A Study on College Students' Use of Metacognitive Strategies in English E-Reading

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Abstract

In the realm of second language acquisition, the development of reading skills stands as a crucial aspect for language learners. College students engaging in English courses, as foreign language learners, can enhance their text comprehension through the employment of diverse reading strategies, with particular emphasis placed on metacognitive strategies. Moreover, in today's technologically-driven landscape, e-reading has firmly entrenched itself as an indispensable component of youth culture. However, a potential disparity may exist between traditional paper-based reading and electronic reading, thus necessitating distinct metacognitive strategies for different media. Against this backdrop, this thesis endeavors to explore the overall utilization of metacognitive strategies among college students, investigate the correlation between strategy implementation and reading proficiency, and examine the determinants influencing participants' strategy adoption. The findings derived from this study aim to inform the refinement of English reading pedagogies in higher education settings and advocate for the integration of metacognitive strategies into e-reading practices among future English learners. Methodologically, this study employed various instruments including reading assessments, the Myers-Briggs Type Indicator (MBTI) personality test, and structured questionnaires. Specifically, participants' reading proficiency was assessed via standardized reading tests, their personality types were determined through the MBTI assessment, and their utilization of metacognitive e-reading strategies was gauged through questionnaire responses. Subsequently, a comprehensive analysis was conducted to elucidate the overall level of strategy employment, the relationship between strategy utilization and reading performance, and the influential factors shaping participants' strategic behaviors. The findings of the study revealed that Chinese college students exhibited a moderate level of metacognitive strategy utilization in online English reading, with evaluation strategies demonstrating a positive correlation with reading proficiency among the four sub-strategies examined. Regarding influencing factors, gender was found to have no significant bearing on the level of strategy employment, while participants' MBTI personality type revealed distinctions; specifically, individuals classified as J-types demonstrated a greater propensity for employing planning strategies compared to their P-type counterparts in the Perceiving-Judging dimension.

Keywords: metacognitive strategies, e-reading, English learners, college students, MBTI personality test

1. Introduction

In this chapter, the author will elucidate the background, objectives, and structure of the present study.

1.1 Background of This Study

According to foreign scholar Carrell, within the realm of second language acquisition, reading proficiency stands out as the most pivotal skill among the fundamental quartet of listening, speaking, reading, and writing (as cited in Luo et al., 105-06).

Consequently, English language instructors in Chinese universities and colleges have deemed reading courses as indispensable components of their curricula. Consequently, Chinese college students shoulder a substantial workload when it comes to engaging with English texts. However, owing to the divergent reading habits cultivated by Chinese readers between their engagement with Chinese and English materials, students tackling English texts often employ a variety of reading strategies to enhance their comprehension (Carrell, 121), with the efficacy of these strategies varying significantly. Consequently, the exploration of reading strategies has garnered escalating attention from psychologists, educators, and linguists alike (Luo et al., 106).

Over the past two decades, both domestic and international scholars have conducted numerous studies on reading strategies, as will be elaborated in the subsequent chapter. To illustrate, Chinese scholar Zhang conducted a study assessing college students' overall proficiency in employing various reading strategies. The findings revealed a generally low level of metacognitive strategy utilization among college students, with metacognitive strategies exhibiting the lowest utilization rate (45). Furthermore, Zhang noted a positive correlation between participants' reading scores and their level of strategy employment (31), underscoring the significant role of metacognitive reading strategies in terms of academic efficacy.

Moreover, in tandem with societal advancement, electronic devices have become ubiquitous fixtures in the lives of young individuals, particularly following the COVID-19 pandemic. Foreign scholars Nastaran and Hesam have highlighted the burgeoning trend of online education since 2020 (Nastaran & Hesam, 1), wherein e-reading assumes paramount importance. While the reading strategies employed by individuals may diverge between traditional paper-based reading and e-reading, the body of research pertaining to e-reading remains relatively sparse within domestic literature.

1.2 Objectives of This Study

As highlighted earlier, there exists a pressing need to enhance college students' overall utilization of metacognitive reading strategies. Not only is the current level relatively low, but the significance of these strategies in augmenting reading proficiency cannot be understated. Furthermore, the disparities between traditional paper-based reading and e-reading modes, along with the influential factors shaping readers' adoption of metacognitive strategies, warrant thorough investigation.

Given the aforementioned considerations, the author contends that against the backdrop of e-reading advancement, examining the application of metacognitive strategies in e-reading (specifically focusing on smartphone e-reading in this study) among college students can furnish valuable data for the still-limited body of research on e-reading. Additionally, delving into the factors influencing strategy utilization can inform reforms in English reading pedagogy in higher education institutions and facilitate more targeted interventions to enhance English learners' proficiency in metacognitive strategy employment.

This study employs the following methodologies to collect the requisite data and information: reading tests, the Myers-Briggs Type Indicator (MBTI) personality test, and structured questionnaires.

The study aims to address the following research questions:

1) What is the overall utilization of metacognitive English e-reading strategies by college students in China?

2) Is there a correlation between strategy employment and participants' English reading proficiency, and if so, how?

3) Are participants' gender and MBTI personality type correlated with strategy utilization, and in what manner?

1.3 Structure of This Thesis

This thesis is structured into five chapters. In addition to the introduction outlining the study's background and objectives, the subsequent chapters will unfold as follows:

Chapter 2 will comprehensively review previous research concerning the concept and classification of metacognitive strategies, the notion of MBTI personality types, and prior studies on the utilization of metacognitive strategies in English reading. In Chapter 3, the methodology employed in this study, including participant selection, instruments utilized, methods of data collection, and the analytical approach adopted, will be detailed. Following data acquisition, Chapter 4 will present descriptive statistics pertaining to the metacognitive strategies employed by the participants, explore the correlation between strategy utilization and English reading proficiency, and examine the relationship between participants' gender and MBTI personality type. Finally, Chapter 5 will synthesize the major findings of the study, discuss pedagogical implications arising from the results, address any limitations encountered during the research process, and provide recommendations for future studies in this field.

2. Literature Review

In this chapter, the author will conduct a literature review to elucidate the relationships between metacognition, reading strategies, MBTI personality type, and English reading as explored in previous studies.

2.1 Concept of Metacognition

The inception of "metacognition" was initially proposed by American psychologist Flavell in his work *Metacognition and Cognitive Monitoring* (906). The prefix "meta-" serves to denote a level of abstraction or higher order, as exemplified by terms like "metadata", which refers to data about data, and analogously, metacognition denotes the cognition of cognition (Jiao & Zhao, 2021: 7), signifying an understanding of how our brain processes the information it receives. In simpler terms, metacognition pertains to the awareness and comprehension of the cognitive processes involved in knowledge processing within the brain.

Flavell delineated metacognition into two components — "one's knowledge concerning one's own cognitive processes and products or anything related to them…" and one's "active monitoring and consequent regulation and orchestration of these process…, usually in the service of some concrete goal of objective" (Flavell, 1979, *Metacognitive Aspect:* 232). Building upon this definition, metacognition was further subdivided into four branches, namely metacognitive knowledge, metacognitive experiences, goals (or tasks) and actions (or strategies) (Flavell, 1979, *Metacognition:* 906-07). However, to accommodate various research emphases, subsequent scholars, both domestically and internationally, reinterpreted Flavell's classification of metacognition, for instance, knowledge and strategy (Liu, 2004: 24), knowledge, experience and activity (Yang & Zhang, 2022: 213), and the like.

According to Flavell's definition, metacognitive knowledge consists of three parts—knowledge about human, task and strategy (Flavell, 1979, *Speculation:* 22-23). In simpler terms, this refers to understanding oneself, one's unfinished tasks, and the strategies to be applied to these tasks. It can also be interpreted as lessons drawn from successful problem-solving experiences (Jiao & Zhao, 2021: 10). For example, if skimming a book before delving into its details proves efficient, individuals may intentionally adopt this approach to quickly comprehend the content of subsequent books. Metacognitive actions or strategies, as the name suggests, encompass strategies derived from metacognitive knowledge and experience used to facilitate task completion, which will be further elaborated in the subsequent section. Additionally, metacognitive experiences pertain to one's emotions before, during, and after task execution, such as presupposing difficulty, judging progress, and evaluating the outcome of a task (Jiao & Zhao, 2021: 11).

2.2 Classification of Metacognitive Reading Strategies

Metacognitive reading strategies represent a fusion of traditional reading strategies with metacognitive approaches.

As per the definition provided in the *Encyclopedic Dictionary of Applied Linguistics*, reading strategy refers to the "deliberate and conscious processes by which the reader attempts to overcome a problem", regardless of classification, "they might involve the word attack strategies mentioned above, using text titles, examining visuals or reflecting on existing relevant knowledge" (333). In essence, reading

strategies encapsulate the reader's active efforts to attain their reading objectives.

In the realm of metacognitive strategies, a taxonomy approach is deemed essential for comprehensive understanding. American scholar Dembo has delineated learning strategies into cognitive and metacognitive categories, with the latter referring to methods and techniques for monitoring and adjusting the progress of information processing (qtd. in Shi 586-87). Within cognitive science, researchers generally accept two classifications of metacognitive strategies. One taxonomy, proposed by O'Malley and Chamot, encompasses planning, directed attention, selective attention, self-management, self-monitoring, problem identification, and self-evaluation (137-138). Alternatively, Oxford's classification simplifies metacognitive strategies into planning, organizing, monitoring, and evaluating (83), offering a more concise framework while retaining fundamental similarities with the former version.

With the diverse perspectives on reading strategies, metacognitive reading strategies are typically classified in two primary ways. One approach, advocated by Mokhtari and Richard alongside their Metacognitive Awareness of Reading Strategies Inventory (MARSI), delineates three sub-strategies: global reading strategy, problem-solving strategy, and support reading strategy (258). Alternatively, another common method of defining metacognitive reading strategies involves elucidating the reading process within the framework of metacognitive strategies, which is more practical and widely adopted. Under this framework, four reading strategies identified by O'Malley and Chamot—planning, directed attention, selective attention, and self-monitoring—emerge as key components. These four sub-strategies serve as the focal point of study and analysis in this thesis.

1) Planning strategy: The planning strategy involves establishing reading goals, as outlined by Yang and Zhang (214). This encompasses gaining a broad understanding of the reading task, devising appropriate reading strategies for future use, and formulating a relatively detailed plan regarding the timing, sequence of reading, and other pertinent aspects (O'Malley & Chamot, 2001: 137). It is noteworthy that the establishment of

reading goals occurs not only at the outset of reading activities but also throughout the reading process (Jiao & Zhao, 2021: 9). For instance, upon completing the initial section of a text presumed to be expository but revealing narrative elements, readers may realize that their original goal of acquiring knowledge diverges from the material's nature. Consequently, they may consciously or subconsciously adjust their reading goals and devise new objectives to guide subsequent reading endeavors.

2) Selective attention strategy: It involves focusing on specific points within reading materials either before or during reading, as described by O'Malley and Chamot (137). For instance, this may entail skimming materials prior to engaging in intensive reading, making annotations or stressed marks to aid comprehension, and prioritizing attention to topic sentences, among other techniques (Liu, 2004: 25).

3) Self-monitoring strategy: It entails assessing one's understanding accuracy, reading speed, and effectiveness of strategy deployment, followed by adjustments as needed, as outlined by O'Malley and Chamot (137) and Liu (25). It's noteworthy that O'Malley and Chamot's definition of self-monitoring encompasses both the monitoring process and subsequent correction, although in other research, these may be treated as distinct components.

4) Self-evaluation: It involves assessing the extent to which previously set goals have been achieved, one's reading proficiency, and the appropriateness and effectiveness of strategies employed, among other factors, subsequent to reading, as described by O'Malley and Chamot (137) and Liu (25).

2.3 MBTI Personality Type and English Learning

The Myers-Briggs Type Indicator (MBTI) is a personality assessment tool developed by Katharine Cook Briggs and her daughter Isabel Briggs Myers, rooted in Jungian personality theory. In their book *Gifts Differing: Understanding Personality Type*, the Myers-Briggs family categorized individuals into 16 personality types based on four dimensions:

1) I-E Dimension (Introversion-Extraversion): This dimension pertains to where individuals typically derive their energy.

Introverted individuals tend to focus more on their inner world, while extraverted individuals are more oriented toward the external world (80-81).

2) S-N Dimension (Sensing-Intuition): Sensing individuals place more emphasis on objective facts, while intuitive individuals are inclined toward evaluating possibilities (85).

3) T-F Dimension (Thinking-Feeling): This dimension involves how individuals make judgments, either through logic (thinking) or emotion (feeling) (93).

4) J-P Dimension (Judging-Perceiving): Individuals on the judging end prefer a structured, planned approach to life, while those on the perceiving end are more spontaneous and open-ended in their approach (98).

Having evolved over more than 70 years, the Myers-Briggs Type Indicator (MBTI) has found effective applications in various fields, including team building, career guidance, psychotherapy, and education (Zeng & Zhang, 2006: 258-59). In the realm of research on the correlation between personality and second language acquisition, significant progress has been made in recent years. Scholar Faisal highlighted that the dimension of Extroversion exhibited the strongest correlation with academic achievement among English as a Foreign Language (EFL) learners (319). Similarly, Chinese scholar Wang's tests revealed that extroverted students tended to perform better in English listening, while introverted students excelled in English reading; furthermore, all participants involved in Wang's subsequent research emphasized the necessity for teachers and education researchers to consider personality type when designing teaching methods and conducting research (132).

To delve deeper into the correlation between metacognitive strategy use and personality type, scholars Obralic and Mulalic discovered that among various dimensions in personality description, Extroversion exhibited the strongest correlation with strategy use. Specifically, metacognitive strategies such as planning and monitoring showed notable associations with Extroversion (81). Additionally, Soleimani's study, employing a 90% confidence interval, revealed a link between metacognitive strategy use and personality type. Specifically,

introverted and sensing participants exhibited greater pertinence compared to their counterparts (39-40). Despite claims by researchers like Wu that there is no explicit evidence demonstrating a correlation between planning strategy and personality type (83), most scholars tend to acknowledge their inconspicuous correlation and continue further investigations into the matter.

2.4 Previous Studies on Metacognitive Strategies in English Reading

Over the past three decades, both domestic and international researchers have extensively explored the utilization of metacognitive strategies in English reading, encompassing both traditional paper-based materials and electronic formats.

In the realm of paper reading, the significance of metacognitive strategies has been underscored by numerous studies. Chinese scholar Ji advocated for the cultivation of students' metacognitive awareness, emphasizing its crucial role in facilitating English learning both presently and in the future (20). This assertion finds support in research conducted by domestic scholars Yang and Zhang, who identified a positive correlation between metacognitive awareness and participants' reading comprehension and English proficiency (216). Similarly, Zeng and Wu concluded that students with higher English proficiency demonstrated a greater utilization of metacognitive strategies, employed in a more flexible manner (42). However, Ji's study also revealed that Chinese students generally exhibited a low level of proficiency in employing metacognitive reading strategies, highlighting the urgent need for enhancing readers' metacognitive awareness (20).

As per the 20th National Reading Report, as of 2022, a noteworthy 77.8% of Chinese adults were found to engage in reading activities on mobile phones, showcasing a higher surge in the adoption of digital reading methods compared to traditional paper books, which underscores the necessity of redirecting research focus from paper-based materials to electronic formats (Chen para.5). While scholars like Li contend that the reading medium bears no influence on readers' utilization of metacognitive strategies (67), and some, such as Cho and Heron, argue that metacognitive strategies do not directly impact learning achievements (86), a growing

body of research discerns nuanced distinctions in the application of metacognitive strategies across these two mediums. Moreover, several studies have affirmed the beneficial effects of metacognitive strategies on participants' reading scores in online assessments. For instance, Wu and Peng's research concluded that paper materials fostered enhanced reading literacy compared to electronic counterparts (869). Additionally, findings from studies focusing on online reading by foreign researchers like Anthonysamy and Wu similarly advocate for the efficacy of these strategies in improving e-reading scores (13; 268). Hence, despite the shift towards e-reading, investigating the application of metacognitive strategies remains relevant and meaningful.

However, despite the advancements made by foreign researchers in the field of e-reading, few domestic scholars have placed emphasis on this area. Additionally, when it comes to research on the application of metacognitive strategies in reading, both paper and online, foreign researchers have often favored Mokhtari and Richard's classification over O'Malley and Chamot's. They consistently concluded that readers predominantly favored problem-solving strategies and rarely utilized support strategies (Marboot et al., 2020: 170; Jusoh & Abdullah, 2015: 75; Anderson, 2003: 17), which demonstrated the dispensability of more research based on Mokhtari and Richard's classification of metacognitive strategies. From the author's perspective, O'Malley and Chamot's classification, with its more concrete and explicit sub-strategies (planning, directed attention, selective attention, self-monitoring, etc.), offers greater clarity and utility than Mokhtari and Richard's (global, problem-solving and support strategy). In addition, according to previous literature, O'Malley and Chamot's version is preferred by more domestic researchers due to its legibility, facilitating quicker categorization of sub-strategies under broad categories. Considering these factors, it is reasonable for the author to conduct a study utilizing O'Malley and Chamot's classification version, involving domestic participants, within the context of e-reading.

3. Research Methodology

In this chapter, the methodology employed for conducting the study will be elucidated. Firstly, pertinent information regarding the participants involved will be presented. Secondly, detailed explanations of the instruments utilized in the study will be provided. Lastly, the process of data collection and the analytical methods employed will be expounded upon.

3.1 Participants

This study delves into participants' overall utilization of metacognitive strategies, the correlation between strategy employment and reading scores, and the influencing factors affecting participants' strategy use—specifically, gender and MBTI personality type. Given the pivotal role of participants in this survey, the author will meticulously introduce their basic information, encompassing the following aspects.

Firstly, to examine the overall level of strategy use, a comprehensive questionnaire was administered to 186 participants, comprising 66 males and 120 females. These participants encompass college students, including those pursuing master's and doctoral degrees, from various disciplines across domestic and international universities or colleges. Notably, all participants have Chinese as their first language and English as their second language, with varying degrees of experience in English e-reading.

Secondly, with the research objective of studying the correlation between English reading proficiency and the level of strategy use, the author selected 32 participants to take a reading test. These 32 participants were all senior students from the English department of one university in Shanghai, originating from different provinces, and were relatively evenly distributed in the GPA ranking list.

Lastly, from the questionnaire results obtained from the initial 186 participants, the author selected 153 responses that included complete MBTI personality type information. This subset was analyzed to investigate the correlation between strategy use and MBTI personality type.

3.2 Instruments

As mentioned previously, three types of instruments were employed in this study: a questionnaire, a reading test, and an MBTI personality type test. To ensure comprehensive understanding among Chinese-native participants, all instructions, items, and the MBTI test within the questionnaire were meticulously translated into Chinese.

Firstly, the questionnaire (refer to Appendix Table 1.) utilized for quantifying participants' level of strategy use was primarily adapted from the design by Chinese scholar Liu for assessing college students' metacognitive awareness when reading English paper materials (25). The author of this thesis made modifications to the original version by initially incorporating the term "e-reading" into the instructions and headings of the questionnaire to distinguish it from Liu's "paper reading" version. Additionally, supplemental descriptions were added to each statement to enhance participants' comprehension. This approach aimed to ensure that the study was supported by scientifically rigorous data. Drawing primarily from the classification of metacognitive reading strategies proposed by O'Malley and Chamot (33), Liu categorized the questionnaire into four sections: planning strategy (4 items), selective attention strategy (9 items), monitoring strategy (which includes both monitoring and adjustment strategies, totaling 5 items), and evaluating strategy (6 items). Participants provided responses ranging from "never" to "always". Upon examination, the reliability coefficient of this questionnaire was calculated to be .850, meeting the standard requirements for scientific research.

Secondly, an online English reading test was devised (refer to Appendix Paper 1.) to evaluate the English reading proficiency of 30 participants. This test comprised three passages and a total of 20 multiple-choice questions based on these passages, each worth 5 points. To mitigate potential biases stemming from participants' textual preferences, a variety of text types—expository, argumentative, and narrative essays—were selected, totaling 2417 words. These texts were sourced from model tests of CET-6, TEM-8, and the 2017 CATTI English Written Translation Level-3, ensuring a comprehensive assessment of participants' reading abilities.

Thirdly, to investigate the relationship between MBTI personality type and the level of strategy use, participants were given the opportunity to voluntarily complete an MBTI personality type test at the outset of the questionnaire. Administered through a link provided by APESK, a reputable company specializing in psychological scales, the test comprised 105 items.

3.3 Research Procedure

Firstly, the questionnaire was distributed to Chinese college students without constraints, resulting in 186 valid responses for the study on participants' level of strategy use. Among these respondents, 153 provided their complete MBTI personality type for further analysis of the correlation between strategy use and personality type. Secondly, 32 participants (13 males and 19 females, selected to mitigate the influence of gender) were chosen from senior English majors of one university in Shanghai. These participants were evenly distributed in the GPA ranking list and completed the online reading test, with no time limitation imposed to foster a reading-focused environment rather than a timed comprehension examination. In total, the research collected 186 valid questionnaires (including gender data), 32 valid reading test results, and 153 valid MBTI test results.

The analysis was conducted using SPSS in five steps: (1) Descriptive statistical methods were employed to present the average score and relevant data of each sub-strategy. (2) One-way ANOVA was utilized to examine whether differences existed in English reading scores among participants categorized into high, medium, and low metacognitive strategy groups. (3) Linear regression analysis was employed to assess the explanatory power of metacognitive strategies on variations in English reading performance. (4) The independent-samples t-test was conducted to determine whether there were disparities in strategy scores between males and females. (5) Another independent-samples t-test was performed to assess whether differences existed in strategy scores among participants of different MBTI personality types.

4. Results and Discussion

4.1 Descriptive Statistics of the Use of Metacognitive Strategies

For the first research question, "What is the overall utilization of metacognitive English e-reading strategies among college students in China?", Table 1 presents the mean scores of the use of four types of sub-strategies and the overall result obtained from the questionnaire.

Table 1. Four Kinds of Metacognitive Strategies (N=186)

Strategy Use	M	SD	Maximum	Minimum
Planning Strategy	3.08	.84	1.00	5.00
Selective Attention Strategy	3.60	.64	1.67	4.89
Monitoring Strategy	3.67	.67	1.60	5.00
Evaluation Strategy	3.11	.79	1.17	5.00
Overall	3.40	.53	1.92	4.88

According to the findings presented in Table 1, the utilization of metacognitive English e-reading strategies among college students in China was analyzed based on Oxford and Burry-Stock's classification standard for strategy levels. The overall strategy use was determined to be at a medium level (M=3.40; SD=.53). Among the four sub-strategies examined, monitoring strategy exhibited the highest mean score (M=3.67; SD=.67), indicating a strong tendency towards its application. Following closely behind was the selective attention strategy (M=3.60; SD=.64), both falling within the high-level category. Meanwhile, evaluation strategy (M=3.11; SD=.53) and planning strategy (M=3.08; SD=.84) were classified under the medium-level category. These results suggest that participants demonstrated a commendable level of metacognitive strategy utilization, particularly in monitoring and selective attention strategies.

While the findings of this study did not align with Ji's assertion regarding the relatively low level of metacognitive awareness among Chinese college students (20), they were consistent with the conclusions drawn by numerous domestic and foreign researchers, including Liu (25), Luo et al. (109), Marboot et al. (164), Jusoh and Abdullah (75), and the like—participants' level of metacognitive strategy use was at or above the moderate level, no matter in paper context or online one. In this study, the result of "above the average level" can be elucidated through several perspectives:

1) The majority of participants engaged in this research hailed from prestigious universities both domestically and internationally, positioning them as prominent figures within their respective fields of study. This demographic characteristic implies a heightened level of independent learning ability among the participants, a trait often associated with academic success and intellectual prowess. Such individuals are adept at navigating complex information landscapes and possess a keen sense of metacognitive awareness, particularly evident in their online reading endeavors.

2) In this research, the majority of participants were drawn from the researcher's network of middle-school and college classmates, a choice made for the sake of convenience in data collection. Many of these individuals were proficient English readers, owing to the researcher's educational background in a foreign language school during middle school and subsequent English major in college. Having been exposed to a plethora of foreign materials during their academic journey, participants developed a repertoire of reading strategies, including metacognitive ones, which were honed over years of engaging with diverse texts. This rich foundation of reading experience and skill acquisition greatly facilitated their performance in both the metacognitive awareness test and the reading comprehension test conducted as part of this research endeavor.

Table 2. The Most Frequently Used Strategies and the Least Frequently Used Strategies

The Most Used Strategies	The Least Used Strategies
1. Relate existing background knowledge to the content of the text to enhance understanding (M=4.12; SD=.91) (SAS)	1. Make a reading plan (e.g. regulating the number of pages you will read in a period of time) (M=2.48; SD=1.22) (PS)

2. Pay attention to the characteristics of printing and use them to figure out the main information (e.g. using italics, bold fonts, font sizes of different sizes) (M=3.88; SD=1.11) (SAS)

2. Summarize whether the reading methods or strategies used contributed to the comprehension of the reading materials after reading (M=2.62; SD=1.19) (ES)

3. Connect the main points in the text to help you understand the content (M=3.84; SD=.95) (SAS)

3. Identify the shortcomings of your reading ability and consider future improvements (M=2.77; SD=1.19) (ES)

In analyzing individual strategies, as depicted in Table 2, it is evident that the top three most frequently employed strategies all fall under the category of selective attention strategy (SAS). Conversely, two of the least utilized strategies are categorized under evaluation strategy (ES), while the remaining one belongs to planning strategy (PS).

The results from Table 1 show that the monitoring strategy ranked first in overall utilization, contrary to the findings in Table 2 where the top three most frequently used sub-strategies all belonged to the selective attention group. This discrepancy highlights a significant gap in participants' utilization of selective strategies. For instance, while items like "relate existing background knowledge to the content of the text to enhance understanding" (M=4.12; SD=.91) were commonly employed, others such as "take a quick look at the part you read (e.g., a chapter/section/article) and read it carefully after you understand the main points" (M=2.90; SD=1.31) were seldom utilized. The result that participants had a high selective attention awareness when reading online was in line with Marboot etc.'s research finding where participants with high scores in metacognitive strategy use when reading online tended to prefer sub-strategies such as "scrolling through the text", "reading the questions before reading the text", "paying attention to the organization and length of the text", and "using reference materials", all of which fall within the selective attention group (166-67).

As for monitoring strategy, the analysis reveals that each item in this strategy category was relatively frequently utilized by participants, indicating a heightened awareness of monitoring while reading foreign materials online. This finding conformed with Jusoh and Abdullah's research findings: among the top seven strategies, items like "I adjust my reading speed according to what I am reading online", "when reading online, I decide what to read closely and what to ignore", "I try to get back on

track when lose concentration", and "when online text becomes difficult, I pay closer attention to what I am reading" all fall under the monitoring group (76). As for the reason accountable for participants' frequency in using monitoring strategies, according to Luo etc., Chinese readers tend to be more sensitive to English materials than Chinese ones, as they are less familiar with content written in a foreign language (113), and consequently, they pay special attention to their reading process to ensure they achieve a satisfactory comprehension level.

Among the top 3 least used strategies, two belong to the evaluation group and one to the planning group, in line with the mean score of strategy use. This result was also consistent with Jusoh and Abdullah's finding: among the bottom seven strategies, items like "I can distinguish between fact and opinion in online texts", "I critically analyze and evaluate the information presented in the online text" belong to evaluation group and the item "I read pages on the Internet for fun" belongs to planning group (76). The reason for this observation may stem from Chinese students' historical focus on achieving correct answers and excellent scores in their previous schooling experiences, and thus they paid more attention to the course of reading than to the preparatory planning and follow-up evaluation (Ji, 2002: 24-25). Consequently, their attention may have been more directed towards the reading process itself rather than on pre-reading planning or post-reading evaluation. This suggests that while participants in this study demonstrated a moderate level of metacognitive strategy use, they exhibited a deficiency in global metacognitive awareness.

4.2 English Reading Proficiency and Strategies

For the second research question, "Is there a correlation between strategy employment and participants' English reading proficiency, and if so, how?", Table 3 provides insights into the

average reading scores participants obtained in the online reading test. These scores were segmented into three groups based on their level of strategy use. Additionally, the table presents the corresponding F-value and p-value for each group, shedding light on the statistical significance of any observed correlations.

Table 3. Average Online Reading Scores and Correlation Coefficients

Strategy Use	Low (M ≤ 2.4)	Medium (3.4 ≥ M ≥ 2.5)	High (5.0 ≥ M ≥ 3.5)	F	Sig (p)
	Average Reading Score				
Planning Strategy	79.29	85.94	85.00	1.52	.24
Selective Attention Strategy	80.00	81.25	85.95	1.25	.30
Monitoring Strategy	85.00	79.38	85.91	1.74	.19
Evaluation Strategy	79.50	84.23	89.44	3.60	**.04**
Overall	75.00	81.11	89.23	4.80	**.02**

* "Low (M≤2.4), Medium(3.4≥M≥2.5), High(5.0≥M≥3.5)" refers to participants' scores of strategy use; numbers below "Average Reading Score" refers to the mean score of reading test from different groups of strategy use.

From Table 3, it is evident that while selective attention strategy, evaluation strategy, and the overall result all showed positive correlations with participants' online reading scores, only the significance levels of evaluation strategy (p=.04) and the overall result (p=.02) in the one-way ANOVA were below .05. This implies that only the utilization of evaluation strategy and the overall strategy implementation were significantly associated with participants' reading scores. Specifically, significant differences in reading scores were observed between the high, medium, and low evaluation strategy use groups, highlighting the importance of evaluation strategies and the overall strategy use in influencing reading proficiency.
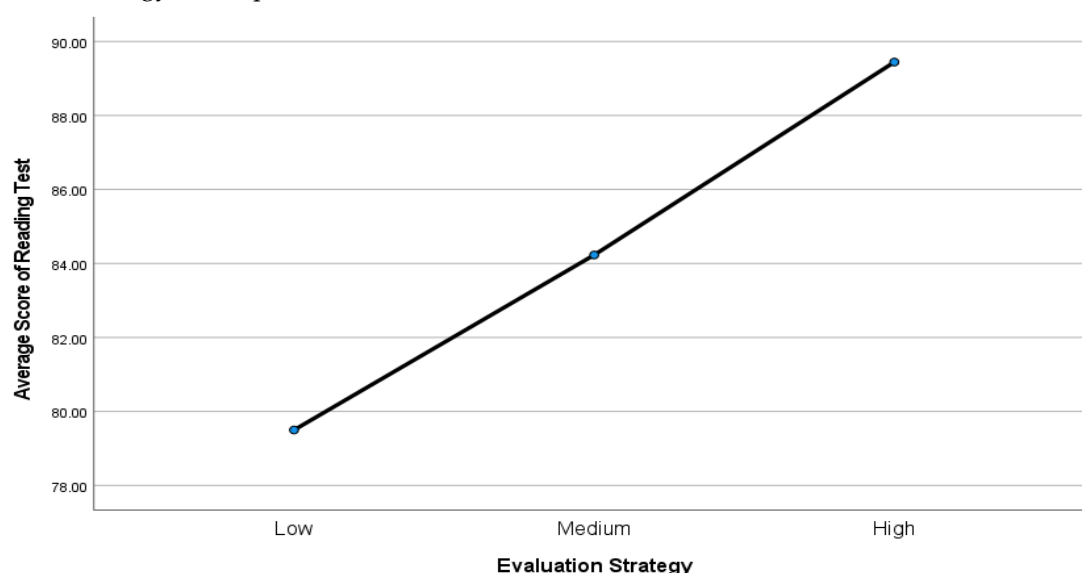
Chart 1. Average Score of Reading Test and Evaluation Strategy
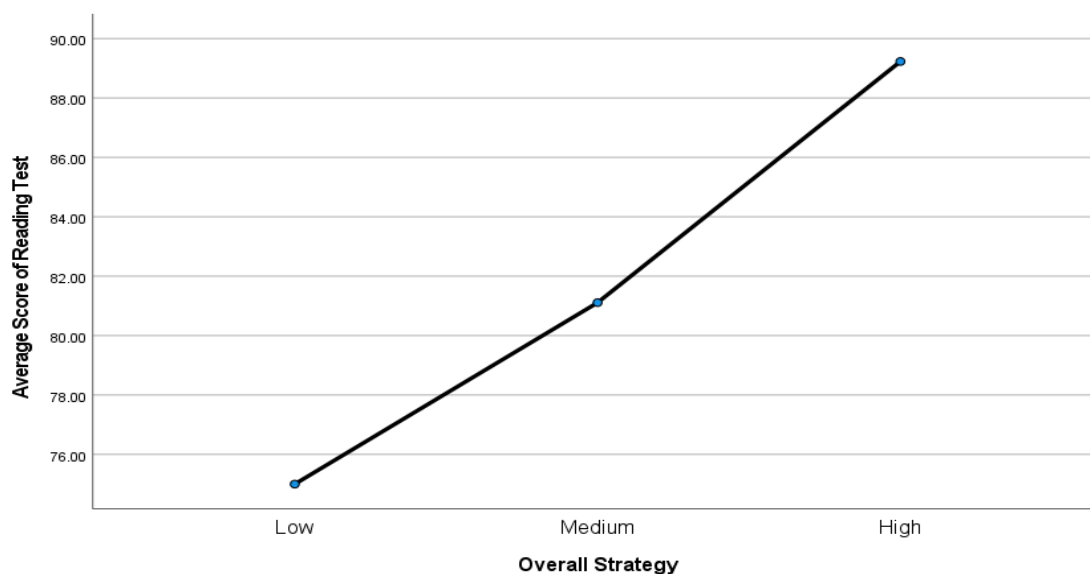
Chart 2. Average Score of Reading Test and Overall Strategy

Moreover, the line charts presented in Chart 1 and Chart 2 further elucidated a clear positive correlation between the average reading scores and the utilization of strategies. This observation aligns with the initial expectations of the author, indicating that the implementation of evaluation strategy and overall strategies exerted a discernible predictive influence on participants' reading scores. Additionally, the positive correlation observed for selective attention strategy, while evident, may not have been as pronounced due to potential limitations in research samples. Nonetheless, the trend observed in the data resonates with the findings of researchers such as Anthonysamy (15), Taki (420), and Wu and Peng (871), underscoring the significance of employing metacognitive strategies to enhance reading efficacy. This suggests that the strategic approach adopted by participants during the reading process plays a crucial role in achieving favorable reading outcomes.

Table 4. Evaluation Strategy and Overall Result's Regression Coefficients

	Pearson Correlation Coefficient	R^2	F	Sig (p)
Evaluation Strategy	.415	.173	6.259	.018[b]
Overall	.475	.226	8.759	.006[b]

Following the confirmation of significant differences among low, medium, and high strategy use groups concerning evaluation strategy and overall results, linear regression analysis was performed to assess the predictive capability of metacognitive strategies on variations in English online reading scores. As depicted in Table 4, the evaluation strategy model exhibited a 17.3% explanatory power for predicting reading scores, while the overall result model demonstrated a 22.6% explanatory power.

In Ji's study, participants who underwent training to enhance their evaluation skills reported a notable boost in their confidence levels for future learning endeavors (25). This underscores the pivotal role that evaluation skills play in fostering learning progression. Moreover, as previously highlighted, Chinese students often prioritize the active engagement in learning processes, such as the act of reading itself, rather than allocating sufficient attention to pre-reading planning or post-reading reflection and summary. In this context, individuals who proactively address this gap by consciously integrating evaluation strategies into their learning approach are more likely to excel academically.

Furthermore, the substantial explanatory power of 22.6% attributed to the overall results, despite

only one of its sub-strategies (evaluation strategy) being included in the regression equation, can be partly explained by the positive correlation observed between another sub-strategy—selective attention strategy—and participants' reading scores. However, due to the limited sample size, these differences failed to reach statistical significance. In other words, although the magnitude of the force of influence was comparatively weak to reach significance, the utilization of selective attention strategies did exert some influence on participants' reading scores.

4.3 Gender and Strategies

For the third research question: "Is participants' gender associated with strategy utilization, and in what manner?", Table 5 provides the p-values indicating the possibility of differences in strategy use between male and female participants, as determined by t-tests.

Table 5. Significance of Strategies and Gender

Strategy Use	Sig(p)
Planning Strategy	.785
Selective Attention Strategy	.627
Monitoring Strategy	.891
Evaluation Strategy	.696
Overall	.686

According to Table 5, all p-values obtained from the t-tests were above .05, indicating that there was no statistically significant difference between genders in metacognitive strategy use during online reading. In other words, gender did not influence participants' level of strategy use. Although in another study conducted by Wu, it was found that girls had a better understanding of metacognitive strategies (268), this research did not show any significant difference in metacognitive awareness scores between males and females. This finding is consistent with the results of domestic scholars like Luo et al. (113), even though their research was conducted in a paper-based context. The lack of significance in gender differences in strategy use may be attributed to the sample size of participants in different genders, but further investigation is needed to confirm this hypothesis.

4.4 MBTI Personality Type and Strategies

For the latter half of the third research question regarding the association between participants' MBTI personality types and strategy utilization, Table 6 presents the results of t-tests examining the differences in strategy use among participants with different MBTI personality types.

Table 6. Significance of Strategies and MBTI Personality Type

	E-I dimension	N-S dimension	T-F dimension	P-J dimension
	t-test's Sig(p)			
Planning Strategy	.610	.483	.584	**.019**
Selective Attention Strategy	.786	.320	.776	.069
Monitoring Strategy	.910	.158	.052	.772
Evaluation Strategy	.619	.143	.365	.688
Overall	.979	.120	.430	.137

According to Table 6, the only instance where the p-value was below 0.05 was in the "P-J dimension & Planning Strategy" category (p = 0.019), indicating a significant difference in the use of planning strategy between P-type and J-type participants. Specifically, J-type participants demonstrated a higher frequency of using planning strategy compared to their P-type counterparts. However, across other dimensions, participants' MBTI personality type

did not exert a significant influence on their level of strategy use. Additionally, in the N-S dimension, N-type participants exhibited a higher level of use for each sub-strategy compared to S-type participants, but the difference between them did not reach statistical significance, possibly due to insufficient sample sizes as mentioned earlier.

The findings regarding the correlation between

MBTI personality type and reading strategy use obtained in this study diverged from previous research. In earlier studies, English proficiency or strategy utilization were primarily correlated with participants' E-I type (Obralic & Mulalic, 2017: 81; Soleimani, 2018: 39-40). However, in the present study, participants' E-I type did not exhibit a significant correlation with their level of strategy use, but rather the P-J dimension did. This unexpected outcome may be attributed to several factors, as outlined below.

Drawing upon Myers' typology, J-type individuals are inclined to establish structured frameworks for various aspects of their lives, often meticulously planning each item on their daily agenda (Myers, 2016: 100). Conversely, P-type individuals tend to adopt a more spontaneous and flexible approach to life (Myers, 2016: 101). Consequently, in the context of online reading, J-type participants may exhibit a greater propensity to utilize planning strategies, such as creating reading schedules, whereas P-type individuals may opt for a more relaxed reading style.

In the N-S dimension, contrary to the findings of Soleimani et al. (40), N-type participants in this study exhibited a higher level of engagement with metacognitive reading strategies compared to S-type individuals. Myers's *Gifts Differing* offers insight into this phenomenon:

Firstly, S-type individuals tend to focus their attention on the lexical dimension while reading English materials online. This means they concentrate more on individual words and sentences rather than discerning the deeper implications intended by the authors, as favored by N-type readers. N-type individuals, on the other hand, are more inclined to delve into information beyond the surface level, often considering the overall flow of thoughts rather than just the text itself (Myer & Myer, 2016: 24). Within these broader considerations, questions may arise, such as, "How did the author structure this essay?" or "Are all the author's viewpoints valid?" These questions may prompt the use of specific reading strategies, such as "paying attention to the structure of reading material" or "evaluating the validity of the author's points". Furthermore, S-type readers typically aim for comprehensive understanding of every detail in the reading material, often reading word by word to ensure they do not miss any information (88). Consequently, for these meticulous readers, the primary focus lies

in understanding each word rather than developing critical thinking skills. In contrast, N-type readers may employ various reading strategies, including quick reading, especially when they perceive certain content to be less significant, even if it means potentially overlooking important information.

5. Conclusion

5.1 Major Findings

Based on the comprehensive framework provided by O'Malley and Chamot's classification of metacognitive strategies, as well as the adaptation of Liu's metacognitive reading awareness scale and the MBTI personality type scale developed by APESK company, this study was able to conduct a thorough examination of Chinese college students' utilization of metacognitive strategies in online English reading. Through meticulous analysis and interpretation, several significant conclusions emerged, shedding light on the intricate relationship between individuals' cognitive processes, personality traits, and reading behavior in the digital realm.

1) Chinese college students exhibit a moderate level of metacognitive strategy use when engaging in online English reading.

2) Selective attention and monitoring strategies emerge as the most commonly employed metacognitive strategies among Chinese college students.

3) The utilization of evaluation strategies demonstrates a significant and positive correlation with readers' online reading scores, in other words, the better readers were at using evaluation strategy, the higher reading score they would get.

4) Gender does not appear to be a determining factor in readers' levels of metacognitive strategy use.

5) On the dimension of MBTI personality type, the P-J dimension exhibits a significant correlation with the use of planning strategies. J-type readers demonstrate a higher frequency of planning strategy utilization compared to P-type readers.

5.2 Pedagogical Implications

Pedagogical insights gleaned from this study are outlined below:

1) While students demonstrate a moderate

level of metacognitive strategy use, there appears to be a deficiency in their overarching metacognitive awareness, as evidenced by their neglect of pre- and post-reading stages. This is evident in their lower scores in planning and evaluation strategies. To address this gap, educators in future reading and foreign language acquisition courses should underscore the significance of holistic learning. Emphasizing the creation of study plans prior to learning sessions and encouraging reflection and summarization afterward can foster a more comprehensive understanding of the learning process.

2) Despite the varying significance values, both selective attention strategy and evaluation strategy demonstrated a positive correlation with readers' reading scores. This suggests that students' utilization of metacognitive strategies in online English reading positively impacts their academic performance. Consequently, it is recommended for educators to incorporate instruction on reading strategies into their pedagogical approach. This integration is beneficial not only for students' success in reading comprehension assessments but also for fostering a sense of achievement in their reading endeavors. By explicitly teaching and reinforcing these strategies, educators can empower students to become more proficient and confident readers.

3) Regarding MBTI personality types, educators could consider them when designing pedagogical tasks. As evidenced by this study, P-type readers exhibited less frequent use of planning strategies compared to J-type individuals, while S-type participants utilized fewer metacognitive strategies than their N-type counterparts. Therefore, in personalized instruction of reading strategies, teachers could initially assess students' personality types. This tailored approach may enhance teaching effectiveness by aligning instructional methods with students' individual preferences and tendencies. By acknowledging and accommodating diverse learning styles based on MBTI personality types, educators can optimize the learning experience and foster greater engagement and success among students.

5.3 Limitations of this Study and Suggestions for

Future Studies

This research underscores the significance of metacognitive strategies in enhancing readers' reading scores, alongside the influence of readers' personality types on their selection and utilization of these strategies while engaging with English materials online. These findings offer valuable insights for curriculum developers seeking to advance English teaching practices. However, there are areas in which this research can be further refined. Firstly, the inclusion of some graduate students among the participants, who are not "college students" in the strictest sense, may cause deviations in the research data. Secondly, participants in the study could only differentiate between their experiences of paper reading and online reading based on their self-awareness. Consequently, there is a possibility of confusion between these two modes of reading, potentially impacting the accuracy of research outcomes. Future studies could address these limitations by delimiting the age of participants and implementing more precise methods for distinguishing between reading contexts, thereby enhancing the validity and reliability of the findings.

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Appendix

The questionnaire:

Table 1. Chinese version

元认知电子阅读意识测试（公测版）					
各位同学好！欢迎大家参与到我的毕业论文调查中来，感谢大家的支持，在此祝大家 2024 学业有成，工作顺利，万事胜意！					
请大家回忆以往的**英语电子阅读经历（使用手机、电脑、平板或 kindle 类的电子阅读器进行广义上的阅读，而非做试题类的阅读理解测试）**，尽可能准确地完成以下测试，再次感谢！					
您的性别： [单选题]					
○男　　　　　　　　　　　　　　　　○女					
您的常用邮箱（以便后续联系）： [填空题] _____					
此研究需收集参与者的 MBTI 人格类型作为研究因素之一，https://16type.com 请点击此链接进行人格测试，测试完毕后，请正确填写您的人格类型（**若您认为完成 MBTI 人格测试会占用您过多时间，或不愿透露您的人格类型，请忽略此题，直接进行后续作答**）： [填空题] _____					
在进行**英语电子阅读**时，你使用以下阅读策略的频率高低如何？请选择。[矩阵单选题]	总是	经常	有时	偶尔	从不
1. 制定阅读目标（如：为提高阅读理解能力、获取信息、消遣等）	○	○	○	○	○
2. 根据阅读目标找出符合自己水平的读物	○	○	○	○	○
3. 制订阅读计划（如：规定自己在一段时间内的阅读数量	○	○	○	○	○

或时间等）					
4. 根据不同的文章考虑采用不同的阅读方法或策略（如：消遣类的读物采用速读法，学习类的读物采用精读法等）	○	○	○	○	○
5. 先快速浏览所读部分（如一章/一节/一篇等），待了解要点后再仔细阅读	○	○	○	○	○
6. 阅读开始时根据标题/章节名/书名预测内容	○	○	○	○	○
7. 阅读时将已有的背景知识和文中内容相联系以增进理解	○	○	○	○	○
8. 阅读时将文中的要点联系起来帮助自己理解	○	○	○	○	○
9. 阅读时划线或做记号（用鼠标、电容笔等）来突出重点并帮助自己回忆前文内容	○	○	○	○	○
10. 阅读时注意并利用注释帮助自己理解内容	○	○	○	○	○
11. 阅读时注意印刷特点并藉此判断主要信息（如：使用斜体字、黑体字、不同大小的字号等）	○	○	○	○	○
12. 阅读时注意篇章结构和组织形式（如：作者采用了总分总结构、倒叙手法等）	○	○	○	○	○
13. 阅读时注意段落的主题句并藉此判断主旨或大意	○	○	○	○	○
14. 阅读过程中停下来思考检查自己是否理解所读的内容	○	○	○	○	○
15. 阅读过程中自我提问并通过阅读找到答案（如：默念"这句话是什么意思"等）	○	○	○	○	○
16. 阅读过程中根据所读的内容修正先前的预测（如：欧亨利式结尾推翻读者先前的预测）	○	○	○	○	○
17. 阅读过程中及时检查所用的阅读方法是否恰当及时调整不当的方法（如：略读到一半，发现自己无法理解内容大意，继而选用精读法等）	○	○	○	○	○
18. 阅读过程中根据阅读时间和阅读量调整自己的阅读速度	○	○	○	○	○
19. 阅读后评价自己对所读内容的理解程度如何	○	○	○	○	○
20. 阅读后思考自己对所读内容的看法（如：拒绝接受作者的某些观点）	○	○	○	○	○
21. 阅读后总结所使用的阅读方法或策略是否有助于对所读内容的理解	○	○	○	○	○
22. 阅读后评价所读内容是否满足自己的阅读目标或要求	○	○	○	○	○
23. 阅读后评价自己有哪些收获	○	○	○	○	○
24. 阅读后找出自己阅读能力的缺陷并考虑今后的改进措施	○	○	○	○	○

Table 2. English version

Metacognitive Awareness for E-reading Test (Public Version)	
Welcome to participate in the research to support my graduation thesis. Thank you for your cooperation, and wish you all the best in 2024!	
Please recall your previous English e-reading experience (using a phone, computer, tablet, or kindle e-reader to read in a broad sense, rather than taking a test-based reading comprehension test) and completing the following tests as accurately as possible.	
Your gender: [multiple choice]	
○male	○female

Your email address (for later contact)：　[gap filling]
_____

Your MBTI personality type is to be collected as one of the study factors. https://16type.com Please click on this link to take the personality test, and fill in your type correctly (if you think that taking the test will take you too much time, or do not want to disclose your personality type, please ignore this question and directly answer the following items): [gap filling]

_____

How often do you use the following reading strategies when e-reading in English? [matrix multiple choice]	always	often	sometimes	seldom	never
1. Set reading goals (e.g. to acquire information, to entertain oneself, to improve reading comprehension)	○	○	○	○	○
2. Find reading materials that meet your level based on your reading goals	○	○	○	○	○
3. Make a reading plan (e.g. regulating the number of pages you will read in a period of time)	○	○	○	○	○
4. Use different strategies for different types of materials (e.g. skimming recreational materials, but reading informative materials in detail)	○	○	○	○	○
5. Take a quick look at the part you read (e.g. a chapter/ section/ article) and read it carefully after you understand the main points	○	○	○	○	○
6. Predict the content at the beginning of the reading based on the title of a passage/ chapter/ book	○	○	○	○	○
7. Relate existing background knowledge to the content of the text to enhance understanding	○	○	○	○	○
8. Connect the main points in the text to help you understand the content	○	○	○	○	○
9. Underline or make marks (e.g. using a mouse or e-pencil) to highlight important points and help you recall the previous content	○	○	○	○	○
10. Pay attention to and use annotations to help you understand the content	○	○	○	○	○
11. Pay attention to the characteristics of printing and use them to figure out the main information (e.g. using italics, bold fonts, font sizes of different sizes)	○	○	○	○	○
12. Pay attention to the structure and organization of the passage when reading (e.g. the author using the summary-deduction structure, flashbacks)	○	○	○	○	○
13. Pay attention to the topic sentences and use them to figure out the main idea or main idea	○	○	○	○	○
14. Pause and check whether you've understood the content or not	○	○	○	○	○
15. Ask yourself questions when reading and find their answers in later contents (e.g. meditating "What does this mean?")	○	○	○	○	○
16. Revise previous predictions based on what you	○	○	○	○	○

read during the reading process (e.g. O' Henry-style endings change the reader's previous predictions)					
17. Check whether the reading method used is appropriate and adjust it (e.g. skimming at first and then turning into reading in detail for you can't understand the content)	○	○	○	○	○
18. Adjust your reading speed according to the time and amount of the rest	○	○	○	○	○
19. Evaluate how well you understand what you read after reading	○	○	○	○	○
20. Think about how you evaluate the contents after reading (e.g. disagreeing with certain points of view from the author)	○	○	○	○	○
21. Summarize whether the reading methods or strategies used contributed to the comprehension of the reading materials after reading	○	○	○	○	○
22. Evaluate whether the content you've read meets your reading goals after reading	○	○	○	○	○
23. Evaluate what you've learnt after reading	○	○	○	○	○
24. Identify the shortcomings of your reading ability and consider future improvements	○	○	○	○	○

Paper 1:

The Online Reading Test

元认知电子阅读测试卷

各位同学好！十分感谢大家能在假期中抽出宝贵的一小时参与此次测试，为我的毕业论文助力，我感激涕零，提前祝大家新年快乐，万事如意！

请大家使用**手机（为了确保变量统一，大家不要使用平板、笔记本电脑等设备进行测试）**以正常状态（指情绪正常、做题姿势正常等，当然，如果有人愿意倒立做题也无妨~）完成以下三篇阅读题。题目难度基本与六级考题基本持平。最终得分的高低不重要**（真的不重要，不是说说的）**，因为这不是我研究的重点，但是得分的真实性非常重要，这直接影响到我的研究结果的成败，所以请大家独立完成测试，无需借助网络资源（词典等）。大家的最终得分会绝对保密（大概率我也不会去看个人得分情况，只会计算平均分之类的），所以大家完全不必紧张，按照正常节奏完成即可~

但是有一点很重要，那就是，**在阅读过程中，请大家留意自己的阅读策略（如：精读或略读，阅读速度是否随着阅读难度发生了变化等，后续问卷填写需要用到相关信息）。**

完成试卷后，也请大家收下我的一个小红包，以表心意。

祝大家测试顺利，再次感谢！

(1) Shyness is the cause of much unhappiness for a great many people. All kinds of people describe themselves as shy: short, tall, dull, intelligent, young, old, slim, overweight. Shy people are anxious and self-conscious; that is, they are excessively concerned with their own appearance and actions. Worrisome thoughts are constantly occurring in their minds: What kind of impression am I making? Do they like me? Do I sound stupid? Am I wearing unattractive clothes?

(2) It is obvious that such uncomfortable feelings must affect people adversely. A person's self-concept is reflected in the way he or she behaves, and the way a person behaves affects other people's reactions. In general, the way people think about themselves has a profound effect on all areas of their lives. For instance, people who have a positive sense of self-worth or high self-esteem usually act with confidence. Because they do not need constant praise and encouragement from others to feel good

about themselves. Self-confident people participate in life enthusiastically and spontaneously. They are not affected by what others think they "should do". People with high self-esteem are not hurt by criticism; they do not regard criticism as a personal attack. Instead, they view a criticism as a suggestion for improvement.

(3) In contrast, shy people, having low self-esteem, are likely to be passive and easily influenced by others. They need reassurance that they are doing "the right thing". Shy people are very sensitive to criticism; they feel it confirms their inferiority. They also find it difficult to be pleased by compliments because they believe they are unworthy of praise. A shy person may respond to a compliment with a statement like this one: "You're just saying that to make me feel good. I know it's not true." It is clear that, while self-awareness is a healthy quality, overdoing it is detrimental, or harmful.

(4) Can shyness be completely eliminated, or at least reduced? Fortunately, people can overcome shyness with determined and patient effort in building self-confidence. Since shyness goes hand in hand with lack of self-esteem, it is important for people to accept their weaknesses as well as their strengths. For example, most people would like to be "A" students in every subject. It is not fair for them to label themselves inferior because they have difficulty in some areas. People's expectations of themselves must be realistic. Living on the impossible leads to a sense of inadequacy.

(5) Each one of us is a unique, worthwhile individual. We are interested in our own personal ways. The better we understand ourselves, the easier it becomes to live up to our full potential. Let's not allow our shyness to block out chances for a rich and fulfilling life.

1. The first paragraph is mainly about ( ).

A) the characteristics of shy people

B) the cause of shyness

C) the questions in the minds of shy people

D) the effect of shyness on people

2. According to the writer, self-awareness is ( ).

A) harmful to people

B) a weak point of shy people

C) the cause of unhappiness

D) a good quality

3. According to the passage, the uncomfortable feelings of shy people ( ).

A) have no effect on them

B) have a favourable effect on them

C) have an unfavourable effect on them

D) can hardly be overcome

4. What is the shy people's usual reaction to a compliment?

A) They are pleased about it.

B) They suspect it is not true.

C) They are very sensitive to it.

D) They feel it confirms their inferiority.

5. We can infer from the passage that the writer would favor ( ).

A) a shy person

B) a realistic person

C) a sensitive person

D) a reserved person

(1) Imagine being asked to spend 12 or so years of your life in a society which consisted only of members of your own sex. How would you react? Unless there was something definitely wrong with you, you wouldn't be too happy about it, to say the least. It is all the more surprising therefore that so many parents in the world choose to impose such abnormal conditions on their children — conditions which they themselves wouldn't put up with for one minute!

(2) Any discussion of this topic is bound to question the aims of education. Stuffing children's heads full of knowledge is far from being foremost among them. One of the chief aims of education is to equip future citizens with all they require to take their place in adult society. Adult society is made up of men and women, so how can a segregated school possibly offer the right sort of preparation for it? Anyone entering adult society after years of segregation can only be in for a shock.

(3) A coeducational school offers children nothing less than a true version of society in miniature. Boys and girls are given the opportunity to get to know each other and to learn to live together from their earliest years. They are put in a position where they can compare themselves with each other in terms of academic ability, athletic achievement and in many of the extra-curricular activities which are part of school life. What a practical advantage it is (to give just a small example) to be able to put on a school play in which the male parts will be taken by boys and the female parts by girls! What nonsense coeducation makes of the argument that boys are cleverer than girls or vice versa! When segregated, boys and girls are made to feel that they are a race apart. Rivalry between the sexes is fostered. In a coeducational school, everything falls into its proper place.

(4) But perhaps the greatest contribution of coeducation is the healthy attitude to life it encourages. Boys don't grow up believing that women are mysterious creatures — airy goddesses, more like fairy tale book illustrations, than human beings. Girls don't grow up imagining that men are romantic heroes. Years of living together at school dispel illusions of this kind. There are no goddesses with freckles, pigtails, piercing voices and inky fingers. There are no romantic heroes with knobby knees, dirty fingernails and unkempt hair. The awkward stage of adolescence brings into sharp focus some of the physical and emotional problems involved in growing up. These can more easily be overcome in a coeducational environment. Segregated schools sometimes provide the right conditions for sexual deviation. This is hardly possible under a coeducational system. When the time comes for the pupils to leave school, they are fully prepared to enter society as well-adjusted adults. They have already had years of experience in coping with many of the problems that face men and women.

1. We can learn from the first paragraph that ( ).

A) many children prefer to study in segregated schools

B) it is abnormal to go to a coeducational school

C) the author is against segregated schools

D) parents like segregated schools

2. The tone of the author is ( ).

A) straightforward

B) mild

C) indifferent

D) pessimistic

3. According to the text, one major goal of education is to ( ).

A) let students acquire knowledge

B) equip future citizens with technology

C) equip a future citizen with what is required in getting a position in society

D) let students score academic achievements

4. Students from a segregated school may find it ( ) to enter society.

A) interesting

B) shocking

C) easy

D) acceptable

5. What can coeducation provide to children?

A) Skills about getting on well with each other.

B) A true model of the real society.

C) A real life.

D) A true picture of social conditions.

6. Which of the following is NOT mentioned as a benefit of coeducation?

A) Learning from each other.

B) Acquiring a better understanding of each other.

C) Playing due roles in performance.

D) Teaching each other academically.

7. The word "rivalry" underlined in Paragraph 3 means

A) friendliness

B) hatred

C) partnership

D) competition

8. Why do boys and girls in coeducational schools have no illusions about each other?

A) They live together and know each other well.

B) Years of living together at school dismiss such illusions.

C) Coeducation encourages them to show a healthy attitude toward life.

D) They are familiar with each other's weaknesses.

9. The word "unkempt" underlined in the last paragraph refers to ( ) hair.

A) long

B) dirty

C) untidy

D) greasy

10. It can be inferred from the passage that ( ).

A) only coeducation can bring harmony to society

B) people begin to realize the importance of coeducation

C) coeducation is superior to segregated education

D) coeducation has many features

(1) "All right, boys and girls, who'd like to see some magic?" Twice a day the ferry Arahura—and it is greeted with cries of "Me!" from children, and with sighs of relief from parents, glad to find something to occupy their kids for at least half an hour of the three-hour trip.

(2) The parental savior in question is Nigel Kennedy, a professional magician who has been working in the ferry for the past seven years. The facilities aren't great—there is no designated performance space, and he has to <u>conjure</u> more or less in a corridor—but there is room enough to wave a wand (魔棒) and wow an audience more captive than most.

(3) Kennedy, 33, thrives on the work, which guarantees him a level of exposure he would not readily find elsewhere. The Arahura carries thousands of people each day in the holiday season. "Every time I travel," says Jonathan Morgan, manager of passenger services for the ferry line, "he is <u>ringed</u> with kids, like the Pied Pipper (魔笛手，童话人物)."

(4) The key to what Morgan refers to as Kennedy's stunning success is audience participation: every show, he ropes in four kids to help, although they usually wind up being the butt of his tricks. Wands are apt to wobble, droop, squeak or vanish; loosies (散装烟) and hankies (手帕) turn up in unexpected places. Kennedy is a dab hand with balloons, too, twisting them at top speed into crowns, swords, worms, ducks and donkeys.

(5) The children's work, he says, is his bread and butter, although it is not without its hazards. "Adults are very predictable to perform for as an audience. They will always clap in the same place, always laugh in the same place. But kids, you can't predict what they're going to say or do. Sometimes you're going to have a little five-year-old who's going to sit there with his arms folded and say this trick's absolutely pathetic—some words he's learnt from his parents."

(6) Kennedy was drawn to magic in the classic manner. "I got given a magic book when I was eight years old and that started me on it. From then on, I was putting on shows in Mum and Dad's garage and plastering up flyers on lampposts and letterboxes around the streets, probably to their embarrassment. And it just developed from there."

(7) "I remember vividly a magician in a touring show. I remember sitting watching him in this little seat on my own. I don't know how old I would have been, but I was just rapt. He threw this big hula hoop (呼啦圈) at me and I had to examine it. I thought, wow, I feel so special."

(8) Since turning professional in 1989, Kennedy has made what he calls a good living from magic. But the business is not what it was. He can remember doing cabaret every Friday and Saturday night, plus a round of conferences, dine-and-dances and garden parties. He still does conferences, but these days, "rather than having a set stage show with illusions, they're more inclined to hire me for an hour or two, having me walk around the tables, do a little trick in somebody's hand, which is what they call close-up magic (近景魔术)."

(9) He arguments his income by running an air order business for aspiring magicians, but admits that the average age of his clients is climbing: fewer and fewer children are taking up the craft.

"It's the competition. Nowadays they can push a computer screen and a magic effect happens: why learn a magic trick? People come along to a magic club and, if they can't see a person in half on the first evening, they lose interest."

(10) Kennedy's skill is acknowledged by fellow magicians who, have recently voted him best children's entertainer. But—you have to ask—do people confuse him with the other Nigel Kennedy. the internationally famous violinist?

(11) Well, yes, and Kennedy shamelessly plays up to it: "Whenever Nigel is touring in this area, I make the most of it. I come on stage with a violin case while Vivaldi's *The Four Seasons* plays in the background. Then I pull out a magic wand from the violin case and everyone laughs."

(12) There are no plans for a name change, and in any case the confusion is worth it to overhear, as Kennedy once did, someone say: "This must be what that violinist does in the off-season (淡季)."

1. The relationship between the first and second paragraphs is that ( ).

A) both present Kennedy's performance sites

B) each presents one side of the magician

C) the first generalizes the second with examples

D) the first introduces the second with more details

2. According to context, what's the possible meaning of "conjure" in Para.2?

A) to have a rest

B) to play magic tricks

C) to do one's work

D) to make other people gather together

3. According to context, which of the following words is the synonym of "ring" in Para.3?

A) entwin

B) curl

C) surround

D) swerve

4. From the description in the passage, we learn that ( ).

A) Kennedy has a fixed stage on the ferry to perform his magic for children

B) Kennedy's career is now on the decline because some children learn it

C) Kennedy runs a mail-order business for those interested in magic

D) the magician often performs on the stage with Kennedy, the violinist

5. It can be inferred from the passage that Kennedy was all the following EXCEPT

A) persistent

B) humorous

C) confusing

D) diligent