

# The Interplay of Task Complexity ( $\pm$ Here-and-Now) and Students' Proficiency in the Written Narratives in English as a Foreign Language

RAO Qing

Wuhan University of Technology, Wuhan, China

Task-Based Language Teaching has witnessed growing interest in the impact of task complexity on Second language (L2) learners' linguistic performance. Within this field, the influence of resource-directing and resource-dispersing features of cognitive task complexity has attracted much attention. Research on task complexity focuses on the influence of different task features on language learners' production in terms of linguistic complexity, accuracy, fluency and lexis. Within this field, a line of investigation that has attracted much attention is the influence of resource-directing and resource-dispersing features of cognitive task complexity. The review is helpful for better understanding of task complexity and allows to draw some preliminary pedagogical implications that may be useful for task-based syllabus design.

*Keywords:* EFL learners, task complexity,  $\pm$ Here-and-Now, CAF performance, task-based language teaching

## Introduction

Task-based instruction and learning play an important role in language teaching, demonstrating the considerable vitality of tasks (Skehan, 2003). Therefore, considerable attention has been devoted to task design and task-based syllabus design and there has been a lot of research on the task complexity. In the field of Task-Based Language Teaching, there have been growing studies on the impact of task complexity on Second language (L2) learners' linguistic performance. Skehan (2015) indicated that task complexity has an important impact on language learning and development. Task complexity contains multiple dimensions and the ( $\pm$  Here-and-Now) dimension needs further study. In the past few years, according to Ishikawa (2007), plenty of studies have examined the effects of manipulating task complexity along the ( $\pm$ Here-and-Now) dimension on spoken narrative discourse. However, there have been a few study (Ishikawa, 2007) that explored the effects of manipulating task complexity along the ( $\pm$ Here-and-Now) dimension on writing. The studies indicated different results along the dimension of ( $\pm$  Here-and-Now). Yet another consideration that contributes to explaining these contradictory findings is that important and potentially intervening factors such as proficiency level are often overlooked.

## Task Complexity

### Definition of Task and Task Complexity

Ever since the 1980s, Task-Based Language Teaching (TBLT) has played an important role in Second Language Acquisition (SLA) research. As the core construct of TBLT, the role of tasks in second language (L2) teaching and learning has drawn the most attention of researchers. In Nunan (1989)'s definition, a task is "a piece of classroom work which involves learners in comprehending, producing or interacting in the target language while their attention is principally focused on meaning rather than form" (p. 10). After that, Richards and Renandya (2002), give the following definition, a task is "an activity which learners carry out using their available language resources and leading to a real outcome" (p. 94). They thought that learners are allowed to take part in these tasks like playing games, solving a problem, which turn out to enhance learner's language learning. Within research of language teaching and learning, task complexity has been the research focus. For this concept, definitions of task complexity have been provided by various researchers, for example, Robinson (2001). Robinson (2001) directly employing the term task complexity, perceived it as "the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner" (p. 29). This definition is adopted for the present study. Therefore, as Ishikawa (2006) declares, task complexity is considered as cognitive in nature and it is manipulated by teachers and syllabus designers before task performance. A more elaborated explanation of this concept is presented in the following sections.

### Definition of ( $\pm$ Here-and-Now) dimension

Within the Cognition Hypothesis (CH), the ( $\pm$  Here-and-Now) dimension is operationalized in terms of the removal or non-removal of the strip cartoon used as visual stimulus and its subsequent immediacy vs. displaced reference (Robinson, 1995). The (+ Here-and-Now) condition (henceforth, 'HnN') is considered the simple or less complex task, since it is carried out in presence of visual support, based on reference to immediate objects and events and therefore narrated in the present (Robinson, 1995, p. 102). In contrast, the (-Here-and-Now) condition (henceforth, 'TnT') is presumably a more complex version, as the task is non-context-supported and so reference is displaced (Robinson, 2015, p. 97) and needs to be expressed in the past. At the core of the distinction between the 'HnN' and 'TnT' conditions is that displaced reference involves a series of linguistic resources and cognitive operations that are not necessary when the objects and events are visible.

### Cognition Hypothesis

#### Skehan's single-resource, limited-capacity hypothesis

Skehan (2003), assumes that there is only a single attentional resource and that second language (L2) learners' attentional capacity is limited. Skehan and Foster (1997, 2001) claim that because L2 learners' attentional capacity is limited, there are tradeoff effects of accuracy versus complexity even when attentional resources are available to L2 learners (e.g. when planning time is available). Thus, learners are hypothesised to prioritise either accuracy or complexity depending on task demands. In other words, Skehan predicts that when there are available cognitive resources, increasing task complexity will lead to competitions between accuracy and complexity due to the limited capacity of attention. That is to say, Skehan's LAC hypothesizes that working memory limits the amount of attention that is available, constraining the ability to process, store and

retrieve information. These limitations would have consequences for learners, forcing them to divide their attention over various linguistic and non-linguistic aspects of the task that need to be addressed simultaneously (Skehan, 2014, 2015).

### **Robinson's cognition hypothesis**

The Cognition Hypothesis (Robinson, 2001) posits that different dimensions of cognitive task complexity do not necessarily compete with each other regarding attentional resources. Increases in cognitive task complexity along 'resource-directing' factors expand L2 learners' interlanguage system and promote the complexity and accuracy of language production but not necessarily fluency. Learners' automatic access to prefabricated chunks stored in memory is facilitated, and their production becomes more fluent but less sophisticated if 'resource-dispersing' factors become more complex. Increasing task demands along the resource-dispersing factors can mitigate performance under real-time pressure, facilitate automatization of and access to the interlanguage system, and promote fluency. Increased task complexity along the resource-directing factors can stimulate analysis and develop learners' existing L2 knowledge. Overall, the Cognition Hypothesis (Robinson, 2001) claims that tasks with more cognitive burden will prompt L2 learners to engage in complex thinking and provide them with appropriate conditions to develop their production.

## **Empirical Studies on Effects of Task Complexity**

### **Empirical Studies on Different Types of Tasks**

In research on the role of task complexity in L2 writing, various types of writing tasks were utilized. A trend to extend the research on the effects of task complexity to the written task modality has been quite apparent in recent years (e.g., Ishikawa 2007; Zhang & Jiang's 2020). Wang (2013) explored the effects of manipulating task complexity along  $\pm$  Few elements dimension on 118 Chinese university non-English majors' written linguistic performance. Results show that increasing task complexity along resource-directing dimension helps the learners to produce significantly more accurate and relatively more fluent and complex texts. But, there were no statistically significant effects on syntactic and lexical complexity. Zhang & Jiang's (2020) study investigated the task complexity of practical writing, continuation writing and summary writing in Chinese Gaokao English test, and examines its impact on the syntactic complexity, lexical complexity, and accuracy of L2 writing. When it comes to syntactic complexity, the participants' performance was significantly higher in the complex task condition than in the simple task condition. There was small impact on lexical complexity and accuracy. Learners had to write a letter about making a decision among several choices. The task complexity was manipulated with respect to the number of requirements the participants had to take into account (i.e.,  $\pm$ -few elements) and the reasoning activities they had to do (i.e.,  $\pm$ -reasoning demands) (Wang, Wu, & Zhang, 2020). Their studies found that tasks with increased complexity led to a significant increased accuracy of participants' writing but had no effect on syntactic complexity. Whereas, there were mixed findings about the effects on lexical variation. Ishikawa (2007) investigated the effects of manipulating task complexity along the (+Here-and-Now) dimension on L2 written narrative discourse. In this empirical study, the results showed that performance of learners who carried out the most complex versions of the task was significantly more fluent, more accurate, more complex, which is consistent with the predictions of the Cognition Hypothesis. Similarly, Kormos (2011) also adopted narration of picture series as the writing tasks. The

difference was that Kormos (2011) manipulated task complexity through  $\pm$  content support, with one group describing six sequential pictures which contain a clear storyline (cartoon description task) while the other group narrating six unrelated pictures (picture narration task). The study revealed that lexical complexity was higher when learners were given a predetermined content, though no effects were detected on syntactic complexity and accuracy. These findings about picture narratives showed that although the writing tasks were the same, a change in the manipulation of task complexity could make a difference in the linguistic performance. The tasks adopted in the above studies, due to their relatively lower requirements, were mainly targeted at intermediate L2 learners. In the research on task complexity and L2 writing, another study caught our attention, in which four different types of writing tasks were involved (Ruiz-Funes, 2015). Ruiz-Funes (2015) operationalized task complexity with respect to familiarity, genre and reasoning demands. In an increasing order of task complexity, he adopted narrative essay and expository essay for intermediate learners, and analytic essay and argumentative essay for advanced learners. The study showed a trade-off effect in both the intermediate and advanced group, which is, more complex task led to increased complexity together with decreased accuracy and fluency. Jin and Wang (2021) examined the effects of simultaneously manipulating the task complexity along ( $\pm$ —number of elements) and ( $\pm$ —reasoning demands) on L2 writing performance. Work memory also was an important factor in this study. The results show that task complexity has a significant impact of accuracy and complexity on L2 writing production. From the previous research, we can consider that there has been a significant growth of interest in task complexity in recent years.

### **Empirical Studies on Task Complexity with ( $\pm$ Here-and-Now') Dimension**

Although oral narratives are frequently researched in the field of task complexity, studies on written narratives produced by foreign language learners are scarce especially in the task complexity along ( $\pm$ —Here-and-Now) dimension despite the fact that this genre is an important one both in language teaching pedagogy and in the assessment of foreign language (FL) competence.

In a seminal work, Ishikawa (2007) took up ( $\pm$ —Here-and-Now) as the independent variable in his narrative writing study. The researcher found significant higher accuracy gains for target-like use of articles in the There-and-Then condition. Syntactic complexity scores were significantly higher in the There-and-Then condition. Lexical variation showed relatively higher use of different word types in the There-and-Then. With regard to fluency, the There-and-Then condition conduced to the generation of less fluent language. Gilabert (2007) examed the effects of simultaneous manipulation of task complexity along planning time and ( $\pm$ —Here-and-Now) on oral production. Gilabert (2007) found a positive effect of increasing task complexity (i.e. from (+Here-and-Now) to (Here-and-Now)) on accuracy. However, Gilabert (2007) found negative effects of increasing task complexity on complexity and on fluency. The empirical evidence seems to run counter to the predictions of the Cognition Hypothesis and to support Skehan's Single-Resource, Limited-Capacity Hypothesis. Another Here-and-Now inquiry was conducted by Sánchez and Kalamakis (2023) on L2 written narrative discourse through crossing two variables ( $\pm$ —Here-and-Now and L2 proficiency). Regarding syntactic complexity, the participants' performance was significantly higher in the complex task condition than in the simple task condition. As regards lexical complexity, the participants produced a more lexically complex

story in the complex conditions (There-and-Then). Accuracy was fostered in the—Here-and-Now. When it comes to fluency, participants in the complex task condition outperformed those in the simple task condition.

### Proficiency Effects in the ( $\pm$ Here-and-Now') Dimension

The ( $\pm$  Here-and-Now) dimension was first investigated in oral modality, starting with the pioneering study by Robinson (1995). A few studies have later been conducted in writing, primarily represented by the influential work of Ishikawa (2007). In both modalities, the comparison of findings in these studies is jeopardized by the fact that different proficiency levels have been investigated but not compared with each other. With a focus on studies on writing in particular, conducted with L2 university students of English, low to intermediate proficiency levels have been investigated (Ishikawa, 2007; Mohammadzadeh et al., 2013) and also high proficiency (Salimi et al., 2011). Still, the latter is based on a decision-making task, unlike other studies (which use a narrative task). Besides these considerations, mixed results are reported in different studies. In his examination of data from third year high school learners of English, Ishikawa (2007) observed a better performance in all dimensions in the complex condition. The results obtained in various studies with data from Iranian students (Rahimpour & Hosseini, 2010; Saeedi et al., 2012) seem to echo those in oral production. This section concludes by recapping those points that serve as the basis for the study presented below.

### Conclusion

After the literature review, we can make a conclusion. Firstly, mixed results have been reported as to how the ( $\pm$  Here-and-Now) dimension affects different areas of CAF performance, above all whether accuracy and complexity raise simultaneously in complex 'TnT' tasks. Secondly, the role of proficiency in mediating the effects of task complexity when it comes to the ( $\pm$  Here-and-Now) dimension remain largely unknown. Hence, I will pay more attention to the ( $\pm$  Here-and-Now) dimension and explore my study in the future.

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