

# Recast, Task Complexity and Child Learners' L2 Development

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## Abstract

This paper investigated how production task combined with teacher feedback (in the form of recasts) affects child second language development, and the effects of task complexity on their production performance. 92 child learners of English in three intact classes were assigned to three tasks of different complexity (simple, +complex, ++complex). In response to errors in the use of the present third person singular verb forms, participants received the feedback of recasts. L2 development was measured through oral production and written tests. Results show that recasts are effective for learning the target form, and there is a negative correlation between task complexity and child learners' acquisition of linguistic target in their written production, but no significant correlation was found between task complexity and participants' oral production. The results confirm Skehan's limited attention capacity prediction, and can be explained from the cognitive development level of the participants and their English learning habits. Implications for pedagogy and future research are discussed.

**Keywords:** recast, task complexity, child L2 learners, English language development

## 1. Introduction

Over the past 20 years, task-based language teaching (TBLT) approach has been widely used in elementary schools in China as a requirement of the national curriculum standard (Liu & Guo, 2020). TBLT approach focuses on meaning while at the same time shifting learners' attention to forms. In the process of meaningful interaction, learners' attention to language form may facilitate learners' L2 development (Long, 2015). Providing learners with corrective feedback (CF) is an efficient way to enhance a focus on form (Ellis et al., 2006). In foreign language classroom, recasts is the most commonly used among all CF types (Ellis & Sheen, 2006). But whether recasts can directly promote the acquisition of language forms remains to be further explored.

Task complexity is a key factor in designing appropriate tasks. By task complexity, we mean the demands of the task on learners' cognitive resources of attention, reasoning and memory when completing the task. In recent years, the influence of task complexity on learners' language output has become a hot topic in the field of L2 acquisition. Task complexity has been found to influence the outcome of learners' L2 performance (Révész, 2009; Baralt, 2013; Révész et al., 2014; Kim, Payant, & Pearson, 2015; Kourtali & Révész, 2020), but whether it influences child L2 development remains unsettled.

To fill these gaps, the present study aims at examining the effects of different task complexity on L2 development when Child EFL learners receiving recasts. The innovation of this study is that we focus on child learners, which are underresearched, and the third person singular -s structure, a linguistic form that contains great challenges in L2 acquisition. The results of this study may shed lights on the development of students' grammar teaching and learning in primary school language classes.

## 2. Literature Review

### 2.1 Recast and L2 Development

As an important form of CF, recasts refers to the re-expression of one or more learner's wrong utterance while retaining the original content. The following example, obtained from the treatment part of the present study, illustrates this technique.

Example (1)

L: "He often play football." (trigger)

T: "He often plays football." (recast)

L: "He often plays football on Saturday afternoons." (uptake)

In example (1), a recast is triggered when a learner utterance contains a mistake. Learners responded to recasts by repairing the original error (successful uptake). As such, a recast can not only provide a target-like model but also implicitly indicate the learner's incorrect utterance, which may induce the learner to notice the gap and thus facilitate the learner's interlanguage development (Long, 2007). Learners may allocate less attention to comprehending the meaning of the message passed by recasts, because they are reformulations of learners' own utterances and are thus easier for them to understand. In this way, more cognitive resources could be allocated to form-function mapping (Long, 2007). Recasts are the least intrusive type of feedback and are the most likely to direct learner's attention to form without diverting their focal attention from meaning.

One major stream of research of feedback is observational studies in classroom settings. Questions investigated include what types of CF teachers prefer and whether CF is noticed and incorporated in learner's production (Li & Vuono, 2019). Lyster & Ranta (1997) find that recasts account for more than half of teachers' CF. Brown's (2016) meta-analysis shows that about 57% studies of CF conducted with recasts and recasts occur more frequently in adult and elementary classes. However, observational studies show that compared with other CF, the levels of uptake for recasts are relatively low. Bao et al. (2011) employ immediate recall as a measure of noticing and find that learners report 37% notice of the recasts but the proportion of uptake is only 14%. Uptake has often been used as a measure of feedback effectiveness and it is believed that the higher the level of uptake, the better the learner's L2 development will be (e.g., Lyster and Ranta, 1997; Sheen, 2004; 2006). However, according to Nassaji (2011), the repairs after recasts can be divided into repetition and incorporation. Learners' repairs may be mere mechanical repetition of the teacher's recasts rather than the actual acquisition of the language, while learners' failure to repair immediately may use the information of the recast in new contexts and revised utterances. Therefore, the effectiveness of recast on learners' L2 development is mainly tested by pre-test and post-tests in recent studies (Kourтали & Revesz, 2020).

Experimental research on recasts investigates whether recasts are effective for learning, whether recasts are more effective than other CF and whether the effects are transitory or can be retained for a long time. Studies show that recasts can facilitate the acquisition of different target structures. Rassaei (2019) finds that recasts can promote learners' accuracy in using English articles during both mobile-mediated audio and video interactions. In China, Zhao & Wang (2016) find that recasts can benefit learners at different proficiency levels by promoting their acquisition of English question forms". Sue & Jiang's (2020) study shows that the recasts and the metalinguistic feedback both contribute to the Chinese learners' acquisition of the English simple past tense. However, some studies find that recasts are not effective (Ellis et al., 2006; Yang & Lyster, 2010). Gu & Wang's (2008) study shows that recasts have no direct influence on learners' acquisition of interrogative sentences. Marrit et al. (2015) find that prompts are superior to recasts in promoting students' acquisition of German grammar, which is consistent with the findings of Lyster & Saito (2010). Therefore, whether recasts can promote language development in a classroom setting remains to be further studied. Other scholars (e.g., Ellis, 2006) believe that metalinguistic feedback is the most effective feedback because it enables learners to be aware of both errors and their causes.

Based on the large amount of empirical research, recasts can have a beneficial effect on language development. But their extent may be moderated by individual variables such as language aptitude and working memory (Li, 2017), age (Lyster & Saito, 2010) and anxiety (Rassaei, 2015). Learner-external variables such as learning context (e.g. Lyster & Mori, 2006), the type of linguistic target (e.g. Jeon, 2007) have also been found to moderate the efficacy of recasts. Among these variables, task complexity has been identified as an important factor that influences the efficacy of recasts (e.g. Long, 2007). Robinson (2001a, 2011) suggests that tasks, as its conceptual and communicative demands increase, differentially affect the efficacy of recasts, and some tasks

may be easier for learners to notice recasts. In the next section, we review the literature of the influence of task complexity and recasts on L2 development.

### *2.2 Task Complexity, Recasts and L2 Development*

Robinson (2001b) defines task complexity as “the result of the attentional, memory, reasoning, and other information processing demands imposed by the structure of the task on the language learner”. The cognitive demands of tasks may affect the allocation of attention while completing tasks, thus affecting learners’ language development. In Robinson’s (2001b, 2011) Cognition Hypothesis, he divides task complexity into two dimensions, resource-directing (e.g. +/-reasoning demands) and resource-dispersing (e.g. +/-planning). Robinson argues that when the cognitive demand for tasks increases along with resource-dispersing dimension, learners’ memory and attention resources are dispersed, which negatively affects language performance. On the contrary, when task complexity increases along the resource-directing dimension, learners’ attention and memory resources are directed to the encoding of concepts and syntax in L2, which can enhance the clear representation of concepts and facilitate form-function mapping, and thus positively influence learners’ language performance and information integration.

Many scholars have examined the effects of task complexity on learners’ language performance when receiving feedback (Révész, 2009; Baralt, 2013; Révész, et al., 2014; Kim, et al., 2015; Kourтали & Révész, 2020). The results seem to be mixed: some results are supportive of the cognition hypothesis, while others fail to support the hypothesis.

Révész (2009) examines how the task variable of contextual support combined with recasts affects L2 morphosyntactic development. The study shows that learners who receive recasts without viewing photos outperform learners who view photos. Baralt (2013) explores whether the effects of task complexity on L2 acquisition is different in face-to-face versus computer-mediated communication environments when receiving feedback. Results reveal that in the face-to-face condition, recasts are more conducive in complex tasks, while in the computer-mediated condition, the cognitively simple task lead to the most development. Kim et al. (2015) explores how task complexity and working memory capacity predict learners’ perception of English question structures provided in the form of recasts. Results show that high working memory learners who carry out a complex version of the tasks benefit the most from task-based interaction.

Other studies have shown that tasks with lower cognitive demands are more beneficial for learners’ L2 development. Révész et al. (2014) study how increased reasoning demands of tasks may affect the effectiveness of recasts in a computer-mediated context by using a different task manipulation. They find that providing recasts in simple tasks is significantly more helpful than providing recasts in complex ones. The researchers draw on Skehan’s limited attentional capacity model (2009; 2014) and Levelt’s speech production model to argue that learners allocate more attention to task completion when performing complex tasks, less attention is available to the uptake of recasts and the notice of linguistic form. Kourтали & Révész (2020) attribute the contradictory findings to the lack of control for the individual differences such as aptitude among learners. Further studies are conducted to investigate whether recast efficacy for child L2 learners with different language aptitude is related to task complexity. The results are consistent with the previous study (Révész et al., 2014), which shows that tasks with less cognitively demanding are more beneficial. This result is supportive of Skehan’s hypothesis which argues that increasing the cognitive demands of the tasks will turn learners’ attention to the content of the task rather than the form of language.

In summary, task complexity affects learners’ task performance. However, few studies have examined the role of task complexity among child learners. While most of previous studies have been conducted from the perspective of task performance (namely, accuracy, fluency and complexity of language) (Ishikawa, 2006; Ong & Zhang, 2010), very few studies have explored it from the perspective of L2 development wherein learners successfully integrate a language form. The aim of the present study is to explore the effect of task complexity on child learners’ second language development when receiving recasts.

### **3. This Study**

This study employed a pretest and post-test design with three different treatment tasks. Immediately after the treatment, an oral production test and a written production test were conducted to measure child learners’ acquisition of the target form, and participants’ perceptions of task complexity was investigated through a semi-structured interview.

### 3.1 The Research Questions

The aim of the current study was to investigate the effects of different task complexity on L2 development when Child EFL learners receiving recasts. The linguistic target was the third person singular -s verb form, which was generally considered a rather difficult one for English learners in China. The following research questions guided the current study:

- 1) Do recasts facilitate child learners' development of the third person singular -s verb form under the TBLT circumstances?
- 2) Does task complexity affect child learners' development of the third person singular -s verb form when receiving recasts?

### 3.2 The Participants

Child learners in three intact classes were assigned to three experimental groups, taking their pretest results and proficiency levels into consideration. They performed tasks of different complexity in classroom, and received recasts supplied by the teacher in reply to the errors.

The original cluster of students were 123 learners in three classes aged from 11 to 12. All of them were in Grade 5 in a primary school in Nanchang, Jiangxi Province. They began to learn English at Grade 3. All participants had no experience of being or living abroad. After the oral and written production tests, those who demonstrated prior knowledge of the target form were excluded from the study. Of the initial pool, only 92 of them (49 boys; 43 girls) participated the study. Table 1 shows the students' average scores of their latest three tests as their proficiency level. One-way ANOVA was used to examine differences among the three groups, and results showed that the three groups were comparable ( $F=.107$ ,  $p=0.899>0.05$ ).

Table 1. Descriptive statistics for 3 groups' average scores on the latest three tests

Group	N	M	SD	95% CI
1	30	76.69	19.96	[69.23, 84.14]
2	32	74.59	20.80	[67.09, 82.09]
3	30	76.49	19.51	[69.57, 83.40]

### 3.3 Target Form

We chose the third person singular -s verb form as the target form based upon the following two considerations. First, the target form is of moderate difficulty for the learners, since they have learned dialogues like: "What do you usually do on weekends?", but have no idea that the verb forms should be changed when the subject is the third person singular form. Second, it has been argued that linguistic forms which are physically salient and meaning-bearing are more likely to draw learners' attention when receiving recasts (Long, 2007). In this study, the linguistic target is not likely to be noticed and acquired by the learners because it is a non-salient and redundant one in communication. Therefore, it is even more necessary for them to accept form-focused instruction like recasts.

### 3.4 Instruments

#### 3.4.1 Oral and Written Production Tests

Child learners' language development is measured through oral and written production tests of the target form. Two versions of each test were compiled to test participants' knowledge of the target form and were used in the pretest and posttest respectively. The oral test consisted of 8 pictures, and students were required to speak out what the characters usually do on weekends. If the target form was accurately produced, the learner received one point. Pronunciation and grammar mistakes were neglected. The written test included four parts: Part 1 was true or false judgement after reading the short passage; Part 2 was multiple choices; part 3 was blanks filling with the correct form of the verbs given; and Part 4 was short passage writing according to the pictures. Vocabulary, other grammar and spelling errors were ignored. Some disturbance terms (e.g., the present continuous verb forms) were deliberately added in the written production test to avoid students' guessing the answer. All the directions were given in Chinese and the two versions were composed of same structures to ensure the reliability and validity of the tests.

#### 3.4.2 Interview

In order to collect more accurate and detailed information about learners' perception of the levels of task difficulty and their use of the target language during task performance, we conducted semi-structured interviews

with 9 participants from three groups, with one high, middle and low grade learners in each class respectively. The interview was conducted in Chinese, and interview questions included: 1) Do you think the task is difficult for you? Why? 2) Do you use Chinese to help you fulfill your tasks? 3) You used the third person singular form of the verb in the written test, but why didn't you use it in the oral test? etc.

### 3.5 Treatment Tasks

The three groups fulfilled three different tasks. While designing tasks, we considered not only child learners' existing knowledge structure, but also the authenticity and feasibility of the tasks. Tasks should not only be comparable but also have different difficulty levels. In addition, tasks should be as novel and interesting as possible, so that students would be willing to participate. In view of these considerations, we devised the following three tasks.

In the first **information gap task**, the participants worked in pairs, and each were given 6 pictures of Lucy's schedule of a certain time on Sundays. They pass on Lucy's schedule to each other and then made a timetable for Lucy according to her daily activities on Sundays. Students were asked to say it out loudly in English as they were making the timetable. Example (2) showed learner's successful uptake of the target feature when receiving recasts from the teacher.

#### Example (2)

L1: Lucy usually get up at 7:00 a.m. on Sundays. (trigger)

T: She usually gets up. (recast)

L1: Lucy usually gets up at 7:00 a.m. on Sundays. (uptake)

L2: (fill the blank with "gets up" following 7:00 a.m. on the timetable)

In the second **problem solving task**, the created scenario was that Lucy did not know how to arrange her time on Sundays. To solve this problem, participants were required to work in pairs and make a schedule for her. Participants were asked to make reasonable arrangements for Lucy's time of rest, diet and other activities. They were required to say it out loudly in English when performing the task. Example (3) illustrated such a procedure.

#### Example (3)

L1: I often go for a walk at 7:00 p.m. (So) Lucy usually go for a walk at 7:00 p.m. on Sundays. (trigger)

T: She usually goes for a walk. (recast)

L1: Lucy usually goes for a walk at 7:00 p.m. on Sundays. (uptake)

L2: (write down the information on the timetable)

In the third **decision making task**, the partners need to decide which students can pick strawberries for Grandpa Wang, on the following Sunday. Students who were willing to participate had reported their activities for that day (they can refer to the pictures). The partners should choose the list of those who could go in the morning and afternoon according to the students' schedule. Note that the students who have participated in the interest classes could not go for that part of time because the time was fixed, while other activities, such as reading books, doing homework etc., would not affect their going to Grandpa Wang's garden to help. Example (4) was a clear manifestation of this process.

#### Example (4)

L1: Chen Jie often play the pipa on Sunday mornings. She often clean her room on Sunday afternoons. (trigger)

T: She often plays the pipa, cleans her room. (recast)

L1: Chen Jie usually plays the pipa on Sunday mornings. She often cleans her room on Sunday afternoons. She can go and help on Sunday afternoon. (uptake)

L2: (write down the information on the paper)

Based on Robinson's cognition hypothesis, the three experimental groups performed tasks of different complexity levels (see Table 2). The information gap task was considered as the simplest one because it only involved information transmission during performing the task. Both the problem-solving tasks (+complex) and the decision making tasks (++complex) required participants' reasoning. The decision making tasks were considered the most cognitively demanding because it not only required the learners to compare the schedules provided by different students but also to reason who would be able to go and help during which period of time

on next Sunday and then convey the message to the partner. Pilot tests were carried out on peer students and were found to be appropriate. The instructions were transmitted in the participants' L1 (Chinese).

Table 2. Cognitive demands for the three tasks

Types of task	+/-reasoning	+/-elements
information-gap task (simple)	-	-
problem-solving task (+complex)	+	-
decision-making task (++complex)	+	+

### 3.6 Procedure and Statistical Analysis

Data were collected over three weeks. In Week One, participants' latest three test scores were collected as a reference for their proficiency level. Pilot experiments were conducted with similar age participants and modifications were made in terms of the oral and production tests and the treatment procedures. In Week Two, participants in three experimental groups were administered the oral and written production pretests. After that, students who were found had knowledge of the target feature were excluded from the treatment session. In Week Three, the participants received three different task-based language instruction by the teacher in which they performed the three tasks respectively while receiving recasts in response to errors regarding the linguistic target.

Figure 1 showed the whole experimental schedule. During each treatment, the researchers participated in each group and provided about 4 recasts in response to their mistakes relating the third person singular verb forms. Finally, several voluntary groups reported their results to the whole class and the mistakes were corrected promptly by using recasts. Immediately after the treatment, learners in the three groups took the oral and written post-tests. Some participants were chosen to be interviewed.

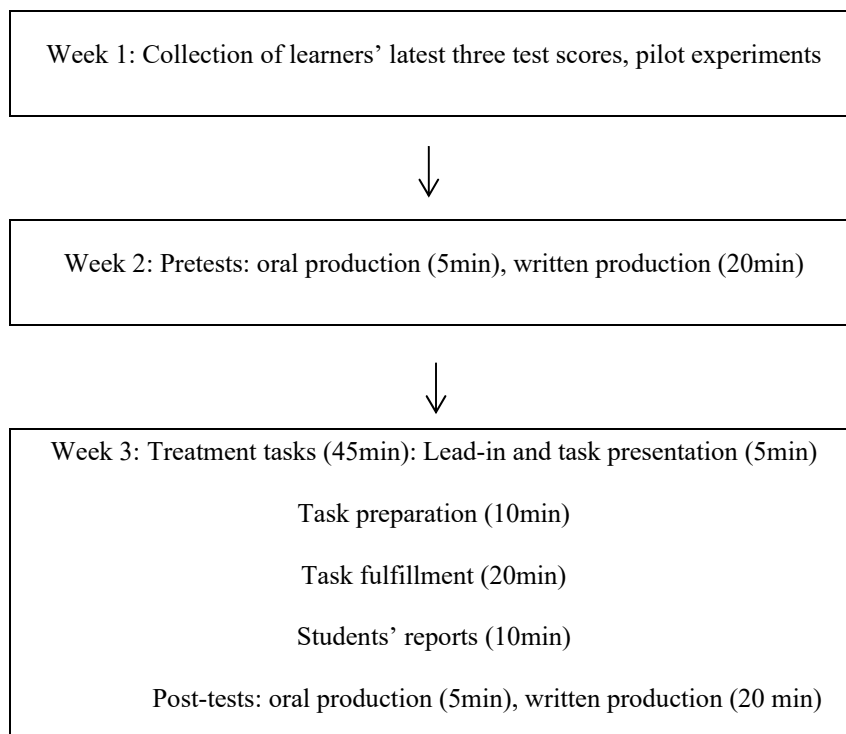


Figure 1. Procedure of the study

SPSS 22 were used to calculate the statistics. A series of paired-samples t-tests were run to assess whether there were significant differences between the production pretest and post-test scores of all participants. One-way ANOVA was carried out to testify whether there were significant differences among the three groups in terms of oral and written production post-test scores.

## 4. Results and Discussion

### 4.1 Effects of Recasts on Child Learners' L2 Development

Research question one explored whether recasts in the TBLT approach would facilitate child L2 learners' acquisition of the third person singular -s verb form. Table 3 showed the descriptive statistics for the participants'

oral and written pretest and post-test scores. The total score of oral production test is 8 points, the written production test is 25 points.

Table 3. Paired sample t-test for pretest and post-test scores of all participants

	Pretest			Post-test		t	p
	N	M	SD	M	SD		
Oral	92	0.00	0.000	0.84	1.805	-4.447	.000
Written	92	6.78	2.262	10.59	4.128	-8.044	.000

The paired sample t-test showed significant difference ( $t=-4.447$ ,  $p=0.000<0.01$ ) between the pretest and post-test of oral production scores of all participants. The results indicated that recasts have a positive effect on learning the target form. Compared with the oral pretest, the students described the pictures more fluently in the immediate post-tests. But only a few students in each group noticed the correct use of the target feature, so their oral post-test scores were relatively low (0.84). Significant difference were also found between the pretest and post-test scores of written production ( $t=-8.044$ ,  $p=0.000<0.05$ ). The result indicated that recasts have a positive effect on learning the target form.

The results showed that all the three groups made progress in acquiring the target language form after completing the tasks. The post-test scores of both spoken and written tasks were significantly higher than those of the pretest, indicating the effectiveness of recasts in grammar acquisition. Our results are consistent with previous studies. The results are inspiring for Chinese learners, because in China, instead of letting the students to use the language and get feedback, teachers prefer to present the language knowledge to students. It is important to try the alternative way of learning and teaching, and this trial and errors are typical way of learning through doing.

The results also showed that the learners' oral production post-test scores were quite low although there were significant difference between the pretest and posttest. The result was inconsistent with that of Li (2010) and Lyster & Saito (2010) which, in their meta-analysis, manifeste that the effects of CF including recasts on oral production test is greater than that of written production test. We interviewed the participants and found the reasons were: (1) learners' heavy reliance on their mother tongue. Participants tended to use a Chinese word to exchange information whenever difficulties appeared in their English expressions. In this way, their chances of using the target form to complete the tasks were greatly reduced. In addition, the number of recasts provided by the researchers for each group were very limited (4 times). As a result, the students' oral production ability of the target language were not significantly improved; (2) the heavy cognitive load for child learners. In the oral test, to express the meaning clearly and completely has already become a great cognitive challenge for the young learners. The students often focused their attention on the expression of meaning, and the attention allocated to the form was greatly reduced; (3) their English learning habits and unfamiliarity of oral test. Learners generally felt nervous and uneasy during the individual oral test because they had never been tested like this before, which greatly affected the accuracy of their oral performance. Most EFL learners in China are learning English through reading and listening. They are good at doing the written test of English knowledge, but not good at speaking.

#### 4.2 Effects of Task Complexity on Child Learners' L2 Development

The second aim of the study was investigating the effects of task complexity on developing child learners' acquisition of the target form when receiving recasts. Before the experiment, One-way ANOVA was run to testify whether the three groups had different prior knowledge of the target feature. Since the pretest scores of oral production of the three groups are almost zero, only pretest scores of written production were presented here (see Table 4).

Table 4. One-way ANOVA Statistics for three groups in the pretest of written production

Group	N	M(SD)	F	P
1 (simple)	30	6.63(2.282)		
2 (Complex+)	32	6.72(2.303)	.213	.809
3 (Complex++)	30	7.00(2.259)		

As illustrated in the table, the mean scores in the three groups indicate no significant differences ( $p=0.809>0.05$ ). Table 5 demonstrated the One-way ANOVA statistics for participants' oral and written production post-test scores among the three groups.

Table 5. One-way ANOVA Statistics for three groups in the oral and written production post-test

Group	N	M(SD)	F	P
Oral				
1 (simple)	30	0.93(1.929)		
2 (+complex)	32	0.75(1.666)	.78	.925
3 (++complex)	30	0.83(1.877)		
Written				
1 (simple)	30	12.87(4.167)		
2 (+complex)	32	10.41(3.817)	10.136	.000
3 (++complex)	30	8.50(3.256)		

As we can see from Table 5, no significant differences ( $F=0.78$ ,  $p=0.925>0.05$ ) were found among the three groups in post-test of oral production. This indicated that task complexity had no significant effect on oral production of the target structure. On the contrary, there were significant differences ( $F=10.136$ ,  $p=0.000$ ) among the three groups in post-test of written production, with the information gap (simple) group ( $M=12.87$ ) outperforming the problem solving group (+complex) ( $M=10.41$ ) and decision making group (++complex) ( $M=8.50$ ). The results indicated that the task complexity is negatively correlated with the written production post-test scores. In other words, the higher the cognitive demands of the task, the lower the learners' language scores.

The results of the written production tests showed that the participants benefited most when they implemented tasks and received recasts in the simple task mode. This is a negative answer to Robinson's cognition hypothesis (2001b, 2011), but confirms Skehan's (2009, 2014) limited attention capacity prediction. Tasks with high cognitive demands would complicate the process of conceptualization and learners had fewer attention resources available for language encoding. In contrast, tasks with low cognitive demands would require less attention resources for conceptualization on the part of the learners so that they were likely to allocate more cognitive capacity to notice and process recasts. This result can also be explained from the perspective of discrepancies in learners' cognitive level (Kourтали & Révész, 2020). For primary school students with low cognitive level, cognitive demands of tasks should be in accordance with their cognitive development level, and the task complexity of foreign language learning should not exceed their cognitive load. So simple tasks are more conducive to their language learning. The results indicate that the cognitive load of the tasks should be the main concern for child learners when designing tasks.

In this study, participants demonstrated much more significant progress on the written tests than the oral tests. The results are in line with the findings of Kourтали and Revesz (2020), but contrary to Li's (2010) and Lyster & Satio's (2010) studies. In Li's (2010) and Lyster & Satio's (2010) studies, results show a larger effect for CF on oral tests than on written tests. They attribute the results to the consistency in format between the tests and the treatments, which are provided in the oral mode. In our study, the written production tests allowed learners to produce the target form under less time pressure, enabling them to have more chances to deploy declarative knowledge. When performing written tasks, they can apply declarative knowledge acquired through previous exposure of oral input like recasts. However, due to the short intervention time, learners are not likely to have achieved the stage of automatic output, so they did not perform well in the oral tests which imposed more time pressure on them. In addition, deeply influenced by exam-oriented education system, teachers in China mainly focus on written language production practice while ignoring the improvement of students' oral ability. As a result, most of the students were skilled in English written tests rather than oral tests, and thus their written production scores are much better than their oral ones.

## 5. Conclusions and Recommendations

The findings of this study can be summarized as (1) recasts has significant effects on China's young learners' L2 development under TBLT environment; (2) task complexity has a significant effect on the written L2 production. Child learners were better at learning the present third person singular verb form in simple tasks than in complex tasks. The results can be explained from the cognitive development level of the participants and their English learning habits, and are in accordance with Skehan's (2009, 2014) limited attention capacity prediction.

The pedagogical implication of this study is that recasts can be employed to develop students' grammar learning in primary school language classes. And for beginners of foreign language learning, cognitive demands of tasks



should be in accordance with their cognitive development level, and the task complexity of foreign language learning should not exceed their cognitive load. So it is better to set a moderate or low task complexity level to allow the learners to have more attention available for the development of the target-like language. Otherwise, the learners could become cognitively overloaded and have little attention left to notice the recasts and process the target language. In addition, teachers need to change child learners' learning habits by using speaking and writing tasks instead of doing written tests of English knowledge.

Several limitations can be found to the present study. One shortcoming is that other individual differences (such as working memory, language aptitude, motivation, etc.) that might moderate learners' acquisition were not considered in the study. Another weakness is that only recast is examined in this study. Future research could involve other types of CF in single or combined way (e.g. explicit correction after prompts) to explore the extent to which task complexity influences L2 development when CF are provided under classroom settings.

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