the standard written language, but it only gained that meaning in the 1890s with the rise of newspapers written in a vernacular style. The term now refers primarily to dialects of Northern China on which baihua was based, especially Mandarin. Vernacular Chinese is defined as the opposite of classical or literary Chinese. The Baihua movement coincided with the national language movement, which attempted to develop a standard spoken language for the Chinese people who spoke hundreds of mutually unintelligible dialects. Progressive intellectuals promoted the colloquial style in written and spoken language, arguing that it was more similar to the language used by the people and, therefore, more appropriate for a nation in which literacy was necessary for the bulk of the population (Weng, n.d).

Two prominent figures in the Baihua movement were Chen Duxiu, editor of a group of intellectuals who would later come to found the Communist Party, and Hu Shi, a scholar who was the Nanking government's United States ambassador in World War II. In 1918 Qian Xuantong published an article where he expressed his opinion that Chinese spoken and written language were so incompatible with the modern world that they should be replaced outright with a foreign language. However, Chen Duxiu rejected this suggestion. His viewpoint was that Chinese speech should be maintained and that a new written system that is based on Chinese speech and uses the Roman alphabet should replace the Chinese characters. Hu Shi proposed a more conservative solution involving the retention of the characters. He thought that while China would be using an alphabetic system in the future, the abundance of monosyllables in the written language made it impossible to switch to an alphabetic system. The written system would first have to be replaced with Baihua writing and then move from Baihua writing to an alphabetic system (De Francis, 1984).

The thought of a writing system reform was opposed by some who saw the colloquial style as an unrefined style of unsuitable for more sophisticated expression of thought. There are some parallels in how Europe switched from using Latin in writing to using living speech as the basis for writing. In China, the history of the classical tradition was even longer, and thus the opposition was even more extreme. However, rising support for the colloquial style finally overcame this opposition (De Francis, 1984).

There were also differences in opinions over how the Baihua style should be formed. The term Baihua had come to refer to several subtypes defined by how much they contained elements from classical Chinese in proportion to colloquial speech. This matter of style directly affected the viewpoint that vernacular literature that uses Chinese characters would eventually prepare the way for an alphabetic script. The classical style is incompatible with an alphabetic script, so as long as it influenced Baihua, it was impossible to transcribe it alphabetically. Qu Quibai demanded the development of a new Baihua style that was based on Putonghua, a combination of several dialects that had evolved in major cities all around China (De Francis, 1984).

2.2.3 Guoyeu Romatzyh

Although Chen Duxiu proposed basing the literary style on colloquial Chinese, he failed to realize his goal of replacing the characters used in writing. (De Francis, 1984). In 1923, a group of scholars met in the Preparatory Committee for Standardizing the National Language and stressed the importance of a Romanized writing system. This system would be issued at the same time as the Zhuyin alphabet. A special committee of 11 members was set up to create such an alphabetic system, but it failed due to unfavorable circumstances (Theobald, 2011). Another committee led by Y. R. Chao was set up. He developed an alphabetic system in 1926 called Guoyeu Romatzyh, or National Language Romanization. This scheme was supposed to only be used for the national standard language, mostly the spoken language used by educated Peking dialect speakers. The system indicates tones with a tonal spelling. Instead of drawing tone markers above the vowel, the four tones are indicated by spelling variation. In 1928, the Kuomintang government issued the Guoyeu Romatzyh system as the second national standard, alongside the Zhuyin system (Theobald, 2011). Although Guoyeu Romatzyh was officially taken to use in 1928, it has only had a limited amount of use in some dictionaries to show how the characters are pronounced, in some brief English translations, and in some attempts at literary education (De Francis, 1984).

The strength of the Gwoyeu Romatzyh system was that it used the widespread Latin alphabet. There were no other symbols or signs used to interpret the pronunciation in the language. The weakest point of this system was that the rules for using tone pitches were too complicated, which made the Gwoyeu Romatzyh system difficult to learn. There was, therefore, only a very small number of textbooks printed with this system (Theobald, 2011).

2.2.4 Latinxua

Another alphabetic writing system was created in the late 1920s in cooperation with Chinese communists and Russian linguists for the about 100000 immigrants from China living in the Soviet Union. This alphabetic scheme was first called Latinxua (Latinization). Unlike some written systems based on Mandarin, Latinxua was not derived directly from the spoken language used by the educated people of Peking but in a form of Northern Chinese that drew influence from the spoken language of the Shandong people living in Soviet Union. Another noticeable element is that it had no tone representation. The purpose of Latinxua was to raise literacy rates among the Chinese immigrants living in the Soviet Union, and numerous publications were also written with it. (De Francis, 1984).

Among the first to become involved in Latinxua was Qu Qiubai, a special correspondent for a Chinese newspaper who later became an eminent member of the Communist Party. He was joined by Russian linguists specializing in Chinese. They planned an alphabetic written system that was adopted by several intellectuals (De Francis, 2006). Aided by them, Latinxua soon spread from the Soviet Union into China. Along the way, it was adapted to create separate Latinization schemes for different regional dialects (De Francis, 1984). Besides Mandarin, Latinxua was adapted to Cantonese, Hakka, and other dialects. It was also adopted by Chinese living overseas (De Francis, 2006). Latinxua opposed the idea of a national language. While trying to work out China's regional dialects, Latinxua brought unity to numerous varieties within the dialects. This method went hand in hand with Mao's vision of the self-determination of Chinese provinces in the 1920s. This was also consistent with the communist view that people were united by class interests rather than language (Wan,2014). Latinxua followed the principle of the Chinese reformists of the 1890s and opposed unitary phonetic schemes like Guoyeu Romatzyh (De Francis, 1984).

The Western viewpoint that the Chinese language was behind the times and prevented mass literacy prevailed among several Chinese communists. In 1936, Mao expressed his opinion that Latinization was a good method to overcome illiteracy. He thought that the Chinese characters were so inaccessible that they did not give the people an efficient and rich vocabulary and that, at some point, China would have to abandon the characters completely. For the Chinese communists, a Latinized script was a progressive approach to developing the nation. They looked up to the writing reforms of the Koreas and Vietnam, who both used to adopt Chinese characters for their writing system. Liu Shaoqi, a Communist leader in 1950,

said that their writing reform was more advanced than China's and that the Chinese should examine their language reforms (Wan, 2014).

Intellectuals and politicians realized that language had a central role in the governing of people when building a state. The reformers had three goals. First, they tried to work out different language policies in China and create a national standard language. Second, they tried to do away with the traditional Chinese script. Third, they saw it necessary to introduce a standardized language for every citizen to make the nation strong (Wan, 2014).

Latinxua also faced criticism from the supporters of Guoyeu Romatzyh. Apart from the non-indication of tones, Latinxua was criticized because of its use in creating different alphabetic written systems for the different regional dialects. It was believed that the "dialect Romanization" movement denied that China was a unified nation and split the nation into multiple autonomous linguistic zones, each with its distinct script, allowing the imperialist division of the nation. In spite of this opposition, Latinxua gained support from wide parts of society. Mao Zedong, the leader communist leader in the Yan'nan region of Shaanxi province; Lu Xun, the best-known Chinese writer; Liu Shaoqi, the secretary of the Party Central China Bureau; Mao Dun, another well-known writer; Dr. Chen Heqin, a well-known Christian educator; Guo Moruo, a renowned scholar; Sun Fo, the son of Sun Yatsen, who founded the Chinese Republic; and Cai Yuanpei, the first minister of education following the 1911 Revolution, were among its supporters. (De Francis, 1984).

The most active supporter of the production of Latizined material was Dr. Chen Heqin, the commissioner of education at Shanghai's International Settlement. He saw the Latinxua script as easier than other writing systems for reducing the illiteracy of refugee children living in the settlement (De Francis, 1984). The Shanghai settlement became a stronghold for Latinxua activity when Japan invaded in 1937 when a group of children took refuge in the settlement. In 1938, the Shanghai Sin Wenz Study Society sent representatives to ask for help from Dr. Chen to educate the children (De Francis, 2006). He wrote in Latinxua biographies of several prominent Westerners and took part in many other activities to spread Latinxua (De Francis, 1984).

However, the work on Latinxua was brought to a halt after the Japanese attacked Pearl Harbor in 1941. In Shanghai, the Japanese detained Ni Haishu, a prominent historian of the Sin Wenz movement. They also disbanded the Shanghai Sin Wenz Study Society and stopped the printing of publications written in Latinxua. The war also put a stop to Latinxua operation in

the Guomindang-controlled areas. But, although the Latinxua movement was stopped by the war, it was not considered to be permanently ended (De Francis, 2006).

2.3 Writing reform in the PRC

2.3.1 Revival of Latinxua

After Japan was defeated in 1945 and the Kuomindang party in the civil war, activities in Latinxua continued. Ni Haishu predicted in 1949 that the Chinese language would do away with the Chinese characters. On 25th August of the same year, Wu Yuzhang wrote to Mao asking for advice on promoting language reform. Mao wrote a letter to Guo Moruo and Mao Dun, prominent proponents of Latinization, and Ma Xulun, the future minister of education, asking them to deliberate on Wu's letter. They recommended the use of the Latin alphabet in developing a Zhongguo Pinyin Wenzi and promoting a national language based on Northern Speech or Putonghua. In Peking, an unofficial Association for Chinese Language Reform was formed, led by Wu Yuzhang. Journals were continued, and new publications were made in Putonghua and other regional dialects. Support from the government was clearly expected to continue the reform of the writing. (De Francis, 2006). However, the new government did not make any immediate announcements, and in February 1950, Liu Shaoqi informed that there was not yet a plan for Chinese writing reform (De Francis, 1984).

2.3.2 Pinyin and simplified characters

In 1950, the phonetization of the Chinese was dropped when Mao declared a new directive. This directive contained the following points: the development of a new national alphabetic writing system, the advocation of Putonghua as the national standard, and setting priority on character simplification. Ignoring suggestions from advisors, Mao decided that the writing reform should start with character simplification. Mao informed Wu Yuzhang that the reform goals should be kept realistic. Mao's intentions were echoed by Zhou Enlai when he said that all those who had received an education were attached to the Chinese characters and that the reform would have to be put off because of that. Mao met with Stalin between late 1949 and early 1950. During this visit, Mao explained to Stalin that the writing reform was one of China's issues and asked for his advice. Stalin said that China should have its own alphabet instead of just using the Latin alphabet (De Francis, 2006).

The public responded to this emphasis on a national alphabetic scheme by submitting about 1700 different schemes. The Committee on Chinese Writing Reform deliberated on these schemes and finally decided to present six different schemes for Mao. Four of them were derived from Chinese characters, one from the Cyrillic alphabet and one from the Latin alphabet. In 1956, Mao accepted the scheme derived from the Latin alphabet. After further deliberation, the government officially promulgated the system, which came to be known as Pinyin in 1958. Mao publicly stated that Pinyin would only have a secondary part and that the main goal would be simplifying the characters. He later commented privately that this solution was short-term and that he thought that someday, a basic reform would be necessary. In 1957, he restated his advocation of an alphabetic written system in a speech he gave at a Communist Central Committee meeting on "The Problem of the Intellectuals". The reason why that Pinyin still only has a secondary role was explained by Wang Li, the PRC's top linguist and a supporter of the reform of the Chinese written system. He said that the opposition comes primarily from intellectuals (De Francis, 2006).

Opposition to the reform of writing has become deep-rooted in all levels of government. The distinction between the pre-1950 and post-1950 reformist movements is marked by this opposition. Before 1950, the government was controlled by a sub-group of intellectuals supporting the reform. After 1950, the control was taken by a different sub-group opposing the reform that managed to prevent it. One of the members of this sub-group was Mao Zedong who had resigned to temporarily setting Pinyin aside. The fact that the reformers had never recommended the immediate abandoning of the traditional script has been obscured. The most that they had realistically been hoping for was the development of a digraphia system of both characters and Pinyin, with the two coexisting into the indeterminate future (De Francis, 2006).

3 Literature review

Swofford, M. (n.d.) contains a document called "Reform of The Chinese Written Language," a document from 1958 detailing the Chinese writing reform, the development of Pinyin, the attempts to popularise Standard Chinese, and a plan for a Chinese phonetic alphabet. In this document, Zhou Enlai writes about the simplification process of the Chinese characters and their promulgation. He says that simplified characters are more convenient, and he criticizes people who oppose simplification. He also says that the possible lack of consistency in simplified characters stems from the fact that the ancient oracle bone inscriptions also had several forms. According to him, the evolution of characters tends toward simplification, and the beginning rise of the literacy rate in China at the time demanded reform in the characters, making the reform of the time a natural process. He also discusses the alphabetization of Chinese, detailing the role of Pinyin in annotating the characters, teaching spoken Standard Chinese, helping Chinese minorities to develop their own written language, and helping foreigners to learn Chinese. He comments about the possibility of alphabets replacing the Chinese characters by saying that any language is subject to change. In the same document, Wu Yu-chang writes that the adoption of Pinyin does not mean the transformation of written Chinese into a phonetic language. However, he believes that the Chinese language will eventually become phonetic.

"The Alphabetization of Chinese" (De Francis, 1943) points out that there are other factors for national unity besides language, like race and economic continuity and race. Also, during the 1940s, only about 10 % of the population was literate, so the written system didn't unify people that much. Also, since most people can't read ancient Chinese works, knowledge of Chinese culture can only be spread by translating them into alphabetized writing. It also points out that the higher classes only opposed alphabetized script to keep literacy as their privilege since the sharing of literacy equals the sharing of power. This is also pointed out in "The History of Language Planning and Reform in China: A Critical Perspective" (Wan, 2014). It says that monarchists of the late Qing Dynasty opposed mass literacy since it would make the common people politically active citizens, which might challenge society's stability. "The Alphabetization of Chinese" also theorizes that the Chinese language was never monosyllabic since the increasing amount of homonyms would have made the language unintelligible. The stock of monosyllabic words would not have been large enough to meet the requirements of Chinese society by the time it started writing down its thoughts. The

earlier Chinese writing was abbreviated from polysyllabic to monosyllabic. De Francis has the opinion that since two Chinese can speak intelligibly using homonym syllables without resorting to sign language, they should be able to read phonetic script. He also states that "whatever is auditorily intelligible can be written phonetically." The Prospects for Chinese Writing Reform" (De Francis, 2006) stated that according to some diehards, future developments would eventually result in Pinyin completely supplanting characters regardless of opposition from intellectuals. Now that the characters have been simplified and most of the Chinese people are literate, the simplified characters have a more unifying effect on speakers of different dialects than the traditional characters. Both "Chinese Alphabetization Reform: Intellectuals and their Public Discourse, 1949-1958" (Luo, 2018) and (Theobald, 2011) agree that Pinyin was unpopular among intellectuals and government officials. Making the population literate and having a common language is the most important part of making the nation strong because literacy is required for people's education, which also makes economic, social, and scientific development possible. A common language is also required for people to be able to communicate with each other.

In "The Chinese Language: Fact and Fantasy" (De Francis, 1984), John De Francis goes into more detail about the monosyllables in the Chinese language. He starts by comparing Chinese to English, which uses white spaces to separate individual words. In Chinese, characters in sentences have the same amount of space between them regardless of their connection in their meaning. He continues by discussing the presentation of characters in dictionaries as independent units, each having at least one meaning. These factors, combined with the fact that Chinese syllables do not undergo internal changes, like in English, have led to Chinese characters or syllables being regarded as words. De Francis also refers to an article called "The Butterfly Case" by George A. Kennedy, where it is said that there is no record of Chinese ever having even 4000 distinct syllables. After all, this number of syllables representing one-syllable words would have been inadequate for the highly sophisticated Chinese culture. In this article, Kennedy also investigates a Chinese dictionary and states that the majority of Chinese characters stand for syllables with no independent meaning. "The Alphabetization of Chinese" also discusses the nature of syllables in the Chinese language. Since Chinese has many syllables that are meaningless by themselves, the language can't be monosyllabic. The Chinese language has monosyllabic words consisting of single free syllables and words formed by combining several syllables. De Francis also says that a conversation in Chinese in a colloquial style is 40 percent polysyllabic. He also says that

Chinese has mistakenly been thought of as a monosyllabic language because of the abbreviations of words into monosyllabic forms in the written language. He gives as an example 38 homonyms in the fourth tone, which is not an obstacle for alphabetizing Chinese since none of them are used as independent words.

"The "Invisible" Writing on the Wall" (Moser, 2006) points out many problems caused by the Chinese writing system. Because the characters are so complex, even highly educated and well-read, native Chinese often forget how to write even very commonly used words. Although most Chinese people can be classified as literate, in the Chinese context, recognizing characters does not translate to being able to write them. Although computer writing programs have saved the Chinese writing system as a viable orthography, the nature of the Chinese writing system makes their use enormously difficult for people who are not well versed in Pinyin. The non-alphabetic nature of the writing system also causes other problems. For example, the Chinese characters make it difficult to add a standard index to literature. Using a dictionary is also very inconvenient unless you know how to pronounce the character you are using. Children are forced to spend a long amount of time learning both Pinyin and the characters. Chinese children are still learning new characters in the sixth grade, and they are required to know how to write from three to four thousand characters to be able to write functionally. The use of autocorrection when writing with a computer or a cell phone is impossible because of the characters. Even a native Chinese will eventually forget how to write the characters unless they write them daily.

"Backward Thinking about Orientalism and Chinese Characters" (Moser, 2016) also says that although modern computer science has come up with workable solutions for digitizing Chinese characters, there are still other problems with the writing system. Achieving basic literacy in Chinese requires countless hours, and any advanced input systems will not ease the burden of having to learn to write characters by hand. Learning Pinyin, in addition to the characters, gives Chinese children additional work in order to achieve basic reading skills in their own language. The "character amnesia" problem has been a problem for centuries and has been made worse by the Pinyin input method and voice messaging options, causing wasted time in writing. Also, the difficulty of reading acquisition has discouraged many non-natives and even many native speakers from trying to learn the written language. The article also makes the point that printing Chinese books in Pinyin would make Pinyin alone sufficient to achieve basic literacy.

"The "Invisible" Writing on the Wall" (Moser, 2006) says that abandoning the Chinese characters completely and switching to Pinyin would be a cultural amputation for Chinese society. It would cause a cultural tragedy and a mess that would take a long time to sort out. Changing to Pinyin would create practical difficulties, necessitating radical changes in the morphology and syllable structure of the language due to the great number of homophonic morphemes not working in an alphabetic writing system. John De Francis demolished the belief that knowing the characters and their modern meaning gives one an understanding of ancient Chinese texts. However, "The "Invisible" Writing on the Wall" says they have semantic overlap with the modern meanings. The modern language also has traces of classical syntax and lexical usage, making the characters a useful bridge to classical literature. The article's opinion is that for now, the writing system is an unavoidable cost of being Chinese, but hopefully, a set of solutions will relieve the burden of the Chinese writing system in the future. "Chinese Writing" (Norman, n.d.) agrees with this viewpoint, saying there seems to be no prospect of abandoning the characters for the foreseeable future. "How the Chinese Language Got Modernized" (Buruma, 2022) also says that a drastically revised script would make books written with the former style difficult to understand.

"The Writing Reform of Chinese" (Luo, 2014) discusses the debate over the simplification of Chinese characters and says that simplifying characters is the best way to eliminate illiteracy due to the huge population. It also says that proponents of simplified characters claim that since most Chinese characters are made up of semantic-phonetic composition, simplification makes the system more coherent. Since the simplified form is built on the standard pronunciation of Mandarin, simplification also helps to connect orthography and phonology, making writing and character recognition more convenient.

"Chinese Writing" (Norman, n.d.) says that the main reason Chinese cannot be written alphabetically is that for alphabetic writing to be viable, it would have to be adapted to many different local dialects, which would be harmful to the notion of a unified nation. It also says that the written language is deeply rooted in Chinese culture and, as a universal script independent of China's dialectal diversity, it symbolized national unity.

In "The Chinese Language: Fact and Fantasy" (De Francis, 1984), John De Francis criticizes the notion that Chinese characters unify speakers of different Chinese dialects. Since modern written Chinese is based on Mandarin or Putonghua, a Cantonese speaker, for example, would have to learn grammar and vocabulary that differs from his native Cantonese in order to read

and write in Mandarin. Sometimes, every word in a sentence in Cantonese is written in different characters from Mandarin. Some characters also have different meanings in Mandarin and Cantonese. Therefore, written Mandarin and Cantonese can have differences. De Francis says that it would be easier for an illiterate Cantonese speaker to learn to read Mandarin in Pinyin than characters since it would take years to learn enough characters to become literate.

 "Chinese Writing" (Norman, n.d.) reflects upon the Chinese writing system. It points out that it is impossible to have a completely pictorial writing system since one cannot depict, for instance, some abstract grammatical notions with pictograms. It says that since people first started writing, certain symbols that were originally pictograms were used for their pronunciation, and this phonetic use of characters made a completely graphic record of language possible. Although, over the history of Chinese writing, the number of phonetic characters increased, the Chinese never gave up the principle of writing one character for each word or each meaningful element.

"The Monosyllabicization of Old Chinese and the Birth of Chinese Writing: A Hypothesis on the Co-evolution of the Chinese Language and its Writing System" (Ruiqing, 2019) investigates the Ancient Chinese Writing System or ACWS, which in the paper is defined as the earliest systematic writing in Ancient China. It delves into the syllabic system of ACWS and points out that ACWS does not break syllables into sub-syllabic systems. Like all ancient scripts, ACWS also started with the invention of pictograms, which were semantic symbols for words that had concrete meanings. The paper defines the rebus principle, which means the representing of words or syllables using a picture of an object whose name is pronounced similarly to the word or syllable in question. ACWS often used the rebus principle to represent abstract concepts and functional meaning in oracle bone writing. Therefore, there has always been a phonetic element in written Chinese. However, the article also points out that the rebus principle was only used in cases where the semantic meanings of words were difficult to depict using a pictograph and that pictographs represented most concrete words.

"Chinese Writing" (Norman, n.d.) also discusses the history of the Chinese writing system. It says that while the writing system's pictographic origins can be seen in the earliest writing, the script went through several changes over time. By the Han dynasty (206 BCE-220 CE), the writing system had lost most of its pictorial features. Therefore, writing reforms are nothing new in China's history, but the written system has changed throughout history. "The

Writing Reform of Chinese" (Luo, 2014) points out the same thing, saying that the Chinese writing system has undergone several stages, including oracle bones, bronze ware scripts, seal scripts, and clerical scripts, showing that as a country and its culture advance, an evolved method of writing becomes necessary. (Wei, 2014) also agrees that the general trend of the evolution of Chinese characters tends towards simplicity. Characters have changed in many ways, and their patterns have simplified, although their basic meaning has remained more or less the same.

"The All-Too Complicated History of Simplified Chinese" (Yuli, 2023) also says that the simplification of characters has happened many times in the past. There have always been variant characters with identical meanings but different shapes and origins shaped by natural evolution. The most noteworthy example is the cursive script used during the Han dynasty called caoshu. Therefore, many of the simplifications made in the 1950s were just a continuation of older variant forms.

The article "Simplification Is Not Dominant in the Evolution of Chinese Characters" (Han et al., 2022) investigates the common belief that Chinese characters have simplified over time. It concludes that modern Chinese characters are actually visually more complex than their earliest known counterparts by analyzing a dataset with over 500000 pictures of Chinese characters over 3000 years. The article hypothesizes that this might be due to the trade-off of simplicity and diverseness of written characters since progressive simplification is no longer inevitable if they conflict with each other. According to its results, the complexity of Chinese characters has had an overall increase over 3000 years, although there has been a process of simplification between seal characters and traditional characters. According to the article, an explanation for character simplification is that writers sometimes take shortcuts when writing a symbol. Its findings show that even the most often used symbols do not simplify over time, although they always tend to be simpler than rare characters. The article also analyzes the relationship between the complexity and distinctiveness of characters. By analyzing the characters in the dataset, the paper concludes that there is a connection between the complexity and distinctiveness of characters and that the distinctiveness of characters increased up to the traditional script. The article gives two hypotheses to explain the increased complexity and distinctiveness over time. One explanation is that readers need to be able to distinguish each character, and that distinctiveness has become more and more important as the balance between the number of readers and writers has changed. Another explanation is that the increase in the number of Chinese characters over time has made it necessary to keep

distinctiveness above a certain threshold and that keeping the average distinctiveness of characters constant makes it impossible for existing characters to create new characters.

Although China's literacy level has risen since the reform of the writing system, "How the Chinese Language Got Modernized" (Buruma, 2022) casts doubt on whether the role of the simplified characters has been as large in this as is thought. After all, the traditional characters are still being used in Taiwan and Hong Kong, and there seem to be no signs that children there have difficulties in learning reading and writing. "The Writing Reform of Chinese" (Luo, 2014) agrees, saying that there is no solid evidence that China's increasing literacy rate is caused by simplification alone, also adding that Hong Kong, Macau, and Taiwan have a higher literacy rate than China despite using traditional characters.

 "A Critical Analysis of the Use of Pinyin as a Substitute of Chinese Characters" (Mushwange, 2014) examines the use of Pinyin as a replacement for characters by doing a questionnaire survey for Zimbabwean students. The article's findings indicate that when the students communicate with each other by writing in Pinyin, it causes misunderstandings and confusion. The article's opinion is that Pinyin is not an alternative for characters, and overreliance on Pinyin makes learning them challenging. The paper states that contrary to the belief that the characters are more complex than Pinyin, the text is more ambiguous written in Pinyin than characters and that longer and more complex sentences become confusing in Pinyin. It also claims that the overuse of Pinyin has a negative effect on students' future acquisition of Chinese. It recommends that teaching Pinyin should only be restricted to the first few weeks.

A study (Lü, Zhang, 1999) about variations between languages of different written systems compared modern Chinese, which uses logographic characters, and English, which uses an alphabetic writing system among other languages. 126 Chinese and 111 American college freshmen were asked to read 16 passages picked from standardized foreign language tests and answer multiple-choice questions. According to the findings, the Chinese readers were able to read the material in 24.7 minutes, while the English readers finished the same reading material in 26.6 minutes. The paper says that a two-minute difference is significant even when holding reading comprehension constant. The reason for the quicker reading speed of the Chinese students is that reading in a phonetic language requires you to sound out the words in your mind when reading, while a logographic language doesn't, meaning that a logographic writing system has some advantages over a phonetic one.

4   Literature synthesis

Literature regarding the Chinese writing reforms presents many arguments for and against alphabetization. Arguments supporting alphabetization say that Pinyin, a phonetic system, would make learning to read and write Chinese easier. Pinyin would also be easier for non-native speakers to learn compared to characters, increasing the accessibility of the language. It would also solve the problem of "character amnesia." De Francis argues that a common phonetic script would actually have more of a unifying effect for speakers of different Chinese dialects because they are much faster to learn than the characters. Arguments against alphabetization raise concerns that replacing the characters with a phonetic script would cause a loss of culture since the characters connect to the history and literature of China (Moser, 2006), (Buruma, 2022). There are also concerns that the large number of homophones in Chinese could create ambiguity in an alphabetic system and undermine national unity because of the need to adapt the alphabets for different dialects (Moser, 2006), (Norman, n.d). Pinyin alone is argued to be insufficient for expressing meaning distinctions (Mushwange, 2014). It is also argued that simplification of characters has already addressed some difficulties in learning the characters (Luo, 2014).

Some common themes in the literature are the historical context and the role of a written system in national unity. De Francis (1943) argues that factors like race and economic continuity have historically played roles in national unity alongside language. He suggests that the Chinese script didn't necessarily unify the population, especially when the literacy rates were low. De Francis (1943) and Wan (2014) also point out that opposition to writing reform was rooted in maintaining the privilege of the elite classes and concerns about political stability.

Another theme is the functionality and practicality of a writing system. Concerns are raised about the practicality of Chinese characters, especially regarding the achievement of literacy. Moser (2006) and Moser (2016) highlight issues such as character amnesia, time-consuming learning processes, and difficulties in digital contexts. Articles on the evolution of characters (Yuli, 2023), (Han et al., 2022), (Luo, 2014) show a continuous effort to improve the functionality of the writing system. Luo (2014) also argues that simplified characters enhance literacy rates and coherence between orthography and phonology. While De Francis (1984) and others argue switching to Pinyin would make learning Chinese more effective,

Mushwange (2014) suggests potential confusion and ambiguity in relying solely on Pinyin and recommends its use only in the initial learning phases.

Some literature points out the role of the Chinese writing system in China's cultural and linguistic identity. Norman (n.d) emphasizes the deep-rooted nature of the Chinese writing system in culture and its role as a symbol of national unity. There's concern over a potential loss of cultural heritage and identity with a shift to alphabetization. Moser (2006) also sees the Chinese characters as integral to the language's expressive power and warns against cultural amputation through abrupt reforms.

Discussions around literacy rates and educational impact involve contrasting perspectives. While rising literacy rates are attributed to simplified characters, others (Buruma, 2022; Luo, 2014) suggest other factors at play.

To summarize, common themes in the literature about Chinese writing reforms are attempts to balance preserving cultural heritage and tradition and embracing modernization and functionality with a more practical writing system, the notions of Chinese identity and national unity affecting attitudes toward reform, the impact of writing reforms on literacy rates and education, considerations of efficiency in communication in terms of both writing and reading and issues like homophones and dialectal variations presenting problems for adopting a phonetic writing system.

"Simplification Is Not Dominant in the Evolution of Chinese Characters" (Han et al., 2022) tests the hypothesis of Chinese characters not actually becoming more simplified over time by gathering 38,066 pictures of ancient characters from a Chinese etymology website called hanziyuan.net. The sample contains versions of the characters from the oracle bone script, bronze script, and small seal script. The dataset was completed by adding handwritten characters from traditional and simplified scripts. In the article, it is acknowledged that the picture of the dissimilarities between the ancient scripts provided by the sample is incomplete. It was also impossible to analyze character versions that have not survived in the historical record or cannot be dated to a certain era. The study focuses on characters that appear in the Chinese Lexical Database. The dataset contains 3889 distinct characters, each of which has up to 291 pictures of their different versions from each script. The analysis shows that the overall complexity of characters increased from oracle and bronze script up to seal script, suggesting that the individual characters often become more complex. The characters in every successive script are also often more complex than in the previous scripts. The implication is that new

characters included in the writing system tend to be more complex than already existing characters. The article warns that since the dataset is missing many forms, these findings must be taken with caution.

The study also investigates the hypothesis that more frequently written characters are more likely to be simplified by using character frequencies from the CLD and assuming that the CLD frequencies match the frequencies of earlier scripts. It defines a character's adjusted frequency as the number of times it is written per million characters, either in isolation or as a part of another character (Figure 1).
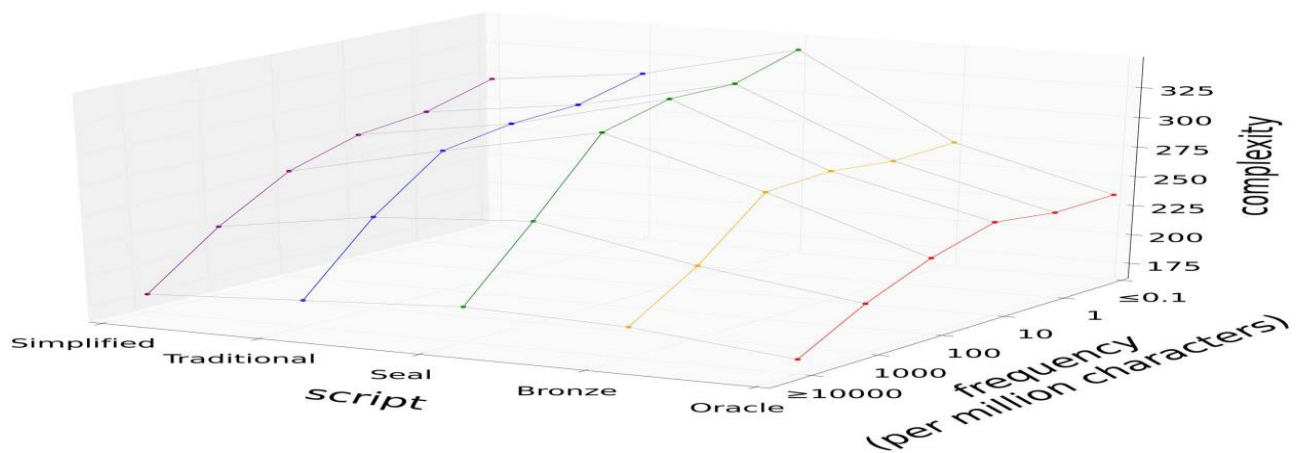

Figure 1. The complexity and frequency of characters in different scripts. Picture from Han et al., 2022. "A Critical Analysis of the Use of Pinyin as a Substitute of Chinese Characters" (Mushwange, 2014) uses students' notebooks and internet social networks such as Facebook, Whatsapp, and Skype to gather data about how Zimbabwean students write in Pinyin. It starts by giving example sentences written in Pinyin and points out that without knowing the characters used for certain words it is impossible to know their exact meaning. However, these example sentences were written without the tone indicators which would have made recognizing these words possible. The sentences in question were "Ni baba shi mai shenme de?" and "Ni zhu zai nali?". The unclear words were "mai" and "na", which can mean different things with different tones. The paper then gives samples from a chat record written with Pinyin (Figure 2).

```
[2013/2/16 9:06:46] Marry: haojiubujianpengyou
[2013/2/16 10:46:00] Charles: haojiu bujian ,zuijin mang ma ?
[2013/2/16 10:46:23] Marry: bijiaomang
[2013/2/16 10:46:31] Marry: meitian jian pengyou
[2013/2/16 10:46:37] Marry: meitian qu dagong
[2013/2/16 10:46:44] Marry: jintian ye you dagong
[2013/2/16 10:47:44] Charles: haha jiayou pengyou ,wo meitian kan
nimen de zhaopian xiang nimen le haha
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Figure 2. Confusing words in Pinyin. Picture from Mushwange, 2014.

Because of confusion caused by phonetically written words, which can have many meanings, the reader of the dialogue may have misunderstandings, according to the paper. This chat sample also left out tone indicators and wrote some words without using white spaces. Marking tones and using white spaces in a consistent way would, in my opinion, make the dialogue perfectly clear. Also, it was possible to deduce the meanings of the words from the context. For example, in the sentence "meitian jian pengyou," the word "jian" can have several meanings, but in the context, it is clear that the writer meant "to see." In another sentence, "wo meitian kan nimen de zhaopian xiang nimen le," the word "xiang" in the context of the chat clearly means "to miss." The paper then says that it is easier for beginner learners to understand the dialogue since they have not yet learned a lot of vocabulary with similar Pinyin. I don't know about other learners, but I have been studying Chinese for years and had no trouble understanding the chat.

The article makes a good point about the difficulty of learning new words when written in Pinyin because they might be pronounced similarly to other words with different meanings. That makes it difficult to deduce the meaning of the new word in Pinyin as opposed to characters, and therefore, understanding the new word would be easier when written with characters. I agree that this might be true for learners of Chinese, but for native or other fluent speakers of Chinese, there should be no problem with recognizing the word from the context where it is used. Another point the article makes is that spelling errors when writing Pinyin lead to confusion more easily than in English. The article uses a chat between Chinese students as an example. Still, I would be interested to know whether there would have been similar misunderstandings between two native Chinese despite the spelling errors. The article also shows an example of misunderstandings caused by a missing word in a Pinyin conversation (Figure 3).

```
6 月 3 日 下午 2:35 － Tanua          : Xiexie, Pengyou ni hao ma?
6 月 3 日 下午 2:38 － 李开明: wo feichang  hao,   nine?
6 月 3 日 下午 2:38 － Tanua          : Wo hen hao
6 月 3 日 下午 2:39 － 李开明: ni zai gan shenme?
6 月 3 日 下午 2:40 － Tanua          : Wo xiuxi jia
6 月 3 日 下午 2:45 － 李开明: what does that mean?
6 月 3 日 下午 2:46 － Tanua          : Resting
6 月 3 日 下午 2:49 － 李开明: where?
6 月 3 日 下午 2:50 － Tanua Ngwenya: Hme, now on vacation
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Figure 3. Missing words in Pinyin conversation. Picture from Mushwange, 2014.

In the chat, the phrase "Wo xiuxi jia" was missing a word, which made it impossible to guess what the meaning of the phrase was. The student had to explain that, in this case, they meant, "I am resting at home." With one word missing from the phrase, the student might have meant "I am on vacation." This is another case where adding tone markers would have made the meaning clearer, since "jia" in the fourth tone means vacation, while "jia" in the first tone means home.

The article finally shows the results of a character recognition survey, where 20 students were asked to read Chinese characters. The results show that several students either failed to recognize some characters or mistook them for other similar-looking characters. Also, some characters were read erroneously in the context where they were used (for example, reading "行" as "hang" instead of "xing"). In my opinion, these kinds of mistakes could be avoided when writing in Pinyin since when reading the Chinese word for bank, "银行," in Pinyin, no one would pronounce it as "yinxing" instead of "yinhang". The article says it is difficult for a student who over-depends on Pinyin to grasp the complexity of Chinese characters. It also says that Pinyin is more ambiguous than Chinese characters and that when writing longer and more complex phrases in Pinyin, the conveyed meaning becomes ambiguous. While this may be true for students of Chinese, native or fluent people should be able to read and write in Pinyin without confusion. After all, as said previously, since Chinese people can understand spoken Chinese despite the homonyms, they should be able to understand the same speech in phonetic writing. On the other hand, students of Chinese whose listening comprehension is not yet at native level might find it easier to grasp the language with characters that overcome the confusion caused by the homonyms. Perhaps Chinese learners should learn to read and write characters until they have become fluent in listening and speaking and then switch to Pinyin.

"The Alphabetization of Chinese" (De Francis, 1943) makes good points about how the Chinese language would be unintelligible if every word was truly monosyllabic and that most Chinese words are actually polysyllabic. Therefore, there should be no problem with homonyms if Chinese is written phonetically. I agree with De Francis that when writing longer sentences with Pinyin, there should be no problem with intelligibility, even with the large number of homonyms in the Chinese language. The fact that since two people fluent in Chinese are able to understand each other when speaking, although they have no characters to read during their conversation, they should be able to read Chinese with only Pinyin is also a good point. If they are able to understand Chinese by listening, why wouldn't they understand Chinese written in a phonetic alphabet? However, problems would probably emerge when trying to write single words or very short phrases in Pinyin because, in those cases, the context might not be clear, and the phonetically written words could be confused with other similarly written words.

In "The Chinese Language: Fact and Fantasy" (De Francis, 1984), John De Francis claims that the Chinese characters do not actually have more of a unifying effect than an alphabet would, since the characters take such a long time to learn. His example of an illiterate Cantonese speaker learning Mandarin is valid. Still assuming that Cantonese is literate in characters, he would be able to read at least some Mandarin since the two dialects have overlapping characters and similar grammar. Being able to read foreign languages without having to study them is an advantage that a phonetic writing system would not provide. However, since almost all Chinese people are already made to learn to read and write in Standard Chinese, I agree with De Francis that learning using Pinyin is faster than learning characters. I would compare the situation to be similar if every European nation only reads and writes in English while speaking different languages. If European nations used a similar written system of characters as Chinese instead of alphabets, learning to read and write would take much longer. Additionally, although phonetic scripts made for different Chinese dialects would be mutually unintelligible, I don't see any reason not to adopt Standard Chinese as the basis for one phonetic script for all dialects. Pinyin and Putonghua are already being taught at schools to speakers of all dialects, and almost all Chinese people can already use them. In this respect, the characters could be replaced by Pinyin. This would also make unnecessary the fears that a phonetic writing system would cause disunity due to the adaptation of different phonetic writing systems for different dialects. Even if some dialects developed their own phonetic systems, Pinyin would still be the unifying factor for China.

While it is true that Chinese characters are a significant part of the Chinese culture and that they have advantages like a faster reading process and independence from pronunciation, enabling speakers of different dialects to read works in Standard Chinese and other dialects without having to study them, the trade-off is having to spend years having to learn thousands of characters and the need to constantly practice writing them to prevent character amnesia. This causes enough work for Chinese schoolchildren but might cause foreign learners even more trouble since they haven't been learning the characters since childhood. The fear that switching from characters to Pinyin would cut the Chinese people from their literary heritage is also unfounded since the switch from traditional characters to standardized characters hasn't had such an effect either. Also, reprinting Chinese literature in Pinyin would solve this problem, as "Backward Thinking about Orientalism and Chinese Characters" (Moser, 2016) pointed out. As was said in "Simplification Is Not Dominant in the Evolution of Chinese Characters" (Han et al., 2022)", The All-Too Complicated History of Simplified Chinese" (Yuli, 2024)", Chinese Writing" (Norman, n.d.) " and "The Writing Reform of Chinese" (Luo, 2014), the Chinese writing system has undergone many changes during its history, and a modern Chinese reader probably wouldn't be able to read works written in oracle bone script.

5   Conclusion

This thesis has traced the trajectory of Chinese writing reforms, from the early influences of missionaries in the 16th century to the formalization of Pinyin in the 1950s. It has dealt with the different factors that have shaped the ongoing debate surrounding the adoption of phonetic alphabets for written Chinese.

The discourse among sinologists regarding the feasibility of representing Chinese ideographic characters using phonetic alphabets has been both intriguing and contentious. Some argue that transitioning to phonetic alphabets could streamline the learning process and enhance literacy rates. However, others argue that such a shift would necessitate profound modifications to the morphology and syllable structure of the Chinese language. The prevalence of homophonic morphemes poses a significant challenge, raising concerns about ambiguity and the potential loss of linguistic nuances inherent in the existing character-based system.

The development of Pinyin is a testament to attempts at finding a middle ground between tradition and modernity in Chinese writing. With its phonetic representation of Mandarin Chinese, Pinyin has been successful in various educational contexts and as an aid to non-native learners. However, the enduring coexistence of Pinyin and Chinese characters suggests a pragmatic acknowledgment of the complexities involved. The Chinese characters are historically and culturally significant and continue to resist a complete displacement. For now, it seems that replacing the characters completely with Pinyin is not feasible because of the resistance it would meet and the deep relationship between Chinese characters and Chinese culture.

Looking ahead, it appears that Pinyin and Chinese characters will persist in parallel, each serving distinct functions in different spheres of communication. Pinyin's role in education, technology, and linguistic standardization is undeniable, while the intricate beauty and depth encapsulated in Chinese characters endure as an integral part of the cultural identity. The coexistence of these systems reflects not only linguistic considerations but also the resilience of a writing system intimately tied to the historical consciousness of the Chinese people. Perhaps in the future, Chinese could be written phonetically by modifying some homonyms to be more distinguishable from each other and making clear rules about the use of white spaces between words. For now, relying solely on Pinyin could cause confusion for readers, at least for those less fluent in the language.

In conclusion, the evolution of Chinese writing reforms underscores the delicate balance between modernization and cultural preservation. While the debate regarding the potential dominance of phonetic alphabets remains, the enduring duality of Pinyin and Chinese characters signifies a nuanced resolution, ensuring that the richness of the Chinese written language thrives amidst the challenges of a rapidly changing world. As we navigate the future, this delicate equilibrium will continue to define the landscape of written Chinese expression.

There are many possible avenues for future exploration of this topic. For example, investigating the historical content of the simplified Chinese character reforms initiated in the mid-20th century and examining the sociopolitical motivations behind simplification and its impact on literary rates and language standardization. This could be done by exploring current debates about the coexistence of simplified and traditional characters and examining their implications for education and culture. Related to this is the impact of simplified characters on literacy and education. It would be interesting to examine how the simplification of characters has influenced accessibility to education and literacy across different demographics. Another possibility for exploration would be studying the influence of digital technology on Chinese writing reforms by analyzing the role of computers and smartphones in character input, and how technology and artificial intelligence have shaped the evolution of writing systems. Emerging technologies such as augmented reality and virtual reality could also have an impact on Chinese writing systems. Chinese writing reforms can also be compared to writing systems in other languages, exploring the lessons that can be learned from the experiences of other languages that have undergone similar reforms. It would also be interesting to study how the structure of characters impacts cognitive processes and memory retention and examine effective learning strategies for acquiring Chinese characters. An investigation could be conducted into how writing reforms influence learning methodologies and materials. One could also speculate on the future evolution of characters and consider the possibilities of further simplification, integrating phonetic elements, or incorporating new symbols. Another interesting avenue of study could be to gather a group of native Chinese and other fluent people and make them write and read Chinese text in Pinyin. The group would communicate by writing to each other using Pinyin. The study would find out whether the people in the group could communicate efficiently about different subjects in this way. Topics could include matters of daily life or more complex subjects, like science and politics. The subjects could also be given written dialogue or other written material in Pinyin that contains some

typos. They would then answer reading comprehension questions to see whether they can understand the material despite the typos. This could be a good way to test the claim that "anything that is audibly intelligible can be written phonetically."

References

De Francis, J.(1984). *The Chinese language: fact and fantasy*. UH Press.
https://uhpress.hawaii.edu/title/the-chinese-language-fact-and-fantasy/

Cheng, W. (2001). Enlightenment and unity: Language reformism in Late Qing China. *Modern Asian Studies*, *35*(2), 469–493. https://doi.org/10.1017/s0026749x01002074

Camus, Y. (2007). *Jesuits' journeys in Chinese studies*.
https://repository.globethics.net/handle/20.500.12424/3863424

Chen, P. (2015). Language reform in modern China. In *Oxford University Press eBooks*.
https://doi.org/10.1093/oxfordhb/9780199856336.013.0034

Wan, D. (2014). *The History of Language Planning and Reform in China: A Critical perspective*. https://www.semanticscholar.org/paper/The-History-of-Language-Planning-and-Reform-in-A-Wan/1c2b0dca86ca54949bd9cb212f2672496f2e5dd4

Weng, J.(2020). Vernacular Language Movement
https://www.oxfordbibliographies.com/display/document/obo-9780199920082/obo-9780199920082-0180.xml

DeFrancis, J. (2006). The Prospects for Chinese Writing Reform, Sino-Platonic Papers, No. 171, University of Pennsylvania.
https://sino-platonic.org/complete/spp171_chinese_writing_reform.pdf

Theobald, U. (2011). *Gwoyeu romatzyh 國語羅馬字 Transcription System (www.chinaknowledge.de)*.
http://www.chinaknowledge.de/Literature/Script/gwoyeu.html

DeFrancis, J. (1943). The alphabetization of Chinese. *Journal of the American Oriental Society*, *63*(4), 225. https://doi.org/10.2307/594356

Luo, W. (2018): "Chinese alphabetization reform: Intellectuals and their public discourse, 1949-1958" History Master Thesis, 2018, Iowa State University
https://dr.lib.iastate.edu/bitstreams/b2f940d8-9e47-4df4-8470-767da68d80c7/download, referred 6.4.2024

Moser, D. (2016): The "Invisible" Writing on the Wall.
http://cognitive-china.blogspot.com/

Theobald, U. (n.d.). *The Zhuyin Alphabet 注音字母 Transcription System (BO-PO-Mo-FO) (www.chinaknowledge.de)*.
http://www.chinaknowledge.de/Literature/Script/zhuyin.html

Buruma, I. (2022, January 10). How the Chinese language got modernized. *The New Yorker*. https://www.newyorker.com/magazine/2022/01/17/how-the-chinese-language-got-modernized, referred 12.1.2024

Norman, J. (n.d): *Chinese writing.* Asia Society. https://asiasociety.org/education/chinese-writing, referred 12.1.2024

Yuli, L: (2023, September 1). *The All-Too Complicated History of simplified Chinese*. #SixthTone. https://www.sixthtone.com/news/1012040, referred 12.1.2024

Luo, T. (2014). The writing reform of Chinese. *www.academia.edu*. https://www.academia.edu/9174105/The_Writing_Reform_of_Chinese

Mushangwe, H., & Chisoni, G. (2014). A critical analysis of the use pinyin as a substitute of Chinese Characters. *Acta Linguistica Asiatica*, *4*(1), 69. https://www.academia.edu/12189364/A_Critical_Analysis_of_the_Use_of_Pinyin_as_a_Substitute_of_Chinese_Characters

Lü, X., & Zhang, J. (1999). Reading efficiency: A comparative study of English and Chinese orthographies. *Reading Research and Instruction*, *38*(4), 301–317. https://doi.org/10.1080/19388079909558298

Han, S. J., Kelly, P., Winters, J., & Kemp, C. (2022). Simplification is not dominant in the evolution of Chinese characters. *Open Mind (Cambridge, Mass.)*, *6*, 264–279. https://doi.org/10.1162/opmi_a_00064

Shen, R. (2019). The monosyllabicization of Old Chinese and the birth of Chinese Writing: A hypothesis on the co-evolution of the Chinese language and its writing system. *Voprosy Âzykovogo Rodstva (Print)*, *17*(1–2), 44–54. https://doi.org/10.31826/jlr-2019-171-208

[21] Moser, D. *Backward Thinking about Orientalism and Chinese Characters*. (2016, May 19). ChinaFile. https://www.chinafile.com/media/backward-thinking-about-orientalism-and-chinese-characters, referred 21.3.2024

Ince, A. (2023, May 29). The evolution of alphabets: From religious identity to cultural influence. *Medium*. https://medium.com/@ati.ince/the-evolution-of-alphabets-from-religious-identity-to-cultural-influence-2780e1106723, referred 5.4.2024

Palmer, K. A. (2009, December 1). *Writing: a necessary undertaking in advanced society*. Inquiries Journal. http://www.inquiriesjournal.com/articles/92/writing-a-necessary-undertaking-in-advanced-society, referred 5.4.2024

Trigger, B. G. (1998). Writing systems: A case study in cultural evolution. *Norwegian Archaeological Review (Trykt Utg.)*, *31*(1), 39–62. https://doi.org/10.1080/00293652.1998.9965618

Deane, P., Odendahl, N. V., Quinlan, T., Fowles, M. E., Welsh, C., & Bivens-Tatum, J. (2008). COGNITIVE MODELS OF WRITING: WRITING PROFICIENCY AS a COMPLEX INTEGRATED SKILL. *ETS Research Report Series*, *2008*(2). https://doi.org/10.1002/j.2333-8504.2008.tb02141.x

Janczyk, M., Aßmann, M., & Grabowski, J. (2018). Oral versus Written Recall of Long-Term Memory Items: Replicating and extending the writing superiority effect across knowledge domains. *American Journal of Psychology*, *131*(3), 263–272. https://doi.org/10.5406/amerjpsyc.131.3.0263

Verhoeven, L., & Perfetti, C. A (2023). Writing systems and global literacy development. In *Cambridge University Press eBooks* (pp. 241–264). https://doi.org/10.1017/9781009242585.011

Kruse, O., & Anson, C. M. (2023). Writing and Thinking: What Changes with Digital Technologies? In *Springer eBooks* (pp. 465–484). https://doi.org/10.1007/978-3-031-36033-6_29

Raut et al. (2016). Technology and Language Evolution. *International Journal of Science Technology and Management*, 5(8).

Collin, R. (2014). Revolutionary Scripts: The Politics of Writing systems. *www.academia.edu*. https://www.academia.edu/4782048/Revolutionary_Scripts_The_Politics_of_Writing_Systems, referred 6.4.2024

Monroy, M. *Chinese alphabet: Why it doesn't exist | A useful language guide*. (2022, November 23). Berlitz. https://www.berlitz.com/blog/chinese-alphabet

Cao, W.(2024). Chinese Characters and Cultural Inheritance: Exploring the Important Role of Chinese Characters in the Inheritance of Chinese Culture. *Cultura: International Journal of Philosophy of Culture and Axiology*, 21(1)

Wei, B. (2014). The origin and evolvement of Chinese characters. *CORE*. https://core.ac.uk/display/229246973?utm_source=pdf&utm_medium=banner&utm_campaign=pdf-decoration-v1

Imafuku, K. (2012). *Contrasting approaches to Chinese character reform : a comparative analysis of the simplification of Chinese characters in Japan and China.* https://scholarspace.manoa.hawaii.edu/bitstream/10125/100970/4/Imafuku_Kei_r.pdf

Pan, L., Sun, D., Zou, Y., Cao, Y., Zhang, J., & Li, F. (2023). Psycho-linguistic and educational challenges in Teaching Chinese (Mandarin) Language: voices from None-Chinese teachers of Mandarin language. *BMC Psychology*, *11*(1). https://doi.org/10.1186/s40359-023-01432-8

Zhao, S. (2005). Chinese character modernisation in the digital era: a historical perspective. *Current Issues in Language Planning*, *6*(3), 315–378. https://doi.org/10.1080/14664200508668285

Wu, Z., & White, J. D. (1990). Computer processing of Chinese characters: An overview of two decades' research and development. *Information Processing and Management*, *26*(5), 681–692. https://doi.org/10.1016/0306-4573(90)90110-n

Ai, J., & Ai, H. (1950). A Report on Psychological Studies of the Chinese Language in the past Three Decades. *˜the œPedagogical Seminary and Journal of Genetic Psychology*, *76*(2), 207–220. https://doi.org/10.1080/08856559.1950.10534074

Goldstick, W. (2014). "One State, One People, One language" The language reform movement in China. *U-bordeaux3*. https://www.academia.edu/3692117/_One_State_One_People_One_Language_The_Language_Reform_Movement_in_China

Swofford, M. (n.d.). *Reform of the Chinese written language -- Chou en-lai*. Copyright (C) 2006. https://pinyin.info/readings/zhou_enlai.html