

Development of Intelligent Software for Attribution of Mental Disorders in College Physical Learning Based on Clustering Algorithm of Internet Trace Data

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Abstract: Define the concept of "network traces" in combination with relevant research; classify network traces from different perspectives, such as institutional traces and personal traces, active traces and passive traces, explicit traces and invisible traces, etc. Through observation, interviews, questionnaires and other methods to summarize and classify and analyze the reasons, put forward corresponding teaching countermeasures - thinking disorder intervention teaching method, apply it to teaching practice and continuously improve it in practice. The teaching countermeasures have produced positive effects, which provide a new idea for eliminating the psychological barriers to physical learning, and can also be used as a reference for teachers of other basic disciplines in colleges and universities.

Keywords: Intelligent Software, Mental Disorders, College Physical Learning, Internet Trace Data

1. INTRODUCTION

Difficulty in learning is a frequently encountered topic in psychological research during the semester. The research on learning difficulties in the psychology field is directed towards the weak-key JL children [1], even if it is the study of the Vendants, the honey, and the gills, it belongs to the Wushu religion. Sao Tululu, Huo Li's object of breaking Wei, betrayal school, is the point of standing. Improving the quality of physics teaching [2] has become the consensus of the majority of physics educators. In recent years, the research on the reform of college physics teaching is in the ascendant, and the results are constantly emerging [3]. The main research focuses are: the innovation of the college physics curriculum system J, the construction of teaching materials L2J, and the reform of teaching content, teaching methods and teaching methods [4].

The author believes that this work is actually a process of dispelling doubts. From a micro perspective, it is to respond in a timely manner to the real confusion that students encounter in their study and life [5], social practice, and even heated discussions in public opinion. In recent years, college students have suffered from mental illness. Attribution theory is a new theory emerging in psychology [6] research in recent years. Physical learning psychological disorder refers to the infarction of psychological activities of students in the process of physical learning, poor psychological adjustment and adaptation mechanisms [7], failure to achieve learning goals, unmet needs, and difficulties that cannot be overcome, resulting in unhealthy psychological performance and behavioral tendencies. Phenomenon [8].

Attribution theory believes that correct attribution can improve the motivation level of activities, improve the way of activities and behaviors, and thus improve the effectiveness of activities [9]. Among the many factors that affect students' learning effectiveness, analyze the various types of obstacles to college physics [10] learning methods and their causes, put forward more systematic teaching strategies and apply them to teaching practice, and test the actual effects of teaching strategies through strict educational experiments [11]. In the

current research on scientific research groups, the analysis based on the characteristics of teachers' scientific research groups has important reference value in the professional characteristics of scientific and technological talents [12], talent flow, career development [13], scientific research cooperation, the establishment of discipline projects, and the evaluation of scientific research ability [14]. The image is segmented by selecting the appropriate grayscale threshold to distinguish the target from the background. The image thresholding method is described in detail in the literature, and the most representative thresholding method is the Otsu method [15].

In the article "Research on the Physical Learning Difficulties of High School Girls and Their Countermeasures", the author draws [16] on the previous theoretical and practical experience, although the causes of the physical learning difficulties of high school girls are discussed in depth, and on this basis, a new [17] Taking the idea of round curriculum reform as the guiding ideology, the strategies to solve the physical learning difficulties of high school girls are put forward. With the rapid development of the Internet, any individual will leave [18] various traces of information intentionally or unintentionally when surfing the Internet. There is currently no relevant and authoritative definition of the traces left on the Internet [19]. Related concepts include "travel digital footprint", "network intrusion trace", "network footprint" [20].

Li Ting gives education to Guo Chusai and Phosphorus to meet the demands of the future, poking at the main educational theory as a shake [21] As well as the strength of slaughter and hair mole pith is coy. Constructivism Yuanbai's theory of cognitive development, because the cognitive development of individuals is closely related to the learning process [22], so using constructivism can better explain the cognitive laws of the human learning process, that is, it can better explain how learning occurs, how How meaning is constructed, how concepts are formed, etc. [23] The subjects of the study are the undergraduates of Jingchu Institute of Technology [24].

On the basis of random arrangement of classes in the same major, through the pre-test to understand the physical foundation of the students, 2 classes of the 2011 mechanical manufacturing and automation major were selected. The procedural method refers to the method adopted in each link of physics learning. When students apply the programming method, some learning links are missing, or the method is improperly applied in the main learning links of preview, lecture, review, homework and summary.

2. THE PROPOSED METHODOLOGY

2.1 The Internet Trace Data Clustering

Algorithm

This study collects the statistical information on the scientific research achievements of scholars on the Internet, analyzes the indicators of scientific research personnel's journals, conference papers, works and other indicators based on data mining methods, and uses mathematical statistics and other methods to establish scientific research ability evaluation indicators of scientific researchers. However, the single-target grayscale images processed in the criminal investigation trace image are relatively few, and even in the case of a single target, due to the complexity of traces and backgrounds, there may be multiple peaks in the grayscale histogram. At this time, the threshold is selected.

At present, there is a wealth of information on the attributes of scientific research groups and related information on scientific research results on the Internet. This subject takes information metrology as the theoretical guidance, applies data mining technology in the analysis of scientific research group characteristics, and conducts data mining and acquisition of the characteristics of scientific research groups of college teachers. However, for trace images, due to the interference of complex backgrounds, they do not have bimodality in many cases, so the conditions for the segmentation algorithm based on one-dimensional gray histogram do not exist, and satisfactory results are often not obtained. Different subjects who create information can be divided into institutional traces and personal traces; for example, various news media reports and company website information are all organizational traces.

Personal homepages and published comments are personal traces. According to the willingness of the subject of information creation, it can be divided into active traces and passive traces. In data mining, some personal information data of teachers collected from the official website of colleges and universities and the achievement data of teachers in the homepage of scholars are stored in different data tables, and the complex background of the image is stored in different data tables. It is always located in the neighborhood of the target to be segmented, that is, the pixels of the image have a great correlation with its neighborhood. Therefore, many scholars have taken this into account and proposed the concept of a two-dimensional histogram. Before data mining, it is necessary to analyze the data. Aggregate, summarize the achievement data information by category and calculate the number of results of each category, and then summarize it and the teacher's personal information into the same data table.

2.2 The Attribution of Psychological Disorders in College Physics Learning

The goal of data mining is to discover hidden meaningful knowledge from massive data through a specific method. The most commonly used main functions include: cluster analysis, association analysis, classification and prediction, deviation

analysis, evolution analysis, etc. According to whether the real identity information of the information publisher can be obtained, it can be divided into real name traces, anonymous traces and pseudonym traces. Real name traces usually include news information, magazines, celebrity blogs, etc. published on the websites of various authoritative institutions. Anonymous information includes various social networking sites. Anonymous comment information.

To formulate and improve the questionnaire of college physics learning thinking disorder and carry out investigation and statistics on the research object, systematically understand various types of college physics learning thinking disorder and analyze the reasons. According to the three-dimensional classification model of Weiner's attribution theory, combined with the learning practice of "University Physics" course for non-physics undergraduates, a questionnaire for the success or failure of non-physics undergraduates in college physics learning was compiled. The internal factors of learning psychological disorders are student factors, and the external factors include physical discipline factors and teaching environment factors.

Strictly speaking, the physical subject factors should belong to the physical teaching environment factors. In the research, the physics subject factors are separated from the teaching environment factors. The questionnaire is mainly composed of two parts. The students were asked to self-evaluate the learning effect of college physics. Gardner's theory of multiple intelligences summarizes the problems related to intelligence in students' learning realistically. According to the theory of multiple intelligences combined with practical investigations, it can be seen that the average intelligence level of boys and girls in middle school is not much different.

2.3 The Psychological Disorder Attribution Intelligent Software Development

The lack of learning goals causes psychological confusion. The freshmen have not fully adapted to university life. Students only focus on knowledge learning and ignore method learning; lack of systematic training in learning methods, students' learning methods are fragmented rather than systematic. The goal of further study is reached, but the new learning goal is not yet or not very clear. It is temporarily in the state of lack of goal, which is easy to breed anxiety, slackness and other negative emotions. Students only focus on knowledge learning and ignore method learning; lack of systematic training in learning methods, students' learning methods are fragmented rather than systematic. It can be seen from the results of the three-dimensional space scatterplot that a positive curve can be used to simulate the evaluation distribution of the scientific research group in universities.

Due to the density difference in the distribution of data points in the scatter plot, the cluster analysis method of data mining technology can be used to deeply mine the data for the distribution of personnel in the scientific research group in colleges and universities. According to the characteristics of girls' language and language intelligence having certain advantages, appropriate language can be used for physics teaching. In teaching, we should seize every opportunity to play and display this specialty of girls, and try to let them use their own language to summarize and summarize. Emphasize the importance of learning links, urge students to overcome inertia, insist on using program methods, and avoid unnecessary difficulties caused by missing links.

Use the introductory course system to explain the learning methods and specific requirements of each learning link. The grayscale of each pixel of the image is used as a sample to perform clustering. When the image is large and the sample size increases, the time efficiency is very low. The weighted fuzzy c-means clustering algorithm [7-8] Yuan WFCM takes the L gray level samples of the trace gray image and proposes a specific improved calculation formula. This section will introduce the specific implementation steps of this method and conduct example verification. The specific writing ideas are as follows: First, preprocessing operations such as cleaning the original data information of scientific research group characteristics crawled from the web.

3. CONCLUSIONS

Then, the network data is obtained by analyzing the network trace characteristics of the scientific research group, and the two main research problems in the related fields are analyzed for the characteristics of the scientific research group, and the overall scientific research status of the scientific research group is analyzed macroscopically. Both internal and external reasons lead to the widespread psychological obstacles of college students' physics learning. Through the current situation investigation and classification according to the causes, the foundation has been laid for exploring efficient teaching strategies. The proposed teaching strategies have been preliminarily verified in teaching practice, and need to be further improved. It is verified by experiments in a large range, and gradually improved and promoted in teaching practice.

4. REFERENCES

- [1] Sun Dong, Li Sheng, Chen Weihao. Psychological Barriers and Countermeasures in College Physics Learning [J]. 2020.
- [2] Zhou Dan, Hu Yucai, Wang Jing, et al. Resource construction and application of intelligent online operation system for college physics [J]. Education Modernization, 2019, v.6(56):161-163.
- [3] Gong Qingping. Research on the Attribution and Transformation Strategies of High School Students' Physics Learning Difficulties [D]. Harbin Normal University, 2019.
- [4] Hu Yucai, Wang Jing, Zhou Dan. Research and practice of intelligent online homework system for college physics courses [J]. 2021(2018-2):43-46.
- [5] Gao Zhiyong. College Physics Learning Disabilities and Countermeasures [J]. Digital World, 2019(3):1.
- [6] Tong Yuxuan, Tian Ze'an, Deng Huiqiu. Design and application of Android-based university physics mobile learning platform [J]. University Physics, 2020, 39(4):6.
- [7] Liu Hongbing, Xiong Hanqin, Zhang Shizhen, et al. Exploration and practice of blended teaching of "college physics" based on SPOC: Taking Donghua University of Technology as an example [J]. Journal of Donghua University of Science and Technology: Social Science Edition, 2019, 38(1):4.
- [8] Li Jingyao. Study on the psychological problems and attribution analysis of art students in higher vocational colleges [J]. 2020.
- [9] Li Pingwei, Wang Qian. Attribution Analysis and Countermeasures of College Students' Psychological Crisis from the Perspective of Noddings' Caring Theory: Taking a "problem college student" of Lingnan Normal University as an example [J]. Journal of Kaifeng Institute of Education, 2019, 39 (11):2.
- [10] Lan Cuicui, Zang Peng, Song Ziyue, et al. Research on the application of problem-based learning in the information environment: Taking college physics teaching as an example [J]. Science and Informatization, 2020.
- [11] Zhang Qiang, Xue Hui. Based on the theory of comparative psychology to explore the teaching strategies of college physics in the era of intelligence [J]. Education and Teaching Forum, 2020(20):3.
- [12] Shi Huigen. Research on high school physics teaching based on intelligent teaching [J]. New Curriculum, 2020.
- [13] Zhang Yong, Zhou Zhiyong, Liu Su. Building a University Physics Smart Golden Course Based on Mobile Learning Big Data [J]. Physics and Engineering, 2019(S1):8.
- [14] Yang Jun. The important quantitative standard of physics experiment course in college physics teaching [J]. New Generation: Theory Edition, 2020(19):1.
- [15] Hu Jiao, Zhang Wenlan, Chen Sirui. Research on the Attribution of Attention Defocus in College Students' Fragmented Learning: A Qualitative Analysis Based on Grounded Theory [J]. Electronic Education Research, 2019, 40(12):8.
- [16] Tan Lusa. Using contrastive psychological procedures to solve the problem of psychological boredom in physics learning [J]. 2021.
- [17] Xia Qiping, Zhang Huihui. Innovation of University Physics Blended Learning Mode for Applied Talent Cultivation [J]. Journal of Langfang Normal University: Natural Science Edition, 2021.
- [18] Yang Cuilan. The practice of applying psychological counseling technology to improve the efficiency and effect of physics learning [J]. Questions and Research: Teaching Forum, 2021(12):1.
- [19] Lu Haishuang, Li Zhonghua, Gu Liping, et al. A brief discussion on the practical research of network teaching in the teaching of college physics courses in applied undergraduate colleges [J]. Science and Education Wenhui, 2021(22):3.
- [20] Chen Weihao, Sun Dong, Li Sheng. Reflections on improving the interest in college physics learning [J]. 2020.
- [21] Chen Hui. Research on the study burnout psychology of normal students in independent colleges from the perspective of attribution: taking F College as an example [J]. Think Tank Times, 2020(15):2.
- [22] Lu Yanan. Discussion on the construction of a smart university physics laboratory in the information age [J]. Digital Design, 2020, 9(1):1.
- [23] Hao Kun. Discussion on the intelligent classroom teaching mode of physics in junior high school [J]. 2020.
- [24] Wu Haina, Gong Weijiang, Yi Guangyu. Visual Analysis of College Physics Learning Behavior Based on Rain Classroom [J]. Physics and Engineering, 2019(S1):4.
- [25] Zheng Minxiao, Chen Danwen. Research on the construction of smart laboratories in colleges and universities under the "Internet + education" model: Taking the psychology laboratory of XX University as an example [J]. Frontiers in Social Science, 2022, 11(4):5.

