

DATA MINING OF COLLEGE STUDENTS' MENTAL PROBLEMS BASED ON APRIORI ALGORITHM

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Background: At present, the mental problems of college students in my country are becoming more and more serious, and the cases of college students' behavior deviation are also increasing. Therefore, the mental health of college students has gradually attracted widespread attention in the society. Although colleges and universities have established mental counseling centers in order to effectively solve the mental problems of college students, and carry out mental assessment on the students entering the school, using a large amount of data for analysis and statistics, but according to the actual investigation, this kind of work is still in the appearance stage, and the application of data mining technology is not mature enough. In order to ensure that the potential value of data can be fully tapped, colleges and universities can adopt the data mining method of college students' mental problems based on the Apriori algorithm, so as to make up for the deficiencies in the traditional data statistical analysis process and fully explore the relevant factors that cause college students' mental problems, and take targeted mental counseling, rational allocation of counseling resources, and achieve healthy growth of students.

Objective: The Apriori algorithm was proposed by Mr. AGRA and Mr. RS in 1994. It belongs to the original algorithm. It refers to the iterative method of layer-by-layer search, which can realize the cumulative count by means of the method of scanning the database, complete the collection of persistence items, and then find the items. This algorithm can use association rules and strong association rules to express the frequency of a given data set, and by deeply mining data and rules, it can provide merchants with relevant information. decision making. The application of the Apriori algorithm to the data mining of college students' mental problems can not only find out the actual connection between the factors that cause students' mental problems, but also provide data support for the follow-up mental health education.

Subjects and methods: The research object selected for this time is the 2019-level students of a local urban university. The total number of students is 8014, including 3324 boys and 4690 girls, covering the School of Art and Design, the School of Law, the School of Architecture, etc.

When using the data mining of college students' mental problems based on the Apriori algorithm, the preprocessing of the data must first be completed. First, the fields irrelevant to the research must be removed to ensure that the table structure of the data set includes gender, whether the only child is an only child, and the per capita income of the family, etc. Attributes. Second, data cleaning should be done, mainly to check spelling errors and remove duplicate records, and finally generate a report with clear data. Third, to carry out data integration, integrate and organize multiple table data. Fourth, data normalization should ensure that discretized data follows the principle of classification, and continuous data follows the principle of discretization. Secondly, build a data model based on the Apriori algorithm, filter out irrelevant attributes by double-clicking the data source node, and set the minimum support and confidence, and finally execute the model to obtain the corresponding data mining results. The specific information is as follows: only child, rural, unfollowing Parents who grew up together, support 20%, confidence 50%; only child, small city, grew up with parents, support 18%, confidence 90%; only child, student cadre, no parent Growing up together, support is 16%, confidence is 42%; large and medium cities, low-income families, who did not grow up with their parents, support is 14%, confidence is 42%; student leaders, low-income families, Not growing up with parents, support is 16%, confidence is 92%; non-single-parent families, high-income families, grew up with parents, support is 20%, confidence is 92%.

Result: According to the above excavation results, it can be seen that students with interpersonal sensitivity disorders in single-child and single-parent families are more likely to develop mental problems than those in normal families; students in small cities are more likely to have obsessive-compulsive disorder than those living in rural areas. Students, and there are more only children in small cities, while non-only children are mostly from rural areas; women are more likely to suffer from obsessive-compulsive disorder than men, but men are more likely to suffer from interpersonal sensitivity disorders than women. It is mainly caused by the idea of valuing sons over women; students who have served as student cadres or live in cities have a relatively wide range of social contacts, have rich social experience, and can handle interpersonal relationships well, while students living in rural areas are affected by material Conditions and living environment influence, mental pressure is relatively heavy.

Conclusion: This paper analyzes and discusses the data mining of mental problems of college students, uses the Apriori algorithm to build a data mining model, further explores the correlation between

attributes such as gender, origin, family structure and mental problems, and proves the application of association rules through mining results. The reliability of the research on students' mental problems in colleges and universities, so as to provide data support and solutions for the mental intervention work of students in colleges and universities, so as to promote the healthy growth of students.

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THE APPLICATION OF SAFETY PSYCHOLOGY IN THE QUALITY MANAGEMENT OF MODERN CONSTRUCTION PROJECTS

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Background: Generally speaking, the main reasons for accidents are mostly human factors and objective factors, and the forms of human factors are mostly different, such as fatigue, changes in thoughts and emotions, distraction, deviation in subjective judgment, etc. Safety psychology is based on the above Changes and related characteristics are analyzed and human factors are analyzed, so as to provide a greater degree of security for my country's social and public utilities, and to reduce the occurrence of dangerous accidents as much as possible, and propose targeted solutions.

Objective: With the progress and development of my country's industrial age, dangerous accidents frequently occur in the construction process. Most of the causes of accidents are caused by people's unsafe behaviors, and people's behaviors are mainly affected by subjective thinking and logic to a certain extent. Therefore, it is necessary to strengthen the research on people's psychological state. However, in the process of quality management of construction projects in my country in recent years, safety psychology is still in its infancy. In order to further reduce the incidence of accidents and improve the level of construction quality management, combined with safety psychology, this paper will give targeted explanations and propose solutions. Safety psychology is a category of psychology. With the continuous development and progress of the social system, safety psychology has gradually entered people's field of vision and is widely known.

Subjects and methods: Safety psychology is mostly used in fields with frequent dangerous accidents, such as coal mining industry, electric power industry and construction industry. In the construction industry, the issue of quality and safety management is the top priority of construction work. Since most of the construction sites in our country have certain construction hidden dangers, the study of safety psychology is more critical in the development process of construction engineering quality management. Architecture is an inaccessible part of human daily life, in which safety management mainly includes two directions of construction and use. In the specific construction process, since most of the buildings in our country are high-rise buildings in recent years, the safety of high-altitude operations is required, and because the construction materials are dangerous to a certain extent, the cultural level of the construction workers is low, which further leads to their serious lack of safety protection. Awareness, with the effect of these factors, the frequency of construction occurs. In terms of use, this mainly refers to the living places of human beings. The quality of buildings must be guaranteed, and the quality of buildings is directly affected by the construction process. Therefore, it is necessary to increase the efforts to study the behavior of construction workers. Safety positive psychology mainly includes self-discipline psychology, responsibility psychology, performance psychology, instinct psychology and so on. Negative safety psychology mainly includes cheating psychology, risk-taking psychology, rebellious psychology, sloppy psychology, hasty psychology and panic psychology and so on. Positive psychology can make staff more clear about their job responsibilities and stick to their jobs. People with this state of mind can maximize their positive psychological advantages, supervise building construction effectively, and avoid construction accidents to the greatest extent possible. For construction engineering quality management, this positive mental state can lay a solid foundation for quality management. On the contrary, a negative psychological state will make people lack work plans during the work process, and will only work based on their own experience, seriously lack of responsibility and enthusiasm for work, resulting in frequent quality problems in the work process, further aggravating the occurrence of accidents frequency. These slack psychological emotions will make construction workers listless in the process of work, seriously reduce work quality and work efficiency, and lack a good sense of competition to a certain extent. Therefore, in the process of quality management of construction projects, it is necessary to establish a perfect reward and punishment system, mobilize the enthusiasm and sense of responsibility of the staff in an all-round way, and improve the quality of construction project management.