INVESTIGATION AND RESEARCH ON THE CURRENT SITUATION OF OPEN EXPERIMENTAL TEACHING MANAGEMENT FROM THE PERSPECTIVE OF APPLIED PSYCHOLOGY

Li Liu¹, Wei Liu² & Kaiqin Peng³

¹College of Railway Locomotive and Rolling Stock, Wuhan Railway Vocational College of Technology, Wuhan 430205, China
²Electromechanical Design Division, Hubei Institute of Water Resources Survey and Design, Wuhan 430064, China
³Personnel Division, Wuhan Railway Vocational College of Technology, Wuhan 430205, China

Background: The basic premise of applied psychology is to use the principles and theories of psychology to overcome the problems in other fields, such as management, engineering, law and clinical medicine, and evolve the concepts of organizational psychology, educational psychology, sports psychology and community consciousness. Practicality and applicability are the main characteristics of applied psychology. The key to psychology is to find the relationship between it and other fields with the help of psychological theory or perspective, and then explore the psychological relationship between people and people and between people dealing with things. People majoring in applied psychology are required to have basic knowledge and theoretical system, better practical operation ability and psychological perception ability, that is, they can effectively connect, integrate and innovate with other theories, so as to guide social practice and social activities. Psychology is a science that studies human behavior and psychological laws. Modern psychology mainly includes biological perspective, cognitive perspective, behaviorism perspective, whole-person perspective, development perspective and social and cultural perspective. The cognitive perspective emphasizes cognitive activities or psychological activities, the behaviorism perspective focuses on the degree and quality of the impact of the environment on individuals, and the whole person perspective focuses on people’s spiritual core, believing that people have the internal demand for growth and goodness. The combination of psychology and education is mainly embodied in educational psychology, that is, in a specific educational situation, carry out conscious and phased practical application according to the psychological laws and change characteristics of both teaching subjects and objects. Educational psychology can be applied to curriculum design, teaching method improvement and teaching motivation guidance to help students deal with difficulties and challenges in life and learning. Open experimental teaching management refers to resource management and effective integration according to the characteristics of open laboratories. At present, there are unclear ownership, lack of professionals and insufficient attention in the teaching management, which makes the management and application effect of open laboratories in colleges and universities poor, and further affects the integration of resources and the improvement of teaching efficiency. Effective intervention according to the current open laboratory management is the content that should be paid attention to in the work of colleges and universities. Analyzing the problems existing in the open teaching management of the laboratory with the help of applied psychology and intervening effectively can improve the efficiency of teaching resource management and reduce the negative psychological emotions of teaching managers.

Objective: To analyze and reconstruct the problems existing in the current open experimental teaching management from the perspective of applied psychology, and actively and effectively intervene the teaching managers according to the problems existing in the current situation of the laboratory, so as to improve their professional management ability and their mental health.

Research objects and methods: The research takes the managers and teaching personnel of an open laboratory in a university as the research object, and actively intervenes their existing psychological problems and the current management situation, such as psychological counseling, so as to effectively promote the level and quality of laboratory teaching management and realize the psychological intervention to managers.

Method design: With the help of principal component analysis, the factors affecting laboratory teaching management were extracted and analyzed, and then the management mode was improved to carry out targeted psychological counseling and intervention on the psychological problems of managers. The
experimental time was three weeks. After the experiment, the data of the management level and mental health changes of the subjects were statistically analyzed, and the experimental results were obtained.

**Methods:** SPSS22.0 analysis tool to process the experimental data, extract the influencing factors and test the regression coefficient with principal component analysis, and actively intervene and guide the managers’ psychological problems and emotions with the laboratory management mode. After that, the open and effective teaching mode of laboratory management can be adjusted according to the psychological needs of laboratory personnel, and then the psychological management mode can be improved more effectively. Table 1 shows the statistics of anxiety scores of teaching managers in the open laboratory before the experiment. Grades 1-5 indicate the degree of anxiety from light to heavy.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Mean</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work anxiety</td>
<td>4.325</td>
<td>0.647</td>
</tr>
<tr>
<td>Management anxiety</td>
<td>4.897</td>
<td>0.843</td>
</tr>
</tbody>
</table>

**Conclusions:** Applied psychology can combine the psychological theory with the application field, so as to improve the information degree of system optimization and the university nature of resource management, so as to reduce the problems of information managers dealing with things and improve their mental health level. At the same time, students majoring in applied psychology have a wide range of employment, and their practicality and applicability are good.

* * * * *

**PROMOTING EFFECT OF TEACHING, RESEARCH AND CREATIVE COMPETITION INTEGRATION OF CHEMICAL MARKETING PRACTICE COURSE ON COLLEGE STUDENTS’ MENTAL HEALTH**

Ning Zhao, Zhiwen Lv & Changquan Rao

*School of Materials and Environment, Shenzhen Polytechnic, Shenzhen 518055, China*

**Background:** Mental health means that all aspects of psychology and its activity process are in a continuous and positive psychological state, and in this state, the subject can make a good adaptive response and give full play to its physical and mental potential. The factors affecting mental health include the influence of the objective environment, the level of psychological quality, self-cognition and psychological conflict. Whether we can correctly deal with the changes and stimulation of the surrounding environment and whether we can have good psychological tolerance and quality is an important aspect to evaluate the level of mental health. At the same time, the emotional value and psychological attitude of different individuals will affect the normal development of their mental health. Paying attention to students’ mental health is of great significance in the current educational environment and the background of teaching reform. The change of teaching environment, the handling of interpersonal relationships, the pressure of academic courses and the influence of other internal and external environments have an impact on students’ cognitive habits and psychological differences, leading to the generation of negative emotions, affecting their mental health level, and making them have psychological problems such as anxiety, anxiety, depression, fear and mental disorders. If these psychological problems are not intervened and solved in time, it will damage and hinder their normal study and life and even their physical health. As the main body in the teaching mode, students’ psychological status has not been fully developed, and they are very vulnerable to the influence of the surrounding environment and others, and will produce psychological depression due to professional learning problems. Appropriate positive psychological emotions will stimulate students’ learning initiative and enthusiasm, while negative psychological emotions will cause learning conflict. The goal of chemical engineering education is to promote people’s all-round development, adhere to the educational thought of teaching in one, and cultivate the ability of professional knowledge and better practical operation ability. However, in the current chemical marketing practice course, the teaching process ignores the importance and cultivation of students’ professional practical ability, and uses theoretical teaching to guide them to memorize and learn knowledge, rather than using practical training, which makes the learning effect deviate greatly from students’ psychological expectation, and then leads to a series of psychological problems.

**Objective:** In view of the students’ psychological problems and negative emotions in the chemical