

Integrated Appraisal Management System for PE Undergraduates of General Universities

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Received 1 May 2011; accepted 5 July 2011

Abstract

Integrated appraisal management system concerning undergraduates involves, based on systematic principles, via the computer technology, making statistical analysis of the database information about students according to the set standard, and then obtaining overall appraisal scores of each individual, displaying them with charts and report forms as well. The overall appraisal scores serve as the grounds of assessing undergraduates' qualities. The advantages of the system are obvious: enormously saving time, labor and financial resources traditionally used for undergraduates' appraisal and management, and improving working efficiency accordingly.

Key words: Higher education management; Integrated appraisal; Information system

ZHU Yuhui (2011). Integrated Appraisal Management System for PE Undergraduates of General Universities. *Management Science and Engineering*, 5(3), 165-168. Available from: URL: <http://www.cscanada.net/index.php/mse/article/view/j.mse.1913035X20110503.330>
DOI: <http://dx.doi.org/10.3968/j.mse.1913035X20110503.330>

INTRODUCTION

It is acknowledged that universities and colleges are the source of persons of abilities. Appraisal and management of undergraduates (so-called would-be-talents) at universities and colleges become increasingly important and challenging. Take a panoramic view of the current situation, however, we may find problems in evaluating students at most universities and colleges

of China. First, the current undergraduates' appraisal and management mode is achievements-centered, namely, evaluating students mainly in terms of their examination results, which fails to judge an individual comprehensively. In addition, computers are only used for storage of undergraduates' basic information as their family and education background, academic records, etc., although computers are being used in quantized management. Besides, current appraisal and management mode is designed, without exception, for all in-school undergraduates, regardless of their different special fields of study. The single-moded inflexible appraisal and management, therefore, is outdated in that the society demands all-round developed specialized graduates and therefore, such features as moral characters, class performances, activity participation have become indispensable elements in evaluating an all-round developed individual. Accordingly, in-school undergraduates, faculty and management call for appraisal and management with a more flexible and efficient, integrated and systematic mode.

The fruit of the project expects to serve undergraduates, in particular PE students. It also expects to promote higher education management by providing a distinct, convenient and overall information system for appraisal, reference, and inquiry. Another expected objective to attain is to serve more different disciplines besides PE undergraduates. The project system can be potentially applied to different academic disciplines management by making proper adjustments and linking, integrating the original management system.

1. SYSTEM SUBSTANCE

Integrated PE undergraduates' appraisal and management system involves collection of in-school undergraduates' information about academic records, scores on physical training, quantized moral development and activity

participation, and information data analysis in terms of a set appraisal standard (appraisal equation), and obtainment of appraisal results for reference and inquiry.

2. TECHNOLOGY SUPPORT

Technologically, the project employs Visual Basic 6.0 programming software and Access database, their interconnection being achieved via internet, data circulation between Access database and SQL database via API interface and relevant codes.

3. System Structure Design

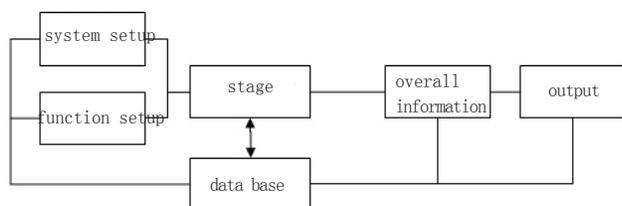


Figure 1
System Structure

As **Figure 1** illustrates, the system consists of two component parts: one being the displayed system, namely, visual system interface, the other being database. The interaction between the two parts is conducted as follows: 1) set up appropriate information in the displayed system, and in the same setup input correct information into the database; 2) database statistically analyze relevant information, transmit analysis results back to the system, obtain overall information for reference and inquiry, and then output the overall information according to a given format. Information is input into the database in the displayed system based on different functions and then the former transmits data information, after analysis, back to the latter. Intrinsicly interdependent, the two component parts combine into an integrated system.

3.1 Displayed System

Figure 2 presents visual system interface concerning information setup such as information input, inquiry options and information examination.



Figure 2
System Interface

3.1.1 System Setup

System setup relates to three aspects: password modification, authority setup, user information management (refer to **Figure 3**). Authority setup deals with three levels: super managerial staff, information input staff, general users for inquiry.

Super managerial staff are mainly principal management, such as school leaders or counselors, whose authority includes not only system setup, function setup, but examination and verification of input information before being saved into the database.

Information input staff mostly by Students' Union members or counselor assistants, they are responsible for information input. As the input information is first kept in a temporary data table, until after examination can it enter into the database. If incorrect information is verified, for example, it's the input staff's responsibility to return to modify before storing it into the database.

General users' authority is to inquire information, no competence of making modification. Besides, general users' authority is to make inquiry of nothing but information of related individuals or class concerned, rather than access to overall information.

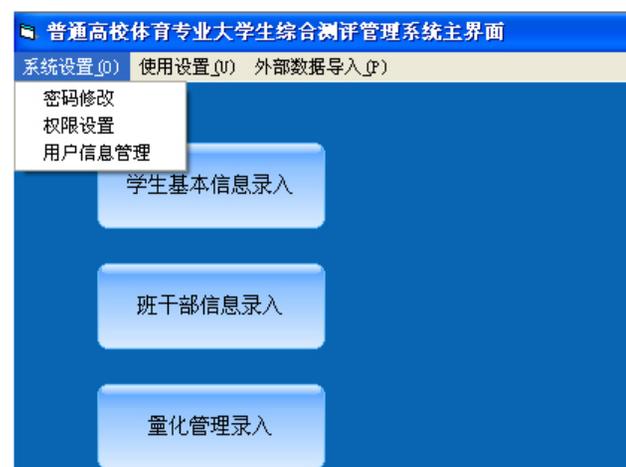


Figure 3
System Setup Interface

3.1.2 Function Setup

Function setup includes subject management and items addition (refer to **Figure 4**). Physical training management, as mentioned above, can be displayed in addition item. Managerial staff can add particular substance according to physical training requirements, such as sports games and matches of various kinds. Based on input data, diagrams of curves are presented, from which we can see clearly match results at a glance.

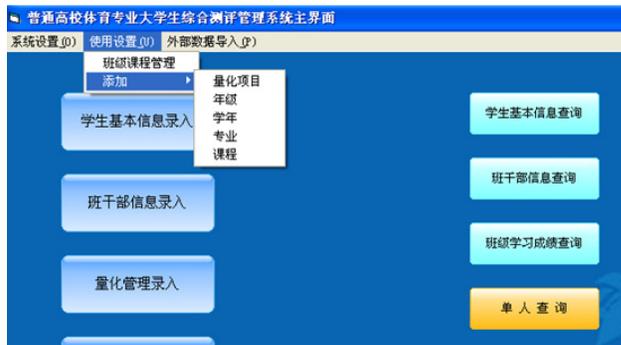


Figure 4
 Function Setup Interface

3.1.3 Information Input

Information input includes basic information input, class cadres' information input, examination results information input, and information input of quantized activities, quantized physical training, quantized class attendance, etc. All the possible information, direct and indirect, should be input into the database so as to form sufficient materials for overall and objective appraisal. **Figure 5** indicates quantized activity input interface, in which we can see such information as, for example, activity *football*, match result *Top 1*, quantized score 5.



Figure 5
 Quantized Activity Input Interface

3.1.4 Inquiry

Inquiry setup prepares options for users to choose. Related to different functions, two means of inquiry are available: basic information inquiry, scores information inquiry, the latter being subdivided into individual inquiry, class inquiry, inquiry based on time span and items. **Figure 6** illustrates in more details, time span inquiry.



Figure 6
 Time Span Inquiry

3.1.5 Output and Print

Diagrams and report forms can be output, saved or printed on required formats.

3.2 Database

As the system is designed for in-school undergraduates, all the information about graduates can be achieved and saved as files upon graduation. Access database boasts efficient space for backstage support.

Database includes information storage and computation. The first step is to set up a database according to system requirements, and keep a storage of data; the second step to make data analysis in terms of set overall appraisal equation and obtain information for further appraisal and management.

4. SYSTEM FEATURES

(1) By integration of Visual Basic 6.0 programming software and Access database, with the possibly simplest programming language, easy-to-use application software is developed, which expects to serve higher education management.

(2) As undergraduates' achievements data are connected with the school database, staff concerned get access to students' examination results, which avoid repetitive input of the results, and accordingly cut down error occurrence.

(3) The input information tends to be reliable and authentic with the examination and verification, which would decrease the chances of practicing fraud.

(4) Appraisal standards are flexible and can be set in terms of preferences.

(5) In addition to PE undergraduates, the system can be applied to more other academic disciplines, which would encourage co-working with the school management system.

(6) Diagrams of curves illustrate analysis results more directly.

5. FUNCTION FEATURES

5.1 Storage Function

With the function of keeping an enormous storage of information, the system considerably decreases the manual workload, and aids further storage and reference.

5.2 Inquiry Function

For different inquiry purposes, database information can be integrated and output based on different conditions.

5.3 Computation Function

Another powerful function of computers is computation. All the computation work is conducted by a computer,

which would cut down on the workload of counselors, Students' Union members, and thus chances of making errors become slim. The computation function helps saving time, energy and financial resources.

5.4 Reference Function

Transparent analysis results, distinct charts and report forms function as convincing and convenient reference for scholarship-granting or awards-giving.

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