แนวคิดการออกแบบทดสอบการอ่านภาษาที่สองเพื่อความเข้าใจ

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บทคัดย่อ

บทความวิชาการฉบับนี้มีวัตถุประสงค์เพื่อเสนอแนวคิดการออกแบบทดสอบการอ่านภาษาที่สองเพื่อความเข้าใจ มีการสืบค้นและทบทวนบทความวิจัยและวรรณกรรมเพื่อให้ภูมิหลังเกี่ยวกับการสอนการอ่านภาษาที่สองและการทดสอบ จากการอภิปรายพบว่า การอ่านภาษาที่สองควรเน้นย้ำตัวแปรที่เกี่ยวข้องกับทักษะด้านการประมวลผลข้อมูลของผู้อ่านภาษาที่สองและแหล่งข้อมูลทางภาษาเพื่อส่งเสริมการอ่านเพื่อความเข้าใจให้ดียิ่งขึ้น ทั้งนี้ แบบทดสอบการอ่านภาษาที่สองที่มีอยู่ทั่วไปยังสามารถนำมาประยุกต์ใช้ได้ อย่างไรก็ตาม ควรปรับให้สอดคล้องกับตัวแปรที่กล่าวไปข้างต้น บทความวิชาการนี้ จึงได้เสนอแนวความคิดการออกแบบทดสอบการอ่านภาษาที่สองเพื่อความเข้าใจ สุดท้ายนี้ มีการอภิปรายถึงการนำแนวคิดการออกแบบทดสอบการอ่านไปประยุกต์ใช้

คำสำคัญ : การออกแบบทดสอบ การอ่านภาษาที่สองเพื่อความเข้าใจ กระบวนการอ่านแบบชดเชย

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Ideas of Designing Test Formats for L2 Reading Comprehension

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Abstract

This academic article aims to propose ideas for designing L2 reading test formats for reading comprehension. Previous research and literature have been retrieved and reviewed to provide background information about L2 reading instruction and testing. Based on the discussion, L2 reading should place more emphasis on variables, such as L2 readers' information-processing abilities and language sources for better reading comprehension. The available test formats are still practical, but they should be made more relevant to those variables. In this academic article, the ideas for designing reading test formats are suggested. Lastly, an implication for adapting the proposed ideas is discussed.

Keywords : Test formats, L2 reading comprehension, Compensatory reading model

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1. INTRODUCTION

One of the lines of research that has been investigated is variables[1] relevant to second-language (L2) reading (Gui, Chen, & Verspoor, 2021). In Cai and Kunnan's (2019) study, a quantitative research study was undertaken to examine the interaction between language knowledge and background knowledge among Chinese EFL learners who were nurses from medical colleges in China. The relationship between the variables was found. The learner participants with high English language knowledge benefited from using background knowledge. However, background knowledge alone could not fully facilitate reading comprehension for those who had low language knowledge. Still, language knowledge was a main predictor for fluent English reading comprehension. Similarly, Suh (2013) found that building awareness of the use of reading strategies (e.g., using background knowledge) among Korean EFL students, who were both language-major and non-language-major students at university, led to better reading comprehension. Additionally, Fuengbangluang and Panjanon (2022) conducted quantitative and qualitative research to examine variables relevant to the English reading comprehension of Thai engineering EFL students. The study revealed that English linguistic knowledge and L1 (first-language) reading literacy were important variables for reading comprehension. Such knowledge could facilitate and control the use of reading strategies for processing information effectively, as the learner participants benefited from utilizing multiple language sources.

As discussed, there are many variables related to L2 (second-language) reading (e.g., L2 background knowledge in social contexts, L2 language knowledge, and the use of reading strategies) that should be included in the design of test formats for L2 reading comprehension.

Supporting this, Jiang (2018) states, "...L2 processing is more complicated and involves more variables. For example, for most L2 speakers, the L2 is learned after the establishment of an L1... the L1 influencing and the nature of the L2-concept connections become unique issues" (p.4). When L2 readers engage in learning L2 reading, not only L2 language knowledge and skills are important, but also their language-related L1 variables, such as reading competency and world knowledge, are necessary. These variables reflect L2 readers' developmental processes in terms of how they acquire and process information better (Alderson, 2000; Grabe, 2002, 2009; Mikulecky, 2008).

In the field of reading comprehension, there is a need for refocusing on test formats. They should involve the relevant variables to assess actual reading comprehension. That is, necessary variables should not be overlooked when designing test formats (McMaster & Kendeou, 2023). Therefore, the next section will discuss the concepts of L2 reading and the relevant aspects that contribute to the design of test formats.

[1] Variables refer to the component abilities intervened in developing better L2 reading comprehension.

2. DESIGNING TEST FORMATS FOR L2 READING COMPREHENSION

This section discusses compensatory processing, fluent L2 reading comprehension, test formats, and ideas of designing test formats for L2 reading comprehension.

2.1 Compensatory Processing

Bernhardt (2005) developed the compensatory reading model (CM) based on an intensive review of the literature from the 1970s to 1980s. CM is viewed as a compensatory processing approach to reading. It emphasizes the patterns in L2 reading and argues that these patterns are unpredictable. In 2011, Bernhardt re-examined her CM developed in 2005. CM portrays knowledge sources as growing over time and mutually reinforcing each other (see Figure 1). L1 literacy, L2 language knowledge, and other variables, such as comprehension strategies, engagement, content, domain knowledge, interest, and motivation support one another or operate synergistically. This is because L2 readers transfer, recognize, and take advantage of multiple knowledge sources to compensate for language deficiencies, thereby helping L2 readers avoid short-circuiting.

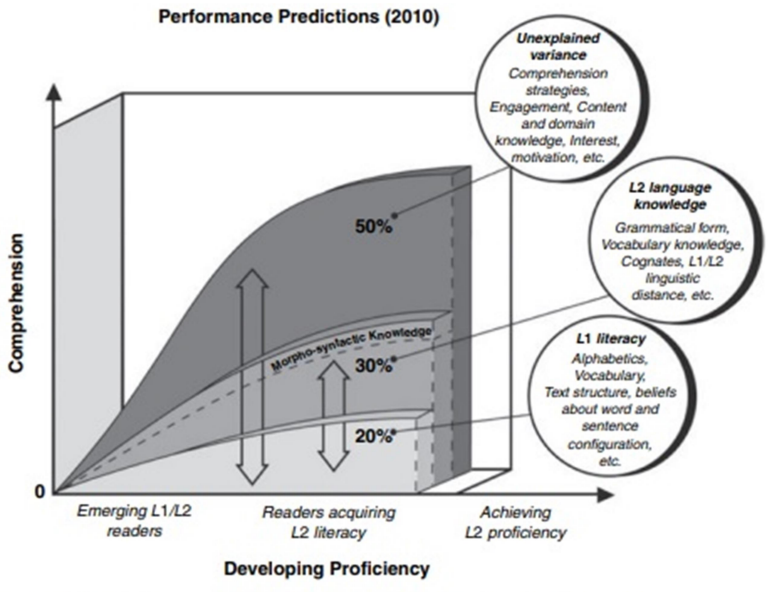

Figure 1 A Compensatory Model of Second-Language Reading (revised).

As given in Figure 1, L2 reading processes based on CM, L1 literacy accounts for 20%. L2 language knowledge accounts for 30%. Lastly, unexplained variance accounts for 50%.

Due to a change in understanding about L2 reading processes affecting test formats, a set of idea of designing L2 reading test formats is tabulated below (Bernhardt, 2011).

Table 1 Design of Reading Test

Types	Component Abilities	Design
Retrospective	Recall	- Ask readers to read and write a paragraph in L2 and L1. - Check the extent to which (a) language processing facilitates L2 reading and (b) what readers need for a particular.
Focus on recent writing	Automaticity	- Ask readers to read and write a paragraph in L2. - Let them revisit their writing and formulate their ideas.
Illustrating compensation	Reading a paragraph level	- Design reading tasks which let readers draw inferences and guess unknown words.
Toward reader independence	Independence	- Design reading tasks which let readers use L2 grammatical strengths, L2 vocabulary knowledge, L1 literacy knowledge transfer, and background knowledge for their reading.

As described in Table 1, it provides an alternative testing for L2 reading based CM. The main design of the test incorporates L1 literacy, L2 language knowledge, and relevant variables, so L2 reader can pick up multiple language sources and sub-skills (e.g., drawing inferences and guessing unknown word) during reading. In particular, a retrospective and a focus on recent writing allow L2 readers to reflect the extent to which component reading abilities and domains of knowledge they need to refocus in their reading.

2.2 Fluent L2 Reading Comprehension

L2 reading comprehension is viewed as an interactive and linguistic process that involves the connection between L2 readers and reading texts in building meaning (Grabe & Stoller, 2020; Mikulecky, 2008). Drawing on an intensive review of patterns in L1 and L2 reading, Grabe (2009) proposed a set of reading processes that are shared between the two languages, as listed in Table 2.

Table 2 Implications from Reading Research

1. Decoding graphic forms for efficient word recognition
2. Accessing the meanings of a large number of words
3. Drawing meaning from phrase and clause level grammatical information
4. Combining clause level meanings into large networks of text comprehension
5. Recognizing discourse structure that builds and supports comprehension
6. Using reading strategies for a range of academic reading tasks
7. Setting goals for reading and adjusting them as needed
8. Using inferences of various types and monitoring comprehension for reading goals
9. Drawing on prior knowledge as appropriate
10. Evaluating, integrating, and synthesizing information for critical reading comprehension
11. Maintaining relevant processes for an extended period of time
12. Sustaining motivation to persist in reading and to use text information for reading goals

As seen in Table 2, the set of L2 reading instruction lays emphasis on the rapid word-recognition and fluent recognition processing of phrase and clause structures to support comprehension. In particular, from implications 6 to 10, L2 learners are guided by reading strategies, helping them overcome reading difficulty. Implications 11 and 12, these two reading instructions are activated by working memory. Once reading is operated, working memory (WM) is activated. WM is understood as a recall ability. At the moment of reading, L2 readers process and retrieve language sources from the number of ways to make meaning from reading texts. WM combines the language sources from both lower to the higher-level processes. As for the lower-level processes, WM helps recognize and store word information (word-recognition) and connect with syntactic structure (grammar) and semantic representation (meaning). As for the higher-level processes, WM helps draw information from background knowledge and reading ability to support from clause level to paragraph level.

In summary, when designing test formats, teachers should consider adapting these processes based on CM. This is because CM places importance on utilizing multiple sources that readers are encouraged to use while reading in L2.

Moreover, in an attempt to assess L2 reading comprehension, a set of component abilities is listed in Table 3. These component abilities are commonly used in standardized reading tests (Grabe, 2009).

Table 3 Major Component Abilities for Reading Comprehension

1. Fluency and reading speed
2. Automatic and rapid word recognition
3. Search processes
4. Vocabulary knowledge
5. Morphological knowledge (e.g., knowledge of word prefixes, suffixes, word stems)
6. Syntactic knowledge (grammar)
7. Text-structure awareness and discourse organization (e.g., text organization, cause and effect)
8. Main-idea comprehension
9. Recall of relevant details
10. Inferences about text information
11. Strategic processing abilities
12. Summarization abilities
13. Synthesis skills
14. Evaluation and critical reading

As shown in Table 3, the assessment of L2 reading comprehension involves not only language skills, such as fluency, search processes, and strategic-processing abilities, but also language knowledge including vocabulary, syntactic knowledge, and text-structure awareness.

Building on the concepts in Table 1, 2 and 3, some examples for designing test formats are discussed.

1. For word-recognition, teachers have to consider a type of reading test, like an illustrating compensation. Then they have to consider the extent to which processes are involved (e.g., decoding graphic forms and assessing meaning). After that, they have to select the reading abilities which L2 readers can use while performing reading (e.g., search process, vocabulary knowledge).

2. For information transfer, a toward reading independence may be designed. Then it is better to consider the extent to which processes are involved (e.g., setting reading objective, combining clause level meanings, drawing on prior knowledge). After that, teachers have to select the reading abilities (e.g., fluency and speed, text-structure awareness, main-idea comprehension) for assessing reading comprehension.

3. For free recall, teachers may consider designing a recall protocol. Then they have to think about the extent to which processes are involved (e.g., maintaining information and sustaining motivation to persist in reading). Next, it is necessary to select the reading abilities (e.g., syntactic knowledge, recall of relevant details, summarization abilities) for assessing reading comprehension.

It can be seen that these examples try to explain how to design test formats that incorporate relevant variables in relation to L2 reading comprehension based on CM and relevant aspects.

2.3 Test Formats

Hedgcock and Ferris (2009) centre their focus on the compensatory processing of L2 reading, highlighting the importance of metacognition, L1-L2 language knowledge and skills, and world knowledge as necessary variables for L2 reading. They propose two types of test formats: controlled responses and constructed responses. In the case of controlled responses (e.g., multiple-choice, gap-filling, and matching), these formats are employed to assess the understanding of reading texts within a given context. For instance, L2 readers are required to demonstrate their reading comprehension by identifying topics, main ideas, excluding unstated facts and details, providing supporting evidence, utilizing vocabulary in context, making inferences, recognizing grammatical structures, and engaging in scanning. On the other hand, constructed responses allow for the construction of information based on the understanding of reading content. For example, L2 readers are asked to demonstrate their reading comprehension through tasks, such as information transfer, short answer questions, and recall tasks. The focus in these formats lies in reporting back what they remember from the reading material.

In conclusion, the available test formats remain practical, and a combination of controlled responses and constructed responses can be utilized. However, when designing test formats, it is crucial to place strong emphasis on variables that are relevant to the patterns in L2 reading so as to effectively assess actual L2 reading comprehension.

2.4 Ideas of Designing Test Formats for L2 Reading Comprehension

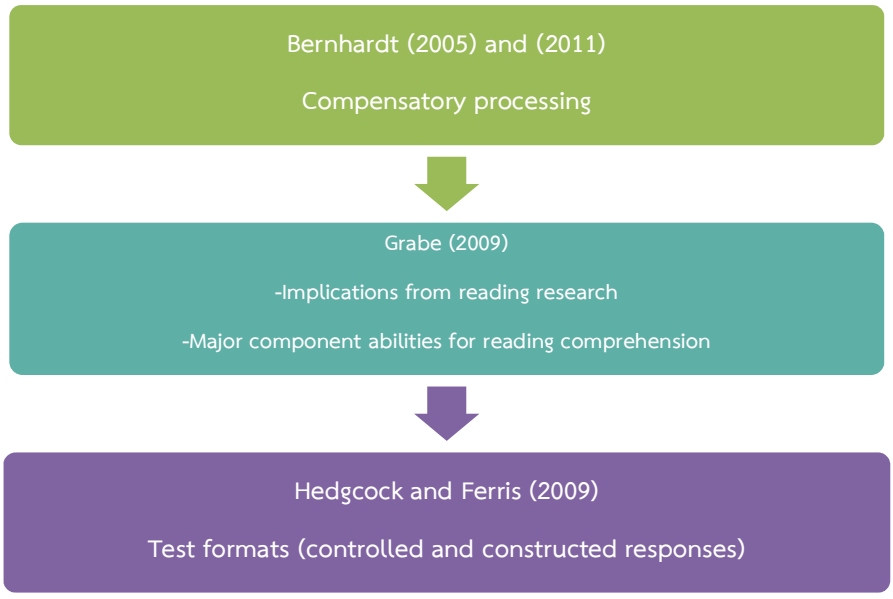

Figure 2 Ideas of Designing Test Formats for L2 Reading Comprehension.

As shown in Figure 2, designing test formats should be made relevant to L2 reading information-processing ability and L2 reading performance. The key concept of compensatory processing of L2 reading is on the interrelationship of a growing L1 literacy, L2 language knowledge, and unexplained variables (e.g. comprehension strategies, engagement, content, interest, and motivation). Such variables focus more on language acquisition, L2 reading processes, and L2 reading performances, so the formats for L2 reading assessment should be made more relevant to these variables (Bernhardt, 2005 & 2011) by considering (a) the extent of language inputs and processes and (b) relevant reading abilities (Grabe, 2009). Lastly, the test formats (controlled or constructed responses) should be appropriately designed in response to domains of knowledge and abilities to be able to assess actual L2 reading comprehension at a time (Hedgcock & Ferris, 2009).

The processes of designing test formats entailed the followings:

Firstly, after establishing the goals for the reading test, teachers should identify the patterns in L2 reading and testing.

Secondly, they should connect the preparations made in step 1 to the patterns in L2 reading and the component abilities, ensuring that all necessary variables are included in the design.

Thirdly, they should consider designing test formats that align with the plans formulated in steps 1 and 2.

By following these steps, teachers can effectively design test formats that are in line with the intended goals and accurately assess L2 reading comprehension.

3. SUMMARY

L2 reading comprehension should be approached from an information-processing perspective, placing emphasis on an individual's reading processes, including the component reading abilities and domains of knowledge. In order to effectively assess actual reading comprehension, the present academic article then proposes ideas of designing test formats.

1. Consider the patterns in L2 reading and their interrelationship with reading skills, knowledge, and comprehension strategies, as well as testing based on Bernhardt's (2005) and (2011) compensatory processing.

2. Reconsider patterns in L2 reading and component abilities in relation to Grabe’s (2009) implications from reading research and major component abilities for reading comprehension.

3. Design the test formats (controlled or constructed responses) in accordance with Hedgcock and Ferris’s (2009) suggested test formats.

The proposed ideas should be adapted to design test formats that assess the extent to which these ideas support teachers in designing suitable test formats.

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