Compilation and Application of Microcomputer Physical Education Class Scoring System

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Abstract. Nowadays, computer technology has been applied to all walks of life. Therefore, colleges and universities have set up computer-related courses for students. This paper mainly introduces the functional information of the physical education scoring system.

Keywords: Database, Database Management System, Physical Education Scoring System

1. Introduction

In recent years, microcomputer technology has been gradually applied in the management of physical education in colleges and universities. It is deeply welcomed and accepted by the majority of physical education teachers. The most important form of physical education is physical courses. This paper has designed a microcomputer automatic scoring system for its wide-ranging and large-volume management work [1].

2. Function introduction

2.1. Create a class

The establishment of classes in the computer is based on the class as a unit to establish a database. The specific process is shown in Figure 1. First, give a name to the class that needs to build the database, enter it into the computer through the keyboard, and then answer the structure content of the database file according to the database building requirements of the DBase database management system, that is, the column name, type and width of each column. For the data, the column also needs to indicate the number of decimal places. The parameters of these columns are given according to their needs [2]. The following is an example of the assessment parameters of a basketball special course in a school, as shown in Table 1.
Figure 1. The flow chart of creating a class

Table 1. The parameters of each column of the basketball special course assessment

| Field name                          | Types                     | Width | Decimal |
|-------------------------------------|---------------------------|-------|---------|
| 1                                   | Student ID                | Character/body | 8      |
| 2                                   | Name                      | Character/body | 8      |
| 3                                   | Halftime goal             | Character/body | 8      |
| 4                                   | Halftime Running Basketball Skills Evaluation | Digital | 2      |
| 5                                   | Halftime basket score     | Digital | 2      |
| 6                                   | Half-time running basket  | Digital | 2      |
| 7                                   | Halftime basket time      | Digital | 2      |
| 8                                   | Full court running basketball skills evaluation | Digital | 2      |
| 9                                   | Full court scoring        | Digital | 2      |
| 10                                  | Full court running baskets| Digital | 2      |
| 11                                  | Quality score             | Digital | 4      |
| 12                                  | Total score               | Digital | 4      |
2.2. Enter grades

For each class that has been built, the test results can be entered at any time. If you want to enter the results for a class, you only need to type in the code of the class to automatically enter the result database of the class. After the input is completed, the computer will ask whether to send it to other classes. If necessary, you can enter the class code of the grade again to repeat it; if not, you can return to the main menu after asking a question [3]. The specific process is shown in Figure 2.

![Flow chart of entering grades](image)

**Figure 2.** Flow chart of entering grades

There are two types of score input. One is to transfer all scores of a student to the next student until the end. The other is to transfer all the results of a certain test item of the whole class and then transfer the results of another item. The two forms can be arbitrarily selected according to needs.

2.3. Modify the structure

For classes that have established a database, if there is a special situation in the teaching process that is forced to change the test items due to factors such as weather, venue or equipment, you can use this function to modify the columns of the database to meet the needs of the teaching test. The modified structure flow chart is shown in Figure 3 [4,5].
2.4. Calculating grades

After all the test scores of a class have been entered, the calculation can be carried out. The scores of each individual item and the proportion of each individual item in the total score are calculated according to the proportion of points and the total score of all individual items added together, all automatically completed by the computer. The specific process is shown in Figure 4 [6].

2.5. Print all data
This function is designed to save the original data of the test in writing. All the test data of each student in the study and assessment process can be printed out in detail through this function, which significantly improves work efficiency and saves teachers a lot of copying time [7]. The specific process is shown in Figure 5.

![Flow chart of printing grades](image)

**Figure 5.** Flow chart of printing grades

2.6. *Copy to "*TXY"

This function is mainly to solve the problem of data sharing between two languages. This function provides an interface between Dbase language and BASIC language. Because the printing of the physical education report format is more complicated, considering that the database and the high-level language have their own characteristics, the BASIC language is used to realize the printing of the report [8]. After processing through this function, the program written in BASIC language can easily read the total score of each student calculated by Dbase, and then control the printer to print out the score report. The specific process is shown in Figure 6.
2.7. **Print report**

This function is specially designed for printing and reporting the Tilun course transcripts to the Office of Academic Affairs.

3. **System introduction**

This system adopts Dbase relational database language and BASIC language to compile. The main composition can be divided into three major parts.

3.1. **Rescue the database part**

It is established by the teaching class as a unit, and its structure can be arbitrarily defined and explained according to the actual content of the teaching. The number of databases is only limited by the capacity of the disk space.

3.2. **Scoring section**

It is an independent scoring program based on the evaluation methods of each learning item stipulated in the syllabus, and is called for actual use. For example, there are currently different scoring procedures for basketball, volleyball, and rhythmic gymnastics.

3.3. **Report section**

This part is written in BASIC language. The purpose of switching to BASIC language is to try to make the printed report format consistent with the original report format as much as possible [9,10].

4. **Conclusion**
In the practice of our teaching, computer physical education class scores automatic scoring system improves the efficiency of score management work. It not only meets our teaching syllabus, but also meets the requirements of the Academic Affairs Office for physical education performance management.

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