

TSCA on Students' Self-efficacy Toward Writing in Blended Learning of College English

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Abstract: In the age of information technology, single college English classroom teaching for non-English majors can no longer meet the high demand and personalized needs of students for foreign language learning. As a supplement to the shortcomings of the single mode, blended teaching promotes the development of college English courses. English writing is an important output skill cultivated in college English courses. And in the age of informationization, college English writing teaching relies on the support of information technology. In order to cope with the solution of this dilemma, Production-Oriented Approach (POA) proposes Teacher-Student Collaborative Assessment (TSCA), which creates a new form of assessment. Through TSCA, teachers can not only alleviate the heavy teaching load, but also fully tap the network resources to efficiently use students' time before, during and after class to maximize and optimize the teaching effect. In this paper, the teaching concept of TSCA is used to conduct writing teaching experiments, to study and analyze the writing self-efficacy of students who write effectively, so as to provide insights for the practice of English writing teaching.

Keywords: TSCA; Writing Ability; Effective Evaluation

1. Introduction

China Education Modernization 2035 proposes accelerating educational change in the information age, building intelligent campuses, coordinating the construction of integrated intelligent teaching, management and service platforms, accelerating the reform of talent cultivation modes by using modern technology, and realizing the organic combination of scaled education and personalized cultivation. The development of network technology has promoted the development of teaching concepts, teaching methods, teaching content and teaching assessment in English writing. Some colleges and universities have utilized information technology to promote the development of college English writing teaching in recent years, designing new models of English writing teaching based on network technology (Han Song & Hu Tiesheng, 2011). These attempts are deficient in teaching resources, teaching management and composition assessment, and are not specifically designed for teaching activities (Quan, Dong, 2012). Moreover, research on information technology applied to writing teaching focuses on pre- and post-course-including resource sharing and collaborative learning between teachers and students and between students and students, and does not emphasize the application of information technology in the process of classroom teaching.

Over the years, frontline English teachers and related educational researchers have proposed a variety of pedagogies and means to cope with and solve students' problems in English writing. However, these pedagogies and means have had little effect. This is mainly because writing is a difficult language to learn. If students do not get systematic input training and follow-up supervision, it is difficult for students to rely on their learning initiative to achieve satisfactory results (Zhang & Tao, 2018).

"Production - Oriented Approach (POA) is a foreign language teaching and writing theory proposed to address the shortcomings of "learning and use separation" in foreign language teaching in China. TSCA (Teacher-Student Collaborative Assessment) is a new method for POA (Sun, 2020). It consists of three stages: pre-class, in-class and post-class. Before class, teachers select and review typical samples according to the teaching objectives of the unit. Inside the class, students think independently, then communicate in pairs/groups, and then have a large class discussion led by the teacher, who gives the pre-class prepared reviews at the right time. At the end of the lesson, on the basis of the teacher's in-class professional guidance, students supplemented the TSCA with self-assessment or peer assessment.

In this paper, the teaching concept of "TSCA" is used to conduct writing teaching experiments, to study and analyze the writing self-efficacy of students who write effectively, so as to provide insights for the practice of English writing teaching.

2. Literature Review

Information technology has created informative learning styles, from E-learning (electronic learning, digital learning), to M-learning (mobile learning, mobile learning), to U-learning (ubiquitous learning, ubiquitous learning) (Chen &Jia, 2017). In the age of informationization, university English writing teaching depends on the support of information technology. The development of network technology promotes the development of teaching concepts, teaching methods, teaching content and teaching assessment in English writing. Realizing the effective integration of English writing courses and information technology, developing a favorable network ecological environment for English writing teaching, and coping with the challenges facing university English writing teaching have been the urgent tasks of English writing teaching at present.

In the age of informationization, college English writing teaching depends on the support of information technology. The research on foreign language teaching in the twenty-first century is more and more characterized by ecology, field, synthesis and modernization (Chen Jianlin, 2004). The development of network technology promotes the development of teaching concepts, teaching methods, teaching content and teaching assessment in English writing. From 2009 to 2010, the Steering Committee of University Foreign Language Teaching of the Ministry of Education found through a survey of 427 schools that more than half of the universities had built special network rooms for English teaching. This facilitates the development of a new model of English teaching with computer network technology (Wang Shouren & Wang Haixiao, 2011). Realizing the effective integration of English writing courses and information technology, developing a favorable network ecological environment for English writing teaching, and coping with the challenges facing university English writing teaching have been the urgent tasks of English writing teaching at present. According to Wang Shouren (2010), “The Curriculum Requirements emphasize the organic combination of modern information technology and foreign language courses, and the adoption of new teaching modes. Although there are various ways to combine with foreign language courses, the basic point of the combination is to integrate computer network technology into college English teaching and to realize the “two basics”, i.e., computer-based and classroom-based. The future direction of English course construction is inevitably: excellent teachers, coupled with modern information technology.

Taking an overview of the current era, the continuous development of social technology has promoted the systematic change of higher education in China. At the same time, under the background of the era of economic globalization, the status of English teaching in colleges and universities is also rising (Zhang Shu, 2020). However, in terms of the situation of quality improvement, the development of college English writing teaching is not very optimistic. In the context of the big data era, college English writing teaching lags behind the development of the times. University English writing teaching not only fails to update the traditional concept of English writing teaching, but also fails to make full use of the various types of information technology produced in the new era. These have greatly slowed down the reform and development of university English writing teaching. Along with the arrival of the big data era, the university English writing teaching system should revolutionize the educational concept with the help of modern information technology. Its teaching system should keep up with the trend of the times and get rid of the traditional level. Only in this way can college English writing teaching be changed to a greater extent in the way of obtaining educational resources, teaching concepts and mode of advancement, and ultimately realize the overall improvement of the teaching effect of college English writing class.

“Production - Oriented Approach (POA) is a foreign language teaching and writing theory proposed to address the shortcomings of the “separation of learning and use” in foreign language teaching in China (Wen, 2015).TSCA is part of the POA system and can be realized within or outside the framework of POA (Sun, 2020).TSCA includes three phases: pre-class, in-class and post-class. Before the lesson, the teacher selects and reviews typical samples according to the unit teaching objectives. During the lesson, students think independently, then have pair/group exchanges, and then have a large class discussion led by the teacher, who gives timely comments on the pre-course prepared reviews. At the end of the lesson, on the basis of the teacher’s in-class professional guidance, students use self-assessment or peer-assessment to supplement TSCA. Through TSCA, teachers can evaluate students’ outputs before class to determine typical samples and evaluation focuses; assist students to evaluate typical samples during class; and after class, students conduct self-assessment, peer assessment and machine evaluation. Therefore, TSCA can effectively solve the problems of inefficiency and poor efficiency in traditional assessment methods.

Bandura first coined the term “self-efficacy” in 1977 in his paper *Self-Efficacy: An Integrated Theory of Behavior Change*. “Self-efficacy” is a judgment of an individual’s ability to achieve a set goal. In addition to this, Bandura viewed self-efficacy as an important indication of the type of tasks people plan and accomplish. In 1980, writing self-efficacy was first introduced. This provided a new research perspective for the development of writing instruction. Since then, a large number of scholars have conducted research related to self-efficacy in writing instruction. Writing self-efficacy has received the attention of many researchers in the field of second language writing. In second language writing, writing self-efficacy affects individuals cognitively and emotionally and is a key reason for the successful completion of writing tasks (Woodrow, 2011). The results of a large number of studies have proved that many college students have a moderate level of writing self-efficacy (Kimetal, 2015; Sun & Wang, 2020). Zhen Rong (2016) found through questionnaires and interviews that online teaching platforms can build a relaxing and enjoyable learning environment for students, which is conducive to the development of students’ English writing self-efficacy. Therefore, teachers should create a free, developed and enjoyable teaching environment for students in teaching.

At present, although many studies mention self-efficacy in teaching English writing, there are few studies on the improvement of students’ writing self-efficacy. Moreover, there are few studies on improving students’ writing self-efficacy through English writing. If students’ writing efficacy is not improved, then their English writing ability will decline. Therefore, this study applies TSCA, a new style of assessment, to college English writing teaching, aiming to investigate its effect on college students’ writing self-efficacy, so as to provide some pedagogical insights for English teachers’ writing teaching.

3. Research methodology

The choice of research method depends on the research question. The problem of this study is: students’ ability towards effective English writing under the teaching concept of “TSCA”. This is a problem of describing the current situation. The quantitative research method is more suitable for describing the current situation of a large sample. Quantitative research is “more suitable for large-scale investigation and prediction of things at the macro level” (Chen, 2000). This study focuses on the questionnaire survey to find out the improvement of TSCA on students’ writing abilities from the students’ perspective. In addition, when forming the measurement scale of effective writing instruction in blended college English, the author utilized the Delphi expert survey method to ensure the scientific validity of the scale.

3.1 Research Objects

Factors such as the determination of the research population, sample selection, sample size, and sampling strategy affect the quality of the data, which in turn affects the quality of the interpretation of the overall research data (Zheng&Wang, 2014). Theoretically, all the students of university English courses receiving blended teaching are the research subjects, that is, the theoretical totality. However, due to the limitations of human, material and financial resources, it is impractical to study the totality of the totality.

The implementation of blended teaching in university English courses can vary greatly due to the different levels of English learning among students. In order to highlight the effectiveness of the “TSCA” teaching concept applied to college English writing courses, the author purposely selected freshman B-level students (with a score of less than 90 out of 150 on the college entrance examination). There are 31 classes in the freshman B level, totaling 1,242 students. According to Raosoft’s scientific calculation, in order to ensure the validity of the measurement is more than 95%, I surveyed 350 students in the form of questionnaire, in order to obtain the specific situation of the implementation effect of effective writing teaching under the teaching concept of “TSCA” from the students’ point of view, so as to better perfect the improvement of students’ writing attitudes in the context of blended teaching in college English. In order to improve the students’ writing ability in the context of blended teaching, the survey was conducted on 350 students.

3.2 Research Tools

In order to understand the current situation of students’ ability towards English writing in blended teaching, an appropriate and effective evaluation tool is needed. The author compiles a variable questionnaire based on current literature and experts’ opinions, then consults the literature to sort out the concepts and connotations of these variables, and compiles a variable questionnaire with reference to relevant questionnaires compiled by scholars at home and abroad that have been validated. This questionnaire consists of two parts. The first part is

students' basic information, including gender, specialty, and English learning experience. The second part is writing ability (Adapted from Bandura's (2011) Guide to Constructing Self-Efficacy Scales), which examines the current status of effective writing in terms of language knowledge, discourse knowledge, sociolinguistic knowledge, and strategic ability.

4. Research results and analysis

4.1 Reliability of the questionnaire

Table 1 Reliability Result

Questionnaires	Indicators	Cronbach Alpha	Remarks
Writing self-efficacy	1. Skill Efficacy	0.847	Good
	2. Task Efficacy	0.860	Good
	3. Feedback Efficacy	0.871	Good

George and Mallery (2003) provide the following rules of thumb: “_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and _ < .5 – Unacceptable”

The mean internal consistency coefficient of the total scale was 0.859. The three indicators of variable were, in order: 0.847, 0.860, and 0.871. The data showed that the questionnaire has high consistent reliability and internal validity for all variable sub-dimensions, indicating that the scale is suitable for investigation.

4.2 Questionnaire sub-dimensions

Table 2 Students' English Writing Self-efficacy in terms of Skill Efficacy

Indicators	WM	VI	Rank
1. I can use singular and plural forms accurately in English composition.	2.92	Agree	1
2. I can use verb tenses accurately in English composition.	2.71	Agree	3
3. I can use punctuation marks accurately in English composition.	2.64	Agree	4
4. I can use accurate parts of speech according to the context in English composition.	2.79	Agree	2
5. I can accurately use sentence patterns that conform to grammatical rules such as complex sentences, participle structures or subordinate clauses in English composition.	2.52	Agree	6
6. I can spell all the words in the English composition accurately.	2.40	Disagree	9
7. I can use appropriate linking words in English composition to improve the coherence of paragraphs or chapters.	2.49	Disagree	7
8. I can write a persuasive argumentative essay in English that expresses my point of view effectively.	2.62	Agree	5
9. I can write a well-organized expository text in English.	2.39	Disagree	10
10. I can complete the corresponding writing tasks in accordance with the prescribed requirements and reflect my writing style.	2.45	Disagree	8
Composite Mean	2.59	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49 = Strongly Disagree

The whole data shows that students' skill efficacy improved less significantly with a mean of 2.59 (2.50-3.49=Agree). The improvement in indicator 1 (2.92) is the most obvious. This shows that students will be able to apply the knowledge of grammar required in English writing. Students' problems mainly appeared in the spelling of words and the use of related words. Therefore, teachers should encourage students to actively use information technology into actual English writing.

Skill efficacy is the learners' confidence in using established writing skills to successfully complete a writing task. It includes the sense of grammatical spelling efficacy, chapter organization efficacy, and composition efficacy. The mean value of grammatical spelling efficacy was 2.66 for questions 1 to 6, chapter organization efficacy was 2.49 for question 7, and conceptual efficacy was 2.49 for questions 8 to 10. The TSCA uses collaborative teacher-student assessment, peer assessment, and machine assessment. This method of evaluation not only allows students to understand their writing performance, but also automatically records the results, which contributes to the relevance and typicality of students' writing evaluation (Wen, 2015).

But, indicator 9 (2.39) is the lowest score. This reflects that “TSCA” has not been applied to the sense of efficacy in chapter organization and idea generation. And this also indicates that teachers have neglected the development of students’ abilities in chapter organization and composition when implementing the “TSCA” to teaching writing in practice. At the same time, it also reflects that teachers overemphasize the training of argumentative writing and neglect the training of expository writing in English writing. So, teachers should reflect on their teaching to address students’ difficulties in writing in a targeted manner and improve their skill efficacy.

Table 3 Students’ English Writing Self-efficacy in terms of Task Efficacy

Indicators	WM	VI	Rank
1. I am able to spot grammatical errors in English writing.	2.56	Agree	6
2. I can detect coherence problems in English writing.	2.60	Agree	5
3. I can find the problem of collocation of English and Chinese words in English writing.	2.62	Agree	4
4. I can find the topic sentence of the article and the topic sentence of each paragraph in English writing.	2.65	Agree	1.5
5. I can point out which points of view in English writing are unclear or confusing.	2.64	Agree	3
6. I am able to point out which points in English writing need further elaboration.	2.65	Agree	1.5
Composite Mean	2.62	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49 = Strongly Disagree

Table 3 presents the composite mean of 2.62. Indicator 4 (2.65) and indicator 6 (2.65) are the highest score. This reflects that students can master topic sentences and main points in English writing. The quality of an essay depends firstly on whether the central idea of the essay is prominent and the important contents are listed clearly. This is the key to English writing. Erkan and Saban (2011) argue that learners’ level of self-efficacy has a direct impact on the quality of their written products, which in turn affects their interest and motivation in approaching writing tasks. Therefore, teachers should focus on developing students’ ability to grasp the main idea at the center of their compositions in writing instruction so that the central sentence of each paragraph of the composition content stands out.

Indicator 1 (2.56) is the lowest score. This indicates that students are unable to correct incorrect grammatical expressions in English writing. Grammar mastery is one of the important references to measure learners’ proficiency in this language (Luo, 2020). Grammatical competence is also one of the important communicative competences that influence the development of communicative competence.

The whole data show that students’ task efficacy is improved by TSCA. Task efficacy is the learner’s confidence in achieving the goals of a given writing task. It is a person’s ability to guess or judge his or her ability to perform an activity or complete a task, and can indicate one’s confidence in certain activities.

Table 4 Students’ English Writing Self-efficacy in terms of Feedback Efficacy

Indicators	WM	VI	Rank
1. I am sure that my grammatical changes are correct.	2.56	Agree	1
2. I can help writers write more coherent English compositions.	2.40	Disagree	2
3. I can help writers make a boring English article description more vivid.	2.33	Disagree	6
4. I can help writers make an English argumentative essay more persuasive.	2.34	Disagree	5
5. I can help writers make an English narrative essay more fluent.	2.35	Disagree	4
6. I can help writers make an English illustrative essay more organized.	2.36	Disagree	3
Composite Mean	2.39	Disagree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49=Disagree;1.00-1.49=Strongly Disagree

The results show that students have good self-efficacy for grammar skills in English writing. Li Hang (2017) found through his study that writing self-efficacy can influence learners’ motivation and engagement in writing tasks, etc., thus enhancing individuals’ writing confidence and improving their writing performance. Therefore, teachers need to further develop students’ grammatical skills and improve their grammatical confidence in English writing so as to enhance their writing self-efficacy.

Indicator 3 (2.33) got the lowest score. This suggests that students are unable to go further than giving feedback on others’ essays. Students’ feedback on their essays is limited to grammatical knowledge. If students are unable to help others improve the content of their essays,

it is difficult for them to have the confidence to improve the content of their own essays. This can leave them with a sense of frustration in English writing and not be able to have a successful writing experience. If the individual experiences more failures, the lower the individual's self-efficacy and the weaker the motivation for a certain type of behavior.

It is clear from the whole data that students' feedback efficacy are not improved by TSCA. The "TSCA" is designed to improve teachers' teaching efficiency and balance teacher evaluation with other evaluation methods (Wen, 2016). The core concept of teaching is "student-centered". Teachers lead students to "learn" through "assessment" in actual teaching. The effectiveness of student feedback has not improved. This indicates that teachers are still "teacher-centered" in actual teaching, and do not play a good role in the development of students' learning ability under the "output-oriented" teaching concept.

5. Conclusion of the study

Table 5 Summary on Students' English Writing Self-efficacy

Key Result Areas	Composite Mean	VI	Rank
Skill Efficacy	2.59	Agree	2
Task Efficacy	2.62	Agree	1
Feedback Efficacy	2.39	Disagree	3
Composite Mean	2.53	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Overall, the POA favors the improvement of students' skill efficacy and task efficacy. The Composite Means for the three subdomains, in descending order, were: task efficacy (2.62), skill efficacy (2.59), and feedback efficacy (2.39). Of these, the improvement in task efficacy was the most significant. Although TSCA improved students' skill efficacy and task efficacy, it did not improve students' feedback efficacy. One of the most important functions of TSCA is to develop students' ability to self-evaluate their writing and to evaluate others. Teachers need to self-examine the problems in teaching and learning in order to improve the efficiency of teaching and to develop students' independent learning ability.

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