effect and enthusiasm, and improve the level of mental health. Table 1 shows the general situation of classroom behavior and cognition of students with thinking logic disorders.

Conclusions: Higher national vocal music education can improve students' understanding and creativity of art through the study of basic theoretical knowledge and the appreciation and practice of artistic ability. At the same time, it can meet the psychological needs of students with thinking logic disorder, promote the diversified development of education and teaching, effectively improve their mental health level, help students improve their professional quality and ability, and accelerate the development and progress of vocal music education.

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MULTIMODAL LEARNING ANALYSIS OF THE APPLICATION OF DATA SCIENCE IN THE RESEARCH OF INVESTMENT PSYCHOLOGY AND BEHAVIOR UNDER COGNITIVE IMPAIRMENT

Yong Ma

School of Management and Economics, University of Electronic Science and Technology of China, Chengdu 610000, China

Background: Cognitive impairment is a state between normal aging and dementia. It is mainly characterized by mild memory and intellectual impairment, but it remains intact in life ability and cognitive function, which can be manifested in functional impairment such as understanding, judgment, calculation, execution, visual space, language and memory. Cognitive impairment can be divided into three types: perception impairment, memory impairment and thinking impairment. Perceptual disorders include perceptual synthesis disorder, hallucination and so on. Memory impairment includes memory error, memory defect and strong memory. Thinking obstacles include delusion, thinking logic obstacle, association process obstacle and abstract generalization process obstacle. The manifestations of cognitive impairment are emotion, spirit, creation, thinking, movement, language, memory, learning and so on. Mild cognitive impairment is characterized by wandering, anxiety, depression, forgetfulness, memory and attention loss. Moderate cognitive impairment is characterized by further aggravation of cognitive ability. Patients can be characterized by large emotional fluctuation, paranoia, anxiety, reduced understanding and language expression ability, and reduced resolution of objective things such as time. Severe cognitive impairment develops further from moderate cognition. Patients show decreased overall function and develop to dementia, which will lead to delusion, indifference, lack of self-care ability and so on. In the context of cognitive impairment, multimodal learning combined with data science investment psychology and behavior is facing great challenges.

Data science realizes big data investment data analysis by combining professional knowledge, computer and mathematical statistics. The licensing process of data science is to collect, clean, convert and operate data. Data modeling is realized through machine learning and exploratory analysis methods, and finally data visualization is realized. In the context of improving cognitive impairment, multimodal learning combined with investment psychology and behavior of data science needs to do the following. First, realize the integration of investment behavior and psychological business, programming and model in a real sense. Although modern quantitative technology can help investors analyze data to a certain extent, it is difficult for investors to realize real integration due to lack of understanding of data and lack of their own experience. Data science attaches importance to the role of professional knowledge, algorithms and data, which can be integrated with specific industry businesses through programming and models. Second, fully understand the potential value behind the data. Data science is data oriented and takes data as the basis of the whole process. For investors in the field of financial investment, the important basis of decision-making is news media, advertising, transaction data and financial data. The basis for judging whether the data understanding is comprehensive is the scale of the data, the business background of the data, and understanding the data through graphics. In addition, you need to pay attention to the details ignored and create the corresponding logic. Many researchers at home and abroad believe that the application of data science in multimodal learning of investment psychology and behavior research can reduce the symptoms of cognitive impairment, but the degree of improvement has not been verified.

Objective: To analyze the intervention effect of multimodal learning applied by data science to investment psychology and behavior research on cognitive impairment under the promotion of cognitive impairment, in order to improve the cognitive problems of cognitive impairment.

Research objects and methods: Patients with mild cognitive impairment in two regions were selected as

the research object, and the improvement degree of patients with cognitive impairment was analyzed by Iterative Dichotomiser 3 (ID3) algorithm. The evaluation content includes four aspects: language ability, attention, memory ability and memory ability. The evaluation results are no improvement, slight improvement and obvious improvement. The study period was 6 months. In order to facilitate the expression of the research results, the average value of all objects is selected as the final result.

Methods: The latest version of Minitab20 data statistics software is used to analyze the improvement of multimodal learning on cognitive impairment after data science is applied to the research of investment psychology and behavior.

Results: Table 1 refers to the improvement degree of multimodal learning applied by data science to investment psychology and behavior research on cognitive impairment. On the whole, the multimodal learning of applying data science to investment psychology and behavior research has significantly alleviated the cognitive impairment of patients with mild cognitive impairment after the intervention, especially in language ability and recall function. Therefore, applying data science to multimodal learning of investment psychology and behavior research can alleviate cognitive impairment and improve the individual accurate cognitive level.

Table 1. The improvement of multimodal learning of data science applied to investment psychology and behavior research on cognitive impairment

Category	Before	After 1 month	After 3 months	After 6 months
Language ability	89.62	91.23	94.26	96.35
Attention	87.66	88.69	91.20	94.56
Memory ability	86.35	89.36	92.31	94.26
Recall ability	87.36	89.36	92.32	95.36

Conclusions: The multimodal learning intervention program, which applies data science to investment psychology and behavior research, has a good effect on mild cognitive impairment, especially in language ability and recall function. The results provide a new idea for the clinical intervention of mild cognitive impairment.

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THE EFFECT OF TEACHING REFORM PATH OF VOCAL MUSIC COURSE IN COLLEGES AND UNIVERSITIES ON STUDENTS' COGNITIVE ABILITY FROM THE PERSPECTIVE OF EDUCATIONAL PSYCHOLOGY

Xiaoyan Guo

Conservatory of Music, Henan University, Kaifeng 475001, China

Background: Educational psychology is an important branch of applied psychology. It is an interdisciplinary subject of pedagogy and psychology. The main research content is the basic psychological laws of education and teaching in the context of education and teaching. There is usually an intersection between school and psychology. The focus of educational psychology is to analyze theoretical work, and the focus of school education is to engage in school and related specific affairs. Educational psychology is based on psychology and involves teaching design, educational technology, special education and classroom management. The purpose of educational psychology is to guide teachers to complete teaching work. The future research trend is learners' subjective initiative, the action mechanism in the learning process, the influence of situational environment on learning results, teaching mode and so on. Educational psychology can be simply understood as all the sciences involved in the process of learning and teaching, including teaching methods, students' characteristics and teachers' characteristics. According to the type of subject, teachers can adopt different teaching schemes. For physics, chemistry and other highly operational disciplines, the teaching method should adopt a highly operational scheme. For drama and other art programs, the teaching method should adopt the teaching scheme of role-playing. At the same time, different teachers will have different teaching methods due to personality reasons. Serious teachers' teaching methods are relatively conservative and fixed, while cheerful and lively teachers may be more suitable for activity teaching method. At present, the relevant research of educational psychology mainly focuses on the active challenges faced by students in the process of growth, learning initiative, the change of teaching methods and the design of teaching courses.