Retraction

Retraction: A Probe into the Professional Development Path of College English Teachers under the Background of Big Data (J. Phys.: Conf. Ser. 1883 012131)

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The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

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A Probe into the Professional Development Path of College English Teachers under the Background of Big Data

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Abstract: the concept of big data originated in the field of computer Internet, with people's increasing understanding of big data, a new diversity of data and information assets has arrived in an all-round way. The arrival of the big data era has not only brought a profound impact on the field of education, but also brought new changes to college English teaching. By combing the current situation and characteristics of college English teachers' professional development and the path of college English teachers' professional development under the background of big data, this paper probes into the future professional development of college English teachers, so as to improve the teaching effect and students' learning ability.

1. Introduction
McKinsey, a well-known global consulting company, first proposed that the era of “big data” had come, and declared that “data has penetrated into countless fields and become an important production factor.” With the development of information technology and the popularization of big data’s concept, the field of education will also face unprecedented opportunities and challenges. Any relevant teaching decisions will be made or changed based on data and analysis. So the main way of education in big data era is no longer limited to the classroom, with the diversification of students’ needs, the acquisition of network resources has become an important way. Therefore, Yu Changzhi (2013) pointed that big data exists in all aspects of education, complies with the requirements of the big data era, we have to reform the educators’ teaching thinking and the school’s education mode, and it is of great significance to reconstruct the evaluation of education method.

2. The present situation of College English Teachers' Professional Development
In the 1960s, American scholar Frances Fuller (Frances fuller1969) put forward the theory of “four attention stages” in the teacher attention questionnaire, which is the earliest theoretical description of teachers' professional development. In the 1970s, the research on teachers' professional development was based on behaviorist theoretical papers, which attached importance to the study of teachers’ behavior. In this period, there appeared the research on teachers’ professional development based on the concept of “immersive experimental teaching” in Lambert & Tucker,1972, Canada. Since the 1980s, the research on teachers' professional development has attracted wide attention in the world, mainly in theory and constructivism. The research contents include practical knowledge, professional knowledge, teaching beliefs, critical reflection, professional development approaches and teachers’ behavior, teachers’ learning and teachers’ qualifications, etc., and there is a “meaningful input” hypothesis. The research on the mode of operation expanded and deepened based on this theory (subject language teaching, language-subject knowledge parallel teaching, language and subject
teachers’ cooperative teaching) and “6T (theme, text, topic, clue, task, transition)” based on CBI theory has developed rapidly. Subsequently, the time and localization research based on this theory is also heating up in our country.

Wen Qiufang (2011) puts forward a new model for the interactive development of foreign language teachers in colleges and universities in China, which takes the researcher-teacher cooperation as the platform and the key issues in the classroom as the abstract intermediary, through emotional interaction and cognitive interaction, to achieve the common growth of team members. By analyzing the current situation and needs of college English general education, Li Siqing (2012) divides college English teacher development into three categories: teacher self-development, teacher development based on our university and teacher development at the national level, Chen Jinping (2014), based on the diversity of teaching elements in the big data era, points out that college English teachers in the big data era should improve their philosophical ideas, English practical skills, English educational technology, English subject application ability and so on. Zhao Jie (2018) pointed out that there are some problems in the professional development of college English teachers, such as weak development consciousness, outdated subject knowledge, weak cultural awareness, poor development environment and so on. He considered that teachers’ cultural literacy and teaching ability should be enhanced, their morality should be cultivated and international vision should be expanded from the three aspects of language, culture and teaching.

To sum up, at present, the main characteristics of college English teachers in China are weak research ability, small proportion of senior professional titles, the large quantity of female teachers, they undertake heavy teaching tasks of basic courses, and have relatively weak scientific research ability. So, the teachers have fewer pure academic papers and subjects published. College English is one of the most important public basic courses in foreign languages. In order to improve the quality of college English teaching in the era of big data, we should first grasp the characteristics of college English teaching under the background of big data, and secondly rely on the improvement of college English teachers' professional skills.

3. The characteristics of College English Teaching under the background of big data

From the perspective of the macro goal and development direction of college English teaching, the development of higher education in China has entered a new stage of improving quality and developing connotation. Since the 19th CPC National Congress, the Ministry of Education has successively issued the “National Standard for Teaching quality of undergraduate majors in General Colleges” and “Universities and the rating scale of Chinese English ability”. It puts forward higher, more systematic and more specific requirements for promoting the development level of foreign language majors and improving the ability of foreign language education in colleges and universities in China. In terms of the internal disciplinary characteristics of college English teaching, the biggest feature of this reform is that the previously single and clear college English curriculum has become complex and diversified. It mainly includes the diversification of teaching objectives, teaching objects, teaching content, teaching mode, teaching evaluation and so on. All these bring great challenges to college English teachers: the challenge of big data’s knowledge learning and application, the challenge of the transformation of teacher’s identity and function, the challenge of diversified needs of teaching objects, and the challenge of teaching process supervision and teaching effect evaluation.

From the perspective of the problems existing in the development of college English teachers, it can be divided into the following aspects: first, the teacher structure is unbalanced at the present stage, which is mainly from the analysis of gender, age, professional title and other factors; second, the organizational environment of colleges and disciplines is not perfect, which directly affects the overall development of teachers, including: (1) great pressure on scientific research and difficult to promote professional titles; (2) it is difficult for teachers to publish papers and to apply for projects; (3) the teaching task is heavy and the status of teachers is low. Therefore, the professional development of college English teachers is not determined by the teachers’ personal will, but the result of the interaction between the individual teachers and the situation in which they live. Only based on the
reality of college English teachers’ professional development can we guide teachers to make a breakthrough on the road of professional development.

4. The connotation and trend of College English Teachers’ Professional Development under the background of big data
Zhao Jie (2018) pointed out that teachers’ professional development is different from teacher education and teacher training in the traditional sense. Teachers’ professional development is a lifelong self-learning behavior carried out by teachers, according to the needs of their own development. Individuals, as professionals throughout their career, Through autonomous learning or participating in teaching team learning, their professional theory, knowledge, ability, teaching experience, cognition and teaching attitude is a process of continuous growth and progress, it also a process of continuous cycle of “self-reflection, self-cognition, self-negation, self-correction, self-improvement, self-improvement”.

The connotation of college English teachers’ professional development has its own particularity as well as the universality of the times and teachers’ professional development. The connotation of college English teachers’ professional development needs to be understood from the perspectives of teachers’ internal individual and external environment. From the consideration of individual teachers, the following points are summarized: first, a high degree of professional identity. Professional identity is the premise and basis of doing a good job, professional identity depends on many factors, but the most important aspect is interest, a sense of dedication and responsibility from the heart. The second is accurate identity orientation. Identity orientation exists in different relationships. The identity orientation of college English teachers includes the college English subject orientation, the identity orientation under the relationship between teachers and teachers, and the identity orientation under the relationship between teachers and students. Third, solid professional skills. How to adapt to the environment in the wave of information teaching and improve the ability of information teaching has become a hot issue in colleges and universities. Chinese scholar Wang Wenjun proposed a knowledge structure framework for teachers’ Information technology teaching capabilities, as shown in the figure 1.

![Fig.1 Teachers’ Information technology teaching capabilities](image-url)
The professional skills of college English teachers include not only the professional skills including the English discipline, but also the skills of teaching and educating people, especially the moral education skills of teaching by words and deeds. Fourth, stressing on characteristic advantages. On the basis of accurately grasping their own position, college English teachers should not only achieve basic professional skills such as teaching and educating people, but also give full play to their own characteristic advantages. From the perspective of the external environment, with the development of the diversified trend of college English teaching, the development of teachers should also rise to the development of the team of teachers. After all, only when the team of teachers show their talents, work together and form an organic system can we do a good job in college English curriculum.

5. The Professional Development path of College English Teachers under the background of big data

As for the future development path of college English teachers, on the basis of four domestic mainstream models analyzed by relevant scholars, namely, the summer development workshop model for college English teachers, the professional curriculum training model for teacher education concepts, the training model for domestic visiting scholars, and the self-growth model for young teachers in teaching practice, this paper puts forward a model of in-service development of college English teachers. For the purpose of building a positive teacher development environment, this model divides the in-service development stage of college English teachers into three stages: teaching exploration stage, teaching development stage and professional development stage. The teaching exploration stage is the stage in which expert teachers and teachers teach together, which is mainly devoted to language skills, educational ideas, language teaching practice ability, learning theory and process, exploration topics and so on. The teaching development stage is to engage in teaching and scientific research activities under the leadership of backbone teachers, mainly to improve the ability of linguistics and applied linguistics, the cultivation of scientific research ability, the theory and practice of second language acquisition, curriculum construction and classroom management, cross-cultural communication and research, thematic development research and so on. The stage of professional development is the stage of project-based teaching and scientific research activities, mainly through further studies abroad, domestic visits and other forms to improve professional literacy. This model emphatically points out that the basic condition of teachers' development is a positive teaching environment, and a mechanism to promote teachers' development should be established in every teaching unit. to ensure that new teachers get direct help and guidance from expert teachers with a strong sense of responsibility and noble morality in the stage of teaching exploration, so that they can solve all kinds of puzzles and problems in teaching in time with the help of experienced older teachers.

This model is based on the survey of the professional development needs of college English teachers. It is not only based on theory and practice, but also in line with the law of college English teachers’ professional development, so it is worth using for reference. However, according to their own discipline characteristics, school-running orientation and teaching objectives and many other differences, teachers' professional development is difficult to be systematically satisfied. In the context of brand-new development, there are brand-new models and new requirements, which also promote the professional development of college English teachers in China to constantly explore new models.

Taking Wuhan Donghua University as an example, classified the requirements of language to students. Based on the requirement level of college students’ linguistics course selection, further offered the idea of linguistic courses reform and content system construction, which is also part of the professional development of college English teachers. Requirement level of college students’ linguistics course is shown in figure 2.
| Requirement class         | Basic information     | Proportion |
|---------------------------|-----------------------|------------|
| Basic requirements        | Credit requirement    | 27.5%      |
|                           | Testing requirement   | 25.5%      |
| Development requirement   | Research Requirement  | 19.5%      |
|                           | Knowledge requirement | 18%        |
| Self-fulfillment          | Self-shaping          | 9.5%       |

Fig. 2 requirement level of college students’ linguistics course.

Teachers and students are indispensable key factors under the background of big data, and the interaction between teachers and students is also a necessary bridge for two-way interaction under the background of big data.

6. Conclusion
To sum up, the arrival of big data era has brought new changes to college English teaching. Under the background of big data, students rely on diversified learning contents. College English teachers, as the theme of college English teaching, must adapt to the diversified system model in the joint construction environment, seize the opportunities of the times, enhance their awareness of autonomous learning, and enhance their professional attainment, to the forefront of educational reform in the new era.

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