Original Paper

Assessing the Evolution of Thinking Qualities in the Essay

Prompts of College English Test Band 4: Trends and Future

Implications

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Abstract

This paper provides an analysis of the essay prompts in the College English Test Band 4 from 2011 to June 2023, based on Bloom-Krathwohl's taxonomy of educational objectives. The study explores the changes in the assessment of thinking qualities and predicts future trends in question formulation for the examination. The findings indicate a shift towards greater emphasis on critical and creative thinking abilities, aligning with national education goals. The examination has evolved to incorporate diverse prompts and question formats, moving away from traditional essay prompts towards more specialized reports and prompts that require in-depth analysis and reflection. It is anticipated that future iterations of the examination will continue to prioritize critical and creative thinking skills and may involve new question formats. Overall, the evolving nature of writing in the College English Test Band 4 reflects the recognition of the significance of nurturing students' critical and creative thinking abilities, which ultimately promotes effective teaching and learning of English language skills.

Keywords

College English Test Band 4, essay prompts, thinking qualities, implications

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1. Introduction

Thinking plays a dominant role in human intellectual activities. It effectively regulates the intellectual activities of the human body and has profound impacts on individuals. Giordano Bruno believes thinking qualities refer to the cognitive activities of the brain in terms of memory, understanding, application, analysis, evaluation, and innovation. In this article, thinking qualities refer to logical thinking, critical thinking, and innovative thinking.

Cultivating thinking qualities has become a necessary requirement for adapting to the development of the contemporary world. On January 7, 2023, Jiangsu Phoenix Education Publishing House, Ming Shi International Academy, and Shengzhi Learning jointly held the second International English Teaching Conference online. The theme of the conference was "Future Readiness-English Education for the Future". Over ten thousand participating teachers unanimously agreed that in the process of adapting to the development of the 21st century, learners need to possess critical thinking, problem-solving skills, and the ability to cope with global challenges.

Cultivating thinking qualities is an urgent requirement for enhancing national competitiveness. According to the National Medium and Long-Term Plan for Education Reform and Development (2021-2021) (Chinese ministry of Education, 2021), improving the quality of education is one of the core tasks in the development of higher education. Developing the thinking abilities of university students serves multiple purposes: meeting the strategic demands of national reform and socio-economic development, as well as fulfilling the requirements for cultivating talents capable of navigating the challenges of the globalized era. These talents should possess a global perspective, international awareness, high-level humanities literacy, as well as innovative and critical thinking abilities.

Cultivating thinking qualities is an essential requirement for developing the core literacy of university students. One of the six core literacies identified in the "Core Literacy for Chinese Students' Development" finalized in 2018 is cultural foundation, which includes the scientific spirit. It refers to the values, thinking patterns, and behavioral expressions that students form in learning, understanding, and applying scientific knowledge and skills. This includes rational thinking, critical questioning, and the courage to explore.

The College English Test (CET), also known as the National Band 4 Test, is a standardized examination organized by the Ministry of Education of the People's Republic of China and administered by the National Education Examinations Authority. In terms of content of the essay writing, the CET primarily evaluates whether candidates can express central ideas, convey important or specific information, and present viewpoints and attitudes. In the writing section, coherence and logical organization are required, which assesses students' abilities in logical thinking, divergent thinking, critical thinking, and creative thinking.

The research of Chinese scholars on CET-4 writing mainly focuses on the following aspects: Wei Fanmei et al. put forward suggestions on various writing strategies for CET-4 (2009). Xiang Qunxing believed that the change of CET-4 question types would bring both positive and negative refutation effects to English writing pedagogy (2018), so a new teaching model of promoting writing by listening and listening by writing should be established (Zhao Xinlin, 2012). Fei Qian analyzed CET-4 writing scoring standards, scoring methods, proposition forms, and word count requirements (2008); Wan Dan analyzed students' language characteristics, thinking patterns, and language errors in CET-4 writing (2016). Most scholars pay more attention to the training of critical thinking ability in writing (Li Wendong, 2022; Wu Ying, 2017; Xue Mingyuan, 2016, etc.). Only Liu Li pointed out that students can use the concept of logical thinking, judgment and reasoning to examine the questions of TEM-4 essays and avoid going off topic and off-topic in writing (2009).

It can be seen that Chinese scholars have done little research on CET-4 essay prompts and the relationship between the prompts and the quality of thinking.

In order to test whether the essay prompts in the writing of CET 4 align with the requirements for developing students' thinking qualities as outlined in the College English Teaching, and to provide positive guidance for English writing teachers, helping them improve the quality of English writing teaching and cultivate students' thinking qualities, it is necessary to analyze the essay topics from 2011 to 2023 in CET-4, which can help students identify the key thinking qualities tested in the CET 4 writing section and anticipate future changes in the assessment criteria.

2. Method

On the bases of Bloom-Krathwohl's taxonomy of educational objectives, this thesis uses literature research method and text analysis method to study the essay prompts in the College English Test Band 4 from 2011 to June 2023. It mainly resolves two questions: (1) What are the changes and the trend of thinking quality reflected in the content of the writing prompts in the CET-4? (2) Are the contents of the essay prompts consistent with the thinking quality orientation of the objectives outlined in the College English Syllabus (2020 Edition)?

2.1 Concept of Thinking Qualities

R.B. Cattell defined thinking qualities as "the creative ways and processes through which a person handles, applies, and utilizes external information. It encompasses factors such as cognitive abilities, knowledge structures, thinking styles, and reasoning capabilities". He further suggests that thinking qualities are shaped by the interaction of genetics and environment, and different genetic and environmental factors can influence individuals' intelligence levels, thinking patterns, and habits. Giordano Bruno, in his book Lecture on the Infinite Universe, defines the quality of thought as: "The quality of thought is the quality that enables us to judge whether something is true or not. It is a clear way of thinking. The distinction between the true and the false is its main characteristic".

These qualities determine how we perceive the world, comprehend and judge things within it. It refers to the cognitive activities of the brain in terms of memory, understanding, application, analysis, evaluation, and innovation. Soviet psychologists believe that thinking qualities include analysis, synthesis, abstract generalization, comparison, systematization, and concretization.

Professor Lin Chongde, a psychology professor at Beijing Normal University, believes that thinking qualities are a reflection of intelligence and abilities in individuals, which include logicality, flexibility, creativity, critical thinking, and agility. Professor Wei Canjin emphasizes the development of students' thinking abilities, especially their visual thinking, abstract thinking, and creative thinking, in his book "Cultivation of Language Thinking". Chinese scholars generally adopt Lin Chongde's definition and consider the cultivation of thinking qualities as the primary issue in implementing core literacy. In this article, thinking qualities refer to logical thinking, critical thinking, and innovative thinking.

2.2 Relationship between Writing Styles and Thinking Qualities

The CET writing section encompasses four main writing styles: narrative, expository, argumentative, and practical writing. Narrative writing requires clear chronological order and logical cause-effect relationships, primarily testing the logical thinking ability and rich creative thinking of university students. Expository writing involves in-depth analysis and research on topics, requiring analytical thinking, summarization, and induction. It demands logical coherence and structural rigor in writing. Argumentative writing involves analyzing and researching problems from various perspectives, requiring analytical thinking. It also involves evaluating the merits, drawbacks, rights, and wrongs of things, necessitating critical thinking. Practical writing requires the application of practical knowledge and skills to analyze and solve real-world problems. It involves preparing creative solutions for different situations and proposing novel ideas and viewpoints, testing practical thinking abilities and innovative thinking.

2.3 The Theory of Categorization of Educational Objectives

The Theory of Categorization of Educational Objectives was proposed by American educational psychologist Benjamin S. Bloom and his colleagues in 1956. David R. Krathwohl revised the theory based on Bloom's work in 1964, resulting in the revised edition of the categorization of educational objectives, also known as the "Bloom-Krathwohl theory".

According to this theory, educational objectives are divided into three domains: cognitive, affective, and psychomotor. Each domain is further divided into dimensions, ranging from lower to higher levels of proficiency:

- 1) Cognitive Domain: Memory, Understanding, Applying, Analyzing, Evaluating, and Innovation.
- 2) Affective Domain: Receiving knowledge, Responding, Valuing.
- 3) Psychomotor Domain: Receiving motor skills, Responding to stimuli, Guided response.

This categorization provides a framework for classifying educational objectives based on different areas of development, including cognitive abilities, emotional responses, and motivational aspects.

3. Discussion and Results

This article selects writing prompts from the CET-4 exam between 2011 and June 2023 as samples to analyze their testing characteristics and future trends. The different prompts determine the types of genres, and writing in different genres directly involves the demonstration of students' various thinking styles. The prompts determine the genre features and overall framework of the essays. Understanding the frameworks and characteristics of different texts can help students comprehend the meaning conveyed by the prompts at a macro level. Based on the genre classification standards proposed by Gu Xiangdong (2008), this article categorizes the genre types into narrative, expository, argumentative, and practical writing. Additionally, advertisements, posters, notices, initiatives, recommendation letters, etc., are classified as practical writing. To visually and clearly demonstrate the different aspects of thinking qualities being assessed in the writing prompts of the CET-4 exam from 2011 to June 2023, the following table summarizes and analyzes the prompts from three dimensions: thematic determination, genre, and dimensions of thinking qualities.

3.1 Analysis of the Themes Presented in the Prompts

Table 1. Table of the Topic Content, Themes of the Essay Prompts in CET4 from 2011.06-2023.06

Test time	Essay prompts	Topic content	Theme
2011.06	A short essay on some advantages and problems of	technology	Human &
	doing shopping online, and give some advice.		Society
2011.12	Nothing succeeds without a strong will	good morality	Human &
			Society
2012-06	Excessive packaging	social life	Human &
			Society
2012-12	Education pays based on the statistics provided in the	education	Human &
	chart below, describe it and comment on it.		Society
2013-06	A brief description of the picture and express your	good morality/	Human &
	views on the importance of doing sth small before	education/	Society
	undertaking sth big/learning skills/reading literature.	education	
2013-12	The impact of the Internet on the way people	technology/	Human &
	communicate/learning and explain one phenomenon;	technology/	Society
	The increasing use of mobile phones in people's life	technology	
	and explain the consequences based on the picture		
	below.		
2014-06	Suppose a foreign friend of yours is coming to visit	school life/	Human &
	your campus/hometown/China, what is the most	social life/	Society

	interesting place you would like to him/her to see and	social life	
	why?		
2014-12	A campus activity that has benefited you most/a	school life/	Human &
	course that has impressed you most in college/a	school life/	Society
	classmate of yours who has influenced you most in	school life	
	college		
2015-06	A description of the picture and then comment on this	technology/	Human &
	kind of modern life/parents' role in their children's	family life/	Society
	growth/the kid's understanding of going to school	school life	
2015-12	Comment on the saying "Listening is more important	good morality	Human &
	than talking."/"Listening is daily experience and a	education/	Society
	lifelong mission."/"Never go out there to see what	good morality	
	happen, go out there to make things happen."		
2016-06	A letter to express your thanks to one of your friends	social life/	Human &
	who helped you most when you were in	school life/	Society
	difficulty/one of your school teachers upon entering	family life	
	college/your parents or any family members upon		
	making memorable achievement		
2016-12	Explain the reasons for your choice to work in a	job hunting/	Human &
	state-owned business or in a joint venture/find a job	job hunting/	Society
	or start a business of your own/take a job in a	job hunting	
	company or go to a graduate school		
2017-06	An advertisement on your campus website to sell a	school life/	Human &
	computer/a bicycle/some of the course books you	school life/	Society
	used at college	school life	
2017-12	An essay on how to best handle the relationship	social life/	Human &
	between parents and children/doctors and	social life/	Society
	patients/teachers and students	social life	
2018-06	The importance of reading/writing/speaking ability	learning/	Human &
	and how to develop it	learning/	Society
		learning	
2018-12	The challenges of living in a big city/studying	school life/	Human &
	abroad/starting a career after graduation	education/	Society
		employment	
2019-06	A news report on a volunteer activity organized by	school life/	Human &
	your Student Union to help elderly people in the	school life/	Society

	neighborhood/on a visit to a local farm organized by	school life	
	your Student Union/on a visit to Hope elementary		
	school organized by your Student Union		
2019-12	A recommendation letter of a city for a foreign friend	social life/	Human &
	to learn Chinese/to teach in China/to study in China	social life/	Society
		social life	
2020-09	The use of online dictionaries/translation apps/PPT	technology/	Human &
		technology/	Society
		technology	
2020-12	Changes in the way of	social life/	Human &
	education/communication/transportation	social life/	Society
		social life	
2021-06	Are people becoming addicted to technology?/Is	technology/	Human &
	technology making people lazy?/Do violent video	technology/	Society
	games lead to violence?	technology	
2021-12	A proposal which may include its aim, duration,	school life/	Human &
	participants and activities for an orientation program	school life/	Society
	to help the freshmen adapt to the new environment	school life	
	and academic studies/organization of a speech		
	contest. A report on a school project of collecting		
	used books on campus		
2022-06	A proposal to your school clinic/your school	school life/	Human &
	library/student union for improving its service	school life/	Society
		school life	
2022-12	Write an essay related to the short passage give	school life/	Human &
	below and then comment on the phenomenon that	social life/	Society
	more students began to realize the importance of	school life	
	developing a healthy lifestyle/social ability among		
	college students/the role of physical exercise in		
	achieving success at college.		
2023-6	Write an essay on the benefits and disadvantages and	social life/	Human &
	what improvement can be made on community	education/	Society
	service/on line courses/good relationship.	social life	

As shown in Table 1, when examining the prompts, it can be observed that the writing prompts for the CET-4 exams from June 2011 to June 2023 do not contain obscure or difficult words, indicating a moderate level of difficulty. The essay prompts for the June 2011 and 2012 exams, both A and B versions, were the same. However, starting from 2013, the CET-4 exam changed to one set of three groups, with each group consisting of essay prompts related to three different contexts under one overarching premise. This widened the perspective of the essay assessment and led to more subtle variations in the themes being examined. The change serves two purposes. On one hand, they aim to prevent cheating among college students during exams. On the other hand, they reflect the Chinese Ministry of Education's increased emphasis on assessing students' thinking abilities in foreign language proficiency.

This change was mainly due to the reform of the CET-4 exam by the National College English Test (CET) Committee from 2013 onwards. The reformation included the elimination of cloze tests and the addition of three new types: vocabulary and phrase dictation, long reading passages, and Chinese translation exercises. Before this reform, the topics of the CET-4 writing exam were relatively simple and required a shorter word count. The difficulty level was roughly equivalent to Task 1 in the IELTS exam or the small essays in graduate school exams, slightly more challenging than the writing requirements for the national college entrance examination. However, after the reform, CET-4 writing exam has introduced graph-based essays and picture-based essays, which require students to accurately describe and analyze charts or pictures while providing their own viewpoints. Additionally, there has been an inclusion of practical writing, emphasizing practical skills and effectiveness. These changes have made the CET-4 writing exam more similar to the question types in the IELTS exam, increasing the demands on students' abilities. It is not only necessary to express ideas effectively but also demonstrate higher-level thinking. This reform reflects the internationalization trend in English teaching in China, aiming to cultivate students with broader English language application skills.

From 2011.06 to 2012.12, the unified composition was introduced with a total of four essays during this period. Starting from 2013.06, each CET-4 examination consisted of three essays. By June 2023, there had been a total of 63 essays in this period. Adding the number of essays from 2011 and 2012, the total comes to 67 essays. Although each examination includes three essays, their assessment objectives and content are consistent and similar.

From an analysis of the CET-4 essay prompts from 2011 to June 2023, it can be observed that there were 11 essays with technology-related topic context, 21 essays about school life, 9 essays on education and learning, 16 essays addressing social life, 2 essay focusing on family life, 4 essays discussing moral qualities, and 4 essays about job seeking and employment. These essay prompts closely relate to the daily study and practice of college students. By understanding the main idea and requirements of the prompts, students are able to construct the structure of their essays and express their thoughts effectively.

From Table 1, it can be observed that in terms of essay topic themes, there were 67 essays (100%) with the theme of "Human and Society", while there were no essays on the themes of "Human and Nature" or "Human and Self". It is evident that the theme of "Human and Society" is favored by the CET-4 essay question setters. This preference can be attributed to the fact that the relationship between people and society is a broad and profound topic, as sociality is one of the fundamental attributes of human beings. This topic can trigger people's thoughts and discussions on social issues, values, moral principles, personal behavior, and responsibility. Moreover, the relationship between people and society is an important issue of concern in the contemporary world, encompassing areas such as democracy, human rights, fairness and justice, multiculturalism, and environmental protection. Therefore, by selecting such a theme for the English test, it not only tests students' language expression abilities but also deepens their understanding and awareness of social phenomena and issues.

Examining the trend of CET-4 essay topics from 2011 to 2023, it is notable that the themes of "People and Nature" and "People and Self" were absent, with only the theme of "People and Society" being examined. This indicates that the selection of essay topics places more emphasis on authenticity and creating real-life contexts, and places greater value on students' ability to solve problems and present viewpoints. There is also a greater focus on cultivating college students' critical thinking quality.

3.2 Analysis of Essay Genres

Narrative essays often include a story plot or related descriptive vocabulary. They use descriptive words and past tense verbs to express the time and sequence of events. These essays are organized using methods such as chronological order, plot development, or personal experiences. For example, "My first day of my college life" or "The most memorable concert I ever attended". If an essay introduces individual cases, explains history, describes phenomena, or focuses heavily on storytelling or plot development within a specific field like history, psychology, anthropology, etc., it is likely a narrative essay. Examples include "The life and legacy of Martin Luther King Jr" or "Lost in the wilderness: surviving 7 days alone".

Expository essays have clear instructions or process descriptions. They contain scientific knowledge or technical terms and may use numbers, charts, or other visual elements. These essays emphasize facts and truths and often use keywords such as "how to", "explain", "understand", or words related to processes and steps. They require detailed descriptions and imagery. Generally, they use informative language. For example, "How to use WeChat Pay".

Argumentative essays present a clear stance or viewpoint. For instance, "Is social media harmful to young people?" or "Should college tuition be free?" These essays use emotionally charged words to strengthen their persuasive power, such as "should", "must", "necessary", "essential", "crucial", etc. They cite authoritative sources or data to support their viewpoints. Examples include "Is global warming a real threat? A scientific analysis" or "What is the best way to reduce plastic pollution?" They encourage critical thinking and analysis through comparison and contrast, such as "Are E-books

better than print books?"

Application essays are written to address specific issues in practical life or work, such as job applications, letters of recommendation, business correspondence, etc. The essay titles have a clear purpose and target audience. They are usually tailored for specific readers or user groups, aiming to solve specific problems or provide specific information. The titles contain explicit tasks, requirements, or instructions, such as "Fill out an application form" or "Prepare a sales report". They use practical vocabulary relevant to the real-life context. The title structure is concise and clear.

Table 2. Statistics of Genres of the Essay Prompts in CET4 from 2011.06-2023.06

Test time	Narration	Exposition	Argumentation	Practical writing
2011.06			$\sqrt{}$	
2011.12			$\sqrt{}$	
2012-06			$\sqrt{}$	
2012-12		\checkmark		
2013-06			$\sqrt{}$	
2013-12			$\sqrt{}$	
2014-06			$\sqrt{}$	
2014-12	$\sqrt{}$			
2015-06			$\sqrt{}$	
2015-12			$\sqrt{}$	
2016-06				\checkmark
2016-12			$\sqrt{}$	
2017-06				$\sqrt{}$
2017-12			$\sqrt{}$	
2018-06		$\sqrt{}$		
2018-12			\checkmark	
2019-06				$\sqrt{}$
2019-12				$\sqrt{}$
2020-09		$\sqrt{}$		
2020-12		\checkmark		
2021-06			$\sqrt{}$	
2021-12				$\sqrt{}$
2022-06				$\sqrt{}$
2022-12			$\sqrt{}$	
2023-6			$\sqrt{}$	
total	3	10	36	18
percentage	4%	15%	54%	27%

From Table 2, it can be observed that out of the total 67 essay prompts from June 2011 to June 2023, the genres of essay writing can be determined as follows: 3 narrative essay, 10 expository essays, 36 argumentative essays, and 18 application essays. Taking the 2013 CET-4 question format reform as a turning point, it can be seen that before 2013, there was 1 expository essay and 3 argumentative essays, while after 2013, there was 3 narrative essay, 33 argumentative essays, and 9 expository essays. Application essays started to appear after 2015, particularly in December 2021 and June 2022, where there were consecutive instances of application essay writing. In the 2021 essay prompt, the first set of questions asked students to provide suggestions for a counseling program, including its purpose, duration, participants, and activities. The second set of questions asked for suggestions on organizing a speech competition. The third set asked for a report on a school project collecting old books on campus. In the June 2022 essay prompt, the first set asked for suggestions on improving services at the school clinic, the second set asked for suggestions on improving services at the school library, and the third set asked for suggestions on enriching campus activities by the student union. It can be observed that application essays have appeared 6 times, accounting for 27%. This indicates that the CET-4 question setters place greater emphasis on college students' practical problem-solving abilities. While there is a variety of essay genres, with only 3 narrative essay, argumentative essays still occupy the majority and continue to focus on expressing students' viewpoints. The future trend of essay prompts will mainly focus on argumentative and application essays.

3.3 Analysis of Cognitive Domain and Thinking Qualities Detected in Essay Prompts

Based on Bloom- Krathwohl's taxonomy of educational objectives, the cognitive domain includes memory, understanding, application, analysis, evaluation, and creation. We can determine the specific thinking ability being tested in an essay by analyzing the verbs or nouns used in the prompt, thereby categorizing it under different cognitive domains.

Memory primarily involves memorizing definitions, facts, and other information that needs to be remembered. Common instruction words include: list, describe, identify, etc. Understanding entails summarizing and explaining given information. Common instruction words include: explain, summarize, conclude, etc. Application requires applying learned knowledge to new problems. Common instruction words include: apply, use, design, etc. Analysis involves classifying and comparing things. Common instruction words include: analyze, compare, infer, etc. Evaluation involves assessing and expressing one's opinion on a viewpoint or action. Common instruction words include: evaluate, judge, support, etc. Creation entails approaching problems from a new perspective and proposing innovative solutions. Common instruction words include: novel, unique, cutting-edge, breakthrough, transformative, creative, etc.

Logical thinking ability within the realm of thinking qualities refers to the capacity for internalized mental activities such as observation, comparison, summarization, judgment, reasoning, and synthesis. It involves using scientific logical methods to accurately and systematically express one's thinking process. From a thinking perspective, within Bloom's classification of educational objectives, processes like "memory", "understanding", and "application" all fall under logical thinking. Critical thinking activities involve making reasoned and well-supported judgments and evaluations based on various reasons and evidence.

Facione defines critical thinking as purposeful, self-regulatory judgment manifested in explanations, analysis, evaluation, and inference. Critical thinking requires in-depth analysis of the object of criticism, forming a profound understanding, and then engaging in reasoning, analysis, and evaluation based on that profound understanding. From a thinking perspective, within Bloom's taxonomy, "analysis" and "evaluation" belong to critical thinking. Creative thinking involves constantly seeking novelty and change in the thinking process, maintaining curiosity about new things, daring to think and experiment, validating one's ideas, and even generating creative outcomes. It is a form of holistic thinking. According to Bloom's taxonomy for cognitive thinking levels, creation is the highest stage of cognitive thinking activities. From a thinking perspective, within Bloom's taxonomy, "creation" belongs to creative thinking. Table 3 is an analysis of the cognitive domains and thinking qualities examined in the essay prompts from 2011.6 to 2023.6.

Table 3. Cognitive Domain and Thinking Qualities Detected in Essay Prompts

Test time	Key words of Essay prompts	Cognitive domain	Thinking qualities
2011.06	advantages, problems, doing shopping online,	analysis evaluation	critical thinking
	advice		
2011.12	Nothing succeeds without a strong will	understanding	logical thinking
		evaluation	critical thinking
2012-06	excessive packaging	memory evaluation	logical thinking
			critical thinking
2012-12	education pays, describe, comment	memory	logical thinking
		understanding	critical thinking
		evaluation	
2013-06	description, importance, doing sth small before	memory	logical thinking
	undertaking sth big, learning skills, reading	understanding	critical thinking
	literature.	evaluation	
2013-12	impact, Internet, communicate, learning,	understanding	logical thinking
	increasing use, mobile phones, explain the	analysis	critical thinking
	consequences		
2014-06	a foreign friend, visit, campus, hometown,	memory	logical thinking
	China, what, most interesting place, why	understanding	critical thinking
		analysis	
2014-12	a campus activity, benefited most, a course,	memory	logical thinking
	impressed most, a classmate, influenced most,	understanding	critical thinking
	college	analysis	
2015-06	description, picture, comment, modern life,	memory analysis	logical thinking
	parents' role, children's growth, understanding,	evaluation	critical thinking
	going to school		
2015-12	comment, listening, more important, talking,	understanding	logical thinking
	daily experience, a lifelong mission, never go	evaluation	critical thinking
	out, see what happen, make things happen		
2016-06	a letter, express, thanks, friends, teachers,	memory analysis	logical thinking
	parents, family members	application	creative thinking
		creativity	
2016-12	explain, reasons, work, a state-owned business,	understanding	logical thinking
	a joint venture, find a job, start a business, take	analysis	critical thinking
	a job, company, graduate school		
2017-06	an advertisement, campus website, sell a	memory	logical thinking

	computer, a bicycle, course books	application	creative thinking
		creativity	
2017-12	how, best, handle, relationship, parents,	memory	logical thinking
	children, doctors, patients, teachers, students	analysis	critical thinking
2018-06	importance, reading, writing, speaking how,	memory analysis	logical thinking
	develop	evaluation	critical thinking
2018-12	challenges, living, a big city, studying abroad,	understanding	logical thinking
	starting a career	analysis	critical thinking
2019-06	news report,	memory	logical thinking
		application	
2019-12	recommendation letter	memory	logical thinking
		analysis creativity	creative thinking
2020-09	use, online dictionaries, translation apps, PPT	memory	logical thinking
		application	
2020-12	changes, education, communication,	memory	logical thinking
	transportation	analysis	critical thinking
2021-06	people, addicted, technology, make, lazy,	analysis evaluation	critical thinking
	violent video games, violence		
2021-12	a proposal	memory	logical thinking
		application	creative thinking
		creativity	
2022-06	a proposal	memory	logical thinking
		application	creative
		creativity	thinking
2022-12	comment, importance, developing a healthy	memory evaluation	logical thinking
	lifestyle, social ability, physical exercise		critical thinking
2023-6	benefits and disadvantages, improvement,	analysis creativity	critical thinking
	community service, line courses, good		creative thinking
	relationship.		
	relationship.		

Based on Table 3, we can get Figure 1 and Figure 2.



Figure 1. Data Statistics of the Cognitive Domain on Bloom-Krathwohl's Taxonomy of Education

In this analysis, we examine the evolution of college English writing test topics, focusing on the inclusion of educational objectives and the corresponding changes in test dimensions. The data presented in Figures 1 and 2 is drawn from Table 3, each examination with a total score of 1. The examination assessed multiple educational objectives, with each objective accounting for a specific proportion based on the number of objectives assessed.

When considering three educational objectives in the assessment, each objective is given a weight of 0.33. This weight distribution ensures equal importance placed on each objective. Similarly, when four educational objectives are assessed, each objective carries a weight of 0.25, maintaining equitable representation across all objectives. This weight allocation pattern continues for subsequent examinations.

Based on the data from Figure 1, it can be observed that prior to 2016, the writing test for CET-4 mainly covered three dimensions: memory, comprehension, and analysis, or comprehension, memory, and evaluation. In 2016, the test expanded to include five dimensions: memory, comprehension, application, analysis, and innovation. Starting from 2017, the test began assessing four dimensions, primarily focusing on memory, comprehension, analysis, and evaluation, or memory, application, analysis, and creativity.

This analysis reveals 2016 as a pivotal year in the reform of the listening section of the CET-4. The reformation eliminated short dialogues, word and phrase dictation exercises, and introduced three short news articles for listening comprehension. The purpose of this reform was to emphasize the comprehensive English language skills of college students, aligning with the objectives outlined in the College English Syllabus—cultivating students' practical English abilities, enhancing intercultural

communication awareness, and improving communicative competence. As a result, the June 2016 writing test prompt required students to write a thank-you letter. In June 2017, students were tasked with writing a sales advertisement, while in June 2019, they wrote a news report. In December of the same year, students were expected to write a recommendation letter. Furthermore, in December 2021 and 2022, the writing prompts involved giving advice to different recipients. These prompt variations reflect the principles of authenticity, interactivity, openness, and appropriate guidance in writing test design. They also emphasize the primary objective of college English teaching, which is to cultivate higher-order thinking skills such as critical thinking and creative thinking. These objectives will continue to be reflected in future examinations.

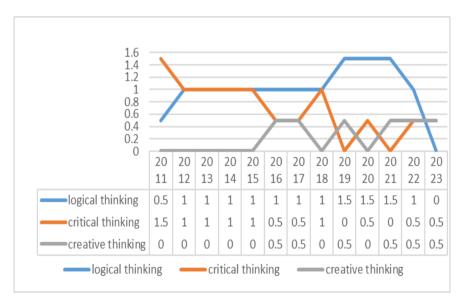


Figure 2. Linear Trends of Logical Thinking, Critical Thinking and Creative Thinking Ability

According to the hierarchical theory of educational objectives, memory, comprehension, and application fall under logical thinking, while analysis and evaluation are components of critical thinking. Creativity, on the other hand, is associated with innovative thinking. From the data presented in Figure 2, it can be observed that prior to 2013, the first reform of the College English test, the College English Level 4 test primarily assessed students' logical and critical thinking skills, with very minimal focus on evaluating creative thinking abilities.

Between 2013 and the second reform of the College English test in 2016, the writing prompts for the Level 4 test continued to emphasize logical and critical thinking. However, starting from 2016, there was a shift towards assessing creative thinking. This trend became particularly evident from 2021 onwards, where almost every examination included components that required creative thinking. This alignment with national education goals reflects the demand for nurturing innovative talents.

Logical thinking still holds a significant weightage, often accounting for half or even more of the assessment, while the proportion allocated to critical thinking has slightly decreased. This suggests that the examination continues to prioritize fundamental logical thinking skills. However, it is evident that the assessment of critical and creative thinking should be at the core of future Level 4 writing examinations.

This shift also implies that traditional essay prompts may gradually decrease, making way for topics that encourage critical analysis and innovation related to real-life issues. It is possible that new question formats, such as continuation writing based on reading materials, will be introduced to further enhance critical and creative thinking skills. For example, in December 2022, the essay prompt is "Write an essay related to the short passage given below and then comment on the phenomenon that more students began to realize the importance of developing a healthy lifestyle/social ability among college students" or "the role of physical exercise in achieving success at college".

3.4 Evaluation of the Essay Prompts in CET-4 in Alignment with the Writing Objectives of the College English Syllabus (2020 Edition)

The College English Syllabus (2020 Edition) outlines three requirements for writing proficiency. The foundational goal focuses on the ability to describe personal experiences, emotions, and events in English. It involves writing short discussions, explanations, and descriptions on general topics or given outlines with basic language structure, clear central ideas, appropriate vocabulary usage, coherence, and basic writing techniques.

The advanced goal requires expressing personal opinions on general subjects, writing abstracts for academic papers, and English essays that interpret various charts and graphs related to one's field of study. It emphasizes complete language expression, clear viewpoints, logical organization, coherent sentences, and competent use of common written expression and communication skills.

The developmental goal aims for fluent expression of personal opinions in written English, providing in-depth explanations on broad social and cultural themes. It involves writing concise reports and papers on specialized topics with clear thinking, rich content, well-structured articles, strong logical reasoning, summarization and abstracting abilities employing information from diverse sources. Additionally, it requires the appropriate use of business letters, memos, and briefings, applying suitable writing techniques.

Table 1 reveals that the College English Level 4 writing test aligns with the objectives outlined in the College English Syllabus (2020 Edition). The test assesses students' ability to meet the foundational goals by evaluating their proficiency in constructing short writings with coherent structures, clear ideas, and appropriate language use. Before 2013, the test primarily focused on meeting the foundational goal, which involved providing brief explanations, descriptions, and discussions on general topics. However, starting from 2013, the essay prompts began to shift towards the advanced goal. For example, in June 2015 and June 2017, there were writing prompts that required describing charts or pictures. In

September 2020, there was a prompt to write about online dictionaries, translation software, and the use of PowerPoint presentations. The prompt in 2017 focused on campus advertisements for selling bicycles, computers, and similar items, which aligned with the advanced goal of providing brief written introductions on specific products or services.

Since 2016, the CET-4 writing test has increasingly tilted towards the developmental goal. For instance, the requirement to write a report in 2019 and the prompts for a proposal in December 2021 and June 2022 indicate a focus on expressing viewpoints, emphasizing reasons and arguments, and demonstrating the ability to create specialized reports. The December 2016 prompt asked students to explain their choice to work in a state-owned business or a joint venture, find a job or start their own business, or pursue further education in graduate school. These essay prompts align with the developmental goal of expressing opinions, providing substantial reasoning and discussion, and being able to deliver specialized reports.

From these observations, it is evident that the objectives of the CET- 4 writing test are tending towards the advanced and developmental goals. While it evaluates some aspects of expressing personal opinions and interpreting information, it might not provide sufficient opportunities for students to demonstrate in-depth thinking on social and cultural themes or write comprehensive reports and papers on specialized topics.

To ensure a more comprehensive evaluation of writing abilities in line with the syllabus objectives, future iterations of the CET-4 writing test could incorporate additional prompts that encourage students to express opinions on broader themes and require them to write more extensive reports or papers. This would allow students to demonstrate their skills in logical reasoning, summarization, abstracting, critical thinking, creative thinking and the application of appropriate writing techniques across various contexts.

4. Conclusion

This study, based on Bloom-Krathwohl's taxonomy of educational objectives, analyzed the essay prompts in the College English Level 4 examination from 2011 to June 2023. It aimed to explore the changes in the assessment of thinking qualities and predict future trends in question formulation and test whether the evaluation of the CET-4 writing test is in alignment with the writing objectives of the College English Syllabus (2020 Edition). The ultimate goal was to utilize examinations as a means to facilitate teaching and learning.

In conclusion, the analysis revealed a notable shift in the assessment of thinking qualities in the CET-4 writing test over the years. There has been a progression from primarily evaluating logical and critical thinking towards placing greater emphasis on critical and creative thinking abilities. This change aligns with the writing objectives of the College English Syllabus (2020 Edition) and the national education goals of fostering innovative talents and cultivating students' ability to think critically and

independently.

Furthermore, it is evident that the CET-4 writing test has evolved to encompass a wider range of topics and question formats. Traditional essay prompts have gradually decreased, giving way to more diverse prompts that require critical analysis, innovative ideas, and specialized reports. There has also been an increasing focus on expressing personal opinions, providing reasoning and argumentation, and delivering comprehensive explanations.

Considering these findings, it is anticipated that future iterations of the CET-4 examination will continue to emphasize critical and creative thinking skills. It is likely that the test will incorporate new question formats, such as continuation writing based on reading materials, and further encourage students to engage in in-depth analysis and reflection.

Overall, the evolution of the CET-4 writing test reflects a growing recognition of the importance of nurturing students' critical and creative thinking abilities. By adapting the examination to align with evolving educational objectives, it can effectively promote both the teaching and learning of English language skills.

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