

Study on the Problems and Strategies of Teaching Non-Continuous Texts in Primary Schools

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Abstract: The reading teaching of non-continuous texts in primary schools has been marginalized. Also, teaching objectives are ambiguous, some teaching contents are missing, and teaching guidance is random. In this paper, in order to improve reading teaching of non-continuous texts in Chinese primary schools, definition and research background of non-continuous texts have been analyzed, then problems and reasons of reading teaching of non-continuous texts in primary schools were analyzed and presented. Finally, we put forward some strategies to improve reading teaching of non-continuous texts from the perspectives of ideas, abilities and external support.

1. Definition and Research Background of Non-continuous Texts

1.1. Definition of Non-continuous Text

The concept of "non-continuous text" was first introduced by Program for International Student Assessment (PISA), which together with "continuity text", constitutes the text type of PISA reading literacy assessment. Continuous texts are generally composed of complete sentences which form paragraphs, chapters and entire books with a clear hierarchy, such as novels, essays, stories, reviews, etc. Non-continuous texts may also contain sentences, but not paragraphs, and include various graphics such as tables, graphs, charts, ads, timesheets, tables of contents, indexes, and forms. [1] Professor Chao Zongqi introduced the characteristics of "non-continuous texts" through comparison and enumeration and suggested that they are reading materials while "continuous texts" are composed of sentences and paragraphs, mostly in the form of statistical charts, pictures, etc. [2] Some researchers have deconstructed words and pointed out that texts include both content and carrier; so, "non-continuous texts" can be defined as texts with discontinuities, differences, and relative independence in content or form. [3] Generally, "non-continuous texts" can be in the form of a variety of graphics, lists, tables of contents, or texts aggregated from several consecutive passages.

1.2. Background of Non-continuous Texts

Non-continuous texts are a common approach for expressing information in everyday life. When one does on a trip, he has to learn to read the map of scenic spots and new books to learn to sort out basic contexts of articles from catalogues and know how to install and use new instruments or

furniture according to the instructions after purchasing. Instrumentality, intuitiveness, generalization and other characteristics of non-continuous texts provide convenience for people's learning, life and work and determine that reading non-continuous texts needs to break the linear thinking mode and process information based on different tasks and requirements. Considering the prevalence of non-continuous texts, a substantial proportion of the PISA 2009 pool of reading tasks, nearly 30%, is dedicated to assessing the students in reading such texts. [1]

China's focus on "non-continuous texts" began in PISA 2009 test. At that time, students in Shanghai won the world's first good score in reading test when they participated in PISA for the first time. However, their score in non-continuous text subscale was much lower than that in continuity text, with a score difference of 24 points, (Table 1[1]). It was seen that the imbalance in the reading ability of Chinese students in different text types was prominent. To solve this problem, newly revised "Chinese curriculum standard for compulsory education (2011 Edition)" (hereinafter referred to as the 2011 edition of "curriculum standard") introduced the concept of "discontinuous text", that required students in the third learning stage (grades 5-6) to "be able to read simple discontinuous texts and find valuable information from combined materials such as graphics and text"[4]. Students in the fourth learning stage (grades 7-9) could "read more complex discontinuous texts containing a variety of materials, understand the meaning of the texts, and draw meaningful conclusions" [4]. For the first time, non-continuous texts were explicitly the object of learning for students and they were required to have the ability to search in non-continuous texts and interpret and evaluate information.

Table 1: Comparing countries on different text format subscales.

	Country performance on the subscale is between 0 to 3 score points higher than on the combined reading scale		
	Country performance on the subscale is between 3 to 10 score points higher than on the combined reading scale		
	Country performance on the subscale is 10 or more score points higher than on the combined reading scale		
	Country performance on the subscale is between 0 to 3 score points lower than on the combined reading scale		
	Country performance on the subscale is between 3 to 10 score points lower than on the combined reading scale		
	Country performance on the subscale is 10 or more score points lower than on the combined reading scale		
	Reading Score	Performance difference between the combined reading scale and each text format subscale	
		Continuous texts	Non-continuous texts
Shanghai-China	556	8	-16
Korea	539	-1	3
Finland	536	-1	-1

2. Distribution of "Non-continuous Texts" in Chinese Primary School Unified Edition Textbooks

In the unified edition of the textbooks, the arrangement of "non-continuous texts" is of great importance and the expression of the contents of textbooks with various forms of "non-continuous texts" is enriched (Table 2). Also, the number of texts is significantly increased. Based on statistics, the number of non-continuous texts in the unified edition of the textbook is three times that of People

Education Edition [5], which provides teachers with teaching resource guarantees. "Non-continuous texts" are mainly distributed in exercises, composition writing guidance, unit reviews and comprehensive learning, summarizing the knowledge points as well as analyzing and evaluating the contents of articles through diagrams, tables and lists, highlighting the application value of "non-continuous texts".

Table 2: Distribution of "non-continuous texts" in the part of Chinese primary school textbooks in the unified edition.

Grade	Unit	Section	Content	Form
Grade 5 volume 1	4	Lesson 14 "The Destruction of the Old Summer Palace" Reading Link	Excerpts from The Song of the Seven Sons and the Declaration of Peace	Combination of paragraphs
	5	Write a composition	Classify and list things of interest to broaden students' horizons in material selection	form
	6	Oral communication	Different ways parents express love	Combination of paragraphs
	7	unit review	New Year's Day party poster	Picture with text
	8	Oral communication	Fill in the information about your favorite persona	form
Grade 5 volume 2	1	Write a composition	Excerpts from the content of things that feel like you grew up	Combination of paragraphs
	2	Lesson 6 "Jingyang Gang" information kit	Some characters in "Water Margin"	Picture with text
	3	Integrated learning	Demonstrate the method of collecting data and organize the survey data	Treemaps, tables
	5	Write a composition	Typical examples are selected to show the characteristics of the characters	Mind map
	6	Lesson 16 "Field Horse Racing" After-School Exercises	The second horse race between King Qi Wei and Tian Ji is marked	manifest
	7	Lesson20 "Pyramids"	Combined with the picture, mark the length, width and height of the Pyramid of Khufu	Picture with text
	8	Write a composition	The revelation of the comics	caricature

3. Problems of Reading Teaching of Non-continuous Texts in Primary Schools

Although the teaching requirements of "non-continuous texts" was proposed 10 years ago, the teaching effect of non-continuous texts has not been satisfactory, which has become an essential problem in primary school Chinese teaching. In the following, some common problems in this regard are presented.

3.1. Teaching Objectives are Vague

The objectives of non-continuous texts in Chinese curriculum standards are highly general and

less contented and front-line teachers do not have clear awareness of this point. Teachers do not know what abilities and knowledge to accumulate and what attitudes to take in reading teaching of non-continuous texts. Even when facing non-continuous texts in textbooks, teachers do not know why they should focus on this type of texts. They can only perform basic observation and analysis based on experience and cannot relate the characteristics and values of non-continuous texts for appropriate teaching.

3.2. Teaching Guidance is Arbitrary

When teachers teach non-continuous texts, the following situations often take place. First, teachers use non-continuous texts unconsciously. When lecturing, teachers use materials such as tables, charts, and outlines, but they do not realize that students also learn to use these materials to solve problems and express ideas, and there is no design of "similar" situations to realize text cognition and ability transfer and "non-continuous text" is in a "suspended" state in the curriculum. Second, the value of non-continuous texts is generally ignored. Take the text in Grade 6 "The Palace Museum" as an example, which is consisted of three non-continuous texts on the same topic but from different sources, requiring students to identify and extract relevant information with different tasks and compare or merge the obtained knowledge. Then, the students have to use visualization to form a conclusion. This unit happens to be a reading strategy unit and focuses on mastering text reading method. However, when many teachers guide the students to study this text, they directly let students use continuous text reading method to draw a tour route map. No instruction is given to students on how to integrate multi-document information to further understand the structure and meaning of the text.

3.3. Weak Awareness of Teaching Resources

Although non-continuous texts are extensively applied in life, their importance cannot be compared with that of continuous texts which play an absolutely dominant role in reading teaching and are not even included in teaching contents at all. Therefore, teachers rarely cite non-continuous texts from life for auxiliary teaching and seldom create situations to guide students to use non-continuous texts for solving practical problems. The attention of teachers to non-continuous texts is mainly focused on the design of relevant test questions so as to guide students to master the method of solving questions, which has lost the significance of developing thinking and language construction.

4. Analysis of the Causes of Problems in the Teaching of Chinese Non-continuous Texts in Primary Schools

4.1. Teaching Cognitive Deviation of Teachers

Teachers have very limited knowledge of non-continuous texts and they believe that the mathematical characteristics of charts are obvious and have low relevance with Chinese language, resulting in the idea that learning "non-continuous texts" is useless which directly marginalizes them. On the other hand, because continuous and non-continuous texts have certain similarities, teachers rarely conduct special research on "non-continuous texts" and generally apply the same method; therefore, the teaching of non-continuous texts is limited to the extraction and interpretation of information and less involves the reflection and evaluation of contents. Furthermore, under the influence of the orientation of taking the test, teachers have formed a mindset of "what to test" and "what to teach", ignoring the life extension and social value of such texts. Different misreading of "non-continuous texts" results in cognitive biases in teachers directly affecting the teaching behaviors of teachers.

4.2. Limited Teaching Ability of Teachers

Teachers lack the ability of transforming the core quality of the subject. Chinese curriculum standard for compulsory education (2022 Edition) puts forward the core accomplishment of the discipline of "cultural self-confidence, language use, thinking development, and aesthetic creation"[6], which is the development goal suggested from the perspective of people's all-round development and in combination with the characteristics of Chinese discipline. This requires teachers to internalize goals into students' necessary character and ability in specific teaching processes. Discontinuous texts are the combination of linguistic and non-linguistic symbols. They have intuitive and diverse forms and flexible semantic jumps. They also conform to the characteristics of students interested in new things and can easily arouse students' interest in learning. When teachers fail to establish connection between discontinuous texts and the core literacy of the subject, text interpretation perspective is relatively single. Most teachers only pay attention to certain forms of discontinuous texts and fail to tap other teaching resources, so teaching can only move towards fragmentation and superficiality.

The "linguistic value" of non-continuous texts is mainly reflected in the relevance of expression, which is closely related to the purpose and context of expression. This requires teachers to take into account the advantages of non-continuous texts in meeting certain reading purposes in teaching design and allow students to fully feel, understand, and appreciate this type of text through situation creation, imitation analogy, reflection and evaluation, etc., so as to improve reading and application abilities.

Teachers lack the ability to develop and integrate curriculum resources. The number of non-continuous texts in textbooks is limited, but they are closely related to life, and teachers are not good at excavating and using graphic elements in life and textbooks. These make the teaching contents of non-continuous texts old and boring.

4.3. Insufficient External Support

In addition to the fact that front-line teachers do not attach importance to the study and practice of non-continuous texts, local education authorities and schools rarely organize teaching and research activities on the theme of non-continuous texts and teachers basically do not exchange the teaching contents and methods of such texts, which result in the lack of reflection and guidance on practice. Theoretically, there are 206 papers in CNKI with "non-continuous text" as a keyword search, of which 55 are related to "primary school". Most of the papers are homogeneous, mainly carrying out theoretical exploration as they should be, and there are relatively few empirical studies.

5. Strategies to Improve the Effectiveness of Teaching Non-continuous Texts in Primary Schools

5.1. Establishing a "Competency-based" Teaching Concept of Situational Reading

PISA 2018 defines "reading literacy" as follows: Reading literacy is understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society [7]. The 2011 edition of Curriculum Standard defines "teaching reading" as "a process of dialogue between students, teachers, textbook editors, and texts." [4] They both highly emphasize on the process of student subject participation under the premise of meaningful connection. The ability to read is not the ability to reproduce knowledge, but the ability to apply what you have learned to solve problems.

Non-continuous texts originate from the need for expression and teachers can combine application situations to let students experience and feel the expressive advantages of this text type when

designing instructions to help students understand and use the text [8]. For example, when performing the activity of "Comprehensive Learning: Navigating the Kingdom of Chinese Characters" in the fifth grade, students read the picture material "Street Typos" and say the typos they saw in their lives. Teachers can seize the opportunity to organize a survey of social word specifications. Students were asked to go to the streets and alleys to investigate and record typos by taking pictures, recordings, etc. [9] In the process of sharing, students found that even if it was a small photo, it contained a large amount of information. Fully recognize the characteristics of graphic and text integration and the method of extracting and analyzing picture information.

5.2. Improving Teaching Design and Implementation Capabilities

5.2.1. Blending Non-continuous and Continuing Texts

The knowledge between "continuous text" and "non-continuous text" can promote each other and transfer each other, and the two should be appropriately converted and alternated so that students can learn to read different forms of text from different angles, which is conducive to improving students' reading literacy. When teaching the Great Wall, teachers can innovate various teaching ideas, try to organize students to draw a road map based on the order of writing articles, vividly present the characteristics of the Great Wall's tour path and scenic spots in the form of a combination of pictures and texts, and naturally rewrite the continuous text into a "non-continuous text". In this way, students can apply their own strengths to text comprehension process and increase the interest of reading [10]. In hands-on operation, students can deepen their understanding of the text, because reading and appreciation complement each other. Teachers can also perform flexible and diverse activities to promote the integration of continuous and non-continuous texts. For example, after learning "The Emperor's New Clothes", the group can discuss their own selected angles and encourage students to show learning results in different forms, such as drawing story clue diagrams, continuing to compile fairy tales, etc. In this process, students can not only strengthen their understanding of the text, but they also exercise using different forms of expressing information and promote the development of thinking ability.

5.2.2. Integrating Relevant Course Resources

Based on Chinese textbook resources, the contents of teaching materials are not equivalent to teaching contents. Teachers should process teaching materials, refine the contents of non-continuous texts, and fully tap the available resources in teaching materials. When teaching "The Secret of Night Flight", teachers should fully combine after-school exercises, boldly let go and be good at organizing and regulating, and ask students to use form-filling method, drawing or fill-in-the-blank methods to summarize the methods, results and conclusions of the three experiments conducted by scientists according to text description.

Integration of relevant discipline resources. Non-continuous texts exist in a wide range of subject areas, not just in language disciplines. Teachers should pay attention to combining the contents of each discipline so that students can grasp the overall structure of the contents of the textbook. Teachers should encourage students to apply what they have learned in one discipline to other disciplines. Close communications with teachers of various disciplines open up connections between language and other disciplines and integrating non-continuous text reading resources of related disciplines can multiply teaching effect with half the effort and effectively improve students' reading ability of non-continuous texts.

6. Conclusion

Schools should carry out targeted training activities on teaching non-continuous text reading, so that teachers can understand the requirements of curriculum standard for teaching non-continuous text reading in special teaching training courses and master the reading teaching skills of non-continuous texts. Formulate corresponding incentive measures to guide teachers to conduct school-based research on "non-continuous texts", solve specific teaching problems, improve teaching effects, and improve reading literacy. Schools can also hold campus cultural activities related to the investigation and application of "non-continuous texts" to improve the perception and appreciation of different forms of texts by teachers and students.

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References

- [1] OECD. *PISA 2009 Results: What Students Know and Can Do – Student Performance in Reading, Mathematics and Science (Volume I)*. <https://www.oecd.org/pisa/pisaproducts/48852548.pdf>, 2010: 40, 79, 86.
- [2] Chao Zongqi. *Overview of the Revision of The Standards for compulsory education language curriculum (Part 2), Curriculum, Textbooks, and Teaching Methods*, 2012(4):38.
- [3] Ma Chunming. *Literature Review of Non-continuous Texts*. *Journal of Inner Mongolia Normal University (Educational Science Edition)*, 2018(12): 93.
- [4] Ministry of Education of the People's Republic of China. *Standards for Compulsory Education Language Curriculum (2011 Edition)*. Beijing: Beijing Normal University, 2012:13, 15, 22.
- [5] Ru Ziyun. (2020) *Research on the Teaching of Non-continuous Texts in the Upper Primary School Language: A Case Study of the Unified Edition of Textbooks*. Hangzhou: Hangzhou Normal University.
- [6] Ministry of Education of the People's Republic of China. *Standards for Compulsory Education Language Curriculum (2022 Edition)*. Beijing: Beijing Normal University, 2022:5.
- [7] OECD. *PISA2018: Insights and interpretations*. <https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf>, 2019:4.
- [8] Al Mulhim, E. N. (2021). *Flipped Learning, Self-Regulated Learning and Learning Retention of Students with Internal/External Locus of Control*. *International Journal of Instruction*, 14(1), 827–846. <https://doi.org/10.29333/iji.2021.14150a>.
- [9] Huang Ruizhuang. *On the strategy of discontinuous text teaching*. *Primary school teaching reference*, 2017 (01): 21-22.
- [10] Atmojo, S. E., Muhtarom, T., & Lukitoaji, B. D. (2020). *The Level of Self-Regulated Learning and Self-Awareness in Science Learning in the Covid-19 Pandemic Era*. *Journal Pendidikan IPA Indonesia*, 9(4), 512–520. <https://doi.org/10.15294/jpii.v9i4.25544>.