

Effects of the Production-Oriented Approach on the Syntactic Complexity of English Writing by Chinese University Students: Evidence from a Pedagogical Intervention Study*

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Li, Shaojie & Jhang, Se-Eun. (2021). Effects of the production-oriented approach on the syntactic complexity of English writing by Chinese university students: Evidence from a pedagogical intervention study. *The Linguistic Association of Korea Journal*, 29(4), 65-92. The Production-oriented Approach (POA) has been developed over the past decade to improve university English instruction in China, and has proven effective. Empirical studies investigating its long-term effects on the quality of university students' English writing are still under-represented, however. To fill the research gap, we conducted a 16-week experiment, exploring its effects on the syntactic complexity of six Chinese university students' English writing. The results are as follows: (1) Generally, the POA exerted a positive impact on the syntactic complexity of the students' writings. (2) In terms of proficiency level, for the higher-level learners, although there were no significant differences among the pretest, posttest, and delayed posttest, there was an improvement from the pretest to delayed posttest in the mean length of T-unit (MLT) and from the pretest to posttest in the complex nominal per T-unit (CN/T), demonstrating the effectiveness of the POA. For the intermediate level learners, there were no significant differences in both the MLT and CN/T, whereas the continuous improvement from the pretest to delayed posttest revealed the POA's lasting impact on the syntactic complexity. For the lower-level learners, the values of the CN/T showed a significant difference between the pretest and delayed posttest, indicating

* This paper is part of Shaojie Li's unpublished 2019 MA thesis. It has been re-examined in detailed discussion and mainly focuses on syntactic complexity.

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that the POA had a significant effect on the syntactic complexity of their written language. It is hoped that this study can shed light on an effective approach to teaching English as a foreign language at the tertiary level.

Key Words: Production-oriented Approach, syntactic complexity, English writing, pedagogical intervention

1. Introduction

Teaching of English as a foreign language (EFL) or as a second language (L2) has been confronted with plenty of challenges especially during the period of English as a medium instruction in non-English speaking countries (You & Dörnyei, 2016). It is also the case in China. Writing, as one of the most important skills in L2 or EFL learning, has attracted increasing attention from researchers (El-Maghraby, 2021; Lu, 2010; Sa'adah, 2020; L. Zhang, 2017; W. Zhang, 2017). Moreover, effective approaches of teaching writing at the tertiary level have been much discussed, especially in China in that there is always a challenge for Chinese EFL learners to improve their writing abilities. Therefore, a new teaching approach is in great need to develop writing skills of Chinese EFL students. This is where the Production-oriented Approach (POA) comes in.

Based on the Output-driven Hypothesis proposed by Swain (1985), Wen (2014) set up the POA to minimize the weaknesses of English instruction in Mainland China, aiming at overcoming the demerit of “using-learning separation” in foreign language teaching (Wen, 2018), and achieving the integration of input and output in language learning. For the past few years, a large number of teaching experiments have been carried out to investigate its effectiveness on writing and speaking, most of which are cross-sectional, with the focus on one individual teaching procedure (Qiu, 2017; Sun, 2017; Yang, 2015; Zhang, 2015; Zhang, 2020). Longitudinal research, however, needs to be done on the impact of the POA on English writings by learners at different proficiency levels.

Generally speaking, L2 writing performance can be better understood by measuring the complexity, accuracy, and fluency of writings (Bulté & Housen, 2012; Han & McDonough, 2021; Kuiken et al, 2010; Wigglesworth & Storch, 2009). Linguistic complexity, including lexical complexity as well as syntactic complexity, is an index of language proficiency, which suggests that complexity indices increase as L2 learners become more proficient in the target language.

In recent decades, considerable attention has been paid to investigating the syntactic

complexity of L2 writings (Barrot & Agdeppa, 2021; Lu & Xu, 2016; Zhang, W., 2017) whereas little attention has been concentrated on the impacts of the POA. To address the gap, the current research tries to delve into the effect of applying the POA as a pedagogical intervention method on the syntactic complexity of English writings by university students at different proficiency levels. It is hoped that the present study can cast light on improving English writing skills of EFL learners by using the POA.

2. Literature Review

2.1. POA and Its Related Studies

The POA was developed to minimize the weakness of English instruction in Mainland China (Wen, 2013, 2014, 2015), which has gone through five stages since 2007. The earliest version of the POA centred on an output-driven hypothesis which conjectured that output is more important than the input to enhance English learning motivation of university students (Wen, 2007). Then it was revised as an output-driven plus input-enabled hypothesis which specified the roles of input and output (Wen, 2013). By 2014, the POA as a whole was described as a system. “The POA tries to integrate the strengths of Western instructional approaches with Chinese contextual features” (Wen, 2016, p. 1), beginning teaching with production and ending with production. “Production” is used instead of “output” because it covers not only speaking and writing but also translating and interpretation. The latest version of the POA was proposed by Wen (2019), and it contains teaching principles and procedures as displayed in Figure 1.

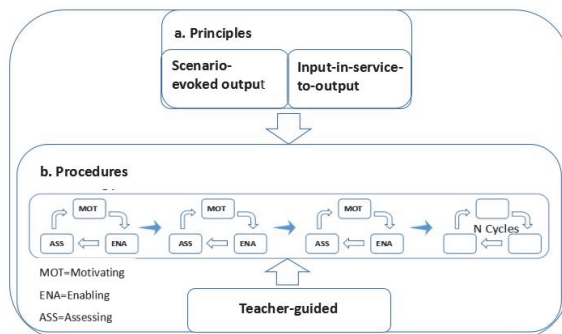


Figure 1. Latest Version of the POA (Wen, 2019)

The teaching principles offer guidelines for the teaching procedures. For the scenario-evoked output principle, the students are supposed to communicate in the real scenario at the beginning of teaching. For the input-in-service-to-output principle, input for the scenario is provided for the students and acts as scaffolding so that they can produce appropriate output while trying to communicate. The teaching procedures include three phases of motivating, enabling, and assessing, all of which are guided by the instructors. Motivating is the initial phase of the POA, in which the teacher describes a scenario and asks the learners to complete the output task. This phase can stimulate students' learning motivation when they encounter difficulties in production. Enabling phase is the one that "leads students from being less to more able" (Wen, 2018, p. 9), meaning that the teacher gives the learners enough input to enable them to be competent to accomplish the task assigned at the first phase. The assessing phase consists of ongoing diagnostic and formative classroom assessment, and achievement assessment. Ongoing diagnostic and formative classroom assessment takes place in the enabling phase while the students practice in class. The achievement assessment is undertaken in the next class after students' repeated practice out of class to check if the students have achieved the teaching objectives of the unit (Wen, 2018). The three phases interact with each other to obtain the expected teaching results.

Since the advent of the POA, the difference between the POA and Task-based Language Teaching (TBLT) has been much discussed. The POA and TBLT are fundamentally different in terms of their teaching objectives and teaching types of learners. The POA is aimed at teaching freshmen who have just entered the university to improve their level of general English, while TBLT focuses on vocational English teaching. With regard to teaching procedures, they are similar in that both emphasize language use in classroom teaching. They are distinct from each other as well. As for the POA, assessment and learning are integrated while assessment and learning are separated in TBLT. In terms of teaching principles, both claim the whole-person education and "learning by doing". Nonetheless, the POA is learning-centered while TBLT is learner-centered.

Since its inception, the POA has drawn Chinese researchers' great attention (Li et al., 2020), with most research probing into the effectiveness of various procedures of the POA. Zhang (2016) designed a three-week classroom experiment to explore the effectiveness of the POA on sophomores. The result revealed that the enabling tasks satisfy the students' learning desire and provide them with more opportunities to use the language. The POA, as a way of teaching intervention, turned out to be effective in improving the student's language production. As for the assessing phase, Sun (2017) designed a 16-week experiment

to investigate the effectiveness of teacher-student collaborative assessment under the POA. Findings showed that self and peer evaluation among the students were proved to be effective for improving their writing. Meanwhile, the teachers should guide the assessing process by selecting an evaluative focus. The POA plays an important role not just in teaching English but also in teaching Korean. To understand the effectiveness of the POA in teaching Korean majors, Wang (2019) designed a detailed instructional plan of the experiment. Feedback displayed that both learners and teachers made positive comments on the Korean teaching practice.

All in all, previous studies focused mainly on either individual phase or short-term practice in only one unit or a few class hours, with few studies examining the long-term effect of the POA. Therefore, longitudinal research on the lasting effect of the POA needs to be carried out to fill the gap.

2.2. Syntactic Complexity and Its Related Studies

Syntactic complexity is considered as an important measure of L2 writing proficiency (Larsen-Freeman, 1978; Lu, 2011). Lu (2011) argued that syntactic variation and sophistication are two integral parts of syntactic complexity. More specifically, syntactic complexity refers to “the range of syntactic structures that are produced and the degree of sophistication of such structures” (p. 36), which is the working definition of syntactic complexity in the present research.

Investigations into the syntactic complexity of L2 writing have aroused researchers' interests in the recent decade. Employing a computational system, Lu (2011) made a corpus-based study of evaluating syntactic complexity indices, finding out that 14 measures are effective for measuring college-level L2 writing development. Among them, 10 T-unit measures can differentiate between-level proficiency. The 14 indices are categorized around five dimensions of the length of a production unit, amount of subordination, amount of coordination, degree of phrasal sophistication and overall sentence complexity. MLT, as one of the indices of length production, has prominently featured as an index of different proficiency levels and language development (Cumming et al., 2018; Lu, 2011). In the study on the syntactic complexity of L2 writing conducted by Biber, Gray, and Poonpon (2011), they reported that complex nominals, as an index of the degree of phrasal sophistication, should be given more attention to. Although researchers have utilized different indices to measure syntactic complexity, they reached the consensus that proficient L2 learners would produce longer and more complex

syntactic structures (Barrot & Agdeppa, 2021; Ortega, 2003).

3. Methodology

3.1. Research Questions

The current research is intended to investigate the effect of the POA, applied as a pedagogical intervention of teaching writing, on the syntactic complexity of the English writings by six Chinese university students at three different proficiency levels. The research questions are as follows.

- (1) What are the overall effects of the POA on the syntactic complexity of English writings by the six participants as a whole?
- (2) Does the POA have different effects on the syntactic complexity of English writings depending on the students' proficiency levels? If so, how different are the impacts?

3.2. Participants and Context

The participants are first-year non-English majors in a maritime university in China. To judge the students' English proficiency level, their English scores of college entrance examination, College English Test Band 4 and the term examination were used as benchmarks. For the students at the higher level (HL), their scores rank above 25% on the whole class scale. For the students at the lower level (LL), their scores are below 25%. For the students at the intermediate level (IL), their scores are among the middle 50%. The focal participants are six volunteers in one intact class of 30 students, two from each level. They were promised that all the data and information they offer are confidential for the sake of research ethics and individual privacy.

The present study set out to examine the impact of the POA, as an intervention method of teaching writing, on the syntactic complexity of English writings by the six participants at three different proficiency levels. The teaching experiment was performed in the College English course, lasting for 16 weeks. A total of 72 writing samples were collected.

The students had four English class hours per week, with eight class hours for each round of experimental teaching. Hence, they fulfilled four-round writing tasks during the 16-week experiment, with pretest and posttest before and after each round of task. To investigate the follow-up effect of the POA, delayed posttests of the four writing tasks

were taken individually one month after finishing the fourth posttest. The writing topics were designed based on the textbook, and each turn of the pretest, posttest and delayed posttest addressed the same topic. Table 1 shows the information of each turn of the writing task. Taking the first round of the experiment as an example, Table 2 displays the details of the experiment, and the other three rounds are shown in the Appendix.

Table 1. Description of Each Round of Writing Task

Four-rounds of Writing Tasks	Writing Topics
1	Different Ways of Teaching Between Chinese Teachers and Foreign Teachers
2	Criteria for Becoming an Adult
3	My Views on Buying Brand-Name Goods
4	Differences Between Living in a Hutong and Living in a High-Rise Building

Table 2. First Round of Teaching Experiment

Cultural Differences		
<i>I. Motivating phase</i>		
Scenario: Mary, your American pen pal, emailed you, saying that she was interested in what it was like in a Chinese teacher's class. You are going to write her an email about different ways of teaching between Chinese teachers and American teachers.		
<i>II. Enabling phase</i>		
Enabling material 1 Cultural Differences: Praise		
Mini Task 1	Identifying and synthesizing information	Ongoing
Mini Task 2	Building the language - words and expressions	diagnostic
Mini Task 3	Preparing for the structure	and formative
Mini Task 4	Sharing the ideas - <i>Differences Between Spring Festival and Christmas</i>	classroom assessment
Enabling material 2 Would Chinese Education Work on British Kids?		
Mini Task 1	Identifying and synthesizing information	Ongoing
Mini Task 2	Building the language - words and expressions	diagnostic
Mini Task 3	Preparing for the structure	and formative
Mini Task 4	Sharing the ideas - <i>Characteristics of Chinese and Western Ways of Teaching</i>	classroom assessment
Writing task	Different Ways of Teaching Between Chinese Teachers and American Teachers	
<i>III. Assessing phase</i>		
Teacher-student collaborative assessment in class and after class		

3.3. Instruments

3.3.1. Data Processing Software

Syntactic complexity analyzer (L2SCA), developed by Lu (2010) and available online free of charge, was employed. Table 3 lists the 14 indices measured in L2SCA.

Table 3. Syntactic Complexity Analyzer Measures (Lu, 2010)

1	Mean length of sentence (MLS)	8	Dependent clause per T-unit (DC/T)
2	Mean length of T-unit (MLT)	9	T-unit per sentence (T/S)
3	Mean length of clause (MLC)	10	Complex T-unit ratio (CT/T)
4	Clause per sentence (C/S)	11	Coordinate phrase per T-unit (CP/T)
5	Verb phrase per T-unit (VP/T)	12	Coordinate phrase per clause (CP/C)
6	Clause per T-unit (C/T)	13	Complex nominal per T-unit (CN/T)
7	Dependent clause per clause (DC/C)	14	Complex nominal per clause (CN/C)

In the current research, MLT and CN/T were utilized to evaluate syntactic complexity because the two were regarded as good measures to distinguish proficiency levels (Gyllstad et al., 2014; Khushik & Huhta, 2020; Lu, 2011; Polat et al., 2020).

SPSS was applied to test if the scores are normally distributed and to explore if there are significant differences in syntactic complexity indices. Analyses of variances (ANOVAs) in SPSS were conducted to investigate multiple comparisons among pretest, posttest and delayed posttest. The alpha was set at 0.05.

3.3.2. Interview

To further understand the effect of the POA, semi-structured interviews and a focus group interview were held to collect in-depth qualitative data.

A semi-structured interview is an informal grouping of topics and questions that the interviewer can ask in different ways for different participants, and these were done after conducting each turn of teaching experiment. To triangulate the data collected, a focus group interview was carried out after completing all turns of practices.

For making participants fully understand the interview questions, the interviews were conducted in Chinese. After each interview, the interview data were transcribed immediately and the transcription was checked by two researchers to ensure reliability. Then the interviews were coded falling into three categories: expected codes, surprising codes and codes of unusual or of conceptual interest (Creswell & Creswell, 2018).

3.3.3. Classroom Observation

Classroom observations were conducted in the current study to know what was happening and changing in the classroom, and to understand how the teacher was teaching and what the students were doing in class. There were four class hours per week, so a total of 32 class hours were observed.

4. Results and Discussion

4.1. Analyses of the Overall Effect of the POA

In the experiment, the POA was used as a pedagogical intervention to improve the learners' writing qualities, procedures of which were displayed in Table 2 and the Appendix. This part reports the overall impacts of the POA on the syntactic complexity of the six students' writings. The overall effects can be revealed based on the data of the pretests, posttests and delayed posttests. Delayed posttests delve into its long-term effect. Figure 2 displays the changing details of an average of syntactic complexity indices in terms of MLT and CN/T.

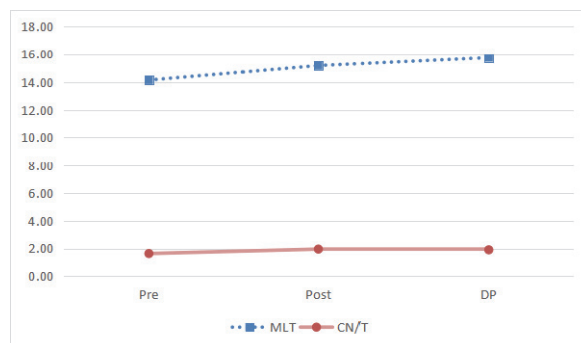


Figure 2. Average of Syntactic Complexity Indices

The values of MLT in Figure 2 reveal that all six participants exhibit gradual improvements during the experiment (14.16 for pretest, 15.18 for posttest and delayed posttest for 15.74 respectively). There is a significant difference between the pretest and the delayed posttest ($p=0.046<0.05$). The delayed posttest is significantly higher than the pretest, indicating the long-term effect of the POA. As for the indices of CN/T, the values of the

pretest, posttest and delayed posttest are 1.64, 1.95 and 1.90 separately. A significant difference exists between the pretest and posttest. The value of the posttest is significantly higher than that of the pretest ($p=0.046<0.05$), showing the positive effect of the POA.

The participants' writing samples are shown to make the results more clear and reliable. Take Conspicuous Consumption as an example. Table 4 displays the same idea units extracted from I1's and H1's writings.

Table 4. Excerpts of Writing Samples of I1 and H1

	Pretest	Posttest	Delayed Posttest
I1	<i>What's more, wearing a good suit is proving that you have money to make up for yourselves.</i>	<i>You will feel a sense of confidence and contentment and gain respect and social acceptance.</i>	<i>When other people admire and even have a little envy to you, you can feel a sense of confidence and happiness.</i>
H1	<i>We should strive for the famous brands within budget.</i>	<i>Good taste comes from temperament, which means that buying brand-name goods is bad for us.</i>	<i>If you want to buy brand names, you should think about whether they are useful or not and don't spend too much money chasing the wind.</i>

Writing samples of the delayed posttest shows its longest T-unit. H1 mentioned the reasons for the differences in the focus group interview. H1 said: "Some sentences in my first draft were short so I made fewer errors. I learned a lot in this unit especially how to express a similar idea by using more complicated sentences, so the sentences were much longer and the expressions were a lot more accurate than the previous one." Then I1 added, "Our English teacher showed a Weibo to us at the start of the class. The topic drew my attention, but the writing was not well-organized because the short sentences made my writing nonconsecutive. Fortunately, I rewrote the essay and the sentences were much longer with reference to the words in the text."

The great effects of the POA can be observed in the motivating phase. To motivate students to learn, the teacher designed a scenario asking the students to send the Weibo user a direct message and tell him their opinions about buying brand names. Motivating is the initial phase of the POA. It is assumed that if students realize their weaknesses in the production, they are eager to learn more and perform more effectively in the future (Wen, 2018). Based on the first phase, the teacher devised a series of intervening activities to enable the students to produce their ideas, such as the mini-productive task "Should We Keep up with the Joneses and Why?" which helped them conduct selective learning, thus

boosting the performance in their posttests.

4.2. Effect of the POA on Syntactic Complexity of the HL Students' Writings

An individual analysis of the impacts of the POA on the syntactic complexity of the writings by HL students is conducted in this part. Figure 3 and Figure 4 show HLs' average and individual changes from the pretest to the delayed posttest respectively.

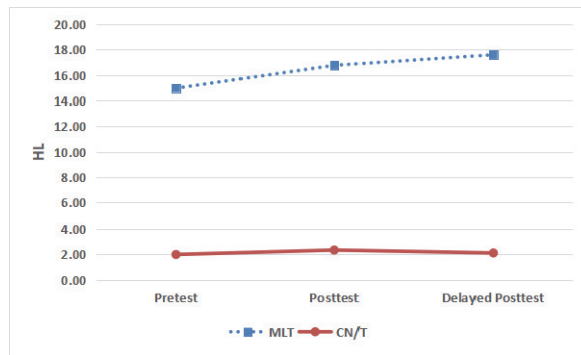
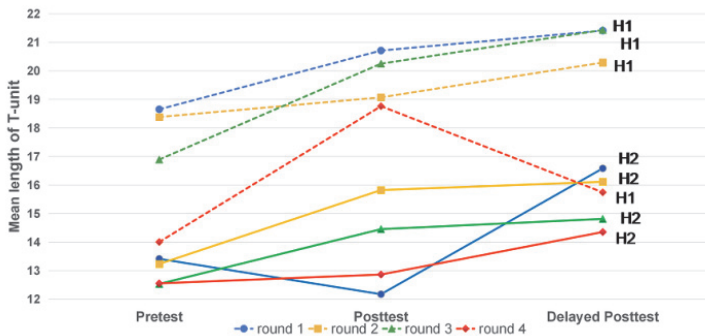


Figure 3. HLs' Average of Syntactic Complexity

As for the indices of MLT, students at HL show their improvement from the pretest to the delayed posttest (14.96, 16.76 and 17.59 respectively). The values of CN/T reach the peak at the posttest. The data of the pretest, posttest and delayed posttest are 1.99, 2.34 and 2.11.



(a)

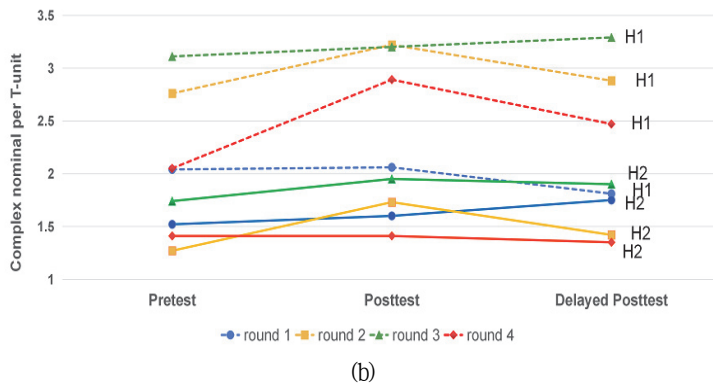


Figure 4. Individual Changes of Syntactic Complexity of the HL Students

Note: “Round 1”, “Round 2”, “Round 3” and “Round 4” mean four rounds of teaching experiment respectively.

Figure 4 (a) displays the indices of MLT of the participants at HL in the four rounds of pedagogical intervention. As for H1, it demonstrates continuing rise from the pretests to the delayed posttests in Rounds 1, 2 and 3. The value in the fourth round rises from the pretest to the posttest and then decreases at the delayed posttest. For H2, in the first round, the value goes down from the pretest to the posttest, and then goes up from the posttest to the delayed posttest, exceeding that of the pretest. In the second, third and fourth rounds, the values increase from the pretest to the delayed posttest.

Figure 4 (b) demonstrates the changes in CN/T of H1 and H2. In terms of H1, the value rises from the pretest to the posttest and then decreases in the delayed posttest in Rounds 1, 2 and 4, showing that it reaches its peak at the posttest. The data of the third round increase from the pretest to the delayed posttest. As for H2, in the first round, the value goes up from the pretest to the delayed posttest. In the second and third rounds of the experiment, the value reaches its peak at the posttest. There is no change from the pretest to the posttest, and then the value goes down at the delayed posttest in the fourth round of the experiment.

To expound how the POA exerts its intervening effects on the syntactic complexity of the HLs’ writings, a multiple comparison method is applied. In terms of the two indices, although significant differences do not exist among the three tests, the impact of the POA on syntactic complexity can also be detected based on the increasing values of MLT from pretest to delayed posttest and the rising values of CN/T from pretest to posttest (See Figure 3).

Table 5 illustrates the same idea unit of H1's writing task of *Cultural Differences*.

Table 5. Excerpts of Samples of H1

	Pretest	Posttest	Delayed Posttest
H1	<i>We're more like machines that mechanically take notes and memorize.</i>	<i>Which means what we do after class is mechanically memorize and recite, which narrows our mind.</i>	<i>Chinese teaching methods focus more on repetition in order to help students memorize new words and expressions in class.</i>

The T-unit length is the shortest at pretest but the longest at delayed posttest. In the face-to-face interview, H1 explained, "I enjoyed teacher's sharing our writing samples in the QQ group in class. In this unit, my essay was chosen to be shared. My classmates helped me point out the mistakes, and my teacher offered me valuable suggestions. For example, she told me that I could use conjunctions or subordinate clauses to complete a longer sentence, which benefited me a lot."

What H1 mentioned in the interview shows the effect of the assessing phase. The assessing phase is indispensable in the whole teaching process of the POA. In the enabling phase, the teacher offered scaffolding to help the students finish a 100-word composition named *Differences between Spring Festival and Christmas*. Then, in the assessing phase, the corrective feedback was given and it played a key role in improving the students' writings, thereby enabling the students to learn more. The teacher-student collaborative assessment in class made the students whose essays were evaluated realize that they were paid attention to. Meanwhile, their classmates could also be aware of their own mistakes (Wen, 2016). The present result is in line with Zhang's (2017) finding, proving that the corrective feedback does help improve the students' writings. In the current study, the corrective feedback especially has significance for students at LL, which indicates that teachers should pay more attention to the assessing phase in applying the POA.

4.3. Effect of the POA on Syntactic Complexity of IL Students' Writings

In this subsection, the effects of the POA on the syntactic complexity of ILs' writings are evaluated. Figure 5 and Figure 6 reveal the average and individual changes from pretest to delayed posttest of the two participants.

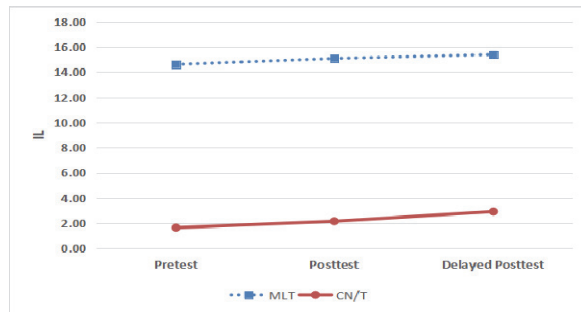


Figure 5. ILs' Average of Syntactic Complexity

According to Figure 5, both MLT and CN/T display a gradual increase from the pretest to the delayed posttest. The values of MLT are 14.61, 15.09 and 15.40 separately, and those of CN/T are 1.64, 2.15 and 2.92.

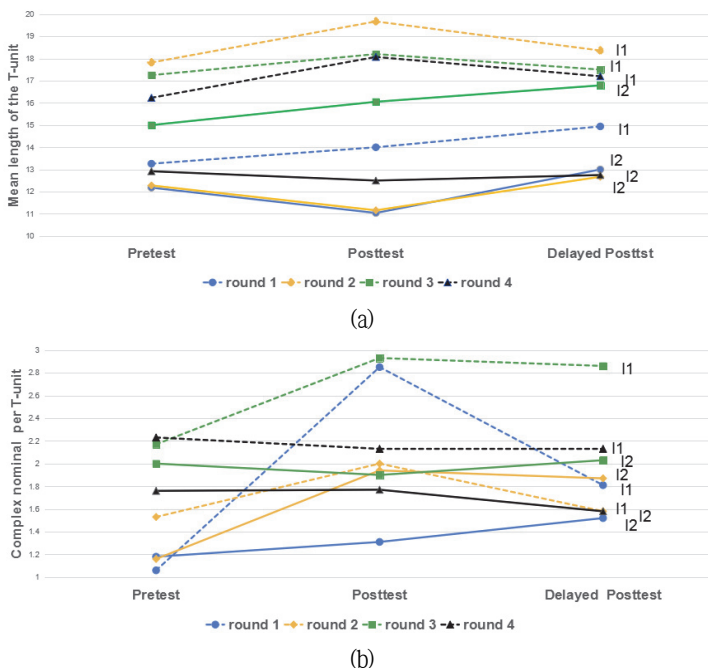


Figure 6. Individual Changes of Syntactic Complexity for IL Students

Note: “Round 1”, “Round 2”, “Round 3” and “Round 4” mean four rounds of teaching experiment respectively.

Figure 6 (a) illustrates the values of MLT of the participants at IL in the four-round experiments. For I1, in the first round, the values from the pretest to the delayed posttest increase gradually. In the other three rounds, the values rise and reach the peak in posttests and then decrease in the delayed posttest whose values, however, are higher than the pretests. As for I2, the values decrease from the pretest to the posttest and then increase at the delayed posttest in Rounds 1, 2 and 4. In Round 3, the data increase from the pretest to the delayed posttest.

Figure 6 (b) shows the values of CN/T of the two participants at IL. As for I1, in the first three rounds, the values reach the peak at the posttest. In the fourth round, the data from the pretest to the posttest decrease slightly, with no change in its delayed posttest. For I2, the data rise from the pretest to the delayed posttest in Round 1. In the second and fourth rounds, the value rises from the pretest to the posttest and then decreases at the delayed posttest. In Round 3, the value goes down from the pretest to the posttest and goes up at the delayed posttest.

A multiple comparison analysis is made to work out the pedagogical intervention effects of the POA. Differences are significant as for the values of MLT and CN/T, but the impact of the POA on the syntactic complexity can be detected according to the continuous improvement from the pretest to the delayed posttest in both MLT and CN/T (See Figure 5).

Take the writing task of *Different Ways of Teaching Between Chinese Teachers and American Teachers* written by I1 as an example. The same idea unit is listed in Table 6.

Table 6. Excerpts of Samples of I1

	Pretest	Posttest
I1	<i>Chinese teachers think repetition is the best way to keep information in minds, so they often let students copy the "stuff" again and again.</i>	<i>Chinese teachers pay more attention on repetition, because it is a way that can improve the students' memory and deepen their mpression, such as note-taking.</i>

As shown in the above excerpts, more nominals are utilized in per T-unit in the posttest than pretest. I1 told, "This unit's teaching method was pretty different from the previous ones. Our teacher and classmates established more interactions and assessments about our performance in activities. Meanwhile, our English teacher offered us more advice after each activity ... In this unit, I paid close attention to displaying facts in my writing. However, I did not know how to show them in my first draft. Then I accepted timely and individual feedback of my writing

from our teacher. I realized that maybe nouns were more related to facts, and I believed the importance of nominal elements.”

The drafts that I1 mentioned are the writing tasks entitled as *Different Ways of Teaching Between Chinese Teachers and American Teachers*. In terms of the classroom observation, the writing task was assigned in the motivating phase, and the English teacher asked the students to cope with the tasks in class. In the next class, every student received detailed feedback. The assessing phase can be divided into ongoing diagnostic and formative classroom assessment and achievement assessment (Wen, 2018). The former takes place in the enabling phase, and the latter is undertaken after completing the posttest. I1 exhibited great improvement in his posttest. An assessment like this can “lead to better learning outcomes” (Wen, 2018, p. 537), consolidating, enhancing and expanding learning as well (Wen, 2019). “Learners write more grammatically and lexically complex sentences as they become more proficient” (Wolfe-Quintero et al., 1998, p. 4). Consequently, the mistakes made by I1 in the pretest were avoided, and accuracy was achieved. In the posttest, he utilized more idiomatic and diverse expressions, echoing Sun’s (2019) study. This result offered enlightenment for English instructors to highlight the assessing phase in instructing the students at IL.

4.3. Effect of the POA on Syntactic Complexity of LL Students’ Writings

The intervening effect of the POA on the syntactic complexity of the LLs’ writings is discussed in this section. Figures 7 and 8 display the average and individual changes of the indices of MLT and CN/T in the pretest, posttest, and delayed posttest.

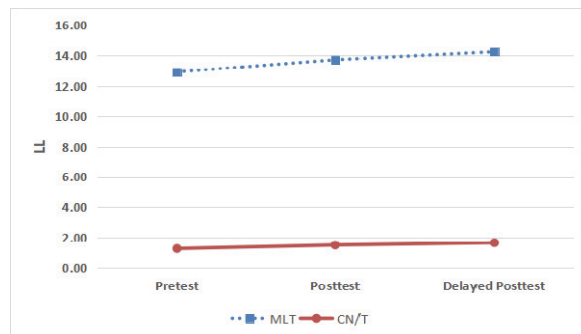


Figure 7. LLs’ Average of Syntactic Complexity

Similar to ILs, students at LL illustrate their improvement gradually as well. They reach their highest level at the delayed posttest. The data of the three tests for MLT are 12.91, 13.70 and 14.22. The data for CN/T from the pretest to the delayed posttest are 1.30, 1.53 and 1.68 separately.

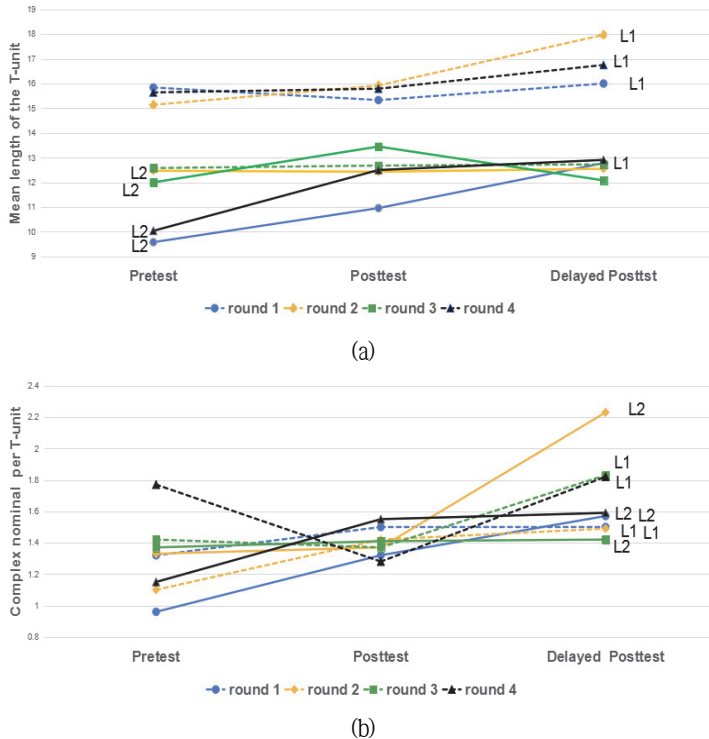


Figure 8. Individual Changes of Syntactic Complexity for LL Students

Note: “Round 1”, “Round 2”, “Round 3” and “Round 4” mean four rounds of teaching experiment respectively.

Figure 8 (a) shows the changes of MLT in the three tests. For L1, the values of the three tests in the first round decrease from the pretest to the posttest, and then increase from the posttest to the delayed posttest, even higher than the pretest. In Rounds 2, 3 and 4, L1 makes great progress from the pretest to the delayed posttest. As for L2, the data of the pretest, posttest and delayed posttest in the first and fourth rounds display their continuous rise from the pretest to the delayed posttest. The values in Rounds 2 and

3 reach their peak at posttest, then decrease at delayed posttest.

As for CN/T in Figure 8 (b), in Round 1, the values in L1's writings rise from the pretest to the posttest, but with no change at delayed posttest. The data in the second and third rounds reflect an improvement from the pretest to the delayed posttest whereas the data in the fourth round decrease from the pretest to the posttest and then increase in the delayed posttest. For L2, the values rise from the pretest to the delayed posttest in all four rounds.

A multiple comparison method is conducted in this part to understand the difference among the tests. For MLT, there is no significant difference among the three tests. As for CN/T, a significant difference exists between the pretest and the delayed posttest ($p=0.004<0.05$), showing that the POA has a long-term effect on the LL students.

The idea unit shown in Table 7 is extracted from the *Criteria for Becoming an Adult* written by L2.

Table 7. Excerpts of Samples of L2

	Pretest	Posttest	Delayed Posttest
L2	<i>When we are adults, we have to take responsibility.</i>	<i>Adult means accepting responsibility for yourself, your parents and your friends.</i>	<i>Whether we are adults depends on responsibility, such as, emotional and financial responsibilities, which can be shouldered by ourselves.</i>

In the same idea unit, more nominals can be seen in his delayed posttest in comparison with the pretest and posttest. Thus, the long-term effects of the POA on CN/T at LL can be revealed.

In the interview L2 mentioned after the second round of experiment: "As soon as I saw the topic, I felt it was easy. I encountered the difficulty, however, in my first draft since I did not know how to support my arguments. Then our English teacher explained the text. I listened more carefully in class because I thought my first draft was not well written."

In the writing sample of L2, *emotional responsibility, economic independence, independent divisions and instability* were used as keywords in the topic sentences. These expressions were what they learned in the enabling materials of *Is 30 the new 20 for young adults* and *More young adults living with adults*. The materials were enablers, enabling the students to approach their potential competence. Likewise, those materials given by the English teacher were learnable and acted as scaffolding for the learners. Scaffolding is a key feature of effective teaching, where the instructor continually adjusts the level of his or her help in response to the learner's level of performance. In the classroom, scaffolding

can include adapting materials or activities (Copple, Carol, & Sue, 2009) to help the students produce what they are supposed to produce. According to the interview, the enabling materials played a critical role for students at LL and had great effects on the syntactic complexity.

5. Conclusion

Based on the above data and analyses, the following conclusions are arrived at. Generally, quantitative data report that both MLT and CN/T display significant differences among the pretest, posttest and delayed posttest, revealing that the pedagogical intervention of the POA are effective for the six participants as a whole. Individually, the POA brings about effects to varying degrees. As for HLs, although significant differences do not exist among the pretests, posttest and delayed posttest, the improvement from the pretest to the delayed posttest can be found, demonstrating a long-term effect of the POA on the syntactic complexity in terms of the indices of MLT. The enabling phase has a powerful effect on them. For learners at IL, there are no significant differences with regard to the two indices. However, the positive impact of the POA on the syntactic complexity can be detected in CN/T between the pretest and the posttest. The assessing phase and enabling phase play crucial roles. For LL learners, the value of CN/T reveals a significant difference between the pretest and the delayed posttest, with the delayed posttest significantly higher than that of the pretest, indicating that the POA has a significant impact on the syntactic complexity of the students' written language. Furthermore, qualitative data like interviews, classroom observations and writing samples triangulate each other, revealing that the POA as a pedagogical intervening method of teaching writing does improve the syntactic complexity of the learners' writings. The teaching procedure does have far-reaching effects on writing qualities. The enabling phase, as a way of teaching intervention, enables the learners to gain more linguistic knowledge by providing affordances of reading, listening or viewing and listening, thus enabling them to produce more complex output. The assessing phase, another part of the pedagogical intervention, helps the learners to realize their errors and problems as well as to make a timely correction, thereby encouraging them to produce more idiomatic output.

The research carries its implications theoretically and pedagogically. Theoretically, compared with earlier studies, the present study widens the scope of the POA research.

Previous research mainly probed into the impact of the POA on English learning from the perspective of a single unit or a single phase, either a motivating phase or enabling phase or assessing phase. This study, lasting for 16 weeks, scrutinized the effects of the POA on the syntactic complexity to further understand its long-term effects on writings by the students at different English proficiency levels. Therefore, it offers more empirical data for further studies. Pedagogically, the present research sheds light on improving EFL learners' writing quality by using the POA as an intervention method. In the motivating phase, teachers should design genuine writing tasks to be finished. Meanwhile, students realize their own weaknesses while trying to complete the tasks, thus motivating them to learn. In the enabling phase, teachers provide more input relevant to the topic and within students' ZPD, thereby helping students accomplish the designated task step by step. In the assessing phase, teachers and students cooperate with each other to assess the typical products in class, and evaluate the assigned task after class by giving students tailored feedback. By the three-phase intervention can students succeed in completing the task and teachers fulfil the teaching objectives.

In spite of considerable efforts invested, limitations are still identified. First, the research on the effectiveness of the POA focuses only on the syntactic complexity, but does not investigate its effects on lexical complexity, accuracy and fluency. It is recommended that other researchers conduct a more comprehensive and in-depth study on the impact of the POA. In addition, this study examines the impact of the POA on syntactic complexity with only two indices. It is suggested that more indices be analyzed in future research. Furthermore, the results are likely to be different in various teaching contexts since the present study involved only six participants. To further test the effectiveness of the POA as a pedagogical intervention, research with a larger number of samples is needed to be carried out.

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Appendix

1. The Second Round of the POA Teaching Practice

Emerging Adulthood

I. Motivating phase

Scenario: Mike, your Australian friend, is 18 years old, who is in the transition from a teenager to an adult. He told you that he felt a little bit confused about what an adult was like. You are going to write him a letter to share your opinions about the criteria for becoming an adult.

II. Enabling phase

Enabling material 1 Is 30 the New 20 for Young Adults?

Mini Task 1	Identifying and synthesizing information	Ongoing diagnostic and formative classroom assessment
Mini Task 2	Building the language - words and expressions	
Mini Task 3	Preparing for the structure	
Mini Task 4	Sharing the ideas - <i>Characteristics of Emerging Adults</i>	

Enabling material 2 More Young Adults Living with Parents

Mini Task 1	Identifying and synthesizing information	Ongoing diagnostic and formative classroom assessment
Mini Task 2	Building the language - words and expressions	
Mini Task 3	Preparing for the structure	
Mini Task 4	Sharing the ideas - <i>Advantages and Disadvantages of Emerging Adults</i>	

Writing task Criteria for Becoming an Adult

III. Assessing phase

Teacher-student collaborative assessment in class and after class

2. The Third Round of the POA Teaching Practice

Conspicuous Consumption

I. Motivating phase

Scenario: The other day you read the following Weibo.



Now you are going to send the Weibo user a direct message, telling him your opinions about buying brand-name goods.

II. Enabling phase

Enabling material 1 Stop Keeping up with the Joneses - They Are Broke

Mini Task 1	Identifying and synthesizing information	
Mini Task 2	Building the language - words and expressions	Ongoing diagnostic
Mini Task 3	Preparing for the structure	and formative
Mini Task 4	Sharing the ideas - <i>Should We Keep up with the Joneses and Why?</i>	classroom assessment

Enabling material 2 Why Do People Buy Brand Names?

Mini Task 1	Identifying and synthesizing information	
Mini Task 2	Building the language - words and expressions	Ongoing diagnostic
Mini Task 3	Preparing for the structure	and formative
Mini Task 4	Sharing the ideas - <i>For and Against: "Buying Brand-Name Goods Is Necessary."</i>	classroom assessment

Writing task My Views on Buying Brand-Name Goods

III. Assessing phase

Teacher-student collaborative assessment in class and after class

3. The Fourth Round of the POA Teaching Practice

China in Transition

I. Motivating phase

Scenario: Your American friend John told you that he saw Beijing's hutong on TV. He was really interested in the world-famous traditional architecture and asked you to describe something about it. You are going to write him a letter, telling him about the differences between living in hutong and in a high-rise building.

***II. Enabling phase*****Enabling material 1 *Hutong Karma***

Mini Task 1	Identifying and synthesizing information	Ongoing diagnostic and formative classroom assessment
Mini Task 2	Building the language - words and expressions	
Mini Task 3	Preparing for the structure	
Mini Task 4	Sharing the ideas - <i>Characteristics of Hutong and Life in It</i>	

Enabling material 2 *Ups and Downs of High-Rise Building*

Mini Task 1	Identifying and synthesizing information	Ongoing diagnostic and formative classroom assessment
Mini Task 2	Building the language - words and expressions	
Mini Task 3	Preparing for the structure	
Mini Task 4	Sharing the ideas - <i>Characteristics of High-Rise Building and Life in It</i>	

Writing task **Differences between Living in a Hutong and Living in a High-Rise Building**

III. Assessing phase

Teacher-student collaborative assessment in class and after class

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