The Design of Aerobics Course Theory Examination Question Database Management System

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Abstract. In order to solve the problems of the different scoring standards and low paper validity in the evaluation of aerobics course theoretical knowledge, this paper, combined with the specialty characteristics of aerobics course, proposes the construction of aerobics course theory examination question database management system by adopting SQL Server2000 and Visual Basic 6.0. This system includes five function modules: examination paper generation, examination paper output, examination question database editing, examination question database output and system maintenance, and it realizes the functions such as the batch input of examination questions, the random selection of examination questions and the automatic examination paper generation. Meanwhile, the paper also makes an analysis of the design basis and the treatment of key technical problems of the examination question database management system. This system is simple and practical, with strong expandability, and it improves teachers' working efficiency, improves the quality of teaching evaluation, has important application significance in reducing education investment cost and reusing test question resources, etc.

Keywords: examination question database management system, SQL Server2000, Visual Basic 6.0, aerobics course.

1 Introduction

Examination is an important link in teaching process of aerobic course, which is an important part of college physical education curriculum. In order to make the course evaluation more reasonable, technology practice evaluation and theoretical knowledge evaluation should be carried out according to the course characteristics, but the current questions choosing method of theoretical knowledge evaluation has the problems such as different paper level, different evaluation standard and low stable validity, etc., and this traditional questions choosing method is mainly based on the examiners' experience or subjective judgment, which can not reflect the requirements of course

and the examinees' level correctly. In order to improve the examination level and make the reliability, validity, degree of difficulty, differentiation, question type, question amount and coverage of the theory paper reach the requirements of teaching plan and examination syllabus, aerobics theory examination question database must be set up to carry out standardized examination. For this aim, this study tries to design and develop aerobics theory examination question database by adopting SQL Server2000 and Visual Basic 6.0 to improve the quality of aerobics theoretical knowledge examination.

2   The Construction Basis of Examination Question Database

2.1   Decomposing Teaching Goal

The syllabus stipulates the education goal and teaching contents, so constructing examination question database must base on aerobics course syllabus. First, distinguish grade of contents, that is, find out which contents are for general understanding, which contents are for comprehension, which contents are for mastering and application; which should be analyzed, integrated and the knowledge system should be restructured; which could help form the ability of solving practical problems by exercises and practice. Second, make clear connotation grade of the teaching contents, that is, which are basic knowledge, which are important contents, which are for general understanding or for research and discussion, etc.. Decomposing course teaching contents and teaching goal to layers and listing the knowledge units and competence units for mastering are very important. [1]

2.2   Screening Questions and Standardizing Question Types

The examination type is only a form, and the question type is related to the characteristics of the course contents, therefore, the questions should cover all contents and emphasize the key contents to test whether students have complete basic knowledge or have the ability of solving practical problems. Meanwhile, to standardize the paper, the questions should be classified into five types including blank filling, true or false statements, multiple choices, questions with simple answers and questions for argumentation. [2]

2.3   Determining the Weights of Knowledge Units and Competence Units

Determine the percentage of different knowledge units and competence units in the examination questions and the weights of their scoring according to their different position and role in the overall teaching goal, then build up quantity concept of examination keys and make the keys and their distribution not or less influenced by human factors.