*

刘邦奇[1,2]

E434 ?

智慧Wisdom

知识Knowledge

信息Information

数据 Data

ΎΩ
X ε V̏ X ╞ Ꮾ e Ꮖ Γ
Ꮾ I . δ e
ط ي ε └ ὦ(j`o-lh>163.amk)

—Taking Smart Classroom as an Example

Liu Bangqi[1,2]

(1.iFLYTEK Educational Technology Institute, Hefei 230088, Anhui; 2.College of Educational Technology, Northwest Normal University, Lanzhou 730071, Gansu)

Abstract: The cultivation of diverse and innovative talents in the smart era urgently needs to accelerate the development of personalized and suitable education for everyone. The deepening application of intelligent technologies such as artificial intelligence and big data in education and teaching has provided important opportunities for the implementation of "teaching in accordance with aptitude". "Teaching students according to their aptitude" in the intelligent era has rich new connotations. Establishing the teaching mode of "teaching in accordance with aptitude" has both theoretical and practical value, as well as scientificity and feasibility. The elements of the teaching model according to the aptitude include learners, teaching activities (including the three components of content, process and environment), the three major elements of the educational outcome, and the three levels of "teaching according to the aptitude", "teaching" and "development" Correspondingly. Intelligent technology provides technical support for the implementation of "teaching in accordance with aptitude", and smart classrooms are the current important implementation path. The teaching framework structure of "teaching according to aptitude" based on smart classroom is composed of platform layer, data layer, organization layer, operation layer and target layer, and its operation procedure is the "new three paragraphs and ten steps" teaching process supported by intelligent technology.

Keywords: intelligent technology; teaching in accordance with aptitude; smart class; teaching mode

Zhang Qi[1], Li Fuhua[1], Sun Jinan[2]

(1.College of Education, Huaibei Normal University, Huaibei 235000, Anhui; 2.National Engineering Research Center for Software Engineering, Peking University, Beijing 100871)

Abstract: The research, applying cross-data sources to analyze learning processes, has become an important part in the evolution of educational technology. Based on the understanding of the nature of multi-modal learning analytics, an iceberg metaphor analytic model is constructed. This framework uses a circular flow to characterize the process of multi-modal learning analytics. The process starts from the input space covering the learning behavior and assign labels to raw data in data space. Then, it performs space-time matching to align the data in the synchronization space and the structure of the "digital-inference" area is realized in the fusion space. In the end, the feedback output and goals of the guidance and intervention to learning behavior are achieved. Research on multi-modal learning analytics needs to continue to strengthen the construction of complex computing models, establishing academic research communities and open source biological databases, expanding current interoperability standards, strengthening modal complementary research for common learning, and embeds ethical values and guidelines in the framework of the design in order to support the establishment of computational education and the innovation of the next generation of Internet education.

Keywords: multimodality; learning analytics; computational education; data mapping; framework design