

Reform in the Teaching of College English Writing by Using Big Data

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Abstract—The widespread use of internet brings people into an age of big data. Big data changes people's minds and action, and it also brings opportunities and challenges to the reform of writing teaching for college English. So it is very essential to do an intensive study of the writing teaching for college English. This paper introduces the characteristics of big data, and analyzes the changes that big data bring to writing teaching of college English and at last discusses the effective measures of college English writing reform by using big data. College English writing teachers should make a good preparation for the reform, and improve their application ability in information technology.

Keywords—writing teaching, college English, Big Data, reform, measures

I. INTRODUCTION

In recent years, with the fast development of economy and society, the higher education reforms deeply. And with the influence of globalization, English teaching is more and more important. The English writing is always the most important and difficult part for students to learn. Big data supports a large amount of information and changes people's ways of thinking and action, and we can have a research of the writing teaching reform for college English by using big data.

II. THE CHARACTERISTICS OF BIG DATA

In Dec. 10th, 2013, Ma Huateng, the CEO of Tencent, said that the data would be a kind of recourse. The report of McKinset & Company in 2011 also mentioned the economic life of modern society could not live without big data. [1] As a college English writing teacher, we should pay attention to the following characteristics:

A. The User Is Both the User and Producer of Data

Nowadays, the new network technology supply people with the rich, convenient information, and at the same time, people are also the provider of information. They get what they need in the internet, and put some valuable information in the internet. [2] So the first distinct characteristic is the user is not only the user of information, but also the provider.

B. The Data Comes from the Relation of Operation, and Operation Can Produce More Data

The modern society develops in the open and cross-trade cooperation. The internet connects the people and information from all over the world together. The people in different

industries, from different regions work together, think of and produce more data information. [3] For example, The Zhongan insurance is a creative network cooperation company which was founded by Alibaba, Pingan, Ctrip and Tencent. It is a new form of insurance company, and it provides more products by using big data to meet the needs of society.

C. Big Data Can Predict and Give Advice When Making Decisions

The tremendous information of big data not only helps people find the existed rules and regular patterns, but also predict the developing trends in the future. It can supply support and help when people make decisions. For example, some shopping websites and APPs can recommend some goods customers may be interested in according to their previous shopping experience, to increase the sales and profits. With the development of big data, the life will be more and more convenient.

D. Big Data Can Bring the New Concept of Time and Space

When the age of big data comes, people's time and living space all changed. Shopping on-line can make people buy all kinds of goods without going outside. According to the figures from Xinhua net, the volume of sales up to 93 billion in the shopping season of double 11, in 2015. The emerging MOOCs in the education field makes millions of students around the world study the same lesson on-line, and the on-line study system can make students hand in the homework, raise questions, check the answers to relative questions from teachers and other peers at any time, and at any space. It also helps teachers and students connect their own materials with other network recourses.

E. It Changes the Traditional Ways of Thinking

The development of big data not only sees the creativity, but a changing of thinking ways more. Alipay is a new currency product based on the internet, and the traditional banks have to rearrange the service items and process when the new kind of fund products emerging. [4] The MOOCs deconstruct the course process of traditional class, and they are free and open, so people invent the teaching models of flipped classroom and micro-course. [5] In the model of flipped classroom, students watch the videos which teachers give, and read the materials which relate to the course, and discuss the problem in the classroom with classmates and teacher and

finish exercise. The new teaching saves time and improves students' automatic learning ability.

The traditional research relies on the scientific sampling, the accurate and precise data, and the concept of cause and effect. Big data overthrows the traditional thinking models, because when we have all the data, we will know some facts. No matter how scientific the sampling is, it can only reflect part of the truth. If we seek the accuracy, it will affect efficiency. When the understanding of the relativity of things can help us solve the problems, we have no need to know whether they have a cause and effect relation.

III. THE CHANGES BIG DATA BRING TO TEACHING OF COLLEGE ENGLISH WRITING

All the characteristics of big data have brought some changes, from thoughts to actions, to the teaching of college English writing.

A. *The Change of Teaching Materials of English Writing*

Traditional teaching of English writing relies on teachers' instruction of relevant knowledge and skills. But by using big data, students can search for the useful writing materials and guides in the internet by themselves, the variety of materials are from textual to audio and video forms, from the systematic introduction of textbooks to videos of classroom instruction, from the introduction of new knowledge to the review of what have learnt. Besides the course resources, the static and dynamic corpus, index tools can also provide effective help for the teaching of college English writing. [6] The corpus index tools of WordSmith and AntConc and the search engines of Google can provide information and help in the writing contents, vocabulary and collocation of English writing.

B. *The Change of English Writing Purpose*

A problem always perplexes students in English writing is the students' writing lacks purpose. In the process of writing, students always concerns formats more than contents. They pay more attention to the grammar, but less to the thought and structure. The writing software and online writing-assist system can solve many problem of language format. Learners can put more energy on the content and organization. By using big data, students can be both writer and reader, and they will be more conscientious to their writing because their writing will be read by someone, and not only an assignment given by teacher. [7] The writing training can also be a way to creative new knowledge, for example, teacher can organize an interesting topic for discussion, and divide the students to pros and cons, let them use their major knowledge, and give their own opinions and suggestions after collecting information. This kind of writing can't improve the English writing skills, but enrich students' all-round knowledge.

C. *The Change of Writing Means and Mode*

The development of computer technology replaces traditional pens and paper gradually, and it brings great convenience in the word processing. It can improve the work efficiency, and ease the writing pressure at the same time. The developing software provides more help in vocabulary selection and grammar correction in our writing. The software can help students deal with grammar problems and improve

students' language practical ability, and save a lot of time. With the constant change of writing tools and writing purpose, it breaks through the time and space constraints in writing teaching, and improves the quality and proficiency of writing teaching, and promotes the further development of college English teaching.

In addition, more and more software can be used in the writing teaching, for example, the WordNet (<http://wordnet.princeton.edu>), which was developed by Princeton University, can remind writers some relative topics and contents by word meanings, synonymy, hyponymy and collocation. All kinds of word records, chart drawing and mind map software(such as, Inspiration, Evernote) can not only be used to take notes, but also help writers use diagram and chart to organize contents, make the article structure more intuitive and visualized.

D. *The Change of Writing Assistant Methods and Tools*

The popularization of computer makes the word-processing system replace paper and pen to a great extent. It raises the writing efficiency, and lessens writers' workload. With the constant development of technology, every development stage has its relevant software. A revising website (<http://www.pigai.org>), which was developed by Beijing Word Net Technology Company, can provide the online real-time feedback information on words, grammar and discourse for students. The information can help students choose the proper words, solve most grammar problems. It can also improve students' language application ability, and save teachers' time for correcting the incorrect words and grammars. The Noodletools Company in America developed an online assistant system (<http://www.noodletools.com>) can provide some individual functions, such as, note writing, outline writing, reference writing, independent and cooperative writing, etc. These systems and applications ease the burdens of language forms and formats, and make writers put more time and energy into the contents and organizations, and treat the writing in a more positive attitude, and improve the writing ability finally.

The increasingly abundant assistant methods and tools and the constant change of writing purpose broke the time and space limits of traditional writing teaching. Writing activities can develop at any time, and at any space, as long as it satisfies the communicative purposes of teaching activities designed.

E. *The Change of Writing Ability and Assessment Methods*

The good English writing ability mainly reflects in the vocabulary, grammar and passage comprehension, etc. Some textbooks are designed to coalesce with writing and reading closely, and the aim is to improve students' writing ability by a big amount of reading. Especially by using big data, the massive information brings rich materials for students' writing. Besides, the traditional writing assessment sometimes cannot reflect students' real writing ability, because it is constrained by many other factors. [8] While in the information age, students can be tested at any time, and at any place. We also have various test modes which can reflect students' writing ability synthetically. In this form of assessment, students can know their shortcomings and problems and then make targeted adjustment, and improve their writing ability gradually.

Teachers can see students' problems more clearly, and optimize their teaching methods.

F. The Change of Processing Modes for Writing Product

The traditional English writing teaching, students hand in the paper after finishing it, and teachers returns it to the students after revising. Students' writing activities finished. If we take writing as a part of communicative activity, then whether the writing activity finished depends on realization of the communicative purpose. For example, teachers let students write a website or an Electronic Journal, the design of the teaching activity should include the choice of topic and contents, writing methods, having a share in the product, and evaluation for the paper. Every step is a practice of writing, and it will come out the writing products. How to deal with the different products depends on the purposes of communicative activities designed. The handing-in of final paper is only one of them.

In the age of big data, students' writing products can also be taken as the important data for analyzing students' language ability and development conditions. Students' composition in a certain period can reflect their language development abilities. The future intelligence writing evaluation system can not only point out the language problems for certain composition, but also analyze the gap between students' current language levels and the teaching aims, and then give studying targeted guides and measures.

IV. THE THINKING AND STRATEGIES FOR THE TEACHING OF COLLEGE ENGLISH WRITING IN THE BIG DATA ERA

All the characteristics of big data have brought some changes, from thoughts to actions, to the teaching of college English writing.

A. Take Language Application As a Target, and Have A Better Comprehension of the Relation between Writer and Text.

The final purpose of language learning is to use, and English writing is one of the expression forms for language application. The influence of big data gives the writing different connotations. The English writing teaching mainly involves text, writer and reader. By using big data in writing teaching, writing will be a more complex process, not only the relation of writer and text, but the relation of writer and reader. [9]

So in the process of college English teaching, teachers should design their teaching plan from various angles, and transform the traditional teaching measures, and guide students do the autonomic writing exercises. For example, when designing a reading report, in the traditional writing teaching model, teachers may give a detailed explanation of the discourse structure and other language features, and then let students writing for a certain text, and finally teachers give evaluations on students' writing, mainly focus on contents and language. But under the guide of the new teaching model, teachers can organize students to read a book they like, and write some words in a way that they feel suitable, and recommend their own text to other students. Before recommending to each other, teachers can give some model

reading reports with good language and style to students, let students compare, analyze the advantages of these reports, and revise their own ones. If students all choose one book, then they can cooperate to write this reading report. In the process of writing, students can use all kinds of intelligent index and revising tools to improve their writing quality. When finishing the draft, students can put it on the open network platform. Students can read others' reading report, and comment their own opinion of the advantages and disadvantages of the report. They can also revise their own reports after reading others' reports. In the process, we can gradually change the writing of reading report from the purpose of teaching to a natural communicative behavior. Therefore, students improve greatly in their text ability, self-consciousness, reading consciousness and interactive abilities.

B. Construct the Assessment System for Writing Teaching

Big data connects the college English teaching and information technology. The network teaching platform can help collect writing materials and hand in assignments. So in the process of English teaching, we should connect the system and function of different network platform together, and construct writing teaching assessment system. We can integrate the materials and provide students with more widespread online application. In this way, it not only brings convenience to students' study, but also gives timely feedback and effective suggestions according to students' learning conditions. Besides, big data can help teachers analyze and know students' real learning conditions, and make scientific and reasonable teaching plans according to students' characteristics and text contents. For example, teachers can check students' online movement, and analyze their vocabulary and grammar using condition.

Besides, according to the research of second language acquisition, there are the natural rules for acquisition, and different students' ways of language acquisition are similar. This research advises the core of language teaching is to provide learners with adequate amount comprehensible input, especially the input higher than learners' present levels, that is, "i+1". For the students in the same grade, they have greatly different language levels, interests and hobbies and learning styles, so teachers cannot know everybody's condition. Even though they know, they still cannot design the individualized teaching plan for each student. But the big data has the ability of analyzing students' conditions, recommending the best learning materials and customizing the most effective studying plan. For example, the technology of big data can analyze a student's present condition in vocabulary, syntax, discourse, grammar according to students' on-line speech act, and conclude his language input amount and effects in different language dimensions of reading, listening, speaking and writing. Then big data can recommend more advanced vocabulary to the student or suggest using certain sentence pattern more often in a proper language style, or advise him to work harder in a certain language dimension.

C. Improve Teachers' Information Technology Ability

Big data provides great help for English teaching, but the information technology develops so fast that both teachers and students cannot adapt the development of modern society

unless update the knowledge and skills constantly. [10] The college should provide more opportunities for training and learning, and help teachers master the new skills, and improve teachers' informational technology skills and comprehensive ability.

New technology brings the convenience, but at the same time, it also brings some troubles. Some self-correction software may make students' spelling and grammar skills declined. It is easy to get the network resources means it is easy to copy. Some popular Apps may waste students more time. All these negative influences need teachers' guides and corrections.

Moreover, teachers still need to learn the interdisciplinary knowledge, such as computer science, corpus linguistics. Teachers should research the text contents deeply, and summarize the language learning patterns and improve the teaching material and efficiency, and promote the further development of college English teaching.

V. SUMMARY

Big data brings supports and help for college English teaching, and also has active meaning in promoting the reform of it. Therefore, teachers should realize the importance of big data, study the network recourse deeply, guide students to do more English writing exercises in the internet, and improve their writing ability.

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