The application and evaluation of “Production-oriented Approach” in College English Teaching

Ruiyun Zeng¹, Qianmei Li²
¹,² Guilin University of Electronic Technology, Guilin541004, Guangxi, China

Corresponding author and e-mail: Ruiyun Zeng, 602633037@qq.com

Abstract. This paper introduces a semester-long experiment process with the production-oriented approach (POA) to test the effectiveness of POA in an ordinary university in China. The findings are as follows. First, POA has obvious effects on improving the overall English level of students. Second, with POA, there is an obvious increase in students’ reading ability, a slight increase in their listening ability, and a slight decrease in their vocabulary ability. This paper analyzes the research results and puts forward corresponding solutions to the problems existing in the implementation process of POA in ordinary colleges and universities.

1. Introduction
In 2008, taking Swain’s (1995, 2000) “output hypothesis” as the important theoretical basis, Professor Wen Qiufang put forward the “output driven hypothesis” based on the concept of “integration of learning and application” for English professional skills curriculum reform. Since then, some scholars and teachers begin to apply this hypothesis in English major teaching. In 2013, Professor Wen extended this hypothesis to college English teaching, making it more concerned by college English teachers and practiced in classes. In 2015, Professor Wen formally named it as “production-oriented approach” (POA). At present, many teaching experiments have provided practical classroom experience and lessons for the construction of the theoretical system. Some of these studies focus on a particular section of the teaching links of “motivating – enabling – assessing” (Zhang Wenjuan2016; Qiu 2017; Sun 2017), some on the teaching experiments on a single unit (Cao, 2017; Zhang Wenjuan2016), some on application of POA in a certain course (Qi 2016; Zhang Wenjuan 2017), and some on the effectiveness analysis on POA teaching (Zhang Lingli 2017). In August of 2017, Professor Wen and her team held an English teaching and training class to promote POA teaching to front-line teachers of college English from all over China. The author participated in this session and began to conduct POA teaching experiments in college English teaching in Guilin University of Electronic Technology (GUET).

Professor Wen (2015) pointed out that this approach is mainly aimed at middle and advanced foreign language learners. Applying the common European framework for reference, the target audience should be at least A2 or above. At present, the colleges and universities that apply this method are basically key universities with students of high level of English proficiency. The application and effectiveness analysis of POA in ordinary colleges and universities are still in the way. In this paper, the author attempts to share her experience and in POA teaching experiments in an
ordinary university and test the effectiveness the approach in both the overall English proficiency and some particular language skills.

2. Research design
In line with the situation and requirements of the national college English teaching reform, GUET has reduced teaching hours on college English course since September 2012, and implemented graded teaching. However, there is no significant change in teaching methods. College English teachers still adopt the “text-centered method”, that is, the teaching mode of “warm-up practice – text learning – after-class practice”, aiming at understanding the words, sentences and passages in the textbooks. The result is that the students show no strong interest in class learning, the classroom teaching efficiency is low, and the problem of “separation between learning and using” is relatively prominent. Therefore, how to stimulate students’ initiative and creativity in English learning and comprehensively improve the teaching effect according to their different internal needs in a limited period of time is the key problem to be solved urgently. Based on the above background, this study aims to solve two problems. First, can POA improve students' overall English level? Second, which skills of listening, speaking, reading, writing and translating are most effective in POA?

2.1. Subjects of the experiment
The subjects of this study are 471 sophomore students in Business College of GUET. The experimental group consist of 59 students in one of the class. In the university, all students are not allowed to register for College English Test – Band 4 (CET-4) until the third semester. Starting from 2017, the university has conducted an entrance test for ordinary undergraduates before the new semester begins. Those who have achieved a certain score can take the CET-4 in the first semester. At the same time, some students are allowed to take the CET-4 in the second semester according to their scores of the final examination in the first semester. The classes in the first and second semesters are arranged according to the students’ professional major. At the third semester, those who have passed the CET-4 in the two semesters will be selected into the advanced classes, and the rest can freely choose any parallel class with a particular teacher assigned to this college. Therefore, in the third semester, among the ten classes of this college, there are two advanced classes with 87 students who have passed CET-4, and ten parallel classes with 471 students. The author chose one of the parallel classes as the experimental group, applying the teaching method of POA, with a total of 59 students. The controlled group is another parallel class of 65 students in another college under the same teacher with the traditional “text-centered method”. The two groups are analyzed against the 471 students in all parallel classes in Business College. The reason why the author did not adopt POA in the controlled group is that the English teaching in this college separated listening and speaking, so the overall POA teaching could not be adopted.

In addition, since the teaching and test contents of the advanced classes are different from those of the parallel classes in the third semester, the average data of the whole college, whether in the pre-test or the post-test are all excluding the data of the advanced classes.

2.2. Preparation for the experiment
POA teaching experiment lasted for 14 weeks, with 4 periods per week and 56 periods in total. All the students spend two weeks in the language laboratory for independent learning, completing the exercises of the designated teaching units. The next 12 weeks are spent in the classroom for the teaching of the five designated units both of the textbooks. There are both communicative and language goal for each unit. The production tasks includes spoken task and written task. The former consists of group videos and group presentations or role plays, the latter English composition, translation, practical writing and the like. Each production task is decomposed into several subtasks. The whole teaching follows the three links of “motivating – enabling – assessing” (Wen, 2015), and the assessing link adopts the “teacher-student cooperative evaluation” (Wen, 2016). In order to effectively carry out POA teaching experiments, the author elaborated the overall evaluation scheme of college English
courses to students at the beginning of the semester. The class openly elected a course representative, and set up an English learning QQ group for cooperative learning. The whole class is divided into 10 groups, with a leader for each group. At the same time, the learning information of each student is recorded as an important basis for formative evaluation of their College English course.

3. Research process

The research tools used in this experiment are pre- and post-tests. There are two pre-tests. The first is the English proficiency test, namely the entrance test mentioned above, which is consistent with the CET-4, including listening, reading, writing and translation. The entrance examination is conducted on the intranet of GUET, and the papers will be marked by machine immediate after the examination. The second is the final examination of the first semester. The post-test is the final exam of the third semester. The two final exams are the same types of stage test, including listening, reading, vocabulary, translation and writing, among which listening, reading and vocabulary are marked by machine. Writing and translation are sealed and marked collectively within all the teachers in the whole grade. Therefore, there is no significant difference in marking standards of both the pre-tests and post-test. The author applies the SPSS21.0 software package in the quantitative data analysis of the differences between the two groups of students and the itemized skills.

3.1 Pre-test analysis

3.1.1 Comparison of admission level between experimental group and college average.

The experimental group are from the business college of GUET, a major with good enrollment. In order to clarify the English level of the students before the teaching experiment, the author compared the scores of the experimental group with the average score of the whole college, rather than with that of the whole university. The total full score of entrance test is 710 points, which was converted into a percentage system for the convenience of comparison.

In the pre-test, the average score of the whole college is 39.6, while the average score of the experimental group is 39.9729. The one-sample t test is as follows:

| Test Value = 39.6 |
|-------------------|
| T | df | Sig. (2-tailed) | Mean Difference | 95% Confidence intervals of difference |
| T0 | .348 | 58 | .729 | .37288 | -1.7738 | 2.5196 |

As can be seen from Table 1, although the average score of the experimental group is slightly higher than the average score in the college, the critical confidence (2-tailed) was 0.729, greater than 5%. Therefore, there is no significant difference between the scores of students in the entrance test class and the average scores of students in the whole college, which is 39.6 points. Therefore, the English proficiency of the experimental group was about the same as the average level of the whole college.

3.1.2 Comparison of admission level between the experimental group and the controlled group

After the entrance test, the students were divided into 10 teaching classes according to their major, not according to their score of the entrance examination. That is to say, 59 students of the experimental class were scattered in different classes and taught by five different teachers under the traditional teaching method. At this time, the author did not participate in the teaching of this college. After the final examination of the first semester, the author selected all the scores of the experimental group and all the students in parallel classes with the aid of Excel. The average score of the experimental group is 60.0169, while the average of the college is 57.5. Then the test result is as follows:
Table 2. One-sample t test of scores of experimental group in pre-test 2 (T1)

|     | T  | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Intervals of Difference |
|-----|----|----|-----------------|-----------------|----------------------------------------|
| T1  | 1.278 | 58 | 0.206 | 2.416 | -1.3683 - 6.2022 |

As can be seen from Table 2, after a semester of traditional college English teaching, in different classes and under different teachers, although the average score of the experimental group was slightly higher than the average level of the whole college, the significance (2-tailed) is 0.206, greater than 5%. Therefore, there is no significant difference between the performance in the first semester and the average score of 57.6 in the whole college. Therefore, under the same teaching method, the overall English level of the experimental group did not improve significantly.

3.2 POA teaching process

The teaching process of POA covers three stages, namely motivating, enabling, and assessing. During the three stages, the mediating effect of the teacher mainly consists of guiding, designing, scaffolding and the like.

3.2.1 Motivating

In the motivating phase, Professor Wen (2015) elaborates the steps and requirements. She said, When designing the communicative scenes for driving links, the author designs communicative scenes close to the learning and living environment of students, such as designing the “100-yuan challenge of one-day tour in Guilin”, applying for the “world’s most liveable city” for their hometown, and writing the “business plan” for the innovation and entrepreneurship project of college students. Students are interested in these production tasks, but they also find that the departure of pragmatic existing distance, will produce a sense of urgency and initiative to continue learning.

3.2.2 Enabling

In the facilitation stage, the successful completion of a production task requires at least the idea, language and discourse structure to express the content in language. Considering the actual level of students in GUET, the author focuses on the learning of English expressions and forms, including words, phrases and sentence patterns that can serve for the production tasks. Step by step, language facilitating activities are designed to help students transform “declarative knowledge” into “procedural knowledge” according to the path of “identification and understanding –output as required – open output”. The third step is to extract the discourse structure required by the production task from the input. With the help of the scaffolding to facilitate the activities, students have built up the confidence of language expression and can successfully achieve the advanced level of language production.

3.2.3 Accessing

The production can be assessed immediately and afterclass. In the assessing stage, teachers should specify specific operable assessing criteria according to different forms and contents of production tasks. At the beginning of the semester, the author combined the writing standards of composition and professor Lucas’s standards of speech (2010), designed detailed evaluation standards, and sent to students for self-evaluation and mutual evaluation. For example, if the production task was a written composition, the author the evaluation criteria could be broken down into the following, each of which accounted for 20 percent.

If the production task is oral, in addition to the above criteria in terms of content, teachers should also specify assessing criteria in terms of delivery, as shown in the following table:

It must be pointed out that the evaluation step is not a step after the completion of the motivating and enabling stage, but a step running through the entire POA teaching process. That is to say, in the
process of students’ selective learning and production task practice, teachers should evaluate students’
learning effect and timely adjust teaching steps and teaching contents. In addition, the evaluation stage
is time-consuming, but it cannot be handled hastily. Teachers can make use of the network
communication platform to allow students participate in the assessment process and make pre-class
and after-class assessment possible. Teachers can send evaluation forms to students in advance for
students to make self-assessment, and conduct mutual assessment on the production works of other
students uploaded. At the end, the teacher make targeted assessment in class.

4. Results and discussion
After a semester of teaching, the author tested the POA teaching effect of the experimental class based
on the scores of the final examination of the third semester. The effectiveness of POA on overall
English proficiency and individual English skills is reported below.

4.1 Effect on the overall English proficiency

4.1.1 Comparison of average score between the experimental group and the whole college
The final examination of the third semester is based on the same principle as the first semester. Both
are periodic exam based on the textbooks. In this test, the average score of the experimental group is
67.7712. According to the single-sample t test, the comparison results are as follows:

| Test Value = 63.6 |
|------------------|
| t   | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |
| T3  | .002 | 95% | 4.17119 | 1.6379 | 6.7044 |

As can be seen from Table 3, after a semester of POA teaching experiment, the overall average
score of the experimental group has improved (4.17119) compared with the whole college. And the
significance (2-tailed) is 0.002, much less than 5%. Therefore, it indicates that there is a significant
difference between the grade of students between the experimental group and the college average,
which is 63.6 points. It can be concluded that POA helps to improve the overall English proficiency of
ordinary college students.

4.1.2 Comparison between the experimental group and the controlled group
It is proved that the average score of the experimental group was significantly higher than that of the
college after a semester of POA teaching. In order to eliminate the differences between the teachers
competence, the author compared the results of the experimental group and the control group again. In
pre-test 1, we have found no significant difference between the experimental group and the control
group, indicating that there is no significant difference between the two groups in English proficiency.
After a semester of traditional teaching, in the second pretest, there was still no difference in the scores
of the two groups, indicating that there is also no significant difference in the teachers’ competence of
the two groups. Now let’s examine the changes in the English proficiency of the two groups of
students after a semester of POA teaching.

| Table 4. Comparison of post-test between the experimental group and the controlled group |
|------------------|
| Group           | N  | Average | Std. Deviation | Mean Difference | Sig. (2-tailed) |
| Experimental    | 59 | 67.7712 | 9.72081 | 8.90196 | .000 |
| Controlled      | 65 | 58.8692 | 12.23509 |          |        |
In Table 4, the method adopted is the t-test of equal variance of the two samples. It can be seen that the significance (2-tailed) is 0.000, far less than 5%. Therefore, it indicates that there is a significant difference between the scores of the two groups in the third semester of the survey. At the same time, we can also find that after three semesters of traditional teaching, the English proficiency gap between the controlled group and the experimental group is getting larger and larger. This may be because the traditional English teaching fails to stimulate the learning initiative of students, especially the students in the middle and high grades. After the intensive high college English teaching, they find that the traditional college English teaching is no longer challenging and lose the interest in English learning, and their English level remains the same as in the high college.

4.2 Effect on individual skills

Now that we have proved that POA teaching has a significant effect on the overall English proficiency of students, we are going to prove which skills of English POA can promote. Due to the subjective factors in the marking of translation and writing, only three types of questions, namely listening, reading and vocabulary, are selected in this comparison.

| Item       | Experimental group average | College average | Std. Deviation | Mean Difference | Sig. (2-tailed) |
|------------|----------------------------|-----------------|----------------|-----------------|----------------|
| Listening 20% | 15.9492                    | 15.1612         | 2.91503        | .7480           | .053           |
| Reading 30%  | 18.5085                    | 16.7396         | 5.18078        | 1.8084          | .010           |
| Vocabulary 15% | 6.1864                     | 6.3079          | 2.12517        | -.1135          | .683           |

It can be seen from Table 5 that in the three language skill in comparison, the significance (2-tailed) of listening and vocabulary is more than 5%, which indicates that compared with the average level of the whole college, POA teaching has no prominent advantage in improving students’ listening and vocabulary ability. The significance (2-tailed) for reading is 0.010, less than 5%. Therefore, it indicates that there is a significant difference between the reading score of this class and the average score of 16.7 points of all the students in the college. This shows that the POA teaching has significantly improved the students’ reading ability. According to previous experiments of other teachers (Qi 2016, Zhang Lingli 2017), POA is more effective in improving writing and speaking abilities. Since Guet has not installed standardized speaking test platform at present, the author cannot conduct credible speaking level test and make persuasive effectiveness analysis. In terms of writing, the writing type of this test does not fit well with the actual communication scenes of students, which fails to reflect the obvious advantages of POA teaching method. However, in general, in the writing part of this test, the language and structure of the experimental group are more standardized. The influence of POA on writing needs to be further studied in the future with a more effective analysis design.

5. Conclusions

The POA teaching experiment has been implemented for half a year and needs to be continued. Teachers and students are gradually adapted to the “motivating - enabling - assessing” teaching mode which obtained significant teaching effects. Studies have shown that POA can effectively improve students’ reading, writing and speaking abilities and promote their all-round development. However, due to subjective and objective reasons, the design of this study still has defects. First, the research cycle is too short, and changes and learning effects of students observed are limited. If the experiment can start since the enrollment, and the experiment tracking lasts for four semesters, it is believed that it will have a more obvious effect on the improvement of students’ overall English proficiency and individual skills. Second, there is no well-designed method for measuring the production ability of speaking and writing, so the production ability of students in the experimental stage cannot be tracked in detail. At the same time, the traditional English proficiency test is not satisfactory in testing teaching effectiveness comprehensively and objectively. In addition, POA challenges students’ learning initiative, especially in ordinary universities where students’ admission English level is not so
high. In the initial stage, students are resistant to participating in POA experiments when the requirements of the whole university are not unified. POA also requires teachers to be more committed and engaged. Textbooks used for College English teaching in GUET are not completely in accordance to the concept of POA principle. Therefore, a lot of time and energy is required for teachers in the design of communicative scenes, production tasks and enabling steps suited with students’ actual English level. Of course, if POA can be comprehensively promoted in the whole university and teaching teams can be formed in and out of the college, it is believed that POA can give full play to its obvious advantages.

Acknowledgement
This work is supported by the Teaching Reform Project of Guangxi Higher Education (grant NO. 2018 JGB177, NO. 2018JGB187), Basic Ability Improvement Project of Scientific Research for Young and Middle-aged Teachers in Universities of Guangxi (Grant No. 2019KY0243), and Guangxi Higher Education Undergraduate Teaching Reform Project (Research on the Long-term Mechanism and Implementation of Guangxi Minority Culture Inheritance Education with Cooperation Between University and Secondary Vocational School).

References
[1] Cao Qiaozhen. Teacher Scaffolding in Production-oriented Approach [J]. Foreign language Education in China, 2017(10). (In Chinese)
[2] Lucas, Stephen E. The Art of Public Speaking (M). Beijing: Foreign Language Teaching and Research Press, 2010. (In Chinese)
[3] Qiu Lin. The Step-by-step Design of Language Activities in the Production-oriented Approach [J]. Modern Foreign Languages, 2017 (3). (In Chinese)
[4] Sun Shuguang. Teacher-student Collaborative Assessment in Classroom Teaching: A Reflective Practice [J]. Modern Foreign Languages, 2017 (3). (In Chinese)
[5] Swain, M. The Output Hypothesis and Beyond: Mediating Acquisition through Collaborative Dialogue [A]. In J.P. Lantolf (Ed.), Sociocultural Theory and Second Language Learning [J]. Oxford: Oxford University Press, 2000. (In Chinese)
[6] Swain, M. Three Functions of Output in Second Language Learning [A]. In G. Cook & B. Seidlhofer (eds.). Principles and practice in applied linguistics: Studies in Honour of H.G. Widdowson [J]. Oxford: Oxford University Press, 1995. (In Chinese)
[7] Wen Qiufang. Application of the Output-driven Hypothesis in College English Teaching: Reflections and Suggestions [J]. Foreign Language World, 2013 (6). (In Chinese)
[8] Wen Qiufang. Developing a Theoretical System of Production-oriented Approach in Language Teaching [J]. Foreign Language Teaching and Research, 2015 (4). (In Chinese)
[9] Wen Qiufang. Output-driven Hypothesis and Curriculum Reform of English Professional Skills [J]. Foreign Language World, 2008 (2). (In Chinese)
[10] Zhang Lingli. An Experimental Study on the Effectiveness of the Production-oriented Approach [J]. Modern Foreign Languages, 2017 (3). (In Chinese)
[11] Zhang Wenjuan. “Enabling” Students’ Production to Enable Students’ Language Development: Applying Production-oriented Approach to TEFL Classroom [J]. Foreign Language Education in China, 2015 (4). (In Chinese)
[12] Zhang Wenjuan. An Experimental Study on the Effect of the Production-oriented Approach on College Students' English Writing Quality [J]. Modern Foreign Languages, 2017 (3).
[13] Zhang Wenjuan. Applying Production-oriented Approach to College English Classrooms: A Teaching Experiment [J]. Foreign Language and Foreign Language Teaching, 2016 (2).