# From Recognizing Characters to Understanding Characters —A Study on the Teaching Models and Evolution of Textbook Development in the Han Dynasty

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## Abstract

*The purpose of this paper was to explore the development of Han dynasty Chinese character learning materials, from the early Cang Jie Pian to later works like Shuo Wen Jie Zi, a classical text explaining Chinese characters. The study focused on the evolution of the texts and the teaching and understanding of Chinese characters over this period, particularly how the vocabulary used and the explanatory methods for characters developed. The findings indicated that the vocabulary in beginner character books changed alongside the times, as evidenced by literacy education and the recording of texts during the era. The study undertook a comprehensive examination of the use of common words during the Han dynasty to clarify the concepts surrounding the organization of characters. It also investigated how concepts of character attribute classification gradually developed into the radical-based and form-cluster thinking of Shuo Wen Jie Zi, showing that Han-era character learning materials adapted based on spoken language habits. This research sheds clearer light on the evolution of textual content and instructional modes within the historical development of Chinese character education.*

**Keywords:** *Shuo Wen Jie Zi, Cang Jie Pian, Beginner Character Books, Chinese Character Education, Cmon Vocabulary.*

## Introduction

In the study of Chinese character education texts, commonly referred to as 'character books' (字書), two distinct systems of content editing are evident. The first system follows the Qin dynasty tradition, building upon the "Cang Jie" style with additions, adaptations, explanations, and elaborations. Yang Xiong's 'Cang Jie Xun Zuan' is a representative example. The second system consists of character books authored by Han dynasty scholars, such as Shi You's 'Ji Jiu' (and the now-lost 'Fan Jiang', also written in a seven-character format).

The former uses a four-character poetic style, similar to the four-character poems in the 'Book of Songs', rhyming texts from the northern regions during the Warring States period (such as Xun Qing's fu), and the 'poetic fu' of the Han dynasty. This is a more ancient form. The latter uses a seven-character poetic style (also incorporating three-character and four-character forms), which is similar to the seven-character folk songs of the Han dynasty (originating from Chu songs) and represents a more modern form. Both are written in rhyme for ease of recitation and memorization, making them highly practical. They had a significant influence on later elementary education textbooks. ... Later elementary education actually developed from early philology." (Li Ling, 2004).

Regarding these two editing styles, recent archaeological findings reveal that the vocabulary and characters used in the content have changed since the Qin dynasty's 'Cang Jie Pian' entered the Han dynasty, adapting to linguistic habits. This point can be observed in the 'Cang Jie Pian' fragments excavated in 2008 from Shuiquanzi Village in Gansu. Unlike the 'Cang Jie Pian' unearthed in the Juyan area of Inner Mongolia and ancient tombs in Fuyang, Anhui Province, which had four-character sentences, this version has evolved into a longer seven-character format. Discussing the origin of the four-character form in 'Cang Jie Pian', some scholars believe that four-character rhyming texts were quite common during the late Zhou and early Qin periods. This linguistic form was widely adopted in poetry, inscriptions, and classics mainly because most ancient Chinese vocabulary consisted of monosyllabic words. The four-character rhyme had advantages of being concise, solemn, and easy to remember and recite. Later, as polysyllabic words (mainly

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disyllabic) developed in spoken language, seven-character and five-character rhymes gradually replaced the four-character form. 'Fan Jiang Pian' and 'Ji Jiu Pian' are products of this historical trend. The seven-character 'Cang Jie Pian' found in Han dynasty bamboo slips from Shuiquanzi Village, Gansu Province, is also such a product, representing a vernacular adaptation of traditional textbooks. Therefore, its wording is full of contemporary colloquialisms rather than elegant classical expressions, appearing hasty and not well-thought-out. (Hu Pingsheng, 2014) From this, we can see that the language and characters used in this content were actually modified by rural educators after Emperor Wu of Han for practical elementary education purposes. They added colloquialisms to facilitate learning and understanding, thus altering the original four-character content."

From the perspective of the content recorded, previous research has also found differences due to changes in eras. As 'elementary education' texts are primers, their content, besides recording some timeless principles of human relations and daily use, must change with the times. Therefore, new versions of these books have been compiled throughout history. (Yu Dacheng, 1983) Since the 'Cang Jie Pian', other character books for children's education in the Han dynasty, such as the 'Ji Jiu Pian', not only included vocabulary for everyday items to help learners recognize characters for recording household matters, but also incorporated many personal names and various surnames, facilitating daily use in addressing and recording information about others. Considering their nature as learning materials, their prevalence and use were quite widespread. Moreover, as local officials managed civil affairs, the written language they used needed to be common and accessible. Therefore, the language naturally consisted of commonly used Han dynasty vocabulary. These commonly used character books, circulating from the Western Han to the Eastern Han periods, naturally influenced Xu Shen's concepts and methods of explaining words and characters when he compiled the 'Shuowen Jiezi' during the later Eastern Han period." This translation provides an overview of how early Chinese character education texts evolved over time, adapting to the needs of each era while maintaining certain core elements. It also highlights the practical nature of these texts and their influence on later lexicographical works.

From the perspective of learning Chinese characters and vocabulary, scholars have pointed out in their research that the 'Cang Jie Pian' arranged scattered Chinese characters using the prevalent four-character rhyming format of the time. It grouped characters with similar, related, or associated meanings together as much as possible, facilitating recitation and memorization. This approach allowed for simultaneous learning of character recognition and vocabulary mastery. (Huang Dekuan, 2008) This method of clustering words with similar meanings indirectly generated a classification model that grouped characters with similar forms and meanings together. The arrangement of characters and words in the text also reflects the author's rational understanding of Chinese character forms, pronunciations, and meanings, as well as an initial awareness of the internal relationships within the Chinese lexical system. This style originated from the 'Shi Zhou Pian' and, with the author's creative work added, had an undeniable inspirational effect on the editing of later character books. (Huang Dekuan, 2008) This arrangement method is actually related to the characteristic of Chinese characters representing meaning through form and the psychological state produced when writing characters and using vocabulary. Since the Han people emphasized another representation of characters, the Han fu (rhapsody) pursued 'form beauty' (aesthetic of structural form). One of the basic techniques of 'form beauty' is to group phono-semantic compound characters with the same semantic component to describe the state of a particular thing. Also, because of the semantic categorization, characters with the same radical were sometimes unconsciously grouped into one sentence. This inspired Xu Shen to invent the method of radical classification. (Hu Qiguang, 1987) This translation discusses how early Chinese character textbooks like the 'Cang Jie Pian' organized characters for effective learning, and how this organization method influenced later developments in Chinese lexicography and literary techniques.

These viewpoints from previous research have already preliminarily addressed the topics this study aims to discuss regarding Han dynasty Chinese character education texts. Since inheriting the 'Cang Jie Pian' from the Qin dynasty, what forms have been presented in terms of content editing? And how did it evolve into the editing style of the 'Shuowen Jiezi' at the end of the Han dynasty? Furthermore, regarding the textual materials included and explained in the content, as well as the narrative of the explanations, has there been

a semantic shift from ancient terminology towards vocabulary and classification concepts commonly used during the Han dynasty? Unfortunately, previous studies have mostly offered only partial observations or general explanations, rather than conducting internal analysis of the linguistic data, meanings, and types within the materials themselves. Therefore, it is necessary for this study to conduct a more comprehensive and detailed investigation.

In the historical development process, Chinese character education and character organization (dictionary compilation) originally followed separate paths. It wasn't until Xu Shen compiled the 'Shuowen Jiezi' that the original Chinese character system underwent organic inheritance and reform, producing a systematic standard for explaining the structure and meaning of Chinese characters in character learning and education. Although in various dynasties after the Han, elementary character education still relied on numerous rhyming poems, such as the 'Three Character Classic' and 'Youzhi Qionglin' from the Song dynasty, the 'Shuowen Jiezi' became the standard for concepts of character form and distinguishing between standard and vulgar characters. However, this study has a strong interest in exploring how the 'Shuowen Jiezi', during its compilation, actually referred to and inherited the evolving classification concepts and expression methods from Qin and Han character books like 'Cang Jie' and 'Ji Jiu'. This issue has lacked discussion regarding their interrelationships in the topics of Chinese character learning and dictionary compilation. Yet, observation of historical materials shows that there exists a very close connection. In terms of the learning process, it progressed from recitation and memorization towards understanding and analysis. Regarding the typological development of character organization, it evolved from concrete object classification to abstract symbol categorization. This not only presents the developmental context of Chinese character teaching from basic to advanced levels but also gradually forms the explanatory method of the Chinese character structure system and the standards for distinguishing right from wrong. The manner of these external morphological changes and the process of internal cognitive evolution must be clarified, and their developmental context must be found. This is because it influenced the core concepts of subsequent understanding of Chinese character structure, meaning identification, and judgment of correct and incorrect writing. It is an important issue in the historical development of research on the compilation of Chinese character books and the analysis theory of Chinese character structure." This translation captures the main points of the original Chinese text, discussing the evolution of Chinese character education and organization, the significance of the 'Shuowen Jiezi', and the importance of understanding the historical development of character analysis and dictionary compilation.

*Research Purpose*

Historically, research on Chinese character dictionaries has mostly focused on the archaeology of literature or the morphological structure of characters, phonology, exegetical studies, dictionary editing, identification of standard and variant characters, or their connection to classical texts and historical events. Rarely has research examined the content and editorial approaches of introductory Chinese character learning texts from the perspective of character learning itself. Furthermore, little attention has been given to how these texts evolved and developed, leading up to the Eastern Han period's "Shuowen Jiezi" (Explaining and Analyzing Characters) and its construction of theories on character formation and exegetical principles within the context of ancient dictionaries. The objective of this study is to understand, within the scope of Chinese character education, how early Chinese character learning texts—from the "Cangjie Pian" and "Jijiu Pian "in early Han to Xu Shen's "Shuowen Jiezi" in the late Eastern Han—handled the morphology, classification concepts, and transmission and changes in characters and vocabulary for children in the Han dynasty. To clarify this developmental context, the first goal of this research is to investigate how the content and interpretive methods of Chinese character learning texts evolved from the early to the late Han period, and to delineate the progression of learning stages—beginning, intermediate, and advanced—corresponding to their editorial content and classification models. Through the examination of this subtopic, the study aims to demonstrate that the radical classification system and theory of character formation in "Shuowen Jiezi" is rooted in the editorial and classification concepts found in introductory Chinese character learning texts like the "Cangjie Pian" and "Jijiu Pian "from the early Han period.

The second study purpose was to explore, from the perspective of common vocabulary, the phenomenon in dictionaries from the Qin and early Han dynasties of using frequently used words to construct the basic

content of these texts, enabling learners to recognize and record the essential elements of life through understanding written symbols. Additionally, how does this phenomenon relate to the nature of the vocabulary used in more advanced exegetical interpretations in these texts, and its connection with contemporary commonly used words and variant characters? This study challenges the conventional view of "Shuowen Jiezi" as merely a dictionary exploring the original meanings of characters. It suggests instead that "Shuowen Jiezi" may have used contemporary common characters and vocabulary to explain classical texts and everyday semantics and objects, rather than being a purely etymological dictionary. This approach demonstrates a close relationship with the content of introductory dictionaries like the "Cangjie Pian".

## Research Method

This study was conducted using "Document Analysis" and "Thematic Analysis." Document analysis is a method of extracting the required data through the collection, analysis, induction, and study of documents, and systematically and objectively describing them. Document analysis emphasizes objectivity, systematization, and quantification in its approach (Ranjit Kumar, 2000). This study combines historical archaeology and the ancient Chinese character dictionary documents passed down from the Han dynasty with materials from character dictionaries unearthed since the 20th century. It organizes and analyzes the content and vocabulary within these documents, providing meaningful interpretation and analysis of sentences, sections, content, types, characters, words, and exegesis. The materials in these documents objectively exist, and they become meaningful because they have been analyzed and interpreted by researchers (Denzin, 1994). Organizing and analyzing data is a necessary step in the interpretation of meaning and an important means to ensure the rigor and accuracy of the research results (Chen Xiangming, 2002). Therefore, unlike other humanities disciplines that tend toward subjective description, this study adheres to the principles of textual criticism, conducting rigorous comparison and examination of the materials, aiming to abstract knowledge about the essence of things from a large body of factual evidence.

Thematic analysis is a method of data analysis that can be combined with different research theories, such as grounded theory, phenomenology, or critical theory, to develop unique execution procedures or analysis focuses (Braun & Clarke, 2013). Thematic analysis is a highly flexible method of data analysis that effectively integrates different qualitative research approaches, such as descriptive research or interpretive research. This study combines the linear and interactive models of document analysis through the method of thematic analysis. The linear model primarily involves two steps: (1) Organizing the raw data to create an analyzable text. This study focuses on Han dynasty character dictionaries that have been passed down as well as recently unearthed documents; (2) Registering (coding) the text by writing analytical memos to interpret the text and search for categories. The study collects the content of various Han dynasty character dictionaries and classifies and analyzes the meaning and form of the collected vocabulary. Based on this first level of methodological research, the data is further compiled and reorganized to find various meaningful relationships within the data, confirming the themes and fundamental trends of the content. The third level involves further expanding or testing the propositions built on the foundation of the first two levels to construct a theoretical framework that can explain the overall content of the data. Through relevant testing of preliminary research results, analysis of key propositions, validation of research hypotheses, and analysis of fundamental trends in the data, the data is integrated into an explanatory framework that reveals the deeper structure of the data (Chen Xiangming, 2002).

The interactive model extracts important core concepts or themes from the data, using these concepts or themes to unify all the data content. These concepts or themes are then reintegrated into the data, manifesting in specific, concrete instances. The concrete methods of condensing data include comparison, analogy, induction, extrapolation, deduction, abduction, analysis, and synthesis. During this process, it is often necessary to seek relationships between categories and merge different categories into groups (Miles & Huberman, 1994). Therefore, the overall research steps of this study begin by narrowing the scope of observation from a vast body of ancient character dictionaries, both unearthed and passed down, focusing on content editing and interpretative methods. Based on the research questions and objectives, the study conducts vertical comparisons and horizontal analyses of the explanatory materials and chapter structures of characters and vocabulary within the dictionaries. The former, using the linear model, seeks to explore

the inheritance and changes in content from the early Han dynasty character dictionaries to the late "Shuowen Jiezi". The latter, using the interactive model, examines the nature and relationships of semantic usage through internal analyses of chapters, word editing, and the intrinsic meaning of characters and vocabulary.

## Research Results

By examining the content editing and categorization of vocabulary and meanings in the character dictionaries from the Han Dynasty, beginning with the "Cang Jie Pian," three key research findings can be summarized: (1) the content, structure, and learning modes of character educational materials, (2) the categorization concepts of word meanings in these dictionaries, and (3) the evolution of explanation and interpretative layers.

*The Content, Structure, and Learning Modes of Character Educational Materials*

*The Development of Content Models*

The development process of content models uses the conventional usage of language as an observational indicator. The "Cang Jie Pian" of the early Han Dynasty inherited the traditions of the "Cang Jie Pian" from pre-Qin times, using rhymed prose and a four-character-per-line (four-word) style similar to that of the "Book of Songs" (Shijing) in its descriptive language. This is evident in the content of the Han Dynasty bamboo slips unearthed in the Juyan region in the 1930s, which included passages like "Cang Jie creates writing to teach descendants; the young take up the mandate, with caution and respect." Similarly, the content of the "Cang Jie Pian" found in the Fuyang region of Anhui Province reads "Officials arise, dispatching transportation with agreements; hasten to observe and walk with carriage and attire," both employing the four-character form.

By the mid-Han Dynasty, with the gradual development of compound words in the language, popular poetry started featuring forms closer to the spoken language of the time, such as "five-word poems" (five characters per line), "seven-word poems" (seven characters per line), and "mixed-length poems" (poems with lines of varying lengths). These became the mainstream forms of rhymed prose. This phenomenon also influenced the content editing models of character dictionaries. For instance, the opening lines of the "Jijiu Pian" state: "Jijiu, peculiar and different from the masses, lists the names and surnames of various objects," and terms for food like "rice, millet, glutinous rice, corn, sorghum, wheat cakes, pastry, bread, sweet beans, and soup" are arranged in the commonly used seven-character format.

By the late mid-Han Dynasty, the content editing of character dictionaries further freed itself from the constraints of rhymed prose, moving towards an oral descriptive development. Direct explanations were provided in non-rhymed prose. This can be seen in the "Fangyan" by Yang Xiong from the late Western Han, which explains regional vocabulary in a direct oral manner, as in: "Su, jie—types of grass. In the regions between Jianghuai and Southern Chu, it is called su; west of Guanzhong, it is either called cao or jie," and "Hui, mang—types of grass. In the area between Eastern Yue and Yangzhou, it is called hui; in Southern Chu, it is called mang." The explanations use a direct spoken style without rhymed prose. By the late Eastern Han Dynasty, in "Shuowen Jiezi," the explanations were similarly carried out in prose, as in: "Cao: A general term for herbs. Composed of two 'zhi' radicals; all things related to herbs derive from 'cao.'" and "Hui: A general name for plants. Composed of 'cao' and 'zhi.'" These explanations not only define the meaning of vocabulary but also further describe the structural composition of the characters.

Therefore, this study concludes that the developmental model of the content of Han Dynasty character educational materials initially used rhymed prose for content arrangement and gradually evolved to employ non-rhymed prose descriptions in its later stages. The descriptive language progressed from four-word to five-word, seven-word, and mixed-length formats. This transition is positively correlated with the evolution of common spoken Chinese from monosyllabic to disyllabic and polysyllabic words.

*Development of the Structural Model*

This study analyzes the structural composition of character dictionaries from the Han Dynasty and finds that the early character dictionaries aimed to help learners recognize the meaning of characters and vocabulary. They adopted a model where sentences were grouped together, forming paragraphs based on related themes. For instance, in the "Jijiu Pian," vocabulary related to illnesses is grouped in sentences like: "Cold energy causes diarrhea and abdominal distention. Scabs, sores, scabies, leprosy, deafness, blindness," combining characters related to symptoms into a single sentence. Through reading these example sentences, learners could grasp the meaning of each character and word contained within. This method of learning to recognize characters used a structural model where related words and vocabulary were clustered into thematic paragraphs.

In the mid-to-late Han period, as explanatory prose replaced rhymed verse, the approach to learning and understanding characters shifted from thematic paragraphs made up of related sentences to focused explanations of individual characters and vocabulary. For example, vocabulary related to illnesses evolved into individual explanations in "Shuowen Jiezi," such as: "Scab (痂): Scabies. From the radical '疒' with the phonetic '加'," "Scab on the head (疕): Head sore. From the radical '疒' with the phonetic '匕'," and "Foolishness (癡): Not wise. From the radical '疒' with the phonetic '疑'," offering detailed descriptions for each term separately.

Therefore, this study finds that the developmental model of character educational materials initially aimed at character recognition, using a "character paragraph" arrangement where example sentences were grouped into paragraphs. Over time, the focus gradually shifted towards the analysis and explanation of characters, leading to what is now commonly recognized as the modern dictionary model.

*Development of Learning Models*

This study analyzes the development of character and vocabulary learning within Han Dynasty character dictionaries. It finds that in early texts like the "Cang Jie Pian" and "Jijiu Pian," the example sentences were often composed of synonymous or closely related words. For example, in the "Cang Jie Pian," phrases such as "趣邃觀望" (hastening to look and observe) contain words related to vision, while "行步駕服" (walking, driving, attire) includes vocabulary associated with movement. The use of synonyms and near-synonyms in learning aids in enhancing and expanding the understanding of a particular thematic concept. Furthermore, early character dictionaries also employed antonyms to form example sentences. For instance, in the "Cang Jie Pian," "往來前□" (coming and going) contrasts "往" (going) and "來" (coming), and "上下敖游" (up and down) contrasts "上" (up) and "下" (down). Similarly, in the "Jijiu Pian," phrases like "抽擢推舉白黑分" (promotion and demotion, black and white) juxtapose "黑" (black) and "白" (white), and "前後常侍諸將軍" (front and back) contrasts "前" (front) and "後" (back). These opposing meanings enhance the ability to differentiate semantic nuances in the learning process.

Additionally, vocabulary reflecting the social and cultural terminology of that era is integrated into these texts. For example, "戎伯總閱什伍鄰" (Duke of Rong inspects the decenary and quinary neighbors) illustrates the structure of social organization at that time, where five families formed a "伍" and ten families formed a "什," conveying the concept of neighborhood.

Therefore, this study concludes that the primary model for character dictionary compilation in Han Dynasty educational materials was the formation of example sentences using synonymous and related words, interspersed with antonyms to enrich the conveyed meanings. The vocabulary evolved from general terms for natural life to include cultural and societal terms, thereby enhancing the learning function of these

character dictionaries.

*The Concept of Semantic Classification in Character Dictionaries*

In early Han Dynasty character dictionaries, the practice of forming example sentences with synonyms and closely related words laid the groundwork for semantic classification. Within this format, the arrangement of vocabulary for tangible objects from natural life often followed a pattern of adjectives combined with nouns. For instance, in the "Jijiu Pian," words like "鐵鈇鑽錐釜鍑鍪" (iron, axe, drill, awl, pot, cauldron, helmet) group metal utensils together, while "鯉鮒蟹鱓鮐鮑鰕" (carp, crucian, crab, eel, mackerel, abalone, shrimp) groups aquatic animals.

However, when dealing with concepts related to social and cultural life, the dictionaries typically used structures such as noun-verb descriptive, explanatory, or imperative sentences. Examples include "綸組緃綏以高遷" (sashes, cords, ribbons for promotion), which combines clothing and textile terms with descriptions of the rank promotion system, and "稟食縣官帶金銀" (receive salary from the local government with silver and gold), which uses noun-verb pairings to explain income and currency.

As this method of semantic grouping evolved with changing explanatory styles, character dictionaries in the Han Dynasty gradually transitioned from concrete classifications based on synonyms and related meanings to more form-based groupings. For example, in the bamboo slips of the "Cang Jie Pian" unearthed in Fuyang, slips C0033 and C0034 arrange ten radicals related to the concept of "黑" (black) together, reflecting the grouping of semantically related components. This type of arrangement shows the authors' awareness of the form, pronunciation, and meaning of Chinese characters, as well as their observation of the internal relationships within the Chinese lexicon.

Such classification set the foundation for the later development of the concept of radicals, culminating in the "Shuowen Jiezi," which further established a systematic method of categorizing characters. Under the concept of "分別部居" (classification by parts), it constructed a system of radicals based on the structural components of abstract written symbols, allowing for a deeper understanding of the underlying structure and classification of Chinese characters.

*Evolution of the Nature of Explanatory and Interpretative Layers*

Based on the previous analyses, the evolution of explanatory and interpretative layers in character dictionaries from the early to late Han Dynasty can be discerned. In terms of form, the textual style transitioned from verse to prose. Regarding the language of explanation, it evolved from simple colloquial expressions to increasingly include terms from classical literature to support and enrich the explanations.

From the perspective of content evolution, there is a clear progression from basic to advanced vocabulary. At the foundational level, dictionaries recorded basic terms for everyday objects and phenomena. At the intermediate level, they incorporated vocabulary related to cultural systems and classical texts. At the advanced level, dictionaries began distinguishing between colloquial and formal character forms, providing further explanations of structural character composition. Additionally, they established connections with the vocabulary found in contemporary classical literature to clarify meanings.

These three points were derived from a systematic examination and thematic analysis of the content of character dictionaries—both unearthed and transmitted—of the Han Dynasty. The research findings provide a comprehensive perspective that supplements the previously fragmentary and isolated observations found in past studies, offering a more thorough and systematic analysis of the evolution of

textual content across different historical periods.

## Discussions

*Alignment of Character Educational Content Models with the Development of Colloquial Vocabulary*

The findings of this research reveal that the content and structural patterns in Han Dynasty character dictionaries, such as the "Cang Jie Pian" and "Jijiu Pian," initially relied on four-character example sentences to construct chapters. As time progressed, there was a shift in commonly used vocabulary, with chapters gradually transitioning to five-character and seven-character example sentences. This evolution is linked to the emphasis on literacy education at the time and the recording of characters, which is evident in the related literature.

By examining the format and content of the "Cang Jie Pian," the "Cang Jie Pian Fragment Commentary" notes that the phrase "Cang Jie created" appears in the text, written by a Han person in casual handwriting. The commentary suggests that the full sentence likely read "Cang Jie creates writing," which references the "Shiben" text and serves as the title "Cang Jie Pian" (Wang Guowei, 2003). In the 1930s, bamboo slips of the "Cang Jie Pian" were unearthed from the Han Dynasty site in Juyan, and its first chapter reads: "Cang Jie creates writing to teach descendants; the young take up the mandate, with caution and respect." When compared with the content from the Han Dynasty slips found in Fuyang, Anhui Province, such as part of the fifth chapter, we observe similarities and differences in the content, highlighting the shifts and nuances in character educational materials over time.

The content in the form of four-character verses (四言) reflects the tradition from the pre-Qin to Western Han periods, particularly in northern regions where commonly used vocabulary was compiled into rhymed sentences similar to those in the "Book of Songs" (Shijing). Each four-character verse primarily aligns related common words, without forming complete sentences or expressing full semantics. However, the word pairs within each verse—such as "臣/僕" (servant/minister), "發傳/約載" (dispatch/agree to carry), "趣/遽" (hasten/hurry), "觀/望" (observe/watch), "行/步" (walk/step), "駕/服" (drive/attire), "逋/逃" (flee/escape), "隱/匿" (hide/conceal), "飭端(政)/脩(修)法" (order governance/rectify law)—are generally near-synonyms or synonyms. Similarly, pairs like "往/來" (come/go), "雄/雌" (male/female, C006), "吉/忌" (auspicious/taboo, C007), "開/閉" (open/close, C028), and " /散" (gather/disperse, C042) are contrasting antonyms. Additionally, groups like "瘛/癰/痤" (twitch/boil/pimple, C007), "笱/罦" (fish trap, C013), "貛獺/鼩/貂/狐" (otter, shrew, marten, fox), "蛟龍/龜蛇" (dragon/turtle/snake, C015), "盤/案/杯/几" (tray/desk/cup/table, C023), and "殺/捕/獄/問" (kill/capture/judgment/question, C041) categorize related objects, actions, or properties. A few examples, such as "漢兼天下" (Han unites the world), "海內並廁" (the whole country stands side by side), and "飭端脩法" (orderly governance and rectify law), are complete sentences expressing full semantics, though these are relatively rare (Huang Dekuan & Chen Bingxin, 2008).

Although many elementary character books from the Han Dynasty have been lost, the "Jijiu Pian" was passed down to later generations. According to the "Four Classes Monthly Ordinance" (四民月令) by Han scholar Cui Shi: "Before the start of farming, teenagers aged 15 and above are sent to the Taixue (Imperial Academy) to study the Five Classics. When the inkstone's ice melts, younger children attend primary school to learn chapters (those aged nine to fourteen; chapters refer to texts like 'Liujia,' 'Nine-nine,' 'Jijiu,' and 'Sancang'). In August, when the heat retreats, children enter primary school just like in the first month. In November, when the inkstone freezes, children study 'Xiaojing,' 'Lunyu,' and chapters in primary school." Here, "chapters" include both arithmetic and language learning; "Liujia" and "Nine-nine" belong to the

former, while "Jijiu Pian" and "Cang Jie Pian" belong to the latter.

The content of the "Cang Jie Pian" primarily employs the four-character style common from the pre-Qin to Western Han periods. On the other hand, the "Jijiu Pian," as an educational text for interpreting characters circulating during the Han Dynasty, contains example sentences in the seven-character format, which traces back to the "Fanjiang Pian": "黃潤縑美宜制禪" (yellow silk, smooth and suitable for making clothes), "鐘磬竽笙筑坎侯" (bells, reed pipes, and various instruments), and follows the widespread seven-character system of the time. Moreover, the "Cang Jie Pian" from the Han Dynasty also includes the seven-character format. Research suggests that the seven-character format of the "Cang Jie Pian" predates both the "Jijiu Pian" and the "Yuanshang Pian," and potentially even predates the "Fanjiang Pian." This suggests that the "Cang Jie Pian" of the Qin period played a significant role in the development of seven-character dictionaries during the Han Dynasty (Fukuda Tetsuyuki, 2010). Therefore, it can be observed that while four-character verse was prevalent during the Qin Dynasty, the standard shifted to seven-character verse by the Han Dynasty.

Analyzing practical examples of the extant "Jijiu Pian" reveals that its content begins with a clear statement of its purpose: "Urgent and peculiar, different from the masses. It lists the names and words of various objects, separates and classifies them clearly, and uses concise daily expressions to facilitate learning and efficiency." It then introduces "let's discuss its chapters," listing 132 surnames, such as "Song Yannian, Zheng Zifang, Wei Yishou, Shi Buchang, Zhou Qianqiu, Zhao Ruqing, Yuan Zhanshi, Gao Bibing, Deng Wansui, Qin Miaofang, Hao Liqin." The surnames are composed of single characters combined with two characters or compound surnames paired with one character, forming three-character phrases. These names do not represent actual individuals but are abstract nouns, verbs, or adjectives arranged in the format of names.

Subsequently, it shifts to the "Please talk about its content" section, beginning with seven-character sentences, each rhymed, covering vocabulary about various things, arranged sequentially by topic. For example, "The Textile Chapter" includes "Jin Xiu man silk, decorated with cloud and bird motifs, floats in the wind, resonating with the elegance of music." "The Food and Drink Chapter" describes various foods: "Rice, millet, sorghum, barley, wheat cakes, pastries, wheat porridge, sweet bean soup." "The Clothing Chapter" lists clothing items and styles: "Robe, jacket, inner lining, pleated skirt, long tunic, lined jacket, folded trousers, and shorts." "The Ministers and People Chapter" uses vocabulary about official systems and societal members: "Leaving customs, returning to allegiance, coming to support, interpreters, and attendants, who bow and address themselves as concubines and servants." "The Tools Chapter" presents vocabulary on household objects: "Iron axe, drill, pot, cauldron, helmet, bamboo tools like umbrella, hat, mat, and basket." "The Insects and Fish Chapter" contains terms for creatures: "Water insects, shellfish, frogs, carp, crucian, crabs, eel, and shrimp." "The Music Chapter" introduces musical vocabulary: "Yu, se, konghou, lute, zither, and the five sounds of singing and chanting." "The Body Parts Chapter" lists terms related to human anatomy: "Head, forehead, nose, mouth, lips, tongue, gums, and teeth." Other chapters include "The Plants Chapter," "The Animals Chapter," "The Palace and Residence Chapter," "The Weapons Chapter," "The Illness Chapter," "The Medicine Chapter," and "The Funeral Chapter," all of which cover vocabulary related to daily life, human living, and objects in various domains.

After discussing objects, the text moves on to list social systems, official titles, and governance, such as: "Officials study poetry and Confucian texts; study the 'Spring and Autumn Annals,' 'Shangshu,' and legal texts; practice ritual law, and strive to cultivate themselves; wise individuals gain extensive knowledge and experience; prominent and extraordinary, they are promoted and selected, distinguishing right from wrong; tracing paths upward, they become nobles; chancellors, court officials, and attendants; advancing to noble ranks, tutors, and aides; being close to ministers, various generals, and lords with fiefs; acquiring titles from accumulated learning, without the help of spirits... Brush, ink, calculations, oil lamps and candles, pardons and promotions, income and land." It outlines the official structure, titles, responsibilities, and regional geography of the Han Dynasty. The text concludes with a four-character prose praising the prosperity of the Han Dynasty: "The Han lands are vast, all are welcome; people from all directions come to pay homage,

serving as slaves and servants; the borders are peaceful, and the central lands are stable; the people embody virtue, and harmony reigns in nature; timely wind and rain bring fertility, and locusts do not arise; crops are harvested, and wise scholars serve, scholars and elders alike prosper, peace and longevity prevail."

By analyzing its content, we can see that the nature of the "Jijiu Pian" was aimed at the initial learning of aspiring officials. Its purpose extended beyond general civil matters to specialized training for public administration. However, given its use as an instructional text for local administration, it was widely circulated and used, and the basic-level officials, who were in charge of civil affairs, needed to be proficient in commonly used language and vocabulary. Therefore, the content of the "Jijiu Pian" consists primarily of commonly used vocabulary in daily life, reflecting the language norms of the Han Dynasty.

These character dictionaries, which were widely used from the Western Han to Eastern Han periods, undoubtedly influenced the compilation of Xu Shen's "Shuowen Jiezi" and its approach to interpreting characters in the mid-to-late Han Dynasty. By the late Han period, the "Shuowen Jiezi" systematically edited explanations of the six arts (classical Confucian texts) and contemporary and ancient script used in scholarship. This was due to the re-compilation and organization of Qin Dynasty texts during the Han period, which created a need for interpreting and explaining the vocabulary of classical works. Ban Gu mentions in the "Han Shu · Yi Wen Zhi": "Your servant has continued Yang Xiong's work, writing thirteen chapters and completing 102 chapters in total, leaving nothing out, and the content of the six classics is roughly complete." Ban Gu composed supplementary chapters for Yang Xiong's "Xunzuan Pian," clarifying that the "content of the six classics is roughly complete." This indicates that the compilation of character dictionaries at the time involved the collation and interpretation of vocabulary from the six Confucian classics. Xu Shen, in the preface to the "Shuowen Jiezi," also mentions compiling it because "characters are the foundation of classics and the beginning of royal governance. The former generations recorded them for posterity, and later generations recognize antiquity through them… It refers to the 'Yi' by Meng, 'Shangshu' by Kong, 'Shijing' by Mao, 'Rites of Zhou,' 'Spring and Autumn' by Zuo, 'Lunyu,' and 'Xiaojing.'" One of the primary purposes of the interpretation of characters and vocabulary was to focus on the content of classical texts.

In the process of analyzing materials, this study found that Xu Shen heavily cited early Han character dictionaries and the interpretative viewpoints of the authors of those dictionaries, indicating a direct connection in the method of textual interpretation. The "Shuowen Jiezi" inherits the explanatory approaches of earlier dictionaries, such as the "Cang Jie Pian," employing colloquial terms to describe both character form and meaning. The comparative analysis of Xu Shen's citations shows two main types of interpretations:

Simple Explanation of Structure and Meaning: For example, "軎: The end of a wheel axle. From 車 (vehicle), with a pictorial resemblance. (車部, Volume 14)" is derived from Du Lin's "Cang Jie Xunzuan" and "Cang Jie Gu."

Explanation of Character Structure and Recording of Different Meanings: For example, "疊: Yang Xiong explains that in ancient official practices, decisions were made after three days, following appropriate conditions. From 晶 and 宜. In the Xin Dynasty, 疊 was changed to 'three fields' (田) due to excessive formality. (晶部, Volume 7)" and "蕫: An element of 鼎 (tripod cauldron). From 艸 (grass) and 童 (sound). Du Lin states: The root of the lotus. (艸部, Volume 1)." Such notes clarify alternative meanings, as recorded in Du Lin's interpretative material.

There are also instances where errors in the interpretations by authors of earlier dictionaries were corrected. For example, "耿: The part of the ear near the cheek. From 耳 (ear), with a phonetic 烓省. Du Lin explains that 耿 means 'light,' derived from 光 (light) and 聖省. All characters have form on the left and sound on

the right. Du Lin is mistaken. (耳部, Volume 12)" Such corrections show Xu Shen's systematic approach to character analysis, indicating that "Shuowen Jiezi" both inherited and innovated upon previous character dictionaries.

Comparing the use of colloquial vocabulary, we find three patterns of usage in the explanations:

*Synonymous or Closely Related Common Vocabulary*

In the "Shuowen Jiezi," the meaning and usage of common vocabulary closely resemble those found in elementary character dictionaries. For instance, the synonymous explanations of "隱" (conceal) and "匿" (hide) from the "Cang Jie Pian" are interpreted as follows: "乚: To hide. The character shape resembles bending to conceal. All characters belonging to 乚 follow this shape. Pronounced as 隱. (乚部, Volume 12)." This example demonstrates how "隱" and "匿" are treated as synonymous interpretative words, just as they are in the "Cang Jie Pian." Additionally, in "Erya," the interpretation "瘞 (bury), 幽 (hidden), 隱 (conceal), 匿 (hide), 蔽 (cover), 竄 (flee), 微 (small)" (Shi Gu, Volume 1) affirms that "隱" and "匿" were commonly used in ancient spoken language.

Similarly, in "行" (walk) and "步" (step) from the "Cang Jie Pian," the "Shuowen Jiezi" offers the following interpretations: "行: A person's step. From 彳 and 亍. All characters in the 行 category derive from 行. (行部, Volume 2)," "辵: To walk. From 辵 (walk) and 土 (earth) as sound. (辵部, Volume 2)," "跟: Walking or hunting. From 足 (foot) and 貝 (shell) as sound. (足部, Volume 2)." These examples show that "步" and "行" are frequently used synonymously. Additionally, other Han Dynasty texts, like "Huainanzi · Shuo Lin Xun" (淮南子·說林訓): "The butcher boils herbs, and the cart-maker walks," "Records of the Grand Historian · Biography of Xiang Yu" (史記·項羽本紀): "So the cavalry dismounted and walked, wielding short weapons," and "Lunheng · Si Wei" (論衡·死偽): "People can flee, and feet can walk," illustrate how the synonymous terms "步" and "行" from the "Cang Jie Pian" were in widespread use in literature, confirming that the vocabulary explained in the "Shuowen Jiezi" aligns with both elementary character books and classical texts.

Furthermore, in terms of antonyms, elementary character dictionaries like the "Cang Jie Pian" pair opposites, such as "吉" (auspicious) and "忌" (taboo), "往" (go) and "來" (come), "開" (open) and "閉" (close). These antonyms are paired to elucidate contrasting meanings, known as "reverse interpretation." Reverse interpretation is defined as using an antonym to explain a word's meaning (Chen Xinxiong, 1996). In the "Shuowen Jiezi," "吉" and "凶" are frequently paired as common interpretative words: "示: The heavens display omens to indicate auspicious and inauspicious outcomes to people. From 二. Three strands represent the sun, moon, and stars. Observing celestial patterns helps track seasonal changes. 示 refers to divine matters. All characters in the 示 category derive from 示. (示部, Volume 1)," "敤: Chu people use this word to refer to divination about good and bad luck. From 又 (hand) holding a curse, with 崇 as sound. Pronounced as 贅. (又部, Volume 3)," "寢: A dream with an awakening. From 宀 (roof) and 疒 (illness), with 夢 as sound. 'Zhouli' notes: 'Divining the six types of dreams for their auspicious and inauspicious meanings: 1) True dream, 2) Worry dream, 3) Thought dream, 4) Awakening dream, 5) Happy dream, 6)

Fear dream.' All characters in the 寢 category derive from 寢. (寢部, Volume 7)," "麸: An omen that averts misfortune. From 屰 and 夭 (death-related matters), indicating that death is referred to as not 麸. (夭部, Volume 10)," and "禁: A taboo related to good and bad luck. From 示 with 林 as sound. (示部, Volume 1)." These examples demonstrate that "吉" and "凶" are antonyms, and "凶" implies forbidden actions (忌), extending its contrast with "吉."

Additionally, the antonyms "往" and "來" (go and come) from the "Cang Jie Pian" are reflected in "Shuowen Jiezi": "卤: A startled sound. From 乃 as reduced form, with 西 as sound. The ancient script for 卤 is not simplified. It is said that 卤 also means 'to go.' Pronounced as ning. (乃部, Volume 5)." Duan Yucai annotates that "玄應書三引《蒼頡篇》: '乃, go.'" Xu Shen's interpretation of "卤" as "to go" originates from the "Cang Jie Pian." Other instances of "往" and "來" in "Shuowen Jiezi" include: "復: To go and come. From 彳 (walk) with 復 as sound. (彳部, Volume 2)," "踵: To pursue. From 足 (foot) with 重 as sound. Also interpreted as going and coming. (足部, Volume 2)," "詗: To speak back and forth. Also refers to a child unable to articulate properly. From 言 (speech) with 匋 as sound. (言部, Volume 3)," "槊: To startle and flee. Also interpreted as going and coming. From 夰 and 亞. 'Zhou Shu' notes: 'Bo Guang.' The ancient script for 亞 is also the ancient form of the character 囧. (夰部, Volume 10)." These examples show that the antonyms "往" and "來" are also used as common interpretative words in "Shuowen Jiezi."

Further examination of vocabulary in classical texts like "Book of Songs · Xiao Ya · Qiao Yan" (詩經·小雅·巧言): "Go and come, traveling words, and repeatedly consider them," "Shangshu · Jun Shi" (尚書·君奭): "Unable to come and go, impart the teachings and righteous guidance of King Wen to the people," "Yijing · Hexagram Xian" (易經·咸): "Nine-four, steadfast and auspicious, without regret, going back and forth, companions follow your thoughts," "Book of Rites · Qu Li" (禮記·曲禮): "Etiquette values going and coming. Going without returning is not polite; returning without going is also not polite," "Records of the Grand Historian · Biography of Emperor Wu" (史記·孝武本紀): "He boasted: 'I have often gone and come in the sea, seeing the likes of Anqi and Xianmen,'" "Huainanzi · Fan Lun Xun" (淮南子·氾論訓): "In ancient times, large rivers and valleys cut off roads, blocking travel," and "Shuoyuan · Feng Shi" (說苑·奉使): "Wei Wenhou appointed the crown prince Ji to Zhongshan; three years passed, and there was no travel between the places." All these texts use "往" and "來" as common terms.

*Distinct Meanings in Common Vocabulary*

Xu Shen's "Shuowen Jiezi" presents some vocabulary interpretations that differ from those in earlier character dictionaries. For example, the entry "頫: To lower one's head. From 頁 (head), and 逃省 as a phonetic. The grand historian's divination texts write the character 頫仰 in this way. Yang Xiong said: The face looks downward. (頁部, Volume 8)." Duan Yucai annotates, "This likely extracts three words from Yang's 'Xunzuan Pian,' supporting the idea of 'from 之.' The original meaning of 頫 is to 'lower one's head,' and it extends to denote all forms of lowering." Here, Xu Shen uses the primary meaning "to lower the

head" as the definition, while in the "Xunzuan Pian," 頯 is interpreted based on its shape, differing from "Shuowen Jiezi."

Similarly, "膴: A kind of boneless preserved meat. Yang Xiong explained it as preserved bird meat. From 肉 (meat) and 無 as the phonetic. 'Zhouli' mentions '膴 judgement.' Pronounced as 'mo.' (肉部, Volume 4)." Duan Yucai comments, "This represents a different meaning, as preserved bird meat certainly is not boneless. This is likely from Yang Xiong's 'Cang Jie Xunzuan.'" Here, the character dictionary provides an alternative interpretation of "膴," whereas Xu Shen uses the original meaning "boneless preserved meat," diverging from the dictionary.

Another example is "擊: The action of 擊 by hand. Yang Xiong said: 擊 means to grasp. From 手 (hand) and 叹 as the phonetic. (手部, Volume 12)." Duan Yucai notes, "This likely comes from Yang Xiong's 'Cang Jie Xunzuan.' To grasp is to hold and grip. Yang's explanation provides a different meaning. The phrase 'to grasp and squeeze the wrist' in 'Shi' and 'Han' texts uses 曡 to denote a mobile action involving the hand." This is another case of an alternative meaning in the character dictionary.

Additionally, "鷖: A type of wild duck. From 鳥 (bird) and 殹 as the phonetic. 'Shijing' says: Wild ducks gather on the bridge. (鳥部, Volume 4)." Duan Yucai notes, "'Cang Jie Jiegu' says: 鷖 is an 'ou,' also known as a water owl. Xu states that 'ou' is a water owl, but does not equate 鷖 to 'ou,' implying that Xu considers them to be the same thing. As 鷖 belongs to the duck family, it is akin to a wild duck but distinct from other birds like the 沈鳧." Here, the character dictionary interprets 鷖 as a single object, whereas Xu Shen provides a broader classification, differing from "Cang Jie Jiegu," which uses "ou," and instead describes it as a type of duck.

*Similarities and Differences in Character Structure*

One example is in "Shuowen Jiezi": "腌: To soak meat. From 肉 (meat) and 奄 as the phonetic. (肉部, Volume 4)." Duan Yucai notes, "The character 淹漬 (soaking) should be written as 腌, but 淹 is now used while 腌 has fallen out of use. 'Fangyan' mentions: '淹 means to spoil,' as water spoilage is known as 淹, alluding to the meaning of 腌. 腌 is like 瀸, meat is called 腌, and fish is called 饐. 'Cang Jie Pian' notes: '腌 酢淹肉.'" Here, both the character dictionary and "Shuowen Jiezi" use "腌," derived from 肉 (meat), for the meaning of soaking meat.

In "Shuowen Jiezi," there are cases where a borrowed character is used as an interpretative word. For example, "饎: Spoiled rice. From 食 (food) and 桼 as the phonetic. (食部, Volume 5)." The annotation adds, "'Xiu' in the 'Cang Jie Pian' is written as 餐, and 'xiu' indicates 'sour'." Here, Xu Shen uses "xiu" to interpret 饎, as a borrowing of "sour." In contrast, the "Cang Jie Pian" uses the character 餐 derived from 食 (food), which is described in the "Yupian" as "餐, cooked rice. (食部, Volume 5)" and in "Guangya · Shi Qi" as "Cooked rice is called 餐." This indicates that 餐 is the original character in "Cang Jie Pian," while Xu Shen uses the borrowed character "xiu" in his interpretation.

Another example is "毗: The human navel. From 囟 (fontanel), which denotes the connection of breath; from 比 as the phonetic. (囟部, Volume 10)." The annotation adds, "'Jijiu Pian' uses 膍. The character 毗

is used as a loanword. As 'Shijing · Jienanshan' and 'Caisun,' Mao's commentary states: 膔 means thick."

Additionally, "窅: Deep eyes. From 穴 (cave) and 中目 (eye). (目部, Volume 4)." The annotation comments, "'Cang Jie Pian' uses 窔. Pronounced as 'wu jiao,' it means sunken, and 'tu jie,' it means protruding. Ge Hong's 'Zi Yuan' states that the upper part means concave, and the lower part means convex. Neither 窔 nor 凹凸 is recorded in Xu's work, so Xu uses 窅朕." Here, Xu Shen follows the original shape of "目" (eye) to explain its meaning and derives "concave-convex" from "deep eyes." However, there was no specific character to represent this meaning. The "Cang Jie Pian," which was widely used at the time, used 从 "失" to represent the "凸" (protruding) aspect of "concave-convex."

By comparing elementary character dictionaries with "Shuowen Jiezi," this study shows that common vocabulary in the Han Dynasty displays both continuity in meaning and structure and variations due to character shape standardization or interpretative differences. This analysis helps demonstrate the criteria Xu Shen used in "Shuowen Jiezi" for selecting and interpreting characters, as well as the usage patterns of common vocabulary during that period.

*Alignment of Learning Models in Character Educational Materials with Cognitive Learning Development*

The learning objectives in the cognitive domain, as outlined by American educational scholar Bloom, are categorized into knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956). Anderson and colleagues later revised these categories to the cognitive processes of remembering, understanding, applying, analyzing, evaluating, and creating (Anderson, 2001). When mapping this cognitive development to the structure of Han Dynasty character dictionaries, from the "Cang Jie Pian" to "Shuowen Jiezi," a parallel can be seen between the learning progression in these texts and Bloom's framework.

From the perspective of learning development through rhymed verse, the use of rhymed example sentences enhances learners' ability to recognize characters and vocabulary. The rhyming structure facilitates memorization through recitation, integrating visual and auditory elements and strengthening memory in the initial stages of learning. The combination of synonymous and closely related words into example sentences and cohesive thematic paragraphs aids learners in understanding the relationships between words. Additionally, some example sentences that utilize noun-verb descriptive patterns enable learners to develop the cognitive ability to construct sentences from vocabulary.

From an explanatory perspective, the progression from early character dictionaries that use antonyms in example sentences to "Shuowen Jiezi," which employs antonyms for interpretative explanations and introduces the concept of classification, fosters learners' analytical skills. This analytical process equips learners to discern semantic differences and grasp the structural meanings of Chinese characters, laying the groundwork for deeper cognitive development in vocabulary understanding and character form analysis.

*Systematization of Classification Concepts and Abstract Conceptualization of Character Structure in Educational Materials*

Due to the discovery of pre-Qin Han Dynasty texts written in ancient scripts, such as the "Shangshu" transmitted by Fu Sheng in Jinan, Shandong, originally written in Qin small seal script, and later transmitted as three versions (Ouyang, Xiahou Da, and Xiahou Xiao) in clerical script, character form differentiation and textual interpretation became necessary. The rediscovery of ancient texts, such as the "ancient characters in the wall" version of the classics found in Confucius's residence by the Lu King during the reign of Emperor Wu, the "Ancient Script Shangshu" presented by the Hejian Prince in the early Eastern Han, and the lacquer-ink ancient script Shangshu by Du Lin, led to successive annotations by scholars like Wei Hong, Jia Kui, Ma Rong, Zheng Xuan, and Wang Su. As the study of ancient texts required distinguishing similar characters and providing explanations of word meanings, the "Cang Jie Pian," which contained many ancient characters, was often used for this purpose. Xu Shen also mentions, "The historian Zhou wrote 15 chapters of large seal script during the reign of King Xuan, which differed from the ancient

script. The 'Six Classics' written by the Kong family, and the 'Commentary on the Spring and Autumn Annals' by Zuo Qiuming, all employed ancient characters whose meanings can be comprehended. Later, the feudal lords exerted their own governance without unification under the king, abolishing rites and music that harmed them, and eliminating their texts. The nation split into seven states, differing in land measurements, vehicle tracks, laws, customs, dialects, and scripts." The "Shizhou Pian," as recorded in the "Book of Han · Bibliography of Arts and Literature," had lost six chapters by the time of the Jianwu era of the Eastern Han. Xu Shen compared the remaining nine chapters with the ancient script found in the Confucian wall, adding Shizhou script as alternative forms whenever they differed from ancient script.

The relationship between "Shuowen Jiezi" and elementary character dictionaries is rooted in their shared source material and need for textual explanation. For example, the character "舁" is defined in "Shuowen Jiezi" as "lifting. From 廾 (hands raised) and 由 as phonetic. 'The Commentary on the Spring and Autumn Annals' notes: 'The Jin person Guang fell, and the Chu person lifted him.' Huang Hao explains that Guang's carriage fell, and the Chu person lifted it. Du Lin regards it as the character for 'unicorn' (舁). (奴部, Volume 3)." Qing Dynasty scholar Duan Yucai annotates, "This likely comes from the 'Cang Jie Xunzuan' and 'Cang Jie Gu' chapters." This example demonstrates the connection between "Shuowen Jiezi," character dictionaries, and classical texts, providing indirect evidence for the continuity and evolution of classification concepts.

The arrangement of characters in excavated character dictionaries, such as slips C0033 and C0034 of the "Cang Jie Pian" found in Fuyang, groups ten radicals related to the concept of "black." This layout reflects a close relationship between the structure and meaning of Chinese characters. Initially, the form and meaning of a character were closely related, and character dictionaries grouped similar types and compiled them into example sentences, forming thematic chapters. Over time, these structural symbols and meanings evolved into a linguistic classification system, where semantically related characters shared parts of their structure. This structure not only contributed to the meaning of each character but was also considered the source of its creation, eventually leading to the concept of radicals (部首).

The "fu" (rhapsody) literary genre that was popular at the time heavily utilized a variety of words to describe topics, employing numerous nouns to depict things, thus creating rich and ornate compositions. Writers proficient in composing "fu" also compiled character dictionaries for reference during writing, such as Sima Xiangru's "Fanjiang Pian," Yang Xiong's "Xunzuan Pian," and Ban Gu's "Xuxunzuan Pian." The associative descriptions of objects in Han rhapsodies can be seen as a result of the emphasis on literacy education. Renowned authors, such as Sima Xiangru, who wrote the "Zixu Fu" and "Shanglin Fu," compiled the "Fanjiang Pian"; Yang Xiong, who wrote the "Ganquan Fu" and "Yulie Fu," compiled the "Xunzuan Pian"; Ban Gu, who wrote the "Liangdu Fu," compiled the "Xuxunzuan Pian," demonstrating the relationship between literature and characters. Qing Dynasty scholar Yuan Mei commented in "Suiyuan Poetry Talks" that purchasing a piece of rhapsody was like "reading a reference book or a local history." Given this focus on the use and processing of Chinese characters, the classification of form and meaning in Chinese characters gradually became a conscious categorization. The radical arrangement system naturally evolved from grouping Chinese characters by semantic category, as characters sharing the same radical typically belonged to the same category in the semantic system. While the "Cang Jie Pian" categorized characters under the same radical without self-awareness, this organization became apparent in the Han Dynasty's "Jijiu Pian," compiled by Shi You, which applied the "separation and grouping by radical" (分别部居) method (Huang Dekuan & Chen Bingxin, 2008). Shi You's "Jijiu Pian" explicitly proposed the idea of "separating and grouping without mixing," organizing vocabulary based on semantic categories, including sections like "Clothing," "Ministers and People," "Insects and Fish," and "Diseases." Xu Shen, in the preface to "Shuowen Jiezi," mentions, "Starting with '一' as the beginning, classifying by type, grouping things by category, with similar branches connecting, and a shared logic interlinking. Organized but not overstepping, categorized by form, linked and extended to explore all origins, and concluding with '亥,'

understanding the ultimate transformation." This approach inherits the method of classifying similar character structures found in earlier dictionaries.

Comparing the vocabulary in "Jijiu Pian" with the "Horse Radical" (馬部) in "Shuowen Jiezi," we find that "Jijiu Pian" extensively describes horse types and colors, such as terms for various black horses like "騩: A horse of a light black color. 騅: A horse with gray and black mixed hair. 驪: A horse of a deep black color. 騽: A red horse with a black tail." These terms are grouped together. Words describing the color patterns on horses' bodies, such as "騏: A blue and black horse, with a pattern resembling a chessboard. 駹: A horse with a white face and forehead," are also arranged together. Terms depicting the horse's movements and forms, such as "驟: A horse that runs quickly. 馳: A horse that gallops," are similarly grouped. This arrangement clearly resembles the classification style of character dictionaries used for literacy education. However, this type of arrangement also contains an analytical concept of character structure, where radicals represent the origin of character formation. The character "驟," derived from "馬," indicates rapid movement and implies that the meaning of quick running originates from observing the horse's movements.

It can be seen that character dictionaries group synonymous and closely related words into example sentences by themes, forming paragraphs and chapters to facilitate learners' basic literacy, comprehension, and understanding. However, this classification is based on the inherent relationship between the structure and meaning of Chinese characters. Once learners recognize vocabulary, they can further analyze the formation and structure of these characters, which share common components, and form radical concepts. This process transforms concrete understanding of objects into abstract analysis of symbols. Observations and analyses in this study clearly show the developmental path from literacy to character explanation in character dictionaries.

## Conclusions

"Shuowen Jiezi" largely aligns with the categorization of meanings in the commonly used vocabulary found in the elementary character dictionaries and lexicons of the Han Dynasty. Xu Shen built upon these categorizations of meaning to construct the radical system. A comparative analysis of these dictionaries and "Shuowen Jiezi" reveals many similarities in the use of vocabulary and phrases, including commonly used antonyms like "往" and "來" (go and come), or "開" and "閉" (open and close), which are consistent with the language found in classical texts of the time. In terms of explanation, character dictionaries like "Xunzuan Pian" had already begun interpreting characters based on their structure, which inspired Xu Shen's method of interpreting meaning through character form.

From a linguistic and historical perspective, "Shuowen Jiezi" inherited the usage practices of both spoken and written language since the Qin and Han dynasties in terms of "character form," "character meaning," "structural explanation," and "semantic categorization." Xu Shen's compilation and generalization brought order to a diverse and fragmented collection of literacy texts. This effort standardized Chinese character education, which had previously relied on locally crafted literacy materials that varied in quality. Xu Shen established a coherent Chinese language system characterized by structural classification, morphological analysis, semantic interpretation, and connections to classical texts, social culture, and daily life.Therefore, the key conclusions of the study:

*Influence of Elementary Literacy Materials on "Shuowen Jiezi"*: Since the Qin and Han dynasties, elementary literacy materials used in Chinese character education influenced "Shuowen Jiezi" in terms of character form, meaning, and explanation. These materials shaped Xu Shen's systematic approach to editing and explaining characters.

*Alignment with Cognitive Learning Development*: The developmental process of character dictionaries in the Han

Dynasty aligns with the trajectory of cognitive learning, beginning with memory as the initial learning objective and progressively advancing toward comprehension and analysis. In other words, the function of character dictionaries evolved from basic literacy toward deeper character analysis.

*Shuowen Jiezi" as a Systematic Compilation and Reform*: From a character organization perspective, "Shuowen Jiezi" consolidated various types of character dictionaries and radically reformed the fragmented literacy texts and interpretative lexicons that previously lacked a structural system for character classification. Xu Shen's work established standards for the systematic study of Chinese characters, laying an academic foundation and defining a learning scope for subsequent Chinese character education.

Overall, "Shuowen Jiezi" not only categorized and explained characters comprehensively, creating a benchmark for future character study and education, but also brought coherence and depth to the understanding of the structure, meaning, and usage of Chinese characters.

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