

APPLICATION OF IMPROVED APRIORI ALGORITHM IN MENTAL HEALTH MONITORING

Ping Huang & Wei Deng

Shenzhen Power Supply Bureau Co., Ltd, Shenzhen, Guangdong, 518000, China

Apriori algorithm is a classic algorithm in data mining that can mine the frequent set of items required for association rules. A classic example of its application is supermarket shopping analytics. Aiming at the current mental health evaluation system of colleges and universities, it proposes to apply the improved Apriori algorithm to analyze the mental health of students of different grades and different genders, and then provide a decision-making basis for the construction of the mental health evaluation system of colleges and universities, and provide some suggestions for the mental health guidance of college students. In this paper, the health information of college students is extracted by using data mining technology, and the correlation rules related to psychological symptoms are mined, and then embedded in the mental health management system to predict the psychological changes of college students. As one of the most frequently used algorithms in data mining, the Apriori algorithm still has the disadvantages of repeated searching databases and candidate datasets, resulting in high algorithm complexity and low data mining efficiency. Based on the CM_Apriori algorithm and the PM_Apriori algorithm, the scanning process of the Apriori algorithm is improved in combination with the genetic algorithm. The multi-threaded scanning transaction data set is used to split into data blocks to establish correlation rules. The data test results show that the efficiency of the improved algorithm is about 8.9-18.7% higher than that of the PM_Apriori algorithm, which verifies the effectiveness of the system. This paper combines the improved Apriori algorithm with the established psychological correlation analysis system for college students, based on the collected psychological assessment data and basic information of college students, uses the improved mining algorithm, and analyzes some laws and characteristics of college students' psychological related factors from the results, providing new ideas for college students' mental health education.

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APPLICATION OF DECISION TREE ALGORITHM IN ADOLESCENT MENTAL HEALTH ASSESSMENT

Ping Huang & Xinlin Liu

Shenzhen Power Supply Bureau Co., Ltd, Shenzhen, Guangdong, 518000, China

Knowledge discovery in databases is currently a fairly active research field involving disciplines such as artificial intelligence, databases, statistics, etc. Decision trees are one of the common techniques for discovering classification models and have been extensively studied and made great progress. However, due to the use of greedy algorithms in the construction process of decision trees, the decision tree is easy to overfit, the scale is too large, and the length of the resulting rules is too long. This paper uses decision trees and association rules to data mine the mental health files of students in colleges and universities, and obtains valuable information. The core of data mining is to build a model, commonly used modeling methods are decision trees, neural networks, rough sets, association rules, etc., this study uses the decision tree and association rules method. Through the selection of C4.5 classification algorithm after evaluation, the significant characteristic attributes that may cause psychological crises are analyzed, and the students are judged whether there may be mental health problems according to the different values of the feature attributes. In the selection process of feature attributes, this paper draws on the opinions of student management experts and performs regression analysis on some attributes, and finally selects the most significant feature attributes such as personality characteristics, family composition, family economics, family relationships, leave situations, and failure situations for decision tree modeling, and extracts the 10 rules with red lines of early warning results to describe the model. The results show that the system in the paper avoids the defects of the current mental health intelligent evaluation system, improves the accuracy of mental health intelligent evaluation, improves the efficiency of mental health intelligent evaluation, and the system stability is better, which can be better applied to the actual work of mental health intelligent evaluation.

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THE RELATIONSHIP BETWEEN LITERARY AESTHETICS AND COLLEGE STUDENTS' PSYCHOLOGICAL HEALTH EDUCATION

Jiepin Li

Xi'an Siyuan University, 710075, Xi'an, Shaanxi, China

With its search, revelation, construction and expression of beauty, literature satisfies the needs of human soul for beauty, enriches our spiritual world and cultural life, and thus establishes the necessity and value of its own existence. Literature has always played the role of a medicine for the human soul. The ancient Greek philosopher Aristotle believed that the appreciation of literature and art could play a "purifying" role in human daily emotions. Psychologists have introduced literature into the field of psychotherapy and developed it into a reading therapy theory and technique. However, reading therapy technology is a problem-oriented psychological counseling method, which pays less attention to the aesthetic attributes of literary works, limiting or even erasing the role of literary aesthetics in the overall development of people. This article analyzes the characteristics of literary aesthetics: subjectivity, resonance, and re-creation, and then expounds the educational role of literary aesthetic appreciation: it can cultivate sentiments, shape noble and healthy minds; it has the role of making people distinguish between right and wrong and distinguishing between good and evil; it can inspire people's imagination and open up people's thinking ability; it can make people feel the inner beauty of aesthetic objects and deepen their sense of beauty; it can make people feel the beauty of nature, cultivate the soul, and pin noble ideals. In summary, it can be concluded that literary aesthetics can make people's spirit be subtly educated, and play a positive role in promoting the mental health of college students, so we can organically combine the mental health education model infiltrated by disciplines with the aesthetic appreciation of literary works, and try in disciplines with rich aesthetic attributes to explore a kind of mental health education for college students based on literary aesthetics.

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A STUDY ON THE CURRENT SITUATION AND RELATIONSHIP OF ANXIETY AND SELF-EFFICACY IN ENGLISH LEARNING.

Qiwen Chen

Hainan College of Vacation and Technique, Haikou, 570216, China

Background: Now, due to the "Belt and Road" and the construction of a "community with a shared future for mankind", higher requirements have been put forward for the English learning of students in colleges and universities. Modern society has increasingly high requirements for English skills, and cultivating students' interest in learning English, improving students' efficiency in learning English and improving their Ability to Apply English has become one of the important tasks of English education and teaching. In the process of learning a foreign language, learners may show anxiety such as exhaustion, apathy, and decreased self-efficacy, which in turn will produce learning anxiety. Traditional English teaching attaches importance to the mastery of students' basic Knowledge of English and the training of basic skills, while ignoring emotional and cognitive factors has become one of the main obstacles to the development of English teaching and the effective improvement of students' English ability. Self-efficacy and English learning anxiety, as two important emotional factors, play an important role in the effectiveness of English learning, so they are concerned by English teaching and researchers.

Foreign language learning anxiety arises from the language learning process and is a unique syndrome of self-perception, belief, emotion, and behavior associated with language learning in the classroom. Foreign language learning anxiety is a specific type of situational anxiety, distinct from trait anxiety and state anxiety, but there is a connection between the two. The emergence of foreign language learning anxiety is mainly due to the inability of foreign language learners to express themselves freely and to communicate effectively with others with limited language knowledge. There was a significant negative correlation between this psychosocial factor and the effectiveness of foreign languages. Self-efficacy is an important variable that affects and predicts student achievement. Researchers define self-efficacy as a subjective assessment of an individual's ability to achieve a goal. In the process of language learning, self-efficacy is an important part of students' self-confidence, and it is their expectation of the level of language they can achieve. There is a significant positive correlation between self-efficacy and foreign language performance, which is a significant predictor of foreign language learning performance. Foreign