



Study on Emotional Education in Professional Course Based on Internet Data

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Abstract. In order to explore the difficulties of emotional education in professional courses of technology and engineering, the problems about emotional education in professional courses are analyzed by internet data. With big data analysis, the number and areas of research on the emotional teaching from 2015 to 2021 was surveyed. After using computer statistical analysis, it is found that the emotional teaching was obviously insufficient of science and technology teachers. The professional teachers' cognition of "Scientific research pressure" in the past 20 years was counted and analyzed with statistical data, and it showed that "Scientific research pressure" affected the teachers' energy investment in "Emotional Teaching" to a certain extent. The "Training Plan" in different universities, which showed that universities attach great importance to "Emotional education" was analyzed and figured with OriginPro2022. Taking the teaching of Environmental Engineering Microbiology as an example, the Teaching method of "Turning over classroom teaching" and "Process assessment" can well reflect the advantages and characteristics of Emotional education.

Keywords: Internet Data · Statistical Analysis · Emotional Education · Professional Course

1 Introduction

The network big data has provided the good data and the technical condition for each domain research. The research and reform in the teaching field can not do without the support of big data. The change of students' emotion will feed back to the teacher's teaching process through the teaching process to guide the teaching reform.

In the process of professional education in university, students of science and engineering also face the shortage of emotional education, which leads to unclear professional goals and insufficient motivation to learn. At the same time, it is very important for teachers of professional courses to improve teaching methods and guide students' professional cognition and emotional identification. Network big data provides professional teachers with an effective way to analyze the teaching effect, to guide professional teaching. Emotional Education is important in the whole education process, especially in

technology and engineering course. The great leap of the Chinese nation from standing up, becoming rich to becoming strong is inseparable from the contributions of builders and successors in every era, and education is particularly important in order to make ordinary people who are the builders and successors of socialism [1].

In this paper, based on Internet data, the problems of emotional education in professional courses was analyzed by using computer related software, and the difficulties of emotional education in technical and engineering courses was discussed. On the basis of data analysis, the knowledge and investment of teachers in the Emotional teaching of courses was surveyed, and the difficulties and challenges faced by teachers in the field of Emotional courses was analyzed and the problems of students in “Emotional learning” was summarized.

2 Problems Faced by Teachers in Universities in Emotional Teaching of Professional Courses

In this part, based on the data in internet, four aspects of research investment quantity, investment energy, limitation factors and quantitative assessment was mainly discussed and analyzed.

2.1 Insufficient Investment in the Research of Emotional Teaching of Courses by Professional Teachers in Universities

There are many forms of expression of educational and scientific research achievements, mainly including scientific research reports and scientific research papers. Scientific research papers are expository articles summed up on the basis of scientific thinking and exploration through research or practice, aiming at certain problems in education and teaching. Compared with research reports, scientific research papers place more emphasis on academic value and social value. To clearly analyze the research input of primary-level teachers in colleges and universities on the Emotional teaching of professional courses, with “professional, Emotional teaching” as the keywords, the CNKI, the CDDDB, China Science and Technology Journal Database (VIP) and Chinese Social Science Citation Index (CSSCI) are summarized from the perspectives of publication volume and publication discipline, respectively. The results are shown in Table 1.

It was shown in Table 1 that studies on teaching reform with the keywords of “Profession” and “Emotional Research” began to be published in papers from 2015 to 2021, and the number of papers published increased year by year. The papers was focused on the field of education and culture, secondly on the field of social and language, and then on the fields of economic management, politics and law, medicine and health, industry, agriculture, transportation, architecture and so on. According to these data, it was clear that the volume of natural science papers is less, and industrial technology, natural science and other fields in the Emotional education is relatively weak.

2.2 No Thinking Deeply of Teachers on Emotional Education

At present, all the teachers who are engaged in teaching and scientific research work in colleges and universities are facing the double pressure of teaching and scientific

Table 1. The Data of Papers Published and Disciplines Statistics Related “Professional, Course Emotional and Political”

Project		Post volume			
Database		CNKI	VIP	CDDDB	CSSCI
Year	2015	0	0	31	0
	2016	0	0	46	0
	2017	0	1	84	0
	2018	1	23	92	0
	2019	3	115	512	0
	2020	7	352	1132	1
	2021	10	337	1110	0
Subject	Education Culture	14	698	1882	1
	Economic Management	2	55	75	0
	Society Language	0	58	108	0
	Natural	3	0	24	0
	Literature Art	0	20	20	0
	Medicine Health	0	9	61	0
	Politics Law	0	9	34	0
	Others	8	12	132	0

research. In order to further explore the impact of scientific research pressure on teaching and research in colleges and universities, the key word “Research Stress” was searched in CDDDB, the analysis of the two indicators of “Output” and “Output discipline” was focused on. The data was counted and figured with OriginPro2022, and the results are shown in Figs. 1 and 2.

According to the Fig. 1, the number of publications changed significantly, and researchers’ attention to “Research Stress” changed over time from 1992 to 2021. With the rapid development of science and technology in the 21st century, the stress of research has attracted more and more attention. From 2001 to 2015, the number of papers published showed a rapid growth trend in the past 14 years. After 2015, with the continuous attention of the state to the mode of research assessment in universities, the focus of research stress appeared to decline, but the annual volume of papers is also more than 400, and then research stress was the main problem for the majority of researchers.

It was shown in Fig. 2 that the focus of “Research Stress” is mainly on the four fields of industrial technology (33%), science, education and culture (23%), medicine and health (10%), and economy (10%)., In particular, the focus on “Research Stress”

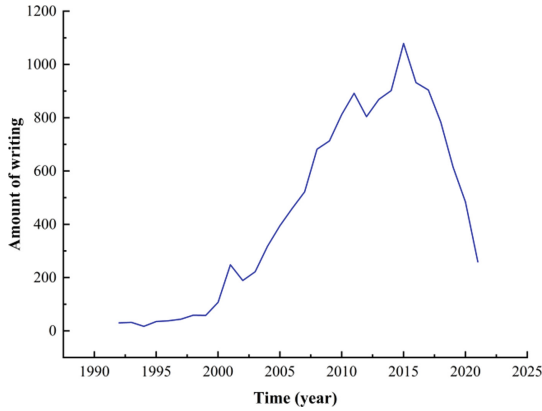


Fig. 1. Trends in the Publication of Papers with “Research pressure” as the keyword

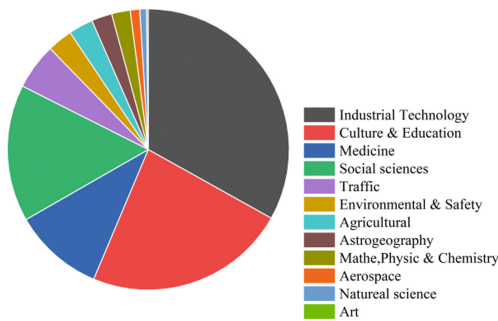


Fig. 2. Subject Distribution of Papers Published with “Research Stress” as the Keyword

in the fields of industrial technology and science, education and culture accounted for 56%, and these data were highly related to the conclusion in Table 1.

It was summarized that teacher in colleges were facing the dual stress of scientific research and teaching task assessment. And it is difficult for most teachers to integrate professional teaching with Emotional education while doing scientific research.

2.3 The Teaching in “Emotional Course” and “Emotional Teaching in Professional Course” was Relatively Independent

In order to explore the relationship between “Emotional course” and “Emotional teaching in professional course” in colleges and universities, the undergraduate programmes of Shandong University, Wuhan University, Central China Normal University, Renmin University of China, China University of Political Science and Law and China University of Technology Universities was analyzed, and the school attaches great importance to the cultivation of Emotion in undergraduates. The credit and semester distribution of courses on Emotional and national defense were counted and figured with OriginPro2022, and the result was shown in Fig. 3.

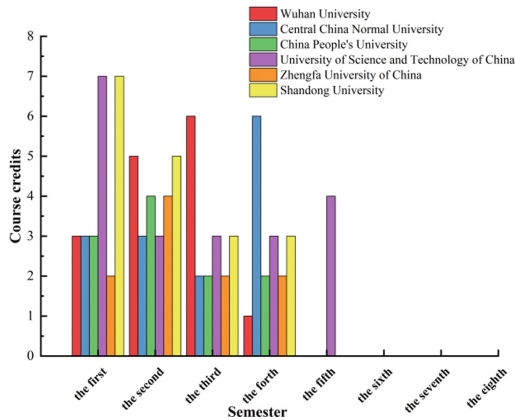


Fig. 3. Credit and Semester Distribution of Emotional education in Different Universities

As shown in Fig. 3, colleges and universities attach great importance to the national defense and Emotional education in their students, with credits ranging from 10 to 20 and semester distribution being relatively consistent. With the exception of the four-credit on Emotional practice and situational policy lectures in the fifth semester in China University of Technology, all the Emotional national defense courses at other universities are distributed over the first to fourth semester, and in the fifth semester, the professional courses of all majors began to be taught. There is no teaching plan for Emotional courses and national defense courses. With the investigation of training plan, it was not difficult to see that the teaching of “Emotional course” and the professional course are relatively independent in time, which makes it difficult for the teaching of “Emotional course” to link up organically with the students’ Emotion, and “the Emotional teaching in professional course” appears to be more independent, and it was limited.

2.4 Difficult to Quantify the Assessment of Emotional Teaching

It is a complicated and arduous systems engineering to promote and carry out the Emotional teaching in professional course in all directions, and then “What to assess, how to assess” is the obvious problem placed in front of the Emotional teaching in professional course.

Xiaoyi X. et al. [5] investigated the examination method of a professional course in a provincial applied finance and Economics University, and the conclusion was that the vast majority of students still adopt the way of the final closed-book examination, which accounts for more than 70% of the examination methods, while the process examination accounts for less. This is also the current situation of the vast majority of professional courses in colleges and universities, and the assessment of this way often makes students pay more attention to the “Final examination”, and the final burst of learning situation will be very obvious. Learning is a process. In the process of learning, students need to master relevant professional skills, and it is more important to learn to answer questions like Why and for whom?, How do you use your expertise?, and Where do you use your

expertise? This is also the key issue that Xi Jinping pointed out at the 2018 National Education Conference, “who to train, for whom, and how to train people”.

However, professional courses are numerous and complex. Even in different professional courses in the same university, there are interdisciplinary and cross-field differences. How to quantify assessment is a prominent problem in the Emotional teaching process of professional courses. In the perspective of management, it is difficult to evaluate the effect of Emotional teaching of professional teachers’ courses, and in the perspective of teaching, it is also difficult for teachers to assess the improvement and progress of students’ Emotional awareness during the course learning process. It is difficult to quantify the content of the course Emotional assessment in the form of scores. We should focus on the assessment of students’ independent thinking ability, innovation ability and critical thinking ability. In this way, it is urgent to form a set of multi-dimensional and procedural assessment methods.

3 Suggestions on Emotional Teaching in Professional Course

In this part, the Emotional teaching concept of professional teachers, the management of Emotional teaching in teaching management, the relationship between Emotional courses and Emotional teaching in professional courses, and teaching examples were discussed.

3.1 Strengthen the Main Position of School Education and Deepen the Emotional Teaching Concept of Courses

The moral cultivation of college teachers directly affects the development of young students’ world outlook, outlook on life and values, determines the quality of talent training, and it is related to the future of the country and the nation [4]. What should I do for the motherland as a child of Huaxia? This should be a question from the heart of every Chinese. In the days of beacon fire, he held a steel gun to defend the family and the country, and in the peaceful era, he worked hard to learn science and technology to serve the country. These feelings of family and country should be rooted in the hearts of every Chinese from childhood. To realize such a vision, “education” is the duty. Every teacher is a fighter in charge, just like a soldier with high spirits and a gun guarding the country in the days of beacon fire, the people’s teacher, the engineer of the human soul, are holding a square inch of chalk and a three-foot platform, guarding the hope of the motherland, sowing the seeds of hope. Youth is the hope of the motherland. If the youth is strong, China will be strong. The strength of the motherland depends on the protection of a new generation of young people.

“Learning a high school is a teacher, and being a model is a model”. The role of the teacher’s demonstration role in the education process is better than the classroom knowledge imparting thousands of times. In this way, the armed degree of teachers’ Emotional awareness level is directly related to the outlook on life, values and society that teachers pass on to students. In colleges and universities the awareness of the main position of education, and conduct in-depth research to explore how to deepen the Emotional teaching concepts of should be strengthen in different professional courses.

3.2 Optimize the Assessment Management in Colleges and Universities

Lingling Ma [3] conducted a questionnaire and interview survey on college teachers at different levels and with different school-running orientations in response to “teaching and scientific research stress”, and the results showed that “college teachers were under great teaching and scientific research stress due to professional title evaluation, especially scientific research stress”. Scientific research results were accumulated and accumulated over many years, and teaching investment was based on teachers’ in-depth thinking and speculation, and finally formed ideas and conveyed to students. Both of these require teachers’ full dedication. Passing on the sanctity and fun of scientific research to students is the best course Emotional teaching.

A professional teacher must research, because the awe and respect for science can be conveyed to students when the first experiment was successful and when the paper is published for the first time, and it can make students to love and desire science. Organizing Emotional course teachers and professional course teachers to conduct irregular teaching to research and exchange is very important. While arming professional teachers with national emotion, professional teachers were guided to do a good job in curriculum Emotional teaching, so that “Emotional courses” and “Emotional teaching in professional course” should be integrated.

3.3 Weakening Quantitative Assessment and Strengthening Emotional Guidance

To effectively implement Emotional teaching in professional courses and improve the effectiveness of Emotional education, the teaching staff is the key, and the curriculum content is the foundation, and classroom teaching is the main front, and organizational supervision is the guarantee [2]. At present, the assessment form of professional courses in colleges and universities is mainly based on final exams, and the proportion of process assessment is very weak. Emotional learning and students’ life thinking in the process of learning professional courses cannot be described and measured by quantitative indicators. Therefore, the quantitative assessment indicators of Emotional courses are weakened, and the assessment is placed in the entire teaching process, and students are guided through the course. As part of teaching, Emotional teaching in professional course should be mainly completed through “process evaluation”. Students’ activity, learning attitude, and group cooperation ability in the course learning process are the basis for evaluating students’ comprehensive quality.

3.4 Example

In this part, taking Environmental Engineering Microbiology as an example, the Emotional teaching process and the whole process assessment mode in the professional course were analyzed.

3.4.1 Teaching Process

The specific implementation plan of teaching was divided into three stages: “before class”, “in class” and “after class”. The implementation process was as shown in Fig. 4.

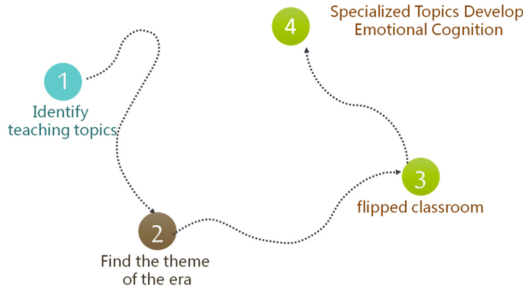


Fig. 4. Teaching process

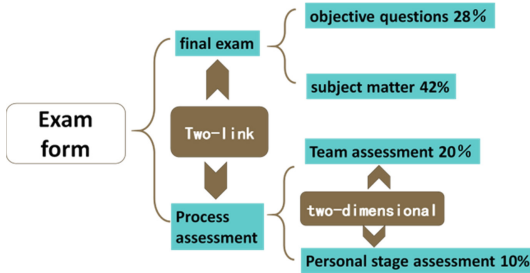


Fig. 5. Assessment program

3.4.2 Invigorate Process Evaluation

The course assessment adopted a diversified assessment mode of “two dimensions and two links”, which was divided into two dimensions: Individual Assessment and Team Assessment, and two links adopted “process assessment” and “end-of-course assessment”. “Team assessment” took “study group” as the unit and ran through the whole process of “process assessment”. According to the learning tasks, the members of the group divide labor and cooperate to complete learning, and the scores of group were the scores of each student in the group. The assessment plan was as shown in Fig. 5.

4 Conclusions

The Internet+ era provides a good research data and discussion platform for research in various fields. In order to adapt to the training objectives and missions of talents in the new era, university teaching needs to follow the development of the times and continue to reform and innovate. In the process of education, personality education and emotional education are important components, which provide a strong guarantee for the training of all-round talents. Computer technology provides an indispensable technical guarantee for the analysis of Internet big data. Using computers to analyze network big data, we can find that in the field of higher education, especially in the teaching process of professional teachers, the investment in emotional education is obviously insufficient. This is an important direction of teaching reform in Colleges and Universities. It is

necessary to form a set of teaching methods and teaching management supervision system with the common development of profession and emotion, and the coordination of technology and management.

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