

**READING ATTITUDE AS A PREDICTOR OF READING PROFICIENCY
FOR SENIOR HIGH SCHOOL ENGLISH LEARNERS IN CHINA**

by

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Abstract

As the concept of key competencies is highlighted as the emphasis and guideline: the pursuit of education should be combined with knowledge, skills, emotional attitude, cultural awareness, and morality, etc., students' affective domain in Chinese English literacy education starts to gain increasing attention.

Research on first language (L1) reading reveals that reading attitude influences reading skills (Morgan & Fuchs, 2007) and strongly affects reading proficiency (McKenna & Kear, 1990). However, most of the current views of reading attitude are shaped by the research on L1 learners, leaving the field of Second Language (L2) reading attitude an unexplored area (Kim, 2016; Lee & Schallert, 2014). Hence, the present study investigated English language learners' English reading attitude and its relation to English reading proficiency within the context of Chinese senior high schools.

Three hundred and ninety-eight Chinese 11th grade students from three senior high schools in Guangzhou completed an English reading attitude questionnaire. Scores from their English reading comprehension test were collected to indicate their English reading proficiency. Data was quantitatively analyzed using descriptive statistics, exploratory factor analysis, correlation, multiple regression, and t-test.

Results showed that while students had strong beliefs concerning the values and usefulness from English reading, they also had strong negative emotions towards English reading. Of the six factors displayed to measure L2 reading attitude in this study, Negative Affect and Self-assessment significantly contributed to L2 reading proficiency ($p < .05$). With regard to the differences in how students perceive English reading between high-achievers and low-achievers, significant differences were found in Cognitive Attitude, Negative Affect, Conative Attitude and

Self-assessment. Several contributing factors were confirmed to predict English reading attitude, including Reading Frequency, Teachers' Encouragement, Parents' Encouragement, and Gender. More specifically, how often students read English books for pleasure was a strong predictor of L2 reading attitude.

This study adds to the rapidly expanding field of the affective components of L2 reading development in China, and contributes to existing knowledge of L2 reading attitude and its relation to L2 reading proficiency by addressing the research gap with high school participants in mainland Chinese educational context.

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CHAPTER 1 INTRODUCTION

Reading, as a cornerstone of foreign language learning, is key to success in English learning (Cheng & Good, 2009). Most students in China focus largely on the academic achievement needed to perform well on the English language university entrance examination. Such a limited perspective creates a de-emphasis on the cultivation of interest in English reading for enjoyment or lifelong learning (Wang & Chen, 2016).

As noted in a review of research on second language (L2) reading pedagogy in China, research over the past 20 years has focused on how linguistic and cognitive reading skills improve student test performance (Chen, 1998; Liu & Bever, 2002; Pang, 2008). Similarly, previous studies outside the context of China have provided ample support for the impact of linguistic knowledge, cognitive factors, and metacognitive abilities on L2 reading processes (Grabe, 2009; Jimenez, Garcia, & Pearson, 1996; Nassaji, 2011; Phakiti, 2003). However, the bulk of this research has failed to provide a broader lens that takes the affective domain into account (McKenna, Conradi, Lawrence, Jang, & Meyer, 2012). Affective components of reading education, such as reading attitude, have been overlooked in the field of L2 reading. The study of L2 reading attitude can contribute to our knowledge about reading development and success in a second language.

Research on first language (L1) reading reveals that reading attitude influences reading skills (Morgan & Fuchs, 2007) and strongly affects reading proficiency (McKenna & Kear, 1990) as well as lifelong reading and learning (McKenna et al., 2012). In addition, the Matthew Effect, which describes how cumulative advantages can lead to subsequent achievements, has attracted considerable attention in the field of reading (Pfof, Hattie, Dörfler, & Artelt, 2014; Stanovich,

1986). It is generally accepted that readers who are interested in reading are more likely to have higher reading outcomes (e.g., Baker & Wigfield, 1999; Gottfried, 1985). However, most of the current views of reading attitude are shaped by the research on L1 learners, leaving the field of attitude toward L2 reading an under explored area (Kim, 2016; Lee & Schallert, 2014; Yamashita, 2013).

Therefore, there is a need for second language educators to have a more comprehensive understanding of L2 reading development by addressing the role of reading attitude in reading proficiency. An examination of English language learners' reading attitude toward English in relation to their English reading proficiency will serve as a further step to enrich our knowledge about second language literacy education. Additionally, it will help practitioners tailor their teaching instructions to student needs in an attempt to consider how positive reading attitude can be best cultivated and how achievement can be effectively facilitated.

Context and Rationale

This study was carried out in an EFL (English as a Foreign Language) context in China. Specifically, it focused on adolescent students in high schools from an economically advanced area (i.e., the Pearl Delta area). Over the past three decades, English has been an indispensable part of the Chinese school curricula and has received increasing attention from educational stakeholders. Ongoing efforts have been made in the English national curriculum reform in order to address the needs and demands of learners. In the present study, English both a second language and a foreign language is referred to as L2.

In *English Curriculum Standards for Full-time Compulsory Education and Senior High Schools* (MOE, 2001; MOE, 2011), English skills, linguistic knowledge, learning strategies, and cultural awareness are emphasized. As noted in Wang and Chen's (2012) overview of English

curriculum in China, there has been a clear shift from exam-oriented education to quality-oriented education. Now, a greater emphasis is placed on the cultural and humanistic functions of English language teaching. For the purpose of helping students reach high levels of future achievement, the English curricula at both primary and secondary levels, begins to recognize students' affective development through language learning. Moreover, special attention is given to help students develop positive dispositions as well as establish a positive outlook on life.

In order to follow the trend of worldwide education reform and further deepen the national curriculum reform, the revision of the English curriculum in China was published in January 2018 (MOE, 2017). The concept of key competencies is highlighted as the guideline for this curriculum standard: the pursuit of education should be combined with knowledge, skills, emotional attitude, cultural awareness, and morality, etc.

Under the new philosophy for the national reform of English curriculum, the goal of English literacy education reflects major changes. In parallel with the concept of key competencies, a foreign language reading framework has been established (Wang & Chen, 2016). This framework aims to provide development goals for Chinese primary and secondary school students. The framework specifies the objectives of English literacy education not only for reading abilities and linguistic knowledge, but for individuals' affective needs in reading to achieve quality education and cultivate lifelong reading. A love for lifelong reading is a desired outcome for students and may yield lifelong rewards.

It is the first time that the Chinese curriculum has emphasized students' affective domain in reading (Wang, 2017). To merely guarantee the acquisition of the mechanics of reading in literacy education is far from enough. Another challenge lies in a positive change in emotional response to reading. In particular, the framework highlights the importance of reading attitude in

the reading process. The idea of helping students to develop a positive attitude about the pleasures of English reading has been strongly encouraged (Wang, 2017).

The foreign language reading framework resonates with educational stakeholders. A focus on affective profiles provides a new perspective and a comprehensive picture of reading education for teachers in Chinese English classrooms (Wang, 2017; Wang & Chen, 2016). Many teachers also feel the need to change their beliefs to emphasize more affective profiles rather than focus on reading skills and achievement only (Wang, 2017; Wu, 2018). However, Chinese students' voices are lacking in the current understanding of English reading attitude.

Additionally, there is a shortage of information about how students perceive reading in English. Few studies have been carried out on students' attitude toward reading as well as the relationship between reading attitude and reading proficiency within Chinese context. Unfortunately, comparatively little is known about Chinese high school students' reading attitude; academic reading attitude research is lacking for this population in China (Liu, 2012; Gu, Hong & Yang, 2017). The more practitioners can understand their students' perceptions toward L2 reading, the better they can guide and facilitate their students with appropriate approaches. For example, it would be conducive to create positive learning experiences and encouraging environment for students who show unpleasant feelings toward reading practices in English. Therefore, assessing reading attitude serves an important role when working with senior high school students, providing critical information for various stakeholders and contributing to a better understanding of reading development and reading education in English classrooms of senior high school students in China.

Purpose of the Study

The purpose of this study was twofold: 1) to investigate English language learners' reading attitude toward English; and 2) to examine whether reading attitude can predict English reading proficiency within the context of Chinese senior high schools. This study sheds light on reading development in a second language. Specifically, with senior high students from Pearl Delta Area as a representative group, the present study aimed to answer the following research questions:

1. What are Chinese senior high school students' English reading attitudinal orientations?
2. To what extent does English reading attitude predict English reading proficiency of senior high school students in China?
3. What differences arise in English reading attitude between learners of high level and low level English reading proficiency?
4. What additional factors predict Chinese senior high school students' English reading attitude?

The hypotheses for each research question are as follows:

H1: Chinese senior high school students' English reading attitude can be attributed to several orientations, including affective attitude about L2 reading, cognitive attitude about L2 reading, and conative attitude about L2 reading.

H2: English reading attitude contributes to a proportion of variance in English reading proficiency.

H3: Differences exist in English reading attitude between learners of high level and low level English reading proficiency. Learners of high levels of reading proficiency have higher

level positive perspectives toward reading practices in English compared to learners of low level English reading proficiency.

H4: Demographic factors (i.e., Private English Lessons, Reading Frequency, Teachers' Encouragement, Parents' Encouragement and Gender) are significant contributors to L2 reading attitude.

To test hypotheses, the present study adopted an English comprehension test and an English reading attitude questionnaire as data instruments. Data were used to quantitatively examine Chinese senior high school students' L2 reading attitude and to measure how reading attitude affects their reading proficiency. In data analyses, exploratory factor analysis, descriptive analyses, correlation, multiple regression and t-test were employed, thereby gaining a deeper understanding of the reading development in a second language.

Overview of the Thesis

The overall structure of the thesis takes the form of five chapters. This paper begins by introducing the statement of problem, the context and rationale of the study as well as purposes of the study. Chapter Two provides a literature review with regard to the theoretical framework of reading attitude and looks at how reading attitude related to reading proficiency in past research. Chapter Three is concerned with the methodology used in the present study by outlining the research design, participants, instruments, data collection, data analysis as well as ethical issues. Chapter Four presents the research findings from the questionnaire results and statistical analyses. Chapter Five delineates a discussion of the results by summarizing the findings, pointing out the limitations, and exploring implications of the study.

CHAPTER 2 LITERATURE REVIEW

The literature review is divided into six sections. The first and second sections describe related literature concerning definitions of attitude and reading attitude models for the theoretical framework of the study. The third section presents empirical findings related to the relationship between L1 reading attitude and L1 reading proficiency. The fourth section reviews the literature on the role of reading attitude toward second/foreign language and its connection to reading proficiency. The fifth section gives a brief overview of the contributing factors to L2 reading attitude, and the last section aims to extend the literature by investigating an understudied population and context.

Defining Reading Attitude

Attitude. Attitude, the most central and indispensable concept in social psychology (Allport, 1935), is one of the most-studied constructs and has been a major influence over the past century in social science. Its widespread use has contributed to a variety of definitions (McKenna, 2001). Therefore, a multitude of technical explanations of attitude have been described.

Allport (1935) described attitude as a “mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual’s response to all objects and situations with which it is related” (p.810). Sarnoff (1970) refers to attitude as “a disposition to react favorably or unfavorably to a class of objects” (p.279). Fishbein and Ajzen (1975) reinforced the idea that attitude is “a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object” (p.6). Eagly and Chaiken (1993, 1998) endorsed the idea of the intuitive appeal and conceived attitude as “a psychological

tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor” (1993, p.1). In particular, the impact of attitude on learning is a key issue in educational psychology. In the *Dictionary of Education*, attitude is defined as “the predisposition of tendency to react specifically towards an object, situation, or value; usually accompanied by feelings and emotions” (Good, 1973, p. 49). All of these definitions suggest that attitude shapes individuals’ intentions by influencing their response to specific circumstances either favorably or unfavorably.

Although these definitions have undergone changes over time, at the core is “favor and disfavor”. There is a consensus that an individual’s emotions and feelings are the primary focus.

Reading Attitude. Preliminary work suggests that reading attitude is a complex theoretical construct defined in various way (Mathewson, 1994; Petscher, 2010; Yamashita, 2004). The definitions of attitude mentioned above lay a foundation to help us understand reading-specific definitions of attitude. Alexander and Filler (1976) consider reading attitude as “a system of feelings related to reading which causes the learner to approach or avoid a reading situation” (p. 1). This is in accordance with the notion that attitude can be defined in a favorable or unfavorable way. McKenna, Kear, and Ellsworth (1995) adopt the view that “attitude is largely affective in nature and that beliefs are causally related to it” (p. 938). Likewise, Smith (1990) defines the term “reading attitude” as “a state of mind, accompanied by feelings and emotions, that makes reading more or less probable” (p. 215). These definitions pay special attention to the affective nature of attitude.

There is also a general consensus among reading researchers that reading attitude is multidimensional and composed of tripartite components: cognitive, affective, and conative aspects (Fishbein & Ajzen, 1975; Lee, 2014; Kim, 2016; Mathewson, 1994; Yamashita, 2004). The conceptualization of the tri-components of reading attitude has its roots in the psychological

literature. First, reading attitude is cognitive; personal and evaluative beliefs are incorporated and practicability of reading are emphasized (e.g., English reading contributes to successful future employment). Second, reading attitude is affective; connected with emotions or feelings towards reading. For instance, students can be enthusiastic about reading in English. This statement indicates students' affective attitude about English reading. Third, the conative component of reading attitude concerns the predisposition of one's behavior and is closely connected to the cognitive and affective components. That is, a conative attitude about reading can be shown through one's actions. For example, students might go to the library to borrow English books. This example reflects students' behavioral intentions about reading.

According to Mathewson (1994), "quantifying all three of these aspects ensures that attitude toward reading has been measured fully" (p.1151). Hence, the tri-componential definition of reading attitude will be adopted for the present study.

Theoretical Frameworks of Reading Attitude

Based on the definitions of reading attitude, researchers have tried to construct theoretical models in an attempt to better understand attitude in the domain of reading (Mathewson, 1994; McKenna, 1994).

The Mathewson Model. Mathewson (1976, 1985, 1994) proposed and redeveloped the model of reading attitude, which is grounded in the tripartite view of reading attitude. Mathewson (1994) defines reading attitude as "evaluation of content and purpose, feelings about engaging in a particular kind of reading, and action readiness for initiating or sustaining reading activity" (p.1136). The focus of this model is that attitude, involving prevailing feelings (an affective dimension), action readiness (a conative dimension) as well as evaluative beliefs (a cognitive dimension), influences an individual's intention to read, and ultimately affects an

individual's reading experience, including attention, strategy use, and reading comprehension. Such reading experiences provide individuals with feedback for their attitude toward reading. McKenna et al. (1995) explained, "the results of a given reading encounter are fed back to influence attitude" (p.937).

The important aspect of the Mathewson Model is its application of tri-component of attitude (McKenna, 1994). In the Mathewson's model, reading attitude is not only conceptualized by emotion or feelings, but also includes action readiness and evaluative beliefs for reading. The Mathewson's model is a theoretical orientation of prime significance in the process of attitude acquisition and development as well as in the field of reading research.

The McKenna Model. In an attempt to construct a model for improvement in the long-term development of reading attitude, McKenna (1994, 1995) proposed a new model by synthesizing several reading-specific models of attitude acquisition (e.g., Mathewson, 1994; Rudell & Speaker, 1985). However, instead of adopting the tripartite view of attitude, McKenna (1994) reconceptualized "reading attitude" without a cognitive component, emphasizing attitude as largely associated with the aspect of emotions and feelings and suggesting that beliefs about reading are causally connected with attitude. According to McKenna et al. (1995):

Specifically, the McKenna model identified three principal factors influencing attitudinal change: (a) beliefs about the outcomes, (b) beliefs about the expectations of others in light of one's motivation to conform to those expectations, and (c) the outcomes of specific incidents of reading (p.938).

Based on the McKenna model (1994), readers' attitude will develop according to three factors: normative beliefs, beliefs about the outcomes of reading, and specific reading experiences. These factors influence one another as well as reading attitude. Although McKenna

et al. (1995) mentioned that the validation of McKenna's (1994) model would require a multitude of theoretical and empirical investigations, this model has made valuable contributions to the conceptualization and acquisition of reading attitude.

Both models have managed to explain reading attitude from different perspectives by employing coherent models. For the purpose of the study, Mathewson's (1994) tripartite reading attitude model will be adopted. The reason for choosing this model is due to the fact that this study will measure students' reading attitude toward English from different interconnected dimensions in accordance with the tri-component view of reading attitude suggested by Mathewson (1994). Mathewson's model has been widely accepted in the field; it provides the most elaborate description of reading attitude and has served as a theoretical framework for several studies (e.g., Kim, 2016; Lee & Schallert, 2014; Yamashita, 2004, 2013).

L1 Reading Attitude and L1 Reading Proficiency

What we know about reading attitude is largely based on research on the examination of first language learners in the United States (Kush, Watkins, & Brookhart, 2005; Lazarus & Callahan, 2000; Martinez, Aricak, & Jewell, 2008; McKenna, Kear, & Ellsworth, 1995). More recent evidence shows that attitude toward L2 reading is an underexplored area (Lee & Schllert, 2014; Kim, 2016; Tse & Xiao, 2016; Yamashita, 2013). In light of the interest on L2 reading attitude in L2 reading proficiency, a reasonable starting point for the review is to understand attitude on L1 reading and its relation to L1 reading proficiency.

Reading attitude is shown to be essential for better understanding and predicting reading proficiency across different contexts (Anderson, Tollefson, & Gilbert, 1985). A growing body of studies have examined the relationship between reading attitude of L1 readers and their reading proficiency (Kush, Watkins, & Brookhart, 2005; Lazarus & Callahan, 2000; Martinez, Aricak, &

Jewell, 2008; McKenna, Kear, & Ellsworth, 1995; Petscher, 2010). These studies have demonstrated positive correlations between reading attitude and reading proficiency.

In an early study by Walberg and Tsai (1985) conducted in the United States, as assessed by National Assessment of Educational Progress (NAEP), a positively moderate correlation between reading attitude and reading comprehension was found among 1459 nine-year-old students. Similarly, the most referred study conducted by McKenna et al. (1995) investigated the relationship between reading attitude and reading ability from a nationally-representative sample of 18,185 elementary school students by using the Elementary Reading Attitude Survey (ERAS), and found that recreational and academic reading attitude were clearly associated with reading ability as the grade level progressed. Martinez et al. (2008) extended earlier research by constructing a longitudinal design among 76 elementary students from the Midwestern United States, and reported a temporal interaction between reading attitude and reading proficiency across a span of one year. Similar correlations on the relationship between reading attitude and reading proficiency were noted (Roettger, Szymczuk, & Millard, 2001). Roettger et al. (2001) also indicated that there were significant differences in reading attitude between high-achieving students and low-achieving students in grades three through six. However, low correlation coefficients between reading attitude and reading proficiency were detected. In addition, Petscher's (2010) meta-analysis of 32 studies at school level found a moderately strong relationship between attitude and achievement in reading. That is, the strength of reading attitude and reading proficiency relationship was of moderate size. In general, the literature shows a broad agreement on the conclusion that reading attitude is positively associated with reading proficiency.

Although many studies have reported a positive relationship between reading attitude and reading proficiency, some research results are inconsistent. A longitudinal study carried out by Kush et al. (2005) failed to find the relationship between reading attitude and reading proficiency among second and third grade students from the United States. Additionally, in PIRLS 2001 international report (Mullis, Martin, Gonzalez, & Kennedy, 2003), the findings suggested that some high-achievers maintained negative attitude, while Russ (1989) pointed out that some low-achievers had positive attitude. That is to say, there is still inconsistency with regard to L1 reading attitude and its relation to L1 reading proficiency. As Petscher (2010) noted in the meta-analysis, a combination of inconsistencies in defining, explaining, and measuring reading attitude are prone to show mixed results. Yet, the need to better understand the relationship between reading attitude and reading achievement cannot be denied.

Research on L2 reading is often developed from issues and studies explored in L1 reading research (Grabe, 2009). Despite the divergence of information in examining L1 reading attitude and L1 reading proficiency, it is reasonable to expect that a connection between L2 reading attitude and L2 reading proficiency exists.

As for the aforementioned findings, subjects have been limited to L1 learners, and those studies in the L1 field do not always generalize to L2 learners. In fact it is difficult to generalize the findings of L1 learners to individuals who speak English as a second/foreign language, as an ESL context influences the amount and type of contact with L2 reading among L2 learners (Smith, Briggs, & Pothier, 2017). This reduces learners' motivation in English reading. In addition, reading attitude is likely to be culturally shaped and reinforced (Petscher, 2010). Hence, such differences should be further explored.

L2 Reading Attitude and L2 Reading Proficiency

Previous work in this field has focused primarily on L1 learners and there have been few attempts to measure reading attitude of L2 readers (Erten, Topkaya, & Karakas, 2010). Attention to reading attitude and its connection to reading comprehension across different countries and cultures, specifically targeting English language learners (ELL), is limited.

Yamashita (2004) was one of the first to investigate L2 reading attitude and its association with L2 reading performance on 59 English language learners in the context of a Japanese university. In this study, reading performance was indicated by the amount of reading per week. A questionnaire to measure L2 reading attitude was developed based on Mathewson's model (1994). However, Yamashita decided to limit the focus on cognitive and affective aspects since behavioral intentions were hard to operationalize in EFL contexts. Four subcomponents of reading attitude were delineated: anxiety, comfort, value and self-perception. The results showed that only comfort (affective aspect) and self-perception (cognitive aspect) of the attitude variables were significantly correlated. Yamashita concluded that the positive affective variables of L2 reading attitude contributed to reading performance.

Lee and Schallert (2014) examined the connection between L2 reading attitude and L2 reading proficiency among 289 adolescent learners of English in a Korean middle school. By using a 35-item reading attitude questionnaire that drew upon Mathewson's (1994) tri-component view of reading attitude, five reading attitude variables were identified, including cognitive attitude, conative attitude, negative affect, anxiety, and self-assessment. The results of the study showed that L2 reading attitude was significantly correlated with L2 reading proficiency. Negative affect and self-assessment about L2 reading attitude were found to be significant predictors. Commenting on the findings, Lee and Schallert (2014) concluded that

nonlinguistic aspects, such as L2 reading attitude, contributed to a more comprehensive understanding of L2 reading development.

Kim (2016) further explored L2 reading attitude looking at 173 university students in South Korea based on Yamashita's (2004, 2007) questionnaire. In the same vein, among the several constructs of reading attitude scale, only the emotional and affective dimension of discomfort was found to be related to reading proficiency. As Yamashita (2007) considered comfort and discomfort as one construct, Kim's (2016) finding was congruent with Yamashita's. Furthermore, by using an open-ended question to see beneath and dig deeper into participants' discomfort, Kim reported that "students' sense of difficulty" in reading processes, followed by "gaining information" (p.1180), contributed to the research findings.

The existing literature has demonstrated the connection between L2 reading attitude and L2 reading proficiency. However, the studies are limited to only one school. Such samples fail to generalize to other EFL contexts. Therefore, it is necessary to carry out studies in different contexts to further shed light on the understanding of L2 reading attitude.

Contributing Factors to L2 Reading Attitude

A substantial number of studies have looked at the influence of reading attitudes on reading performance. Additionally, there is a line of studies focusing particularly on the contributing factors to L2 reading attitudes, with the purpose of gaining a better understanding of the construct of L2 reading attitudes (Lee & Schallert, 2014).

In terms of the development of L2 reading attitudes, Day and Bamford (1998) proposed a model to identify four contributors to L2 reading attitudes: L1 reading attitudes, L2 classroom environment, previous experiences of L2 reading, and general attitudes toward target language

and related culture. It has been shown that L1 reading attitude is one of the indicators that has an effect on L2 reading attitude.

Day and Bamford's conclusion was backed up by Camiciottoli's (2001) study which provided additional support for Day and Bamford's (1998) model by including several variables: years of English study, access to English books, L1 and L2 reading frequency, previous experiences to related culture, self-perception of English reading ability, and encouragement to read in English for pleasure. On the basis of the questionnaire responses, L1 reading amount and cross-cultural experiences were significantly correlated with L2 reading attitudes. This finding provides supporting evidence for a connection between L1 reading and L2 reading.

As described, the transfer of L1 reading to L2 reading has long attracted much attention, and L1 reading exerts an important role in explaining L2 reading attitude. Likewise, on the basis of Mathewson (1994) and McKenna's (1994) theoretical framework of reading attitude, Yamashita (2004) reported that four factors of reading attitude, namely anxiety, comfort, value and self-perception, were all correlated between L1 and L2. In another major study, Yamashita (2007) found significant contributions of L1 reading attitude in explaining L2 reading attitude, and further suggested that L1 reading attitude transfers to L2 reading attitude in spite of different reactions to the two languages.

Yamashita's work was complemented by Lee and Schallert's (2014) study of interconnections of languages, which pointed out that reading attitude established in one's native language may transfer to, or at least correlate with L2 reading attitude. In addition, to better understand the construct of L2 reading attitude, Lee and Schallert (2014) examined other contributing factors in predicting L2 reading attitude. Nine variables were found to be related to L2 reading attitude: length of formal and private instruction, experiences of learning foreign

languages other than English, L1 and L2 reading frequency, teachers' encouragement, gender, and access to reading resources. However, in contrast with Day and Bamford (1999), previous experience of related culture was not a significant predictor of L2 reading attitude.

Studies describing the role of gender in second language learners' reading attitude have started to emerge in recent years (Lee & Schallert, 2014). In the field of L1 reading attitude, female students show more positive reading attitudes than male students. Nonetheless, gender differences may differ in different sociocultural context. Lee and Schallert (2014) took a cross-cultural look at gender differences in students' reading attitude in a Korean middle school. Girls reported more negative affect and lower self-assessment toward English reading in contrast with boys, though girls' actual performance in reading proficiency outperformed boys.

Based on the contributing factors identified in previous research, the aim of this study is to consider several contributors to L2 reading attitudes in Chinese educational context. This will lead to a comprehensive understanding of the construct of reading attitude and help inform instructional practice in high school.

Extending the Literature

Most of the research on the assessment of reading attitude has been carried out among elementary and university students rather than adolescent students in senior high school. In Petscher's (2010) meta-analysis, only four of the 32 studies focused on middle school students and senior high school students were not represented at all. Moreover, a considerable decline of reading attitude has been noted as students move through grade levels (Cloer & Dalton, 2001; EQAO, 1999; Lee & Schallert, 2014; McKenna et al., 1995; McKenna et al., 2012; McGeown, Johnston, & Walker, 2015; Petscher, 2010). Petscher's (2010) meta-analysis revealed a stronger relationship between reading attitude and achievement for elementary students ($Z_r = .44$) than for

middle school students ($Z_r = .24$). On the other hand, reading progress patterns change when beginning high school (van Gelderen, Schoonen, Stoel, de Glopper, & Hulstijn, 2007). As Jang (2013) suggests, the measurement of high school students' reading attitude warrants greater attention.

Of the studies that examine students' reading attitude, the majority of the samples are L1 readers or L2 learners in Korean or Japanese contexts. Thus, it cannot be assumed that the findings generated from these two EFL contexts are able to reliably generalize to students in other EFL contexts. An additional investigation in the Chinese context is necessary to further understand L2 reading development. The present study aims to extend the literature by investigating an understudied population.

Summary

Much work on reading attitude in L1 or L2 and its relation to reading proficiency has been carried out over the years. However, existing findings are inconsistent and not able to reliably generalize to other contexts. The divergence of research results partially stems from the complexity of the psychological construct, as several interacting variables pertain to reading attitude. The various studies on reading attitude also fail to provide an operational definition. This may explain why the focus has been on cognitive aspects of reading instead of the affective domain.

On the grounds of the primary emphasis upon testing and assessment, the attention regarding the affective aspect of English reading and the importance of English reading attitude has been long overlooked in mainland China. The study employed a quantitative research design to investigate senior high school students' L2 reading attitude and to examine how reading attitude relates to students' English reading proficiency in the Chinese educational context.

CHAPTER 3 METHODOLOGY

The methodology section consists of three sections. The first section presents the rationale for the design of the study. The second section delineates the quantitative method that was used to conduct the study by focusing on participants, instruments, data collection procedures and data analyses adopted to address the research questions. A summary of the methods is provided at the end of this chapter.

Research Design

Quantitative measurement of reading attitude has been widely applied in the past (Diamond & Onwuegbuzie, 2001; Ghaith, Bouzeineddine, 2003; Kuhlemeier, Van den Bergh, & Melse, 1996; Kush et al., 2005; Russ, 1989). The main goal of this study was to examine Chinese senior high school students' reading attitude toward English and the relationship between reading attitude and reading proficiency. In order to describe the extent to which the variables of L2 reading attitude predicts L2 reading achievement and provide an overall picture of reading attitude for a group of Chinese senior high schools' students, a non-experimental quantitative method with self-report questionnaires was adopted.

Previous studies examining reading attitude have used quantitative questionnaires (e.g., Lee & Schallert, 2014; McGeown et al., 2015; McKenna et al., 1995; McKenna et al., 2012; Yamashita, 2004). These types of questionnaires are widely used on the grounds of the rapid turnaround in data collection (Babbie, 1990; Fowler, 2009). Additionally, it is a practical and efficient way of measuring and analyzing a large amount of data that describes attitudes, opinions, behaviors or characteristics of a certain group of participants. The results are straightforward and can be easily compared with other data.

In this study, a reading attitude questionnaire and English reading comprehension test scores were used to quantitatively examine Chinese senior high school students' L2 reading attitude. Descriptive statistics, exploratory factor analysis, correlation analyses, multiple regression analyses, and a t-test were used to measure how reading attitude affects reading proficiency.

Participants

The participants of the study were Chinese 11th grade students who were attending the second year of senior high school, which in mainland China educational system covers Grade 10 to Grade 12. A total of 408 students (213 males and 195 females) learning English as a foreign language participated in this study on a voluntary basis. They were students recruited from three different senior high schools in Guangzhou, China. Of the three schools, two are rated as the top five senior high schools among Guangzhou according to the quality of teaching and the dynamics of school. The city of Guangzhou is the demonstration education region with high-quality educational resources as opposed to other areas in Guangdong Province. A convenience sampling method was used in the recruitment, which is a non-probability sampling on the basis of ease-of-access, proximity, and willingness to participate in the study (Urdan, 2005).

The reasons behind the selection of 11th grade students as participants for this study is provided as follows. In mainland China, compulsory education covers six years of elementary school and three years of middle school. Students are obliged to enroll in either academic or vocational senior high schools based on their High School Entrance Examinations test scores. First year senior high school students (10th graders) are prone to be affected by the mental and physical adjustments of the state of learning, while third year senior high school students (12th graders) are more likely to be influenced by the intense pressure caused by College Entrance

Examinations (Xiang, Tan, Kang, Zhang, & Zhu, 2017). Considering that 11th grade students were in the middle phase of a three-year senior high school program (Hao, 2018), this grade level was the most appropriate for this study.

The participants were from two academic paths at the same grade level evenly: liberal arts and science. The students in liberal arts classes are required to study six main subjects: Chinese, Math, English, History, Geography and Politics. Students in the science classes are obliged to study six main subjects: Chinese, Math, English, Physics, Biology, and Chemistry.

Like many other senior high schools in China, the participating schools are required to follow a standardized curriculum with fixed amounts of class instructional time and designated textbooks. Students in both liberal arts classes and science classes use the same English textbooks and have six or seven English classes per week. In spite of the relatively similar English education and the same English curriculum across China, students' English reading proficiency may vary. Demographic information for the participants in this study is outlined in Chapter Four.

Instruments

Two instruments were used to collect data for this study. Scores from students' English reading comprehension test were used for their reading proficiency. A reading attitude questionnaire was used to measure students' attitude toward English reading. Each instrument is described in the following sections.

English Reading Comprehension Test. A 22-item English reading comprehension test was modified and constructed on the basis of two large-scale standardized tests, the Ontario Secondary School Literacy Test (OSSLT) and the Chinese National Matriculation English Test (NMET). The test for this study includes five reading comprehension texts followed by 22

multiple-choice questions. As they were developed and reviewed by experienced practitioners and they demonstrated validity and reliability in the large-scale standardized tests, these five reading comprehension texts were selected accordingly.

An English curriculum expert reviewed the 22-item test and made sure that it links to the Chinese national curriculum of English and adopt the same question type as NMET. Additionally, the test used for this study was reviewed by three English teachers in order to ensure that the test was appropriate for the participating students with regard to its difficulty level. Accordingly, they were administered to the participants to collect their English reading scores. The participants' previous English reading comprehension test scores were obtained as well to demonstrate the reliability of the 22-item reading comprehension test.

English Reading Attitude Questionnaire. A paper-based L2 reading attitude questionnaire intended for senior high school students was administered to students. The questionnaire consists of two sections: 1) Demographic items and 2) Items related to L2 Reading Attitude. The first section was used to ask participants about their demographic information. According to previous research, several lines of evidence suggest that some contributing factors may relate to L2 reading attitude (e.g. Day & Bamford, 1998; Camiciottoli, 2000; Lee & Schallert, 2014; Yamashita, 2007). Thus, considering the context of the study, five demographic items were selected in the questionnaire, including gender, private or extracurricular English instruction, frequency of English reading for pleasure, teachers' encouragement, and parents' encouragement. Participants' student number and school were collected in lieu of participant names. Student numbers and school names were used to link the questionnaire data to the English reading comprehension test scores.

The second section of the questionnaire comprising 30 items was drawn from Lee and Schallert's (2014) L2 reading questionnaire. All items were 5-point Likert scale items. Lee and Schallert (2014) developed their reading attitude questionnaire for English L2 adolescent learners based on Mathewson's (1994) tripartite model of L1 reading attitude as well as Yamashita's L2 reading attitude studies (2004, 2007). Factor analyses were used to identify how many factors were involved in students' L2 reading attitude. On the basis of items with a minimum eigenvalue of 1.0, factor loadings of .45 and above were kept, while items on multiple factors at a level of .32 or lower or with little theoretical connections to the factor were eliminated, and five factors were extracted including cognitive attitude about L2 reading (e.g., I can acquire broad knowledge if I read books), conative attitude about L2 reading (e.g., I go to a library to borrow or read books), negative affect about L2 reading (e.g., I want to avoid reading as much as possible), anxiety about L2 reading (e.g., I sometimes feel anxious that I may not understand even if I read), and self-assessment about L2 reading (e.g., I am good at understanding what I read). A total of 30 statements yielded these five interpretable factors that accounted for 54.7% of the total variance. Internal consistency of reliability for each factor ranged from .62 to .89 demonstrating good internal consistency.

This study adopted the Lee and Schallert's (2014) five-factored questionnaire. One change was made to the questionnaire items: "high school" replaced "middle school" conforming to the context of the study. For each item, a 5-point Likert scale was used, with 1= "not at all true of me" and 5= "completely true of me".

The questionnaire was developed in English with all items translated into Chinese to ensure participants' understanding of each statement. An experienced scholar and two bilingual graduate students translated the questionnaire back to the English version, and modifications

were made according to their suggestions in order to make sure each English statement was followed by an equivalent in Chinese. To ascertain whether the translation was accurate, a trial was conducted. Specifically, a small number of students (N=15) who were at the same grade as the participants completed the questionnaire and provided feedback. In the main study, only the Chinese version of the questionnaire was provided to participants so as to prevent possible misunderstanding and confusion created by the two languages.

Data Collection

Ethics clearance (see Appendix A) was obtained in August 2018 from the General Research Ethics Board (GREB) at Queen's University and permission was then received from the participating schools. Upon the ethics clearance and approval from participating schools and teachers, a Letter of Information and consent form was sent home to obtain parental consent and student assent. The administration and the completion of the English comprehension test and reading attitude questionnaire occurred on the following day during students' regular English class time in order to increase return rate. Participants who signed a consent form signifying their willingness were included in the study, while those who decide not to participate or not have a signed consent form were excluded. Students were asked to first complete the English comprehension test (see Appendix B) and then respond to the 30-item reading attitude questionnaire (see Appendix C). A brief overview of the study was presented to the students. Instructions for how to answer 5-point Likert scale were then given in Chinese. Students were assured that their participation was voluntary and their responses would not be released to others. They were guaranteed the right to have up to two weeks to withdraw from the study by discontinuing the questionnaire or contacting the researcher. As participants included their student number on the questionnaire in lieu of their name, participants who decided to withdraw

from the questionnaire could be identified by their student number. Data from the questionnaires were collected and analyzed, and blank questionnaires were omitted from the analysis.

The English reading comprehension test was administered before the questionnaire. Under the permission and approval from the school principals and teachers, test scores of each student on the English comprehension test were collected and utilized as a measure of students' reading proficiency. Student names were not associated with the scores. Any identifying information on questionnaires and English reading comprehension test scores were replaced with codes. All data collected were kept confidential.

Data Analysis

As stated earlier, the aim of the study was to examine Chinese high school students' English reading attitude while reading in English, and to investigate how their reading attitude affects their reading proficiency. Several quantitative methods were conducted to address the research questions. The Statistical Package for Social Sciences (SPSS Version24) was used to conduct the analyses.

Prior to data analysis, survey data and participants' English reading comprehension test scores were entered into a SPSS file. Gender was coded, male as 1 and female as 2. Participation of private or extracurricular English courses or lessons was categorized into five scales based on time spans: "No, never", "Yes, for less than 1 year", "Yes, for 1-2 years", "Yes, for 3-4 years" and "Yes, for more than 5 years" and they were coded as 1, 2, 3, 4, and 5 accordingly. Perceived teacher encouragement on English reading as well as perceived parental encouragement were rated on five levels, with 1= "Never" and 5= "Always". In addition, the 30-item reading attitude questionnaire was measured by a 5-point Likert scale: "Not at all true of me", "Mildly true of me", "Moderately true of me", "Mostly true of me" and "Completely true of me", they were

coded as 1, 2, 3, 4 and 5 respectively. Specifically, the statements with negative opinions (Item 1, 3, 4, 5, 6, 10, 12, 16, 18, 27, 29, see Appendix A) were reverse-coded. Therefore, the higher scores on all the items indicated higher degrees of positive attitude toward reading or favorable results.

Missing data were inspected carefully to see whether the missing values were random. Students who did not have any identification number indicated on the questionnaire were deleted from the data as there was no way to link their date to the scores ($n = 8$). When an entire section of responses were missing, the participant was also dropped from analysis ($n = 2$). These procedures collectively led to a final sample size of 398.

Although Lee and Schallert's (2014) reading attitude scale was already factor analyzed and reliabilities of subscales were clearly reported, it has never been carried out in Chinese-specific educational context. An exploratory factor analysis was conducted to see if the results were in accordance with the current research context and to reduce them to a smaller set of factors or components of reading attitude. In this study, a principal component analysis was performed as it helps "determine components that underlie performance on a group of variables" (Hatch & Lazaraton, 1991, p. 491) based on the total variance. Orthogonal rotation with varimax was preferred, as previous research pointed out that the dimensions of attitudes toward reading – namely cognitive, affective, and conative – are conceptually distinct (Erten, 2010; Mori, 2002). Additionally, in previous studies relating to reading attitudes, orthogonal varimax was frequently used when researchers sought to find independent constructs (Erten, 2010; Lee & Schallert, 2014). The use of orthogonal varimax helped retain the independent components. Reliability coefficients was calculated for each factor loading for the purpose of assessing the internal consistency of the attitudes for English reading questionnaire. Reliability coefficients were

calculated for each factor loading for the purpose of assessing the internal consistency of the attitude for English reading questionnaire.

Participants were divided into two categories: high-level and low-level with regard to their reading proficiency test scores. Students achieving above the 80th correct items are regarded as learners of high-level reading proficiency, and those having less than 20th of correct items are regarded as learners of low-level reading proficiency.

The first research question concerning Chinese high school students' L2 reading attitude was answered by using exploratory factor analysis and descriptive statistics. Exploratory factor analysis was performed to examine the construct structure by acquiring the number of factors that English reading questionnaire actually assessed and attributing the measurement to several orientations. Descriptive statistics both at the scale level and item level offered an overall picture of how students expressed their attitude toward English reading.

The second research question concerning the contribution of students' reading attitude to reading proficiency was tested using product-moment correlation analyses followed by multiple regression analyses. Specifically, correlation analyses were conducted to determine the strength and direction of the association between the predictor variable and criterion variable as well as to examine the interrelationship among attitudinal factors. Multiple regression analyses were carried out to determine the attitudinal factor that could best predict students' performance in English reading comprehension test.

The third research question concerned the differences of affection for reading in the two groups of proficiency levels. A t-test was employed to compare learners of high level and low level on reading attitude and to determine whether significant differences exist between the two groups.

The fourth research question regarding whether additional reading factors predict L2 reading attitude was addressed by adopting correlation analyses followed by multiple regression analyses. Correlation analyses first assessed the relationship between several demographic factors (Private English Lessons, Reading Frequency, Teachers' Encouragement, Parents' Encouragement and Gender) and L2 reading attitude. Multiple regression analyses were subsequently carried out to gauge the degree to which the contributing factors predicted participants' L2 reading attitude.

Summary

An English comprehension test and English reading attitude questionnaire were administered to 398 participants to provide a comprehensive picture of Chinese high school students' reading attitude and the relationship between reading attitude and reading proficiency. An exploratory factor analysis, descriptive analyses, correlations, multiple regressions and a t-test were used to address the research questions. Table 1 presents a summary of the research questions and how they were analyzed.

Table 1
An Overview of the Research

Research Question	Data Analysis
(1) What are Chinese senior high school students' English reading attitudinal orientations?	Descriptive Statistics, Exploratory Factor Analysis
(2) To what extent does English reading attitude predict English reading proficiency of senior high school students in China?	Correlation, Multiple Regression
(3) What differences arise in English reading attitude between learners of high level and low level English reading proficiency?	Correlation, Multiple Regression, T-test
(4) What additional factors predict Chinese senior high school students' L2 reading attitude?	Correlation, Multiple Regression

CHAPTER 4 RESULTS

The purpose of this study was to investigate English language learners' reading attitude toward English and to examine whether reading attitude can predict English reading proficiency within the context of Chinese senior high schools. Chapter Four presents the results of the statistical analyses according to the research questions: (1) What are Chinese senior high school students' English reading attitudinal orientations? (2) To what extent does English reading attitude predict English reading proficiency of senior high school students in China? (3) What differences arise in English reading attitude between learners of high level and low level English reading proficiency? (4) What additional factors predict Chinese senior high school students' L2 reading attitude? Each section includes the results of data analyses and the answer to the research question.

Before laying out the findings of the research, demographic information is presented as follows.

Demographics

Eleventh-grade students ($N = 398$) studying English as a Foreign language were recruited for the present study. Of the initial cohort of 398 participants, 208 were male (52%) and 190 were female (48%). Demographic questions were included to collect students' background information (i.e., Participation of Private English Courses, Reading Frequency, Teachers' Encouragement, Parents' Encouragement and Gender) as well as to help identify whether certain

demographic factors contribute to students' L2 reading attitude and reading achievement. Table 2 presents a summary of the descriptive statistics for the demographic information.

Participation of private or extracurricular English courses or lessons was categorized into five scales based on time spans: “No, never”, “Yes, for less than 1 year”, “Yes, for 1-2 years”, “Yes, for 3-4 years” and “Yes, for more than 5 years” and they were coded as 1, 2, 3, 4, and 5 accordingly. The results revealed that among 398 participants, 183 students (34%) never attended any private or extracurricular English courses or lessons, and around 160 students (30%) received private English instruction less than two years.

Perceived teacher encouragement on English reading as well as perceived parental encouragement were rated on five levels, with 1= “Never” and 5= “Always”. Three hundred and ninety-four participants (99%) reported being encouraged to read for pleasure in English from their teachers. More specifically, over half of those surveyed reported that their teachers frequently encourage them to read for pleasure. Participants' parental encouragement on English reading was also measured. 92% of participants have received encouragement to read for pleasure in English from their parents. However, compared with teachers' encouragement, as shown in Table 2, parental encouragement was moderately low, $M = 2.91$, $SD = 1.13$. One third of participants reported that their parents rarely encourage them to read for pleasure.

Table 2
Descriptive Statistics for Demographic Information

	Minimum	Maximum	Mean	Std. Deviation
Participation of Private English Courses	1	5	2.09	1.20
L2 Reading Frequency	1	5	2.76	1.26
Teachers' Encouragement	1	5	3.89	.85
Parents' Encouragement	1	5	2.91	1.13
English Comprehension Test	4	44	26.08	9.38

The last background information asked for students' frequency of English reading for pleasure. The response included "almost never", "once a month", "once a week", "3-4 times a week" and "almost every day". The result suggested that students' reading frequency was at average level, $M=2.76$, $SD=1.26$. 126 respondents (32%) reported that they read English books for pleasure once a week, and 108 participants (27%) read for pleasure more than three times a week.

The total scores of the English comprehension test ranged from 4 to 44 (for a total of 44), $M = 26.1$ $SD = 9.3$. In order to verify the reliability of the test scores, a correlation analysis was used to determine the relationship between scores on the English comprehension test and previous English reading achievement. A positive correlation ($r = .63$) was found demonstrating the reliability of the English reading comprehension test.

Results for Research Question 1

Chinese senior high school students' English reading attitudinal orientations are tested with exploratory factor analysis and descriptive statistics.

Factor Analyses. Exploratory factor analysis was conducted to simplify the construct and to reduce the number of variables. In previous studies relating to reading attitude, quantitative questionnaires were used as the main instrument of data collection (e.g. Lee & Schallert, 2014; McKenna, Conradi, Lawrence, Jang, & Meyer, 2012; Yamashita, 2004). These often require the measurement of a large number of variables. Therefore, identifying the structure of a set of variables and reducing them into a smaller set of dimensions through exploratory factor analysis is often necessary (Field, 2018). The purpose of conducting a factor analysis in the present study was to identify the components of reading attitude and to determine the presence of an underlying variable.

The reading attitude of participants was examined through a 30-item reading attitude questionnaire. An exploratory principle component analysis (PCA) was conducted on the 30 items with varimax rotation. Principal component analysis was performed as it helps “determine components that underlie performance on a group of variables” (Hatch & Lazaraton, 1991:491) based on the total variance. Orthogonal rotation with varimax was preferred, as previous research pointed out that the dimensions of attitudes toward reading – namely cognitive, affective and conative – are conceptually distinct (Erten, 2010; Mori, 2002). In addition, in previous studies concerning reading attitude, orthogonal varimax was frequently used when researchers sought to find independent constructs (Erten, 2010; Lee & Schallert, 2014). The use of orthogonal varimax helped remain the independent components.

The Kasiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = 0.914, which exceeded the general agreement of .60 when conducting EFA (Tabachinick & Fidell, 2013) and referred to an adequate sampling according to Kaiser and Rice (1974). Also, the value of Bartlett’s Test of Sphericity showed statistical significance indicating that the sample was valid as well ($p < .05$). The communalities for item 29 (*If I do not understand content in reading, I skip the part.*) was low (0.27) and therefore removed from the factor analysis.

An initial analysis was run with the remaining 29 items to obtain eigenvalues for each factor in the data. The factor loadings after rotation are included in Table 3. Six factors had eigenvalues over Kaiser’s criterion of 1 and each factor loadings was over 0.4. The items that clustered on the same factor suggested that factor 1 represented Cognitive Attitude (*e.g., Reading English is useful to get a good grade in class; I can improve my sensitivity to the English language if I read English*), which is associated with students’ beliefs and expectations toward

practical values and linguistic benefits that English reading may bring to them. Factor 2 represented students' unpleasant feelings about L2 reading and was called Negative Affect (e.g., *Reading English is troublesome; I do not want to read in English even if the content is interesting*). Factor 3, Conative Attitude (e.g., *I want to read many English books in the future; During my vacation, I want to read at least one English book*) describes students' action, intention, and behavioral readiness for English reading. Factor 4, Self-assessment (e.g., *I am good at reading in English; I feel confident when I am reading in English*), reflects students' confidence in English reading as well as English reading proficiency tests. Factor 5, Anxiety (e.g., *I sometimes feel anxious that I may not understand what I read; I feel anxious if I don't know all the words in reading passages*) involves students' feelings of nervousness or worry about their English reading comprehension abilities. Only one item was loaded on factor 6 (*I sometimes visit English websites and read them on the Internet*) which was concerned about students' awareness and intention to exhibit L2 literacy practices. To sum up, the factor analyses resulted in six factors related to English reading attitude (Cognitive Attitude, Negative Affect, Conative Attitude, Self-assessment, Anxiety, and Attitude of L2 Digital Literacy).

Table 3
Factor Loadings of English Reading Attitude Scale

	Factor					
	1	2	3	4	5	6
Factor 1: Cognitive Attitude						
Reading English is useful to get a good grade in class.	.76					
I can develop my English reading ability if I read English.	.74					
I can improve my sensitivity to the English language if I read English.	.69					
I can acquire broad knowledge if I read English.	.66					
I can develop English writing ability if I read English.	.66					
I can acquire English vocabulary if I read English.	.66					
I can become more knowledgeable if I read English.	.65					

Reading English is useful to get a good job in the future.	.65
I get to know different values if I read English.	.60
Factor 2: Negative Affect	
Reading English is dull.	.74
I do not want to read in English even if the content is interesting.	.72
I want to avoid reading in English as much as possible.	.72
I feel overwhelmed whenever I see a whole page of English in front of me.	.71
When I read in English, I find it difficult to concentrate.	.69
I feel tired if I read English.	.68
I don't mind even if I cannot understand the book content entirely.	-.51
Reading English is troublesome.	.51
If I do not understand content in reading, I skip the part.	
Factor 3: Conative Attitude	
I go to a library to read or borrow English books.	.69
I like to read English books in my spare time.	.67
During my vacation, I want to read at least one English book.	.66
I want to read many English books in the future.	.63
I try to find time for reading in English.	.58
If someone tells me that he or she likes an English book very much, I am going to read it too.	.48
Factor 4: Self-assessment	
I am good at reading in English.	.74
My grades for English reading tests at high school are very good.	.68
I feel confident when I am reading in English.	.64
Factor 5: Anxiety	
I feel anxious if I don't know all the words in reading passages.	.79
I sometimes feel anxious that I may not understand what I read.	.78
Factor 6: Attitude of L2 Digital Literacy	
I sometimes visit English websites and read them on the Internet.	.91

A total of 29 statements yielded these six interpretable factors accounting for 58.8% of the total variance. As shown in Table 4, of the identified factors Cognitive Attitude explained the most variance, namely 15.81% of the total variance. Negative Affect was the second strongest component that characterized the English reading attitude in the present study, accounting for 15.12%. Conative Attitude was the third strongest factor that characterizes English reading

attitude, accounting for 11.54% of the variance. Contributions of the remaining components were smaller. Self-Assessment accounted for 7.06%, Anxiety for 5.80% and Attitude of L2 Digital Literacy for 3.50%. The internal consistency reliability was then analyzed on the six factors. Internal consistency of reliability for each component ranged from .80 to .85, demonstrating good internal consistency.

Table 4
The Items and Cronbach's Alpha Reliability Coefficients for Each Factor

Factor	N of Items	Cronbach's Alpha	Eigenvalue	% of Total Variance
Cognitive Attitude	9	.88	4.74	15.81
Negative Affect	8	.85	4.54	15.12
Conative Attitude	6	.80	3.46	11.54
Self-assessment	3	.83	2.12	7.06
Anxiety	2	.83	1.74	5.80
Attitude of L2 Digital Literacy	1	.82	1.05	3.50

Descriptive Analyses. In order to address the first research question, descriptive statistics at the item level of students' reading attitude were performed. Table 5 displays the descriptive statistics for English reading attitude at the item level.

Item 11, "I can acquire English vocabulary if I read English" received the highest mean score ($M = 4.16$, $SD = .88$), which suggests that most students considered reading as a benefit for learning and expanding their English vocabulary. The same finding was shown by item 21, "I can improve my sensitivity to the English language if I read English" ($M = 4.01$) and item 20, "I can develop my English reading ability if I read English" ($M = 3.90$). These results indicate that students had a strong interest in attaining their expected results. All of these three items that displayed the highest means are associated with students' practical values and expectations of English reading. Contrary to expectations, it is interesting to note that item 3, "I do not want to

read in English even if the content is interesting” ($M = 4.01$) and item 16, “Reading English is troublesome” ($M = 3.90$) also received high mean scores. These negatively worded statements with high scores on means suggest that students also responded negatively to English reading. That is, students had strong beliefs concerning the values and usefulness that they can get from English reading, whereas they developed unpleasant feelings and the lack of enthusiasm in English reading at the same time.

On the other hand, item 2, “I go to a library to read or borrow English books”, received the lowest mean score ($M = 1.90$). This result may be explained by the fact that there is a shortage of English books available to students in school libraries, resulting in limited access to English books.

Table 5

Descriptive Statistics for English Reading Attitude at the Item Level

	Mean	Std. Deviation
I feel tired if I read English.	3.19	1.13
I try to find time for reading in English.	2.78	1.12
I do not want to read in English even if the content is interesting.	4.01	1.04
I feel overwhelmed whenever I see a whole page of English in front of me.	3.61	1.20
I don't mind even if I cannot understand the book content entirely.	3.76	1.05
I sometimes feel anxious that I may not understand what I read.	2.83	1.11
I can become more knowledgeable if I read English.	3.81	1.03
I like to read English books in my spare time.	2.56	1.11
I can develop English writing ability if I read English.	3.77	1.05
Reading English is dull.	3.72	1.12
I can acquire English vocabulary if I read English.	4.16	.88
I want to avoid reading in English as much as possible.	3.86	1.06
I get to know different values if I read English.	3.63	1.13
Reading English is useful to get a good grade in class.	3.82	1.00
Reading English is useful to get a good job in the future.	3.34	1.16
Reading English is troublesome.	3.90	1.81
I want to read many English books in the future.	3.44	1.17
I feel anxious if I don't know all the words in reading passages.	2.84	1.27

I sometimes visit English websites and read them on the Internet.	3.84	22.56
I can develop my English reading ability if I read English.	3.90	.90
I can improve my sensitivity to the English language if I read English.	4.01	.87
I am good at reading in English.	2.56	1.12
If someone tells me that he or she likes an English book very much, I am going to read it too.	2.84	1.51
My grades for English reading tests at high school are very good.	2.52	1.03
I feel confident when I am reading in English.	2.53	1.00
I go to a library to read or borrow English books.	1.90	.93
When I read in English, I find it difficult to concentrate.	3.46	1.09
I can acquire broad knowledge if I read English.	3.68	.99
If I do not understand content in reading, I skip the part.	2.76	1.09
<u>During my vacation, I want to read at least one English book.</u>	<u>2.85</u>	<u>1.30</u>

Note. Likert scale answers ranged from 5= completely true of me to 1= not at all true of me.

In order to better comprehend students' English reading attitudinal orientations, descriptive analyses at the scale level are presented (see Table 6). Based on the results of the exploratory factor analysis, six constructs from English Reading Attitude Questionnaire were identified. These include Cognitive Attitude (9 items), Negative Affect (8 items), Conative Attitude (6 items), Self-Assessment (3 items), Anxiety (2 items), and Attitude of L2 Digital Literacy (1 item).

Table 6

Descriptive Statistics for English Reading Attitude at the Scale Level

Factor	Mean	Std. Deviation
Cognitive Attitude	3.81	1.03
Negative Affect	3.68	.90
Conative Attitude	2.73	.86
Self-assessment	2.54	.91
Anxiety	3.14	.72
Attitude of L2 Digital Literacy	3.84	22.55

As these results show, students demonstrated mixed feelings about English reading. Specifically, the means for Cognitive Attitude and Negative Attitude were both above 3.5 out of

5. This result further strengthens previous observations obtained at the item level. That is, students had strong evaluative beliefs toward English reading. Still, they showed negative attitude in the meanwhile.

Results for Research Question 2

The contribution of students' reading attitude to reading proficiency was tested using product-moment correlation analyses followed by multiple regression analyses.

Correlation Analyses. To examine the relative contributions of students' attitude toward L2 reading to L2 reading proficiency, correlations between reading attitude and reading proficiency followed by multiple regression were conducted. In addition, Pearson correlation coefficients, commonly used as the size of an effect, were calculated to investigate the interrelationship among attitudinal factors. According to the benchmarks, coefficient values of .10 indicate a small effect; values of .30 represent a medium effect, and values of .50 a large effect (Field, 2018).

Prior to investigating the strength and direction of the relationships, scatterplots were used in an attempt to provide a general illustration and overall pattern of the relationship. As the direction of scatterplots shows, these two variables (i.e., Reading attitude variables and English Proficiency) have a positive association: as a student's attitudinal score increases, the individual's reading performance increases.

Table 7 displays the correlation coefficients among all variables of L2 reading attitude and L2 English reading performance. The correlation between attitudinal factors and English reading proficiency appeared non-significant or low. Consistent with the scatterplots, it is observed that English reading proficiency is positively related to Cognitive Attitude, Negative

Affect, Conative Attitude and Self-assessment ($p < .05$). However, the factor showing no significant relationship with English reading proficiency was Anxiety and Attitude of L2 Digital Literacy.

Table 7
Correlation among Reading Attitude Variables and English Reading Proficiency

	1	2	3	4	5	6	7
1. English Reading Proficiency							
2. Cognitive Attitude	.10*						
3. Negative Affect	.25**	.36**					
4. Conative Attitude	.18**	.46**	.56**				
5. Self-assessment	.23**	.26**	.53**	.60**			
6. Anxiety	.08	-.01	.34**	.16**	.18**		
7. Attitude of L2 Digital Literacy	-.08	.03	.01	.01	.04	.02	

Note. ** $p < .01$, * $p < .05$

Among all the significant correlations between English reading proficiency and L2 reading attitude, the strongest correlation occurs between the Negative Attitude about L2 reading and the English reading comprehension test scores, $r = .25$, $p < .05$. Interestingly, this result indicates that students who reported feeling more negative about L2 reading also scored higher on the English Reading Comprehension Test. The positive correlation with Self-assessment ($r = .23$, $p < .05$) of L2 reading shows that students with higher English reading proficiency tend to feel better about themselves during English reading. Small correlations between Cognitive Attitude and Conative Attitude were shown, $r = .10$ ($p < .05$) and $r = .18$ ($p < .05$) respectively. These associations suggest that EFL senior high school students with higher levels of evaluative beliefs and behavioral intentions in L2 reading are more likely to have higher scores in reading achievement.

Regarding the correlations among the reading attitude variables, significant correlations were found. The correlations among the latent variables are presented in Table 7. It should be

noted that no significant differences were observed between Attitude of L2 Digital Literacy and the other attitudinal variables. Therefore, this latent variable is more likely to be an independent factor that is unrelated to other five factors. In addition to the variable Attitude of L2 Digital Literacy, the other reading attitude factors are positively correlated.

As Table 7 shows, Conative Attitude was strongly correlated to students' Self-assessment ($r = .60, p < .05$) and Negative Attitude ($r = .56, p < .05$). Cognitive Attitude had moderate correlations with Negative Attitude ($r = .36, p < .05$), Conative Attitude ($r = .46, p < .05$), and Self-assessment ($r = 0.26, p < .05$). Anxiety was found to be weakly correlated with Conative Attitude ($r = .16, p < .05$) and Self-assessment ($r = .18, p < .05$).

Regression Analyses. First, to learn more about the relationship between attitudinal subscales and students' reading comprehension test scores and to examine which variable could best predict students' performance in reading, a multiple regression was conducted. The results of the correlations represented no multicollinearity, and the data satisfied other regression assumptions, including linearity, homoscedasticity, normal distribution and independence. Thus, the data confirmed no violation of assumptions for conducting the regression analyses. Attitudinal subscale scores served as the predictor variables and students' English reading proficiency test scores as the criterion variable.

Table 8 displays the results of the multiple regression analysis of students' reading attitude on reading proficiency. Six independent variables were entered simultaneously. Taken together, six subscales of reading attitude accounted for 8.9% of the variation in students' reading achievement ($R^2 = .089$) revealing that 91.1% of the variation in students' English reading proficiency remains unaccounted for. Most variance might be explained by other variables.

Table 8

Contribution of L2 Reading Attitude to English Reading Proficiency

Dependent Variable	Predictor Variable	B (beta)	t	p	F	R ²
English Reading Proficiency	Cognitive Attitude	-.07	-.14	.89	6.334	.089
	Negative Affect	2.08	3.06	.00		
	Conative Attitude	.02	.03	.98		
	Self-assessment	1.39	2.11	.04		
	Anxiety	-.17	-.24	.81		
	Attitude of L2 Digital Literacy	-.04	-1.81	.07		

Closer inspection of the findings confirmed that the linear model overall predicts students' reading proficiency ($F = 6.334$, $p < .01$). Among the entered predictors, the regression coefficient revealed that both Negative Affect, $t(398) = 3.06$, $p < .05$, and Self-assessment, $t(398) = 2.11$, $p < .05$, remained statistically significant predictors of students' English reading proficiency, whereas the other latent variables were not statistically significant predictors of students' performance in reading. Therefore, the results indicate that students' negative affect ($\beta = 2.08$) and self-assessment in English reading ($\beta = 1.39$) were the contributors to reading proficiency when six variables together were used to predict eleventh graders' reading proficiency in mainland China. The contribution of Negative Affect to L2 reading proficiency indicated that students who perform better in English reading process tend to have stronger negative feelings in L2 reading.

Results for Research Question 3

The differences of affection for reading in different groups of proficiency levels were examined by a t-test. It sets out to compare learners of two levels on reading attitude and to determine whether significant differences exist between the two groups.

T-Test. Students' English reading proficiency scores were used and participants were classified into two levels, high-achievers and low-achievers. For this study, students achieving above 80th correct items above were regarded as learners of high-level reading proficiency, and those having less than 20th of correct items were regarded as learners of low-level reading proficiency.

The results of the t-tests are summarized in Table 9. Overall, there were significant differences between students in the two groups of high- or low-achieving English reading proficiency on L2 reading attitude. As for attitudinal scores, high-achievers scored higher than low-achievers and expressed different perceptions toward L2 reading in four aspects, namely, Cognitive Attitude, Negative Affect, Conative Attitude, and Self-assessment. To be specific, high achievers had statistically significant higher cognitive L2 reading attitude scores ($M = 3.82$, $SD = 1.15$, $p < .05$) than low achievers ($M = 3.12$, $SD = 1.53$, $p < .05$).

Table 9

T-Test Results for Attitudinal Differences on Reading among Different Levels of Achievers

Reading Attitude Factor	Group	Mean	Std. Deviation	<i>t</i>	<i>p</i>
Cognitive Attitude	High	3.82	1.53	-3.34*	.000
	Low	3.13	1.15		
Negative Affect	High	3.78	1.41	-4.64*	.000
	Low	2.89	1.06		
Conative Attitude	High	2.78	1.08	-4.32*	.000
	Low	2.14	.86		
Self-assessment	High	2.66	.78	-4.60*	.000
	Low	2.06	.84		
Anxiety	High	3.28	.76	-1.55	.12
	Low	3.09	.72		
Attitude of L2 Digital Literacy	High	8.63	52.62	.97	.33
	Low	3.02	1.31		

Note. * $p < .05$.

As for Negative Affect, high achievers had more negative affection in L2 reading ($M = 3.78, SD = 1.06, p < .05$) than students with lower English reading proficiency ($M = 2.89, SD = 1.41, p < .05$). In terms of Conative Attitude, high-achievers were more self-directed in L2 reading ($M = 2.78, SD = 0.86, p < .05$) than low-achievers ($M = 2.14, SD = 1.08, p < .05$). There was also a significant difference in students' self-assessment about L2 reading across achievement levels, with high achievers ($M = 2.66, SD = .84, p < .05$) being more confident and sure about reading than low achievers ($M = 2.06, SD = .78, p < .05$); however, no significant differences were found in Anxiety or Attitude of L2 Digital Literacy, with p -values above .05.

Results for Research Question 4

Whether additional reading factors predict L2 reading attitude was addressed by adopting correlation analyses followed by multiple regression analyses.

Correlation analyses. With the purpose of better understanding reading attitude construct, the correlations between L2 reading attitude variables and demographic variables were tested. Results of the correlational analyses are shown in Table 10. Five demographic variables were found to be positively correlated with reading attitude variables. Specifically, most reading attitudinal orientations were correlated with frequency of English reading for pleasures. However, there were no significant correlations between Attitude of L2 Digital Literacy and any of the demographic variables. A multiple regression was conducted to determine the contributions of five demographic variables to L2 reading attitude.

Regression analyses. In order to gauge the importance of various other factors in explaining the L2 reading attitude of Chinese senior high school students, multiple regression was performed. It intends to further explore the relationship between demographic variables and L2 reading attitude and seeks to test which of these demographic variables could best predict L2

reading attitude. Gender, Private L2 Instruction, Reading Frequency, Teachers' Encouragement and Parents' Encouragement served as the predictor variables, while the six reading attitude variables served as the dependent variables.

Table 10

Correlation among Reading Attitude Variables and Demographic Variables

Demographic Variable	V1	V2	V3	V4	V5	V6
Gender	.13**	.14**	.27**	.04	.02	-.04
Private instruction	.06	.13**	.05	.10*	.04	-.05
Reading frequency	.20**	.43**	.37**	.30**	.18**	.06
Teachers' encouragement	.25**	.17**	.16**	.06	-.08	.07
Parents' encouragement	.13**	.18**	.23**	.13*	.09	.01

Note. ** $p < .01$, * $p < .05$; V1=Cognitive Attitude; V2=Negative Affect; V3=Conative Attitude; V4=Self-assessment; V5= Self-assessment; V6=Self-assessment.

As Table 11 shows, participation of private or extracurricular English courses or lessons was not a statistically significant predictor of any of the L2 reading attitude factors. That is, L2 reading attitude was unaffected by the length of private L2 instruction, indicating that private tutoring had no influence on students' reading attitude toward English in the present study. This table also shows that the frequency of reading English books for pleasure was a strong predictor of L2 reading attitude (cognitive, $\beta = .14$; negative affect, $\beta = .39$; conative, $\beta = .32$; self-assessment, $\beta = .30$; anxiety, $\beta = .20$).

In addition to the participation of private English after-school courses, teachers' encouragement for L2 reading was positively associated with Cognitive Attitude ($\beta = .21$) but negatively linked to Anxiety ($\beta = -.18$). This suggests that the more students received teachers' encouragement, the less pressure they felt about English reading. In contrast, a positive association was found between parents' encouragement for L2 reading and Anxiety ($\beta = .13$),

indicating that the more students received parents' encouragement for English reading, the more anxiety they feel. Table 11 also shows that gender was a significant contributor to Conative Attitude ($\beta = .21$).

Table 11

Contribution of Demographic Variables to L2 Reading Attitude

Dependent Variable	Predictor Variable	B (beta)	t	F	R ²
Cognitive Attitude	Reading Frequency	.14	2.68	7.91*	.08
	Teachers' Encouragement	.20	3.77		
Negative Affect	Reading Frequency	.39	8.25	19.77*	.19
Conative Attitude	Gender	.21	4.68	20.65*	.20
	Reading Frequency	.32	6.83		
	Parents' Encouragement	.15	3.06		
Self-assessment	Reading Frequency	.30	5.87	8.86*	.09
Anxiety	Reading Frequency	.20	3.84	5.12*	.05
	Teachers' Encouragement	-.19	-3.32		
	Parents' Encouragement	.13	2.41		
Attitude of L2 Digital Literacy				1.06	.01

Note. * $p < .05$.

Taken together, Table 11 illustrates the significant contributors on each L2 reading attitude factor. Cognitive Attitude was predicted by the combination of reading frequency and teachers' encouragement, $R^2 = .08$, $F(398) = 7.91$, $p < .01$; Negative Affect was only predicted by reading frequency, $R^2 = .19$, $F(398) = 19.77$, $p < .01$; Conative Attitude was predicted by gender, reading frequency and parents' encouragement, $R^2 = .20$, $F(398) = 20.65$, $p < .01$; Self-assessment was predicted by reading frequency, $R^2 = .09$, $F(398) = 8.86$, $p < .01$; Anxiety was predicted by reading frequency, teachers' encouragement and parents' encouragement, $R^2 = .05$, $F(398) = 5.12$, $p < .01$. Attitude of L2 digital literacy was excluded because no significant correlations were found with any of the demographic variables.

Summary

The purpose of the study was to measure students' English reading attitude and its relation to English reading proficiency. The study adopted quantitative methods to answer the research questions. A reading attitude questionnaire was administered to collect students' views about English reading. English reading comprehension test scores were used to indicate students' English reading proficiency. Results showed that students had strong beliefs concerning the value and usefulness of English reading. Participants also showed strong negative emotions toward English reading. Of the six factors used to measure L2 reading attitude, Negative Affect and Self-assessment significantly contributed to L2 reading proficiency. With respect to high-achievers and low-achievers, significant differences were found in Cognitive Attitude, Negative Affect, Conative Attitude and Self-assessment. Several contributing factors were confirmed to predict English reading attitude, including Reading Frequency, Teachers' Encouragement, Parents' Encouragement and Gender. More specifically, the frequency of reading English books for pleasure was a strong predictor of L2 reading attitude.

CHAPTER 5 DISCUSSION AND CONCLUSION

Previous studies have provided ample support for the impact of linguistic knowledge, cognitive factors, and metacognitive abilities on L2 reading process (Grabe, 2009; Jimenez, Garcia, & Pearson, 1996; Nassaji, 2011; Phakiti, 2003). However, the bulk of this research has failed to provide a broader lens that takes the affective domain into account (McKenna, Conradi, Lawrence, Jang, & Meyer, 2012). Affective components of reading education, such as reading attitude, have been overlooked in the field of L2 reading, especially in the context of mainland China. To contribute to our knowledge about reading development and success in a second language, the present study was undertaken to investigate English language learners' reading attitudinal orientations. The main goal was to learn the orientations ways in which students approach reading, and ultimately to determine whether students' reading attitude toward English is related to measures of their English reading proficiency within the context of Chinese senior high schools. Additional contributors (e.g. gender, teachers' encouragement, and reading frequency) to L2 reading attitude were also examined to contribute a more thorough understanding of the construct of reading attitude.

This fifth chapter begins by discussing the research findings, and followed by the comparison with previous research and the interpretation of the existing findings. The limitations of the study are then discussed followed by the implications from both theoretical and practical perspectives.

Research Findings

The major findings of the present study are as follows: 1) Chinese senior high school students' English reading attitude can be attributed to six orientations: Cognitive Attitude,

Negative Affect, Conative Attitude, Self-Assessment, Anxiety, and Digital Literacy Attitude about L2 reading. Results showed that students had strong beliefs concerning the values and usefulness of English reading. They also showed strong negative emotions in regard to attitudes and beliefs in English reading. 2) Of the six factors displayed to measure L2 reading attitude in this study, Negative Affect and Self-assessment significantly contributed to L2 reading proficiency. 3) Significant differences in English reading attitude were found between learners of high level and low level English reading proficiency. Significant differences were also found in Cognitive Attitude, Negative Affect, Conative Attitude, and Self-assessment. 4) Several contributing factors were confirmed to predict English reading attitude, including Reading Frequency, Teachers' Encouragement, Parents' Encouragement, and Gender. The frequency of reading English books for pleasure was a strong predictor of L2 reading attitude.

Chinese Senior High School Students' English Reading Attitudinal Orientations.

This section addresses research question one: What are Chinese senior high school students' English reading attitudinal orientations? An exploratory factor analysis was conducted to identify the constructs of L2 reading attitude. Six underlying factors were found. The first factor, Cognitive Attitude, reflects students' beliefs and expectations toward practical values and linguistic benefits that English reading may bring to them. Students with high scores on cognitive attitude are more inclined to consider English reading as a medium that can assist them with their success in general in the future. The second factor, Negative Affect, relates to students' unpleasant feelings, including the avoidance, tiredness, and the lack of enthusiasm in English reading. The third factor, Conative Attitude, represents students' behavioral intention and behavioral readiness by making plans and fulfilling their desires for English reading. The fourth factor, Self-Assessment, depicts students' confidence in the English reading. The fifth factor,

Anxiety, relates to students' feelings of nervousness and worry about their English reading comprehension abilities. These five factors, in accordance with the previous research (e.g. Lee & Schallert, 2014), supported the reliability of L2 Reading attitude Questionnaire developed by Lee and Schallert. However, the present study resulted in another factor, Attitude of L2 Digital Literacy, which was reported by McKenna *et al.* (2012). Students with a positive attitude of English reading in digital contexts are more likely to build up the awareness and intention to exhibit L2 literacy practices.

The extracted structures of L2 reading attitude help us better interpret Chinese senior high school students' English attitudinal orientations. Of the identified factors, Cognitive Attitude explains the most variance. This finding demonstrates the importance of evaluative beliefs in explaining L2 reading attitude, in accordance with previous observations (Yamashita, 2007). In a study of L2 reading attitude among Japanese university students, Yamashita noted that, cognitive aspects of reading attitude best account for variance of reading attitude. Besides, negative Affect is the second strongest component that characterizes the English reading attitude in the present study. This result concurred with previous research findings that affective component of attitude is a striking characteristic (Lee & Schallert, 2014; Yamashita, 2007). Attitude of L2 Digital Literacy explains the least.

According to the descriptive analysis on attitudinal orientations, students generally showed mixed feelings about English reading, as the means for Cognitive Attitude and Negative Attitude were above 3.5 out of 5. That is, students had strong beliefs concerning the values and usefulness of English reading, while at the same time they also appeared to hold strong negative emotions. This result may be explained by the fact that the English reading curricula are set up on a tight schedule. Linguistic knowledge and reading strategies are much more focused in the

classroom, leaving little room and time for students to appreciate reading itself. There is, however, another explanation. Enormous pressure posed by the China's high-stakes college entrance exam and the competitive employment in the future enhances students' attention to English reading and promotes a positive stimulus for attaining their expected results. On the other hand, it makes English reading less more enjoyable and undermines students' passion and enthusiasm for reading for pleasure, gradually resulting in negative dispositions and feelings.

In addition, item 11 "I can acquire English vocabulary if I read English" and item 21 "I can improve my sensitivity to the English language if I read English" received the highest mean scores ranging from 3.90 to 4.16 out of 5. Likewise, an unanticipated finding was that item 3 "I do not want to read in English even if the content is interesting" and item 16 "Reading English is troublesome" received mean scores as high as item 11 and 21. This finding accorded with our earlier observations. Students attach great importance to academic values of English reading, but they reflected negative attitude and feelings simultaneously.

The Association between English Reading Attitude and English Reading Proficiency.

This section addresses research question two: To what extent does English reading attitude predict English reading proficiency of senior high school students in China? Previous work in the field of reading attitude has focused primarily on L1 learners and there have been few attempts to measure reading attitude on L2 readers (Erten, Topkaya, & Karakas, 2010). Attention to the examination of reading attitude and its connection to reading comprehension across different countries and cultures, specifically targeting English language learners (ELL), is limited.

Designed to draw attention to the importance of the affective domain in predicting students' L2 reading proficiency, the present study examined how Chinese 11th graders' perceived English reading attitude in connection with their performance in English reading.

Contribution of L2 reading attitude to L2 reading proficiency was conducted through correlation and multiple regression analyses. Most reading attitude factors were significantly correlated with students' reading performance. Similar results occurred when reading attitude factors were entered into multiple regression as independent variables. The findings showed a positive linear association between L2 reading attitude and L2 reading proficiency. More specifically, among the six reading attitude variables, Negative Affect and Self-assessment significantly contributed to L2 reading proficiency. On one hand, this indicated that students who perform better in English reading process tend to have stronger negative feelings in L2 reading. Based on their questionnaire response, negative emotions include avoidance, disinterest, and the lack of enthusiasm in English reading. This finding could relate to the participants' background. The Chinese 11th graders who participated in this study were preparing for the higher education admission test. The eagerness for high scores in English reading comprehension test and the obligation to develop reading skills were prone to undermine students' passion and enthusiasm for English reading outside of school. This could have resulted in their negative dispositions and feelings. On the other hand, students with stronger beliefs in themselves were more likely to score higher on the English reading proficiency test. This finding reflects those of Mills *et al.* (2006) who also found that students with stronger self-efficacy in English reading are inclined to become proficient in L2 reading.

The association between English reading attitude and English reading proficiency was not surprising as it echoed previous research (Kim, 2016; Lee and Schallert, 2014; Yamashita, 2007). Yamashita (2004, 2007) was the first to explore this relationship on 59 ELLs in the context of a Japanese university. Four sub-components of reading attitude were delineated: anxiety, comfort, value, and self-perception, and the results showed that only comfort and self-

perception were significantly correlated with reading performance. Likewise, the predictive power of negative affect and students' perceptions about their own reading competence for English reading proficiency were found in Lee and Schllerts' study examining Korean middle school students (Lee & Schallert, 2014). Similarly, according to Kim (2016), the analysis of the relationship between L2 reading attitude and L2 reading proficiency showed that discomfort toward reading in English was associated with English reading proficiency among Korean university students. Kim further suggested that students' sense of difficulty about the reading process and intention to gain information contributed to the research findings. These findings contribute to the idea that non-linguistic components of reading attitude (i.e., negative affect, self-assessment) play a significant role in L2 reading proficiency. These results could be understood on the grounds that all participants were English language learners. It is natural and inevitable for L2 readers to have negative feelings toward L2 reading as the difficulties in reading process or the sense of obligation and pressure to develop reading skills might influence their reading attitude. As a result, it can be hypothesized that the association between English reading attitude and English reading proficiency are likely to be similar in other EFL contexts.

Differences in English Reading Attitude between High and Low English Proficiency Levels. This section addresses research question three: What differences arise in English reading attitude between learners of high level and low level English reading proficiency? An independent samples t-test was used to determine whether there was a significant difference in English reading attitude between learners of high level and low level English reading proficiency. The current study found that there was a significant difference in how students perceive reading in English. However, the difference of achievement level was only significant for Cognitive Attitude, Negative Affect, Conative Attitude, and Self-assessment. The difference was not

significant for Anxiety and L2 Digital Literacy Attitude. Analysis of variance revealed that high-achieving students' English reading attitude (namely Cognitive Attitude, Negative Affect, Conative Attitude, and Self-Assessment) was significantly higher than students with low level English reading proficiency.

Interestingly, both groups displayed high negative affect on mean scores. Students with a high level of English reading proficiency reported a higher mean compared with their low-achieving counterparts. This suggests that more advanced readers might show stronger negative feelings toward English reading. This outcome is contrary to that of Kim (2016) who found that the low achievers reflected a higher level of discomfort compared to high achievers among Korean university students. Kim (2016) attributed this result to the accumulation of unsuccessful experiences in English reading among low proficient readers. The discrepancy between the present study findings and Kim's (2016) may be due to the differences in participants. The participants from Kim's study (2016) were university students. They were free from the pressure of national college entrance examinations and could read books of their own choosing. High proficient readers were more likely to realize the importance of reading for pleasure and enjoyment, while low proficient counterparts were prone to be overwhelmed because of the frustrating English reading experiences. Students of the current study were attending the second year of senior high school and facing the largest examination in mainland China (the National Matriculation English Test (NMET)). In such a competitive test-driven environment, students may easily regard the purpose of English reading as for examination purposes. This could then result in higher levels of negative affect and unpleasant feelings in both high-achieving readers and low-achieving readers. Additionally, students with high level of English reading proficiency reflected a high level of cognitive attitude compared to their less proficient counterparts. This

finding illuminates high-achieving readers' strong intent on the practical values of English reading. However, it can thus bring about the tiredness or the lack of enthusiasm in their English reading. Therefore, this may be responsible for the high level of negative attitude among high-achieving students in the present study.

Contributing Factors to English Reading Attitude. This section addresses research question four: What additional factors predict Chinese senior high school students' English reading attitude? Correlational analyses, followed by multiple regression analyses, assessed the importance of demographic variables in explaining L2 reading attitude of Chinese senior high school students. The findings showed that the following contributing factors to English reading attitude were significant: Reading Frequency, Teachers' Encouragement, Parents' Encouragement, and Gender. More specifically, English reading frequency for pleasure was found to be a strong predictor of L2 reading attitude (cognitive, $\beta = .14$; negative affect, $\beta = .39$; conative, $\beta = .32$; self-assessment, $\beta = .30$; anxiety, $\beta = .20$). That is, students who read English for pleasure more frequently perceived more practical values and linguistic benefits in English reading. They hold higher self-beliefs about their English reading ability, and were more self-directed in English reading. However, those who reported reading more often also showed more negative feelings and stronger senses of anxiety toward English reading. This finding is inconsistent with that of Lee and Schallert (2014) who found that students read English more frequently and were more likely to have lower negative affect. A possible explanation for these differences might be related to the Chinese-specific educational context. As noted earlier, participants were English language learners in their second year of senior high schools. The observed phenomenon of higher negative affect and anxiety in frequent readers could be attributed to the challenges and difficulties they faced in L2 reading process. It might also be

related to the obligation and pressure they were up against to develop their reading abilities so as to do well on college entrance examinations. Nonetheless, these inferences and interpretations should be supported with further qualitative investigation from focus group or interviews. By exploring students' thoughts, feelings and beliefs (Reeves, 2004), qualitative analyses would provide a more in-depth understanding of the existing statistical information.

In addition to L2 reading frequency, teachers' encouragement for L2 reading was positively associated with cognitive attitude of L2 reading ($\beta = .21$), indicating that the more encouragement students received by their teachers, the more positive values of L2 reading students held. This finding is consistent with Day and Bamford (1998) and Lee and Schallert's findings (2014). They found that teachers' encouragement to read contributes to positive L2 reading attitude. Contradictory to the previous study (Matsui & Noro, 2010), another interesting and unexpected finding should be noted. Teachers' encouragement was negatively linked to anxiety of L2 reading ($\beta = -.18$), whereas positive association was found between parents' encouragement for L2 reading and anxiety of L2 reading ($\beta = .13$). The finding suggests that students were prone to feel less stressed when receiving teachers' encouragement but parental encouragement to read might have an adverse effect. It could be explained by the fact that most parents have limited awareness as well as knowledge of how to facilitate their children to enjoy reading for joy and pleasure (Tse & Xiao, 2016). There is a definite need for parents to call for attention on how they guide their children and nurture their children's love on English reading. As Tse and Xiao suggested (2016), in order to build up an inspiring home literacy environment, parents should provide rich educational resources or various reading materials at home. They can also spend quality time regularly with their children on routine and frequent literacy activities.

Since many students received extracurricular tutorial English courses after school, the present study assumed that the time students spend on private or extracurricular English courses might contribute to students' L2 reading attitude. Unlike Lee and Schallert (2014), who found a negative effect of the length of private English instruction on English reading attitude among Korean middle school students, the participation of private or extracurricular English courses or lessons was not a statistically significant predictor of any of the L2 reading attitude factors in the present study. This discrepancy was likely to be related to the different contexts and participants. According to the descriptive analysis, the mean score was below average (2.09 out of 5). As mentioned earlier, participation of private or extracurricular English courses or lessons was categorized into five scales based on time spans: "No, never", "Yes, for less than 1 year", "Yes, for 1-2 years", "Yes, for 3-4 years" and "Yes, for more than 5 years" and they were coded as 1, 2, 3, 4, and 5 accordingly. Therefore, this result might be explained by the fact that participants of the current study received limited after-school English tutoring on average. This failed to become a predictor of students' L2 reading attitude.

Limitations and Suggestions for Future Study

The study contributes to our understanding of Chinese senior high school students' English reading attitudinal orientations and their relation to reading proficiency in an English as Foreign Language context. The present study provides valuable empirical findings in an unexplored context and extends our knowledge about senior high school English language learners' L2 reading attitudinal orientations and the relationship between reading attitudes and reading proficiency. However, there are several limitations that need to be acknowledged for the present study.

First, the scope of the study is limited in terms of the sample. Participants were from Guangzhou, southern China, with more advanced educational resources as opposed to some other rural areas in China. Given the regional differences in English language education, the sample in the present study cannot be a representative sample of other Chinese high school students. However, the sample size was sufficient for the statistical analyses needed in this study. In addition, the present study only investigated 11th grade students, who were attending the second year of high school. An uncontrolled factor is the possibility that their reading attitude toward English could be influenced by the preparation for university entrance examinations. The results are likely to be different with students at other grade levels. Consequently, it is not reliable to transfer these findings to other contexts or populations. A larger number of participants from different regions and multiple grades could provide more definitive evidence.

A second limitation relates to the measurement tools. Specifically, the lack of an in-depth exploration and nature of the relationship between reading attitude and reading proficiency. Indeed, quantitative measurement of reading attitude has been widely applied on the grounds of its efficiency and practicality and there have been limited attempts to measure reading attitude by means of qualitative methods (Gu et al., 2017; Kim, 2016; McGeown et al., 2015; Raved & Assaraf, 2011). Quantitative methodology could identify a research problem, but it presents only “the tip of the iceberg” and fails to show its complexities and essence (Osborne & Collins, 2001; Potter & Wetherall, 1978; Raved & Assaraf, 2011). Likewise, according to Mathewson (1994), qualitative methods should be used to gain a better understanding of reading attitude, as “quantitative research ignores powerful variables moderating the attitude-reading relationship, neglects to measure all aspects of attitude, and fails to define attitude objects adequately” (p.1150). Hence, qualitative methods are needed to study reading attitude in the future to fill and

to fill the gaps left by the quantitative methods (Gu et al., 2017; Kim, 2016; McGeown et al., 2015; Osborne, Simon & Collins, 2003). Qualitative methodology could help researchers and educators explore students' thoughts, feelings, and beliefs on a deeper level (Reeves, 2004). That is, qualitative results could help illuminate students' purpose for L2 reading as well as their reasons for refusing to read. Therefore, qualitative analyses should be employed in order to provide a more comprehensive understanding of the existing problems and reading success.

In addition to the limitations of sample and research methodology, quantitative data in this study were self-reported by students. Questionnaires were used to collect students' self-evaluation of English reading attitude. There is an inherent limitation in self-reported instruments (Fulmer & Frijters, 2009). As students might provide desirable answers that seemed favored or offer in-between responses, the results were prone to be influenced. On the other hand, students' reading proficiency was indicated by the use of one standardized English reading comprehension test. That is, reading proficiency was measured by a single score. The use of multiple measures for evaluating students' English reading proficiency would facilitate more rigorous data.

Finally, with regard to the research design, the quantitative approach was designed to discover whether students' reading attitude can predict their reading proficiency. The scope of some of questionnaire items are limited. Besides, it is a simple correlational study and the concern is that the study excluded other control variables that might be related (e.g., socio-economic status, instructional approach, L1 reading attitude or English language proficiency). It would be important to recalculate the correlation after taking the influence of other variables and confounding factors into account. Moreover, the present study failed to claim whether there exists causality between L2 reading attitude and L2 reading proficiency. Future research requires further investigation on the causal relationships. In addition, previous researchers indicated the

existence of a reciprocal and bidirectional relationship (McKenna, 1994; Morgan & Fuchs, 2007). That is, not only does reading attitude contribute to how students learn, but also better reading leads to greater enjoyment. Future studies need to be conducted to see whether a reciprocal relationship between attitude and achievement exists. Additionally, a more comprehensive study involving multiple perspectives, such as teachers, parents, and other educational stakeholders, can therefore be conducted in the future to help establish a greater degree of understanding on this matter.

Significance and Implications for Education

Affective components of second language literacy education, such as reading attitude, have long been overlooked in the field of L2 reading. The newly published L2 literacy framework in China (Wang & Chen, 2016) specifies the objectives of English literacy education not only for reading abilities and linguistic knowledge, but for individuals' affective needs in reading to achieve quality education and cultivate lifelong reading. However, there is a shortage of information about how students perceive reading in English. Notwithstanding limitations, the present study provides valuable empirical findings in an unexplored context and extends our knowledge about senior high school English language learners' L2 reading attitudinal orientations and the relationship between reading attitudes and reading proficiency. Findings suggest several pedagogical implications for practice in the field of L2 literacy development.

This study has been one of the first attempts to examine the general L2 reading attitude and perceptions of Chinese senior high school students. In this present study, students' attitudinal orientation provides clear messages and valuable information about their perceptions toward reading in English for teachers, curriculum developers and school administrators who are devoted to students' English reading and language acquisition at the high school level. It serves

as crucial information and a strong step to strengthen teachers' belief that attitudes do matter in reading, especially in enhancing the recognition and understanding of reading attitude in students' literacy development. More importantly, teachers' belief in reading can influence students' attitude and nurture a joy of reading on students. Still, a great deal of empirical studies needs to be done to assist teachers in providing pedagogical implications on how to develop positive reading attitude in their students. Nevertheless, This could make teaching practices more rewarding and successful.

With the investigation of the connection between students' L2 reading attitude and L2 reading proficiency, and the contributions to L2 reading attitude, the findings revealed that students had strong beliefs concerning the values and usefulness that they can get from English reading, whereas they hold strong negative emotions in the meanwhile. For many students, English reading involves a series of skills, strategies, and drill that seems tedious and arduous. Students often report reading in English as a way to enhance grades or find a good job, rather than for passion and interest. There is, therefore, a definite need for teachers to adopt different approaches to encourage their students to read and highlight the importance of reading for joy and pleasure. To diminish the discomfort, boredom, and anxiety that students feel toward L2 reading, teachers should create comfortable classroom contexts and positive learning experiences that are able to inspire and motivate students to enjoy reading. That is to say, it is imperative that educators explicitly create enriching learning experiences and encouraging atmospheres to minimize students' resistance and negative affect about reading. As suggested by Reutzel and Fawson (2002), teachers can help students interact with English books by developing classroom libraries and helping students learn about books to reduce their frustration. Additionally, classroom instructors can provide students with some opportunities to read silently and

independently, thereby exposing students to extensive English reading. Under such a tight schedule and a large amount of course content, teachers are supposed to come up with a realistic plan for leaving class time for English reading and to make sure the plan is put into practice. Students could choose books of their interest to read. When students are involved in decision making about what they are going to read, they are inclined to feel some ownership rather than the burden imposed by their teachers (Reeves, 2004). By selecting their own materials individually, it energizes learners' wishes to learn and their involvement to enjoy (Shannon, 1995). The preference and choice of reading is inclined to be a crucial element to increase students' reading comprehension as well as the positive attitude toward English reading.

Moreover, students were prone to feel less stressful when receiving teachers' encouragement. However, parental encouragement to read might have an adverse effect. In addition to teachers' efforts, it is important for parents to understand and recognize the significance of their children's attitude toward L2 reading and its relation to L2 reading proficiency. Parents exert a fundamental role in transmitting their beliefs and values to their children (Wang & Guthrie, 2018). Hence, parents should be involved in students' reading process and encourage young learners to become autonomous readers.

This study has provided a glimpse of the general English reading attitude of Chinese senior high school students, and has brought to the surface that L2 reading attitude can have a dynamic impact on students' L2 reading success. Today's discussion on reading education in China is inevitably dominated by skills, strategies, and outcomes for standardized-based purposes. In practice, English reading is always treated as a skill critical to academic advancement rather than enjoyment. Developing a love for reading remains a mere slogan in English classrooms in China (Wang, 2017). It will be challenging to bring reading attitude to the

forefront. However, one-sided education that deemphasizes reading attitude is prone to have a negative impact on students (Jehlen, 2004; Popham, 2005). The contribution of this study has been to confirm that most eleventh graders regard the pursuit of good grades, good career and reading skills as the main purpose of L2 reading. They were unaware of the importance of reading for enjoyment. In doing so, it is likely to end up with a generation of students who are good at taking reading comprehension tests but cannot read critically or enjoy reading itself. Teachers should be aware that positive reading attitude can be strong force in students' literacy development and notice the link between reading attitude and reading development. It's worth a try to start small. The more enriching lessons teachers present and the more encouraging instructions teachers give, are inclined to help cultivate students' positive attitude toward reading. Students' affection in English reading may benefit and guide them in the future.

The meaningful implication of the current study lies in the unexplored perspective that inspires educational stakeholders look beyond linguistic skills and cognitive factors. That is, it helps increase practitioners' knowledge and reinforce their beliefs that reading attitudes do matter in literacy development. It helps teachers recognize the importance of affect in reading other than help students achieve reading proficiency, thereby starting to make teachers ponder over what they can do in their English classrooms within the confines of existing English curricula and what changes they can envision under the pressure of standardized assessment to develop students' positive L2 reading attitude.

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Appendix A: Ethical Clearance of the Study



August 01, 2018

Ms. Jiawen Fan
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GREB Ref #: GEDUC-907-18; TRAQ # 6024282

Title: "GEDUC-907-18 Reading Attitude as a Predictor of Reading Proficiency for Senior High School English Language Learners in China"

Dear Ms. Fan:

The General Research Ethics Board (GREB), by means of a delegated board review, has cleared your proposal entitled "**GEDUC-907-18 Reading Attitude as a Predictor of Reading Proficiency for Senior High School English Language Learners in China**" for ethical compliance with the Tri-Council Guidelines (TCPS 2 (2014)) and Queen's ethics policies. In accordance with the Tri-Council Guidelines (Article 6.14) and Standard Operating Procedures (405.001), your project has been cleared for one year. You are reminded of your obligation to submit an annual renewal form prior to the annual renewal due date (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Annual Renewal/Closure Form for Cleared Studies"). Please note that when your research project is completed, you need to submit an Annual Renewal/Closure Form in Romeo/traq indicating that the project is 'completed' so that the file can be closed. This should be submitted at the time of completion; there is no need to wait until the annual renewal due date.

You are reminded of your obligation to advise the GREB of any adverse event(s) that occur during this one-year period (access this form at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Adverse Event Form"). An adverse event includes, but is not limited to, a complaint, a change or unexpected event that alters the level of risk for the researcher or participants or situation that requires a substantial change in approach to a participant(s). You are also advised that all adverse events must be reported to the GREB within 48 hours.

You are also reminded that all changes that might affect human participants must be cleared by the GREB. For example, you must report changes to the level of risk, applicant characteristics, and implementation of new procedures. To submit an amendment form, access the application by at <http://www.queensu.ca/traq/signon.html>; click on "Events;" under "Create New Event" click on "General Research Ethics Board Request for the Amendment of Approved Studies." Once submitted, these changes will automatically be sent to the Ethics Coordinator, Ms. Gail Irving, at University Research Services for further review and clearance by the GREB or Chair, GREB.

On behalf of the General Research Ethics Board, I wish you continued success in your research.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dean Tripp".

Dean Tripp, Ph.D.
Chair
General Research Ethics Board

c: Dr. Pamela Beach, Supervisor
Dr. Benjamin Bolden, Chair, Unit REB
Mrs. Erin Rennie, Dept. Admin.

Appendix B: English Reading Comprehension Test

高二年级英语阅读测试卷

本试卷包含阅读理解共 5 篇，共 22 小题。

阅读短文，从每题所给的四个选项（A、B、C 和 D）中，选出最佳选项，并在答题卡上写出正确答案。

A

Although the Marshmallow Test was an experiment designed to test self-control in four-year-old nursery school pupils, it has become one possible indicator of future success. At Stanford University in the 1960s, researchers told children they could have one thing they really wanted right away—a marshmallow or a candy, for example—but if they could wait 15 minutes, they could have two. The researchers, led by psychologist Walter Mischel, found only about 30 per cent of more than 600 children tested could hold out. When Mischel followed up in the 1980s, he discovered that those who had been able to wait for two marshmallows averaged more than 10 percent higher on college entrance exams than did those who could wait only 30 seconds. The Marshmallow Test predicted success more accurately than how well the children were able to read or do math. Their success can be attributed to their ability to control impulses, sustain attention, and plan and develop strategies to achieve goals. Collectively, these brain skills are known as “executive function” or “self-regulation.” York University professor Stuart Shanker says students can learn the ability to self-regulate. Improving executive function skills involves learning how one’s own brain works, identifying goals and motivations and learning strategies to accomplish those goals. Shanker stresses that learning executive function skills is not the same as learning to comply with orders. Exercising self-regulation comes from within. It is self-directed and it appears to be a key skill in helping kids achieve success.

1. What is emphasized by the word “although” as used in line 1?
 - A. the following sentence
 - B. the purpose of the experiment
 - C. the similarity between the two ideas
 - D. the unexpected outcome of the experiment
2. Who were the subjects of Mischel’s study in the 1980s?
 - A. a new set of children
 - B. students at York University
 - C. the children originally tested
 - D. a random sample of the population
3. Which option is closest in meaning to “attributed to” as used in line 11?
 - A. blamed on
 - B. credited to
 - C. opposite to

- D. qualified as
4. Why was Stuart Shanker included in this selection?
 - A. He expressed an opposing opinion.
 - B. He invented the Marshmallow Test.
 - C. He provided expert supporting information.
 - D. He motivated schoolchildren to achieve success.
 5. Which of the following is an example of self-regulation?
 - A. completing an online survey
 - B. prioritizing assignments in a journal
 - C. participating in a spirit-week activity
 - D. scheduling auditions for a school play

B

In September 2009, a Toronto high school started classes an hour later than usual as part of a project to determine if extra sleep improves student attendance and grades.

Research shows teens' brains are wired to go to bed late and get up late. At puberty (青春期), the chemical that induces sleep is secreted around 11 p.m. and shuts off around 8 a.m. Studies have shown that about three-quarters of teens don't get their necessary 8.5–9 hours of sleep a night.

The school found that punctuality, attendance, grades and credits earned were the worst in first-period classes, which started at 8:50 a.m. Teachers said many students came to class too tired to learn.

Some schools that have experimented with a later schedule report less student depression, fewer dropouts, better test scores and higher grades.

The principal has heard positive reviews from staff and students and said enrolment is up because of the new hours. He knows critics will say the new timetable coddles lazy teens and doesn't reflect the real world, but he points out that not everyone starts work at 9 a.m. "There's a biological need for it," he says.

The time change has had some disadvantages. With the lunch period now an hour later, students get hungry.

One student likes the change but is no longer able to pick up a younger sibling from school. "It's less convenient," she says.

However, most agree with 16-year-old Tiffany. "I like it—I feel more rested."

6. What does the principal mean by "it" in paragraph 5?
 - A. getting up later
 - B. going to sleep earlier
 - C. eating more nutritiously
 - D. eating earlier in the day
7. Which word is closest in meaning to "coddles" as used in paragraph 5?
 - A. ignores
 - B. interests
 - C. spoils
 - D. punishes
8. What has been one result of the timetable change at this Toronto high school?

- A. higher grades
 B. more credits earned
 C. increased enrolment
 D. improved test scores
9. Which paragraphs present the problem and its solution?
 A. paragraphs 1 and 2
 B. paragraphs 3 and 4
 C. paragraphs 4 and 5
 D. paragraphs 6 and 7
10. Based on the selection, which of the following most likely had the greatest influence on the principal's decision to change the start time?
 A. requests from school staff
 B. a desire to please students
 C. research about brain chemistry
 D. a need to prepare teens for the real world

C

A schoolgirl saved her father's life by kicking him in the chest after he suffered a serious allergic reaction which stopped his heart.

Izzy, nine, restarted father Colm's heart by stamping on his chest after he fell down at home and stopped breathing. Izzy's mother, Debbie, immediately called 999 but Izzy knew doctors would never arrive in time to save her father, so decided to use CPR.

However, she quickly discovered her arms weren't strong enough, so she stamped on her father's chest. Debbie then took over with some more conventional chest compressions until the ambulance arrived .

Izzy, who has been given a bravery award by her school, said: "I just kicked him really hard. My mum taught me CPR but I knew I wasn't strong enough to use hands. I was quite scared. The doctor said I might as well be a doctor or a nurse. My mum said that Dad was going to hospital with a big footprint on his chest. "She's a little star," said Debbie, "I was really upset but Izzy just took over. I just can't believe what she did. I really think all children should be taught first aid. Izzy did CPR then the doctor turned up. Colm had to have more treatment on the way to the hospital and we've got to see an expert."

Truck driver Colm, 35, suffered a mystery allergic reaction on Saturday and was taken to hospital, but was sent home only for it to happen again the next day. The second attack was so serious that his airway swelled, preventing him from breathing, his blood pressure dropped suddenly, and his heart stopped for a moment. He has now made a full recovery from his suffering.

11. Izzy kicked her father in the chest _____.
 A. to express her helplessness
 B. to practise CPR on him
 C. to keep him awake
 D. to restart his heart
12. What's the right order of the events?
 ①Izzy kicked Colm. ②Debbie called 999.
 ③Izzy learned CPR. ④Colm's heart stopped.
 A. ③①②④ B. ④②③① C. ③④②① D. ④③①②
13. What does Paragraph 5 mainly talk about?

- A. What Colm suffered.
 - B. Colm's present condition.
 - C. What caused Colm's allergy.
 - D. Symptoms of Colm's allergic reaction.
14. Why does the author write the news?
- A. To describe a serious accident.
 - B. To prove the importance of CPR.
 - C. To report a 9-year-old girl's brave act.
 - D. To call people's attention to allergic reaction.

D

The organic food has gained a lot of popularity as they are being considered as healthier and tastier. A fair number of people advocate a large-scale shift to organic farming from conventional agriculture. But this might not seem well-founded.

Since the mid-19th century, conventional industrial agriculture has become incredibly efficient on a simple land to food basis. Conventional farming gets more and more crop per square foot of land, which can mean less wilderness needs to be transformed to farmland.

To make farming more efficient, conventional agriculture uses a significant amount of synthetic fertilizer each year, and all that nitrogen enables much faster plant growth. However, the cost is paid in vast polluted dead zones at the mouths of many of the world's rivers, because much of the nitrogen ends up running off the soil and into the oceans. This also makes conventional farming one of the major threats to the environment.

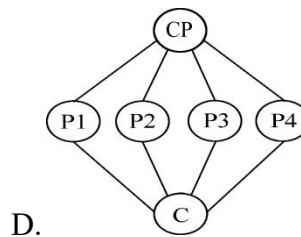
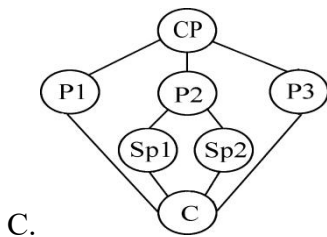
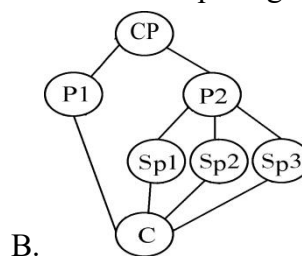
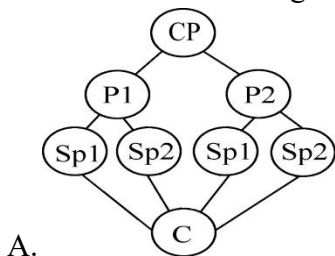
To weaken the environmental impact of agriculture, improve soil quality as well as produce healthier foods, some farmers have turned to organic farming. Environmentalists have also welcomed organic food as better for the planet than the food produced by agricultural corporations. Organic practices—refusing artificial fertilizers and chemical pesticides—are considered far more sustainable. Sales of organic food rose 7.7% in 2010, up to \$26.7 billion—and people are making those purchases for their moral senses as much as their tongues.

Yet a new meta-analysis in *Nature* does the math and comes to a hard conclusion: organic farming produces 25% fewer crops on average than conventional agriculture. This is definitely a downside of organic farming, especially when global population is still growing rapidly.

In the *Nature* analysis, scientists performed an analysis of 66 studies comparing conventional and organic methods across 34 different crop species, from fruits to grains. They found that organic farming delivered a lower output for every crop type, though the difference varied widely. For crops like fruit trees, organic trailed conventional agriculture by just 5%. Yet for major grain crops and vegetables—all of which provide the world's main calories—conventional agriculture outperformed organics by more than 25%.

What that means is that while organic farming may be more sustainable than conventional agriculture, there are trade-offs with each, so an ideal global agriculture system may borrow the best from both systems rather than upholding merely organic or conventional practices.

15. The purpose of the passage is to _____.
- A. compare two types of farming
 - B. criticize conventional agriculture
 - C. discuss the development of farming
 - D. argue for a realistic agriculture system
16. According to the passage, conventional farming _____.
- A. produces more crops with fewer fertilizers
 - B. achieves efficiency at a huge cost to the environment
 - C. offers a long-term solution to global demand for food
 - D. performs far better for each crop type than organic farming
17. The author may agree with _____.
- A. employing organic farming to plant rice
 - B. adopting organic practices to grow potato
 - C. using conventional methods to plant cabbage
 - D. applying conventional farming to growing apple
18. Which of the following shows the development of ideas in this passage?



CP: Central Point P: Point Sp: Sub-point(次要点) C: Conclusion

E

When I was a boy, we used to live across the road from a big hill with huge oak trees growing out of it. When winter arrived, thick, heavy snow would fall, and my two brothers would grab their sleds heading over to the hill for a day of fun. I remember watching them with envy because I was still too small to go sledding. Finally, one winter I was considered big enough and joined my brothers as they carried their sleds up the long hill and prepared to ride down it.

The first few trips I rode with one of my brothers and had the time of my life. It was so **exhilarating** when the wind whipped across my face as I flew down the hillside on the wooden

sled. Near the end of the day, I was overjoyed too when my oldest brother decided to let me try riding the sled all by myself. I climbed on it full of excitement and lay on my stomach. Then with one big push my brother sent me down the snowy hillside. I was doing pretty well too until I hit an old stump hidden by the snow and went off course, straight towards one of those big oak trees. My heart pounded in my chest and I could hear myself screaming. At the last possible second, I rolled off and the sled crashed into the tree. I could hear my brothers running down the hill yelling, “You have to steer(操控)! You have to steer!”

Sadly, that wasn’t the last time I failed to steer when some obstacle knocked me off course in my life. Many times, problems, troubles, and my own failures have sent me crashing into the trees of anger, frustration, and despair. I am still learning that life isn’t always safe sledding. I am still learning that it is up to me to steer myself back to love, back to kindness, back to goodness, and back to God.

Life is a trip, but no one ever said it was a smooth ride. Steer well then. Steer straight. Steer your soul towards the light and the love we are all meant for.

19. What do we know about the author when he was very young?
 - A. He lived on a big hill with huge oak trees on it.
 - B. He was frightened to go sledding with his brothers.
 - C. He longed to go sledding with his brothers.
 - D. He carried his brothers’ sleds as they went sledding.
20. Which of the following can replace the underlined word “exhilarating” in Paragraph 2?
 - A. delightful
 - B. terrifying
 - C. ordinary
 - D. violent
21. Why did the author fall off his sled?
 - A. Because his sled crashed in an oak tree.
 - B. Because he lost control of his sled.
 - C. Because his brother pushed it so hard.
 - D. Because the hillside was snowy.
22. What does the author mean to tell us?
 - A. Losing control of a sled can be dangerous.
 - B. Courage and determination can change one’s life.
 - C. Life can be controlled by one himself.
 - D. Life is a mystery full of coincidences.

Appendix C: English Reading Attitude Questionnaire (English Version)

English Reading Attitude Questionnaire

The purpose of the questionnaire is to better understand the way you feel about English reading. This questionnaire consists of two sections. Please read each question and choose one answer that suits your situation.

Section I: Demographic Information

- 1) Student Number: _____
- 2) Gender: _____
- 3) Have you ever attended private or extracurricular English courses or lessons?
① No, never ② Yes, for less than 1 year ③ Yes, for 1-2 years
④ Yes, for 3-4 years ⑤ Yes, for more than 5 years.
- 4) How often do you read something in English for pleasure?
① Almost never ② Once a month ③ Once a week
④ 3-4 times a week ⑤ Almost every day
- 5) In the past, were you ever encouraged to read for pleasure in English by a teacher?
① Never ② Rarely ③ Sometimes ④ Often ⑤ Always
- 6) In the past, were you ever encouraged to read for pleasure in English by your family?
① Never ② Rarely ③ Sometimes ④ Often ⑤ Always

Section II: Reading Attitude

There are 30 statements in the questionnaire. Please find a number from 1 to 5 that best describes you for each of these statements, and circle one answer that suits your situation. (Note: There are no wrong answers to any of these questions. Please give your honest answer.)

- 1= Not at all true of me
- 2= Mildly true of me
- 3= Moderately true of me
- 4= Mostly true of me
- 5= Completely true of me

<i>If I think the statement is completely true of me, I should circle</i>	1	2	3	4	⑤
Example: I feel relaxed if I read English.					

	Statement					
1	I feel tired if I read English.	1	2	3	4	5
2	I try to find time for reading in English.	1	2	3	4	5
3	I do not want to read in English even if the content is interesting.	1	2	3	4	5
4	I feel overwhelmed whenever I see a whole page of English in front of me.	1	2	3	4	5
5	I don't mind even if I cannot understand the book content entirely.	1	2	3	4	5
6	I sometimes feel anxious that I may not understand what I read.	1	2	3	4	5
7	I can become more knowledgeable if I read English.	1	2	3	4	5
8	I like to read English books in my spare time.	1	2	3	4	5
9	I can develop English writing ability if I read English.	1	2	3	4	5
10	Reading English is dull.	1	2	3	4	5
11	I can acquire English vocabulary if I read English.	1	2	3	4	5
12	I want to avoid reading in English as much as possible.	1	2	3	4	5
13	I get to know different values if I read English.	1	2	3	4	5
14	Reading English is useful to get a good grade in class.	1	2	3	4	5
15	Reading English is useful to get a good job in the future.	1	2	3	4	5
16	Reading English is troublesome.	1	2	3	4	5
17	I want to read many English books in the future.	1	2	3	4	5
18	I feel anxious if I don't know all the words in reading passages.	1	2	3	4	5
19	I sometimes visit English websites and read them on the Internet.	1	2	3	4	5
20	I can develop my English reading ability if I read English.	1	2	3	4	5
21	I can improve my sensitivity to the English language if I read English.	1	2	3	4	5
22	I am good at reading in English.	1	2	3	4	5
23	If someone tells me that he or she likes an English book very much, I am going to read it too.	1	2	3	4	5
24	My grades for English reading tests at high school are very good.	1	2	3	4	5
25	I feel confident when I am reading in English.	1	2	3	4	5

26	I go to a library to read or borrow English books.	1	2	3	4	5
27	When I read in English, I find it difficult to concentrate.	1	2	3	4	5
28	I can acquire broad knowledge if I read English.	1	2	3	4	5
29	If I do not understand content in reading, I skip the part.	1	2	3	4	5
30	During my vacation, I want to read at least one English book.	1	2	3	4	5

THE END

Thank you for your participation!

Appendix D: English Reading Attitude Questionnaire (Chinese version)

英语阅读态度调查问卷

本调查问卷一共包括两部分，旨在于更好地了解高中生对英语阅读的态度。请仔细阅读提示，根据您的个人实际情况填写或作出选择。感谢您对本项研究的大力支持！

第一部分：个人信息

- 1) 学校: _____
- 2) 学号: _____
- 3) 性别: _____
- 4) 是否上过课外英语补习班或英语家教?
① 从来没有 () ② 有, 少于1年 () ③ 有, 1—2年 ()
④ 有, 3—4年 () ⑤ 有, 多于5年 ()
- 5) 您多久进行一次英语课外阅读?
① 从来没有 () ② 每月一次 () ③ 每星期一次 ()
④ 每星期3—4次 () ⑤ 每天 ()
- 6) 在过往的学习和生活中, 老师是否曾鼓励英语课外自主阅读?
① 从来没有 () ② 很少 () ③ 有时 () ④ 经常 () ⑤ 总是 ()
- 7) 在生活中, 父母或其他家人是否曾鼓励英语课外自主阅读?
① 从来没有 () ② 很少 () ③ 有时 () ④ 经常 () ⑤ 总是 ()

第二部分：阅读态度

问卷一共有 30 道问题，请根据您的个人实际情况，表明以下说法在多大程度上符合您的情形和心声，从 1 到 5 五个数字中圈出能够反映您情况的选项（1=非常不符合；2=不大符合；3=略微符合；4=符合；5=非常符合）。注意：选项没有正确与错误之分，请圈出最符合您个人情况和真实想法的选项。

- 1= 非常不符合
- 2= 不大符合
- 3= 略微符合
- 4= 符合
- 5= 非常符合

如果你认为以下说法非常符合你的情况，请画圈选择5。	1	2	3	4	⑤
例子：当我进行英语阅读时，我感到很放松。					

	请在符合您的选项中画圈，请勿留白					
1	进行英语阅读时，我感到很疲惫。	1	2	3	4	5

2	我会尽量找时间进行英语阅读。	1	2	3	4	5
3	即使内容很有趣，我也不想进行英语阅读。	1	2	3	4	5
4	无论何时只要看到整页英语内容在面前，我都会感到不知所措。	1	2	3	4	5
5	即使我完全看不懂英语读物的内容，我也觉得无所谓。	1	2	3	4	5
6	有时因为读不懂英语文章的内容，我会有些紧张不安。	1	2	3	4	5
7	英语阅读会使我的知识变得更加渊博。	1	2	3	4	5
8	我喜欢在课余时间里读英语书籍。	1	2	3	4	5
9	英语阅读能够提高我的英语写作能力。	1	2	3	4	5
10	英语阅读很无聊。	1	2	3	4	5
11	英语阅读能够增加我的词汇量。	1	2	3	4	5
12	我尽可能地回避英语阅读。	1	2	3	4	5
13	英语阅读能让我了解不同的价值观念。	1	2	3	4	5
14	英语阅读能够帮助我取得好成绩。	1	2	3	4	5
15	英语阅读能够帮助我以后找到一份好工作。	1	2	3	4	5
16	英语阅读很令人烦厌。	1	2	3	4	5
17	我希望以后能够阅读许多英文书籍。	1	2	3	4	5
18	如果我不认识英语文章里所有的单词，我会感到很焦虑。	1	2	3	4	5
19	我有时候会浏览英文网站并在网上进行英语阅读。	1	2	3	4	5
20	如果我进行英语阅读，我的英语阅读能力将会得到提高。	1	2	3	4	5
21	英语阅读能提高我对英语的敏感度。	1	2	3	4	5
22	我很擅长阅读英语。	1	2	3	4	5
23	如果有人告诉我他 / 她很喜欢一本英语书，那么我也会去读。	1	2	3	4	5
24	我在学校的英语阅读考试成绩很不错。	1	2	3	4	5
25	进行英语阅读时，我会感到很自信。	1	2	3	4	5
26	我会去图书馆借阅英语书籍。	1	2	3	4	5

27	当我在进行英语阅读时，我感到很难集中注意力。	1	2	3	4	5
28	英语阅读能让我获取广泛的知识。	1	2	3	4	5
29	如果我看不懂阅读中的内容，我会跳过。	1	2	3	4	5
30	在假期期间，我想要至少阅读一本英语书。	1	2	3	4	5

问卷结束

非常感谢您的参与!