

PREDICTION OF PUBLIC BICYCLE SHARING EMOTIONAL TENDENCY BASED ON MACHINE LEARNING

Ming Lyu

Department of Mathematics Rose-Hulman Institute of Technology, IN 47803, USA

Background: Bicycle sharing system contributes to urban public transport system and provides convenience and accessibility for bicycles. In the bicycle sharing system, people can borrow bicycles from one Wharf in the system and return them to another wharf for free or low charge. Bicycle sharing system provides a convenient way for short distance travel and a healthy way of transportation. In recent years, bicycle sharing system has developed rapidly in cities all over the world. This paper studies and analyzes the public sharing psychology, and analyzes the bicycle sharing system based on the people's personality tendency, so as to solve the problems such as the imbalance of the number of bicycles between stations and the imbalance of the availability of bicycles at the station level.

Subjects and methods: This paper presents a model for predicting bicycle usage in San Francisco Bay area bicycle sharing system using machine learning algorithm. The algorithm analyzes the public's use frequency of bicycles in the shared state. For the prediction of bicycle use through two steps - feature selection and model prediction. In the feature selection of public emotion, linear regression, ridge regression, Lasso regression, recursive feature elimination and random forest algorithm are used to select weather features. Gradient enhanced regressor and multiple linear perceptron regressor are suitable for selected important weather features. The F1 scores of multivariate linear perceptron regressor are 0.82 and 0.65, which is better than gradient boost regressor.

Results: Bike Sharing has continued to grow rapidly within years. Traffic in the city is getting busier due to increasing number of cars. Therefore, Bike Sharing is more likely to play an important role in the public transportation system. However, imbalance of bikes between docks and rebalancing bikes limit the growth of bike sharing system. Such Operation requires information of rides pattern such as the number of bikes rides. We propose a model to predict the number of bike rides based on weather conditions, which can be used for further operation research on Bike Sharing Activities.

Conclusions: Most bicycle sharing systems only use bicycle riding as input to study bicycle sharing mode. However, when there are external factors affecting the bicycle sharing mode, this is very limited. We propose a different model that considers how public psychology affects the number of cycles. By evaluating the prediction of our model, we can further study the bicycle sharing mode. The dataset contains only one year's information. Due to the rapid growth of bicycle sharing, more data are needed to optimize our model. The bike sharing model has changed over the years. The bicycle sharing mode of being is different from the current bicycle sharing mode. The model will better predict and interpret the data set containing several years of bicycle sharing system information.

* * * * *

THE PUBLIC IDEOLOGICAL TENDENCY OF WASTE INCINERATION AND DISCUSSION ON THE APPEAL STANDARD OF ENVIRONMENTAL PROTECTION

Huiying Yang

School of Municipal and Environmental Engineering, Shandong Jianzhu University, Jinan, 250100, China

Background: with the rapid development of China's economy and the acceleration of urbanization, the urban area and population are increasing, the amount of garbage generated is increasing, and the problem of garbage siege is becoming more and more serious. How to realize the harmless, reduction and resource treatment of domestic waste has become an important topic.

Subjects and methods: introduce the importance of waste incineration in harmless treatment. This paper analyzes the advantages and disadvantages of waste incineration from the perspective of public psychology, and analyzes it from the perspective of harmlessness, resource utilization and quantitative emission reduction. How to appeal to the public for waste incineration standards is discussed. The comparison results of domestic and foreign waste standards are given.

Results: China's waste incineration technology has been continuously improved. Although China's waste incineration technology has developed rapidly, how to choose high-temperature and corrosion-resistant materials is still a technical problem we need to face. Due to the acid produced in the process of waste incineration, it has a corrosive effect on the pipeline. Therefore, it seems to have better corrosion resistance. In addition to technical difficulties, social and economic problems also hinder the development of waste incineration.

tion industry. First, avoiding conflict is the most prominent problem in social problems. It refers to the location of waste incineration sites, which has caused confrontation between local people and local governments.

Conclusions: Although China faces technical difficulties in how to use waste incineration products, we believe that with the support of the state, we will continue to work through relevant technicians, and the relevant technologies of waste incineration resources will be continuously improved. In the process of practice, we will continue to innovate, actively learn foreign advanced technology and adjust measures to local conditions. Only in this way can China's waste incineration technology be continuously improved. It is expected that China's waste incineration and related industries will continue to make new development.

* * * * *

STUDY ON COLLEGE STUDENTS' ORAL ENGLISH ANXIETY BASED ON FIF ORAL TRAINING SYSTEM

Yisha Zhang

School of Foreign Languages, Wuhan Institute of Technology, Wuhan, 430205, China

Background: Among the four acquisition skills of English learning, oral expression is the most likely to cause anxiety. Since the 20th century, overcoming oral anxiety has been the focus of research in the field of second language acquisition, mainly focusing on the causes and mitigation measures of oral anxiety. With the development of modern teaching technology and the promotion of A.I. enabled foreign language teaching, network teaching platform and applied learning software provide a new opportunity to alleviate students' anxiety in the process of language learning.

Subjects and methods: In recent years, the effective intervention of affective factors of second language learners with the help of network software has become a new research hotspot. Through the questionnaire survey of 72 college students in a university in Shandong, the data were analyzed by SPSS. This paper aims to explore the current situation of College Students' oral English learning anxiety, the impact of FIF oral training system on College Students' oral English anxiety and its enlightenment.

Results: The results show that college students generally have oral English learning anxiety, and the degree of anxiety is the highest in the two dimensions of oral communication anxiety and oral course confidence. FIF oral training system has a significant positive intervention effect on College Students' oral English anxiety. High frequency oral practice, group cooperation and optimization of teachers' teaching design based on app oral training system are effective ways to alleviate oral anxiety. Nearly 50% of the subjects thought that more autonomous oral practice could alleviate their oral anxiety, and about 25% of the subjects proposed that group cooperation could effectively reduce their oral anxiety.

Conclusions: Language anxiety is an inevitable obstacle for second language learners in the process of improving their oral level, and it is also a great challenge for second language teachers to improve their teaching effect. Based on the analysis of the positive impact of FIF oral training system on reducing language learners' Oral Anxiety, this paper puts forward some oral anxiety mitigation strategies based on app oral training system, in order to have some enlightenment on foreign language teaching.

* * * * *

ANALYSIS OF SOCIAL FACTORS OF CHILDREN'S ORAL TENSION BEFORE DIAGNOSIS

Qun Zhao

The People's Hospital of Renhe District, Panzhihua, Sichuan, 617061, China

Background: Most of the children in the stomatological clinic were nervous, crying and struggling before treatment, and even did not open their mouth, resulting in the failure of treatment. Improving oral health and treatment quality can reduce the follow-up rate and reduce the treatment cost. Psychological intervention, also known as behavior correction, establishes healthy behavior by learning, adjusting or changing individual abnormal psychological and physical symptoms. This study investigated the effect of psychological intervention on children's oral health.

Subjects and methods: This study investigated the changes of oral health status of 240 children before and after psychological intervention. To explore the impact of social and psychological factors on children's oral health, so as to provide basis for children and even the majority of people's oral prevention and health care.