

The Core Competence Construction of Primary and Middle School Sports Skills Based on Decision Support System

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Objectives: With the continuous development of sports, the current learning of motor skills in primary and secondary school students has become universal, so the research on the core literacy learning evaluation of primary and secondary school sports skills based on decision support system is established. **Methods:** According to the computer aided skills learning in sports, the model is established. **Results:**By adding the decision support system to the virtual reality motion model, the problems existing in the skills learning of primary and secondary school students are further studied, thus providing a better learning method.**Conclusion:** In the test for computing decision support technology, the test time and accuracy test for the model shows that proficient mastery of motor skills has a prominent role in improving core literacy.

Keywords:core literacy; decision support; motor skills; learning evaluation

Tob Regul Sci.™ 2021;7(5-2):4656-4664

DOI: doi.org/10.18001/TRS.7.5.2.30

Today's sports have been loved by the world's people, more and more people are engaged in sports and sports must have a complete skill learning process¹. Only after a complete skill study can people enjoy the joy and skill of playing sports. People used to learn the skills of sports through their own skills learning². At that time, this skill learning method could not meet the development of the current sports industry. Therefore, under the current computer virtualization technology, the work of learning the sports skills based on the core literacy of the decision support system through the virtual human movement is born³. Motion capture is a must for the process of using computer virtualization to simulate human motion. In order to more realistically simulate the virtual animation of human beings based on the core

literacy of decision support systems, a virtual reality motion hybrid decision support system can be used⁴. In the core literacy skills learning based on the decision support system, most of the roles are required for motion detection and the existing resistance is even greater. Therefore, based on the core literacy of the decision support system, to improve the action adoption process in the sports skill learning, changing the environment, errors that can be caused by motion acquisition, using computer technology for motion settings⁵.

The concept of core literacy originated in the US Department of Education in 1997. The United States keenly grasped the beginning of the information age, proposing the concept of core literacy to cope with the upcoming information age change⁶. The main idea of core literacy is the reform of the form of education. According to the

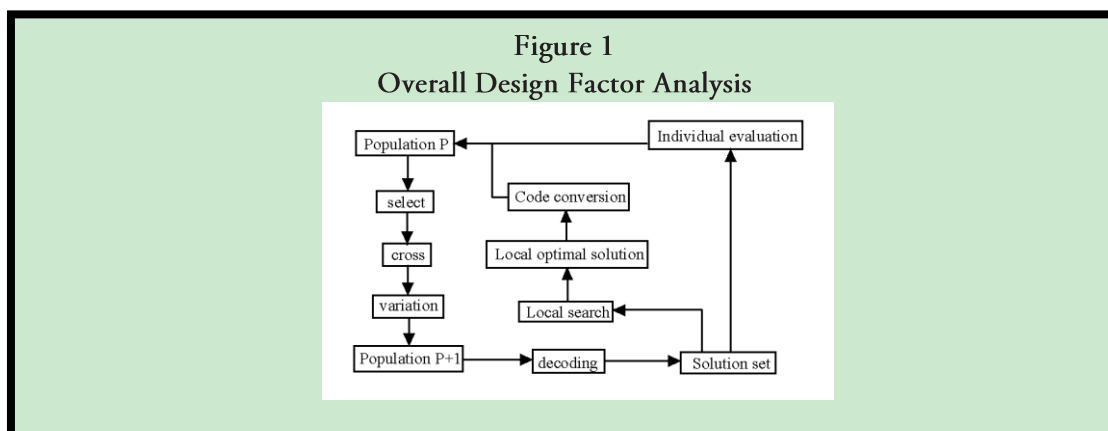
concept put forward by the United States, core literacy is not solely to change students' learning ability, but to apply the new technology of the information age to cultivate students' own abilities which is not only the ability to learn, but more importantly, a cross-disciplinary ability to teach students in accordance with their own autonomy⁷. Primary and secondary school sports skills learning, due to the students' own situation, a one-size-fits-all training may lead to deviations in teaching effectiveness, problems like that can be avoided by cultivating the concept of core literacy⁸. Therefore, China is currently vigorously developing the core literacy concept and combining the Chinese characteristics, the theme that China is now facing, with the core literacy training concept of socialism⁹. In addition, for the test of the core literacy training, some scholars in China have proposed using the decision support system for calculation and analysis but there is still no clear result¹⁰. The calculation of decision support system is well developed in China and the computational decision support system in many fields has shown strong computing power.

METHODS

Construction of Sports Skill Recognition Evaluation Model for Primary and Secondary Schools

In order to construct the corresponding sports skill learning evaluation model based on the core literacy of decision support system, the design of the whole technical route of the design is firstly planned. Therefore, we first consider the mutual evaluation system between students and teachers.

Students begin to determine their own direction, determine their own sports intentions according to their personal preferences, of course, this intention should also take into account the teacher's professional guidance. After the completion of the overall intention control, students must have a certain understanding of the course of their choice. In the traditional platform, they can only make a simple introduction based on the course selected by the students and cannot provide accurate guidance. Based on the theory of cloud, the model contains a large amount of database data which is included in the online search and the entire learning method. The database can be transmitted to students in time, so that students can establish relevant knowledge before physical education. According to the intention of students' sports skills learning based on the core literacy of decision support system, the corresponding teaching plans are formulated. After the teaching plan is released, the model has corresponding self-improvement and evaluation mechanism which is evaluated according to the provided teaching plan. In order to be more humanized, the evaluation system is added to the teacher-related link and the teacher and the cloud theory work together. Next, the final more comprehensive overall sports program is produced. Finally, the overall evaluation system is added in each link, so that all the links of the whole model are adjusted by me through the evaluation mechanism. The initial construction of the entire model is shown in Figure 1, covering the relationship between students, teachers and models. With this reasonable relationship, humanized management can be implemented more effectively.



A rationalized model, only forward transmission is not enough, to make some planning for the hard construction of the entire model is necessary. The whole evaluation model contains a high intelligent system, so the traditional form of model configuration is difficult to achieve the model evaluation indicators. The first is to provide a solution, because to conduct a large-scale search of the database and can only exclude calculations, so configure a high-performance data processing structure. The amount of college students is large, using rationalized model, so they provide

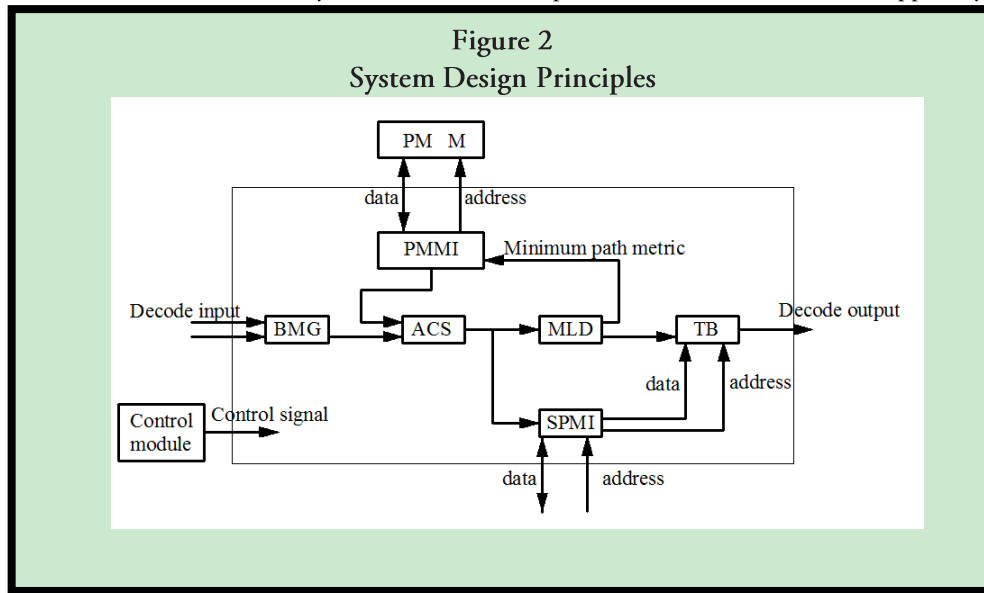
large memory and hard drives. Finally, the configuration of the hardware related to other parts of the model is shown in the following Table 1: The entire configuration is highly optimized. On the basis of ensuring smoothness and stability, the necessary security model is added to allow cloud theory and intelligent processing. The model looks more than comfortable. Of course, the configuration of the model is not a blind stack, but a good and stable operation as the goal, considering the user's base is large, blind high performance is also not desirable.

Table1
Computer Aided Architectural Design Hardware

Project	Model selection	Performanceconfiguration
CPU selection	Three level cache	High performance
Memory selection	DDR333	Mediumperformance
Hard disk selection	SSHD	Mediumperformance

After the basic ideas and hardware need to meet the corresponding requirements, a principled investigation of the entire model is also required. As shown in Figure 2 below, considering the practicality of the sports skill

learning evaluation model based on the core literacy of decision support systems, the whole principle is considered in five parts, as shown in the following figure:



Skill Learning Evaluation Model Based on Decision Support System

Under the association, the following algorithm model is constructed. In order to ensure the accuracy of the results, to reduce the risk in the application of the entire algorithm is necessary. Therefore, using a corresponding probability calculation, the assumption is that after inputting the corresponding training model, an optimized result is obtained. The formula model used is as follows:

$$(X_i, Y_i), i = 1, 2, \dots, n, X_i \in R^m, Y_i \in Y \quad (1)$$

Using the formula, you can get the minimum of the expected risk and minimize the error.

$$R(\omega) = \int L(Y, F(X, \omega)) dF(X, Y) \quad (2)$$

Using the formula i makes the corresponding prediction function, where $F(X, \omega)$ represents the set of prediction numbers. Using these data to establish the corresponding functional relationship, the corresponding difference sequence is gotten. If encountering the corresponding classification problem, the method of the aggregate function can be taken, assuming that Y is between the regions $(-1, 1)$, the loss function is as follows:

$$L(Y, F(X, \omega)) = \begin{cases} +1, Y = F(X, \omega) \\ -1, Y \neq F(X, \omega) \end{cases} \quad (3)$$

The probability of the output between the hypothetical analysis model S and the detection

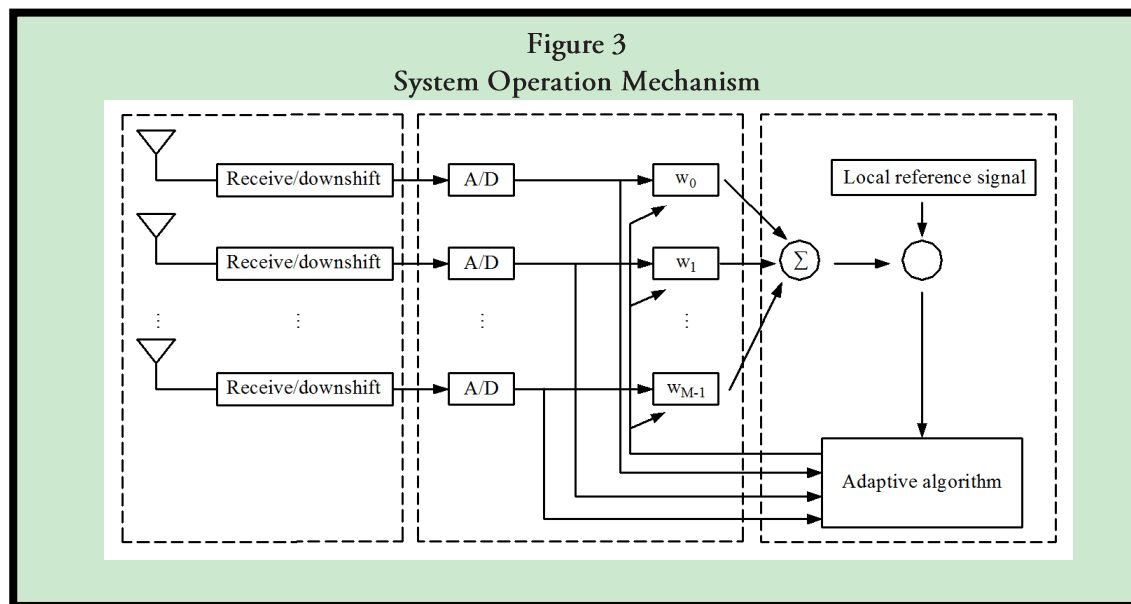
model ST after the entire predicted risk value and the corresponding loss function is determined. Finally, based on the series of risk values obtained, the corresponding joint probability calculation is calculated. From equation (3.2), the joint probability is calculated and the expected risk can be minimized. Since the joint probability is unknown, there is no way to directly calculate the minimum of R . However, using the large number theorem, based on the known set of test samples, the arithmetic mean $R_{(emp)}(\omega)$ can be used:

$$R_{emp}(\omega) = \frac{1}{n} \sum_{i=1}^n L(Y_i, f(X_i, \omega)) \quad (4)$$

The entry of information includes the overall entry of different sports skills learning methods based on the core literacy of decision support systems. In the classification of information, because students have different choices, different classifications are made for different choices of students in order to facilitate better classification. In the processing stage of entering the information, the classified information is simply summarized. For example, the student's input information is presented in a simple score value. Finally, the evaluation part of the data is also the most critical part which is the evaluation system of the whole model. The evaluation system is a comprehensive consideration, so the overall consideration mechanism has been added to the

evaluation of the entire model. In order to establish a corresponding feedback system, the evaluation of the whole model is further fed back into the information input. When the evaluation

fails or does not meet the corresponding standards, the whole information is adjusted and the feedback can be better adjusted.



The main purpose of the evaluation model is not to make a simple evaluation of the students and the second is to use this evaluation model to play a guiding role in the students' normal sports activities. Secondly, in order to better meet the needs of modern quality skills learning. Making targeted changes to the entire sports skills learning, based on the core literacy of decision support systems, is necessary. The traditional model evaluation system is difficult to target every student, so the original intention of designing this model is for students. Students are both the starting point for information input and the end of information output. Through the continuous cycle adjustment mechanism, the model of the entire evaluation mechanism is adjusted. Of course, the humanization part of the model is based on the diversity of the evaluation system which can provide multiple evaluation systems for each user. The evaluation is divided into four levels: excellent, good, medium and poor. According to the different levels of evaluation, there are different degrees of adjustment. With the overall development of computer technology in China, the ability to

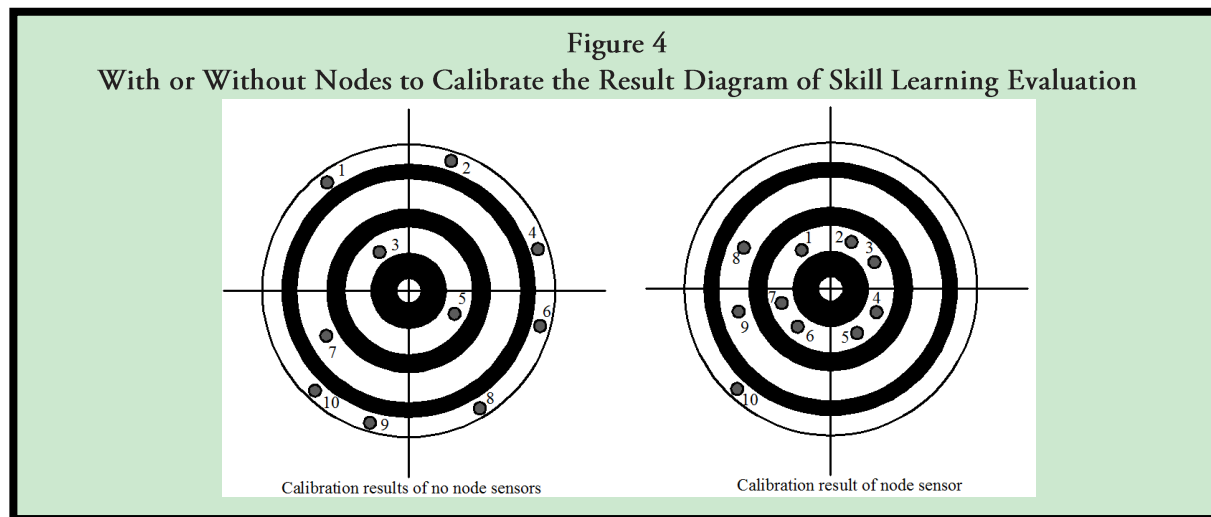
process data is not the same. Previously, the more cumbersome evaluation has gradually faded away. Through the continuous refinement of the whole model evaluation which is only necessary to control the student management part, the teacher management evaluation part and the test evaluation, etc., and the intermediate complicated steps are eliminated and the result is more precise and intelligent. The whole model provides corresponding predictive evaluations which can also be evaluated independently. The emergence of a more targeted evaluation system will greatly enrich the entire sports skill learning evaluation model based on the core literacy of decision support systems.

RESULTS

Based on the core literacy of decision support system, in the research on the evaluation of motor skills learning in primary and middle school, since all the technical action nodes based on the core literacy of decision support system in this model are computer decision support systems. The computer decision support system is directly. The collected data is not suitable for practical

application and the date needs to be calibrated and compensated to compare the changes measured by the real reaction. Therefore, the calibration of the decision support system node is first checked. Since the node control is added to

the information collection of the node, the specific test is performed for the technical action calibration evaluation of the nodeless computer and the nodeed computer. The test results are shown below:



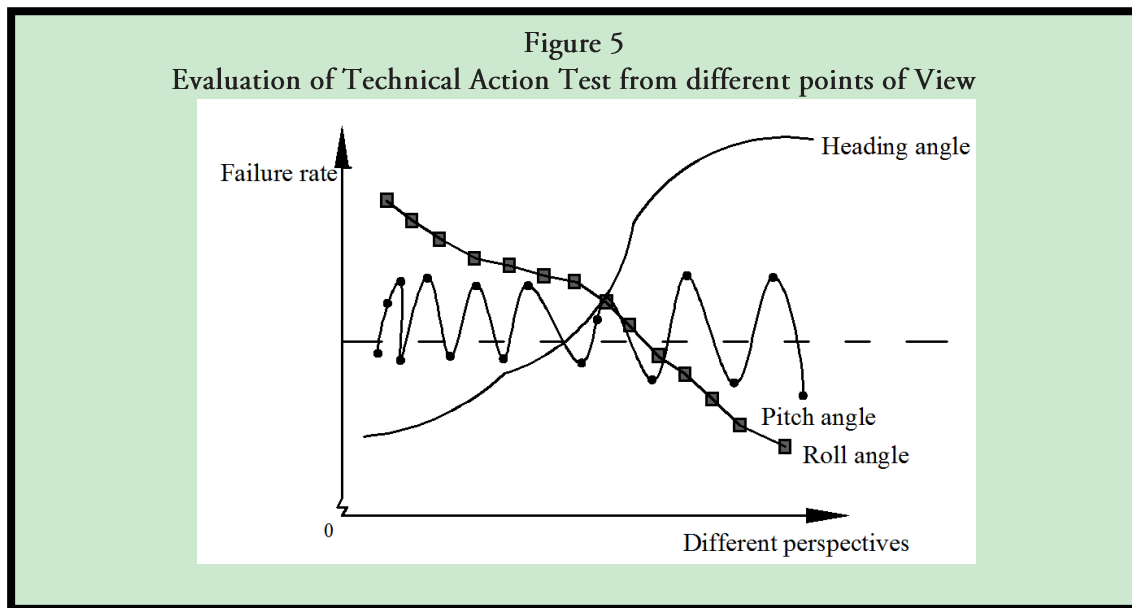
By comparison, for the evaluation of 10 technical actions based on the core literacy of decision support systems, the central area is divided into five rings and the data collected by computers without node control are mostly concentrated in the outer ring area. The coverage of the inner ring is only 20%. According to the picture above we can see that the accuracy of no node evaluation of motion is not high. Although the technical movements of primary and secondary school students can be detected, there are certain difficulties in the subsequent analysis and evaluation of motion. In the 10 times of motion detection, the result can be found that the overall evaluation calibration degree has been significantly improved and the coverage of the inner ring is 90% which fully demonstrates that after the reuse decision support system node optimizes the evaluation. The evaluation of the whole technology has become more in place and the feasibility of the model research is also illustrated. The motion evaluation of the computer that can be collected and analyzed is tested. From 10 to 50 technical actions are selected in turn and then the data analysis is used to further analyze and evaluate the technical

actions collected by the primary school students. The results are as follows: The number of recommendations is relatively stable before 40, but after the break point, the entire collection and analysis shows significant confusion. But compared to the traditional model, the efficiency is much higher than the traditional number of motion evaluations. Due to the optimization, the nodes and sequences collected by the corresponding computer are added. The scores obtained from the evaluation are shown in Table 1 below:

Table2 Data Record Test for Pe Teacher Evaluation					
Primary school data input	Algorithm considerations	Algorithm performance value	Total score of algorithm calculation	Score system value	Comprehensive assessment score
0-4	3	41.05	45.26	46.40	33
4-8	4	49.76	44.89	49.22	34
8-12	4	42.23	46.29	42.23	50
12-16	6	45.44	43.90	47.17	36
16-20	8	45.87	44.02	46.74	12

In the scheduling optimization test of the decision support system coding, according to the overall corresponding time, the dynamics of coding occurs in a certain node and the other nodes perform self-scheduling of the coding sequence, the statistical result can be clearly recognized. As the number of motion detection changes, the scheduling of the entire model becomes more flexible. The collection of evaluation information should be objective and accurate. Finally, the model makes a reasonable evaluation for each teacher and primary and middle school students. The error range is controlled within the controllable points which prove that our model is based on the core literacy of decision support system. The application of sports skill learning evaluation research in primary and secondary schools is feasible and the experiment has certain theoretical support. Finally, the action evaluation is further tested by using different angles and a comparison chart for the learning effect is obtained and the error magnitude is listed. Since the experimental data is performed by observing the debugging results printed by the serial port and the original data of the computer decision support system is a digital quantity which is constantly beating data. The attitude angle calculated by the complementary filter is constantly pulsing in a small range. The experimental data recorded here are obtained by means of averaging multiple measurements. The

model for the core literacy of learning skills applied to decision support systems is as follows:



In fact, for sports skills learning in primary and secondary schools, the traditional educational forms are generally used for more than 16 days and the educational excellence rate is only less than 20%. However, for the primary and secondary school sports skills learning based on the core literacy of decision support systems, the same amount of education in traditional education can be achieved in a week or so and the degree of education is generally higher than 65%. A census of students' opinions found that students' satisfaction with education is also different. Groups that use the core literacy of decision support systems are satisfied with this form of teaching. In addition, the model only calibrates the basic deviation of the geomagnetic computer which does not perform more advanced magnetic field distortion calibration. Through the comparison and processing of various parameters, a series of research and discussion work has been carried out on how to reduce or offset the influence of various factors on the movement. In the research and evaluation of motor skills learning evaluation based on the core literacy of decision support system, the optimization evaluation research of moving image authenticity modeling is discussed in the time domain and frequency domain respectively for the image quality aging and the film and television are accurately analyzed. The relative

positional relationship between images has made significant progress and achievements in the research on the evaluation of motor skills learning in primary and secondary schools based on the core literacy of decision support systems. However, the corresponding intelligent data processing technology is not involved in the research. In the future development, the intelligent design of the model will be gradually combined.

DISCUSSION

With the improvement of technical movement requirements in China's sports, the rational evaluation of technical movements has become the focus of discussion. Therefore, the core literacy learning evaluation of primary and secondary school sports skills based on decision support system is proposed. Through the evaluation of technical actions which is better to improve the shortcomings of action. In the research, the evaluation process of technical actions is established, mainly using the human body simulation function to achieve a comprehensive evaluation of technical actions. In the specific experimental test, the calibration degree of the primary and secondary school sports skill learning evaluation model based on the core literacy of decision support system is tested. In the 10 motion evaluations, the coverage of the entire

sensor's calibrated inner ring is 90% which fully demonstrates the evaluation and optimization of the core literacy model; the time of traditional education is generally higher than 16 days and the excellent rate of education is only less than 20%. However, the development of motor skills in primary and secondary schools based on the core literacy of decision support systems is progressing rapidly. In the research of this paper, the corresponding intelligent data processing technology is not involved. In the future development, the intelligent evaluation of the system will be gradually designed.

Human Subjects Approval Statement

This paper did not include human subjects.

Conflict of Interest Disclosure Statement

None declared.

Acknowledgements

The study was supported by the Evaluation of Sports Skill Learning Based on Core Literacy in Primary and Middle Schools: National Social Science Foundation of Pedagogy Program In General, China (Grant No. BLA170222).

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