

English-Writing Teaching of Vocational Colleges in Big Data Era

Wenxia Pan

Wuhan City Polytechnic

Wuhan, 430060, China

Abstract-In English-writing teaching of vocational colleges there remain some problems, such as: single teaching method, lagging feedback of assessment, etc. Big data is presenting opportunities as well as challenges to English-writing teaching of vocational colleges. Autonomous learning, individualized teaching and pluralistic assessment with real-time feedback become possible in Big Data Era. English teachers of vocational colleges must be well equipped for the challenges by updating teaching ideas, changing the way of thinking and improving IT skills and make innovation in teaching methods and assessment.

Keywords-Big Data Era, vocational college, English-writing teaching

I. INTRODUCTION

With the development of IT technology, the internet, cloud computing and Internet of Things are pervading in our life and work, which marks the advent of the era of Big Data. It is changing the way people live, work or even think and also brings challenges and opportunities to English-writing teaching in vocational colleges.

English writing ability is one of the important language abilities students need in their future work. However, language tests show that many vocational college students have lower writing abilities than what the syllabus requires. Most of vocational college students think English writing is very difficult and they also dislike English writing and teaching. Generally speaking, there exist three problems in English writing teaching of vocational colleges. First of all, traditional teaching model makes writing boring. In a traditional class, teachers introduce writing skills at the beginning, give 1 or 2 model essays and then students write their essays by applying writing skills and imitating model essays. This teaching method cannot arouse students' interest in English writing. Besides, teachers can't give prompt feedback on students' essays in a traditional class because there are usually more than 50 students in a class and it takes a teacher at least 2 days to correct students' essays. Finally, in a traditional class teachers cannot give individual guidance to every student because there are too many students in a class so that it is impossible for a teacher to tutor every student.

II. OPPORTUNITIES BIG DATA OFFERS TO ENGLISH-WRITING TEACHING

Big data (mega data), refers to the massive and diverse information assets with high growth rate that require new processing models to have greater decision making, insight and process optimization capabilities. In the book *Big Data* Viktor Mayer-Schonberger and Kenneth Cookee define big data as the things that can be done on the basis of large-scale data and cannot be accomplished on the basis of small-scale data, through which people gain new knowledge, create new value and change market, organizational structure and the relationship between governments and citizens. They think the four characteristics of big data are volume, velocity, variety, veracity. First of all, quantity of data soars to PB level from TB level. Secondly, the types of data vary from text to weblog, video, pictures and information of geographical position, etc. Thirdly, big data has fast processing speed and is often available in real time. Big data requires real-time analysis and processing. Generally, the analysis results are given in the second-order time range. If the time is too long, the value is lost. Its requirement for speed makes big data processing technology different from traditional data mining technology. Finally, it has high veracity of the data. Only real and accurate data can make the management and governance of the data truly meaningful.

Big data has changed traditional thinking mode and behavior habit and offered new opportunities to higher vocational English writing teaching.

A. Big Data can Provide a Huge Amount of Learning Resources for Students to Learn Independently

Unlike traditional English writing teaching resources, big data provides students with a large amount of online writing resources, both in text form and in video form. There are static teaching content introductions, as well as interaction between students & students or students & teachers. These online writing resources provide students with diverse and personalized guidance. Students can choose online writing resources for self-learning according to their own learning situation.

In addition to online teachers and curriculum resources, a wide variety of corpora, online search engines and other computer software provide guidance for students in English writing exercises to help them solve problems in writing

content, vocabulary and collocation, etc. Studies have shown that the corpus is beneficial to students' self-learning and helps enhance students' English writing ability. [2] Some corpus retrieval tools such as BNC, WordSmith and search engines such as Google can provide students with information and offer help in writing content, word matching and other aspects. Some computer software programs are developed specifically for English writing, which can provide targeted guidance for students. For example Pigai (<http://www.pigai.org>) developed by Beijing Ci Network Technology Co., Ltd. can offer real-time feedback about errors students make in grammar, vocabulary and collocation. And students correct errors according to modification suggestions, thus improving their writing ability.

B. Big Data can Help Teachers Achieve Student-Centered Personalized Teaching

In the traditional English writing teaching, textbooks, class content, and homework assignments are the same for all students and the duck-stuffing teaching method is adopted with little interaction between students. The traditional English writing teaching cannot arouse students' interests in English writing, especially for vocational college students with poor English foundation and poor self-learning ability, which does not help them improve their English writing ability, and even makes them more afraid of or hate English writing.

Educator Sal Khan said in an interview with Harvard Business Review that the development of technology makes it possible to conduct lessons according to students' time and learning speed, give real-time feedback and provide data to the teacher. Big data can help educators to truly understand learners. Teachers can watch the microscopic performance of each individual student according to the data. Through the analysis of student-related data, teachers can adjust their teaching plans in a targeted manner in which writing teaching content, teaching methods, and teaching progress, etc. vary from person to person, truly teaching students in accordance with their aptitude. According to the professional training objectives of higher vocational students, teachers design the content system of English writing, choose the appropriate writing teaching materials from the vast digital resources and help students design personalized learning plans. Teachers will build a deeply integrated "class-online" learning environment to encourage students to obtain the language knowledge and writing skills of English writing through the internet outside the classroom, focus on solving problems in the classroom, give real-time feedback on how well students master the knowledge and correct errors in students' essays in a timely manner. Feedback and error correction happen in real time and in a personalized way, which can help improve students' writing level. In the era of big data, teaching is no longer "teacher-centered". All the work done by teachers is centered around learners. Teachers use all information technology, means, services and inventions to help students learn so that students become masters of their own learning.

C. Big Data can Realize the Diversified Interactive Evaluation Mechanism for Teachers and Students

In the traditional English writing teaching, students' essays are generally revised by the teacher. Because of too many students in a class, the teacher cannot give timely and in-depth feedback on their essays. Feedback is very important for English writing teaching. Research shows that feedback is the most important part of formative evaluation and timely feedback has the greatest effect on learning. [3]

In the era of big data English writing teaching can provide real-time feedback and give a personalized assessment. Some writing automatic evaluation systems developed in recent years (such as: Writing Roadmap, Experience English and Pigai) can give a total score to submitted essays within dozens of seconds and scores to individual items such as content, organization, style, vocabulary, grammar, and give personalized feedback. Pigai system has developed some functions such as sentence-based evaluation, modification, etc. The use of these intelligent assessment systems can effectively improve students' English writing skills and enhance students' learning autonomy. [4]

In the era of big data, relying on the Internet and cloud computing the process of students' English writing can also be evaluated and the diachronic changes of students' writing ability at different times can be obtained to form a portfolio evaluation of students' writing learning trajectory, thus forming a developmental evaluation. This kind of evaluation not only pays attention to the mastery of students' knowledge, but also pays attention to high-level skills, learning methods, emotional attitudes, etc. It pays attention to both students' behavioral performance and students' psychological construction process; both students' learning results and the student's learning process. This kind of evaluation helps to promote the overall development of students and the development of their personalities. [5]

Big data provides a more effective platform for peer review. Unlike the traditional peer review, the peer review in the era of big data is not limited by time and place, and the evaluation subject is more diversified. English essays or articles can be published online and then teachers and students in the class or in the college or even all online users can read them. Network peer review helps students improve their professional knowledge and ability and actively participate in a series of cognitive activities such as planning, monitoring, and reflection so as to complete the learning task more effectively. [6]

III. THOUGHTS AND COUNTERMEASURES ON THE REFORM OF ENGLISH-WRITING TEACHING IN HIGHER VOCATIONAL COLLEGES IN THE ERA OF BIG DATA

The era of big data has brought new opportunities and challenges to the English -writing teaching in higher vocational colleges. Thus, we should seize the opportunity

to actively carry out the reform of English-writing teaching in vocational colleges to cope with the challenges brought by the era of big data.

A. Reforming the Models and Methods on English Writing Teaching

In big data era, methods of English writing learning have changed, where students no longer rely solely on teachers or textbooks to acquire knowledge. On the knowledge layer, teachers no longer have an advantage. The traditional "teacher-centered" model cannot meet the requirements of higher vocational English-writing teaching in the era of big data. Therefore, it is imperative to reform the English-writing model and method in higher vocational education.

For English teachers at vocational colleges, the challenges and impacts brought by big data are unprecedented. In addition to improving their professional knowledge and information technology capabilities, they need to change their mode of thinking. One important thing is to clarify the roles and functions of teachers in the era of big data. Teachers are not only the instructors of knowledge and skills, but also the organizers and participants of teaching activities. Students should become the real masters in the classroom, while teachers are the helpers and influencers of the students. The role of teacher has changed - "from the stage to the backstage". In other words, the teacher is not the main speaker in the classroom any more, but the organizer and participant. Teachers' main task is to develop and design the curriculum, change the empirical mode of traditional teaching, and provide students with individualized teaching.

B. Applying Information Technology Capabilities to the Implementation of Individualized Teaching of English Writing

The "National Medium- and Long-Term Education Reform and Development Plan (2010-2020)" promulgated by the Chinese government in 2010 clearly states: Education should focus on the different characteristics of students and develop the potential of each student.[7] It shows that individualized teaching is the future trend.

The era of big data provides favorable technical support for individualized teaching. For example, a large amount of English-writing resources provide rich content for individualized teaching; writing software based on Internet and cloud computing can evaluate each student's English-writing process, and the relevant data can help teachers understand student better. In the face of a large amount of English-writing resources, vocational English teachers must acquire the ability to integrate these resources. Also, they could use the advantages of big data to analyze the learning situation of each student, establish an electronic file for each student to record the trajectory of writing, and provide individualized learning guidance. Thus, vocational English teachers should receive specialized training, where they can be familiar with related techniques and tools and can apply them to English -writing teaching.

C. Designing a Diverse Evaluation Model Using Teaching Means of Networking

The evaluation subject, evaluation means and evaluation method in English-writing have changed in big data era. The evaluation subject has changed from a single teacher to multi-evaluation subject, the evaluation means from teacher review to Automatic Essay Scoring (AES), the evaluation method from one written test to development evaluation.

English teachers in higher vocational education should make full use of information technology to explore a diverse writing evaluation model. The diversified writing evaluation model reflects the following characteristics: (1) Peer review, self-evaluation and teacher correction are combined in evaluation. The era of big data provides a network support platform for teacher-student interaction and student-student interaction. The evaluation subject is no longer limited to teachers, but could be the student himself or other classmates or network users who have read the essay. (2) Computer score is combined with teacher correction and written feedback is combined with computer feedback while the single evaluation method which is only based on teacher comments is no longer used. (3) Formative evaluation is more valued. In the era of big data, we can obtain the diachronic changes of students' English writing ability at different times relying on the Internet and cloud computing. On this basis, an electronic file of students' learning trajectory can be established. This kind of evaluation method helps to discover the students' learning potential, improve learning, and provide feedback to teachers. In this way, teachers could adjust teaching content and teaching methods to improve teaching efficiency at any time.

IV. SUMMARY

The era of big data brings opportunities for the reform of English-writing teaching, making it possible for independent learning, individualized teaching, real-time feedback and diversified evaluation. The educational concept and thinking mode of English teachers in high vocational education need to be updated, and their abilities of applying information technology needs to be improved. They must be fully prepared to make bold innovations in teaching modes, teaching methods, evaluation methods, etc., and seek new opportunities for the development of English-writing teaching.

ACKNOWLEDGEMENT

This research is sub-subject research (**GZGZ5414-68**) financially supported by Advisory Committee of Foreign Language Teaching in Vocational Education, Ministry of Education, P.R. China.

REFERENCES

- [1] Mayerschonberger, V. & Cookeer, K. Big Data: A Revolution That Will Transform How We Live, Work and Think [M]. New York: Houghton Mifflin Harcourt, 2013.
- [2] Liu Bin, Ge Lingling, Li Guangwei. An Empirical Study on the Corpus-Based Teaching Model of College English Writing [J]. Foreign Language and Literature, 2012, 28 (4): 131-135.
- [3] Black,P. &D.William. Assessment and classroom learning [J]. Assessment in education, 1998, 5(1): 7-74.
- [4] Tang Jinlan, Wu Yian. Research on the Application of Automated Writing Evaluation in College English Teaching [J]. Foreign Language and Their Teaching, 2012 (4): 53-59.
- [5] Lv Xiao, Yu Shengquan, Tan Ni. Design of Learning Evaluation System for Network Teaching Platform Based on Development Evaluation Concept [J]. E-Education Research, 2011 (2): 73-78.
- [6] Hovardas T, Tsivitanidou OE, Zavhstis ZC. Peer Versus Expert Feedback;an Investigation of the Quality of Peer Feedback Among Secondary School Students [J].Computers& Education, 2014, (71):133-152.
- [7] National Medium- and Long-Term Education Reform and Development Plan ((2010-2020) [EB/OL]. (2014-07-29) [2015-08-20]. http://www.gov.cn/jrzq/2010-07/29/content_1667143.htm.