

Standards, Alignment, and Optimization: A Study on the Reform of Specialized Basketball Teaching in Colleges and Universities Based on the Chinese Basketball Association's "Measures for the Administration of Basketball Skill Level Assessment"

Yinhua Huang*

Beibu Gulf University, Qinzhou, 535000, China

*Corresponding author: 13907878747@163.com

Abstract: The Measures for the Administration of Basketball Skill Level Assessment issued by the Chinese Basketball Association has established a standardized evaluation framework for basketball skill training but still requires further analysis regarding whether it aligns well with college and university teaching or not as well as its reference value. By analyzing the alignment situation and structural problems between level test standards and specialized basketball teaching in colleges and universities from three aspects (the organization of course content, the logic of teaching evaluation, and the implementation of stratified teaching) this paper proposes some optimization paths such as level-based reorganization of course content, standardization and process-oriented transformation of evaluation methods and establishment of a stratified teaching system. Findings indicate that the skill development sequence and process-oriented evaluation logic contained in level testing can give technical references for college and university teaching; Lack of alignment between the two in terms of the three levels of content organization logic, evaluation orientation and determination of teaching starting point are one of the reasons that limit the improvement of teaching effectiveness. We hope our research can provide theoretical support and operational frameworks for transforming specialized basketball teaching in colleges and universities from an experience-based model into a standards-referenced model.

Keywords: Basketball Skill Level Assessment; College and University Basketball; Specialized Teaching; Teaching Reform

Introduction

Standardizing and developing basketball skills through tiers is inseparable from establishing a unified, quantifiable ability evaluation system. Official Measures for the Administration of Basketball Skill Level Assessment by Chinese Basketball Association (hereinafter referred to as the CBA) that established a three-tier, twelve-level skill assessment framework for all ages standardized the content structure, evaluation standards and operating procedures of basic basketball skills. There used to be three common problems in specialized basketball teaching in colleges and universities in China: lack of a uniform reference benchmark for course content; focusing solely on summative results while neglecting the formation process of skills when evaluating courses; difficulty implementing stratified teaching due to students' vast differences in foundation. However, the logic of skill progression, quantitative evaluation method and stratified diagnostic function of level assessment are very compatible with the reform needs of college and university teaching, however, level assessment and college and university teaching still does not have an institutionalized alignment mechanism, and the teaching value of the standards has not been fully released. Herein, we will focus on the alignment relationship between level assessment standards and specialized basketball teaching in colleges and universities. Through analysis of the content structure, evaluation logic and education functions of the level system, we diagnose the alignment obstacles in course content, evaluation methods and teaching organization, and propose optimization schemes suitable for the situation of specialized basketball teaching in colleges and universities.

1. Analysis of the Basketball Skill Level Assessment Standards System

1.1 Hierarchical Division and Technical Content Structure of Level Assessment

The Basketball Skill Level Assessment Standards issued by the Chinese Basketball Association classifies basketball skills into three tiers consisting of twelve levels (Level 1 to Level 12) from low to high; beginner level consists of Levels 1-4, intermediate level consists of Levels 5-8 while advanced level consists of Levels 9-12. Beginner level means the "initiation stage" whose test difficulty is relatively lower, mostly for young people. Level 5 is the critical turning point in the whole assessment system which applicants who are ten years old or above can start applying at Level 5. The advanced level has almost reached the level of professional athletes' technical requirement, requires long-term systematic training to pass it. Courts used: Levels 1 to 4 assessments use a standard mini-basketball-sized court whilst Level 5 and above uses a standard adult basketball-sized court. Differentiated considerations on the physical development levels of participants within different age groups reflect the tiering of court specifications as well as the test difficulty^[1].

Main technical contents include: basic stance, movement, dribbling, passing, shooting, driving with the ball, individual defense, rebounding, basic cooperation and fast break; every level's assessment content has their own focus but we should note here that there is no difference in position concepts in the assessment content – the skills tested are the foundational skills that all on-court positions need to possess. Beginner emphasizes more on the assessment of basic techniques whereas intermediate and advanced levels gradually have more complex technical combinations. From individual basic movements to applying composite techniques it provides an obvious way for participants' skill progression. All technical content structures goes from simple to complex and single to combined which provides a clear stage and continuity for skill development.

1.2 Evaluation Standards and Operational Specifications of Level Assessment

Evaluation standards: There is quite a comprehensive list of quantitative indicators for each level. For all levels we have clear test items, test methods and passing standards. We propose requirements regarding the standardization of technical movements in tests; The quality of completing technical movements depends directly on test time—for Example, if a participant does not perform the movement according to the prescribed way (in a passing test at a certain level) then it will be counted as an error with its corresponding time being added to the total time. Other technical errors such as traveling or missed shots have clear rules about adding time. At the implementation level assessment implement unified assessment standards, uniform certification of examiners and a unified certificate issuance process. Evaluation method converting technical specifications into observable indicators make determining skill levels very objective and repeatable that distinguish them from traditional evaluation model based on subjective judgment.

In terms of operational specifications: There are explicit requirements on the transparency and fairness of examination process in the level test; Video recording, signing of scoring sheet confirmations, and live-streaming of some examinations were used at examination sites to standardize the operation of the assessment process; All assessors need to have corresponding professional qualification and master assessment standards and procedures through uniform training; A make-up test mechanism was established in specific operations that allow people who failed to retake the test within a prescribed time; From registration to testing and finally certificate issuance, it is all conducted via an online platform designated by the Chinese Basketball Association. Through standardized design of operational processes, the seriousness and authority of level assessment will be ensured with institutional guarantee for its wide promotion.

1.3 Design Philosophy and Positioning of Educational Functions of Level Assessment

In terms of design, the essence of level assessment rests on a simple principle based upon the laws of skill development: In designing the assessment standards we took into consideration the characteristics of adolescents' physical and mental development and general laws of skill acquisition that corresponded to the age characteristics and physical development levels of participants; those under ten years old should start at Level 1 and be tested level by level but those who are over ten can apply starting at Level 5. Such an admission design connecting age with level respects the difference between physical development within participants of different age groups without causing the problem of skill assessment detached from actual ability levels. As regards design, the level test does not aim at

selection/elimination or it gives participants objective references for their skills and staged goals^[2].

Positioning of educational functions of level assessment can be found from three aspects: Firstly, emphasizing standardization of basic skills training so as to help participants form correct technical movement pattern during their basic skills training; Secondly, focusing on functional orientation of promoting training through assessment rather than just testing the result of training (using a standardized system guiding training towards its scientific and standardized development); Thirdly, providing a quantified reference basis for clubs, schools and other institutions to choose basketball talents. The design that embedding evaluation into training process makes level test not only a screening tool but also have many educational value of diagnosis, feedback and guidance. Functional orientations embodied by level test provides referable ideas for reforming course content organization and evaluation methods in specialized basketball teaching in colleges and universities.

2. Analysis of the Alignment Between Level Assessment Standards and Specialized Teaching in Colleges and Universities

2.1 Misalignment Between the Skill Development Sequence and Course Content Organization

Skill development sequence by level assessment corresponds to the increasing levels of difficulty of technical movements and their combination: from individual basic movements (basic stance, movement, stationary dribbling) to composite techniques like moving dribbling, crossover dribbling in front of the body, laying up in various ways at an intermediate level; requiring completion of a series of technical combinations including speed and confrontation at an advanced level. Content design of each level uses those techniques mastered on the previous level, having different cumulative and tiered features. This sequence of skills' development complies with the intrinsic laws of basketball skill acquisition – stability of basic movements is the prerequisite for forming advanced techniques.

Content organization: Specialized basketball courses at colleges and universities have always classified the teaching content according to discipline's knowledge classification which divides the teaching content into technical classification modules based upon the cognitive framework of the sport of basketball. Content organizes itself through technical classification modules which are mostly independent from each other. In a module, the order follows knowledge logic instead of skill acquisition progressive relationship. For example beginner courses will teach students about the basic movement structure of stationary shooting while intermediate courses might change over to learning moving shooting however there is no close technical connection between them. Level test focuses on standard progression of the same technique across different levels but college and university courses shows different technical types in parallel. Different content organization logics makes it hard for the skill development sequence established by students via level tests in the basic education stage to find its continuous arrangement in course content when entering colleges and universities^[3].

2.2 Shift in Teaching Objectives Caused by Differences in Evaluation Logic

Evaluation Logic Level Assessment: Qualitative Observation Standardization Technical Movements; Clear Operating Rules Set Up To Complete Each Technical Movement In Tests, Assessors Judge Technical Standardization By Unified Standards, Fully Evaluate Levels Using Quantifiable Indicators (Time Taken Or Number Of Errors), Emphasis on Quality Formation of Technical Movements And Standardization Execution Processes Rather Than Only Completion Result; Evaluation Logic Has Process Skill Acquisition Within Its Scope, Requires Attention to Every Detail Of All Technical Segments For Participants; Participants Will Focus Their Attention To The Quality Of Formation Of Technical Movements While Training Ensuring Consistency Between Learning Objectives And Evaluation Objectives.

Evaluation systems of specialized basketball teaching in colleges and universities differ greatly from level test in their logic. At present, basketball course assessment in colleges and universities is primarily based on summative evaluation; most assessment contents are completed results of some technical movements (the number of successful stationary shots and time for dribbling layups) judged according to the final performance data. Standardization of technical movements has mentions in scoring standards but it occupies little weight. Result oriented evaluation logic leads to student's focus in learning on achieving assessment indicators instead of forming technical movement. Teaching objectives change: teachers' course design focuses on organizing training for assessment items while students' learning behavior involves repeatedly practicing for assessment content. With changing

evaluation logic from process standardization to result achievement, teaching objectives shift from skill formation to score acquisition causing a structural deviation from the teaching objective orientation implied by the level test.^[4]

2.3 Lack of Basis for Determining the Teaching Starting Point and Implementing Stratified Teaching

The first practical problem for specialized basketball teaching in colleges and universities is the difference among students' skills foundation. A great variance exists between the basketball training background of incoming students: some students were trained systematically in secondary school and took part in level tests, others have only played at amateur hobby level, but there are few that have never been taught about basketball. It has existed since the very beginning of this course yet we don't have any effective tool at the initial stage of the course to accurately judge every student's actual skill level. Most commonly used entrance skill diagnostic methods applied by colleges and universities today are mostly based on teacher observation or simple test, with inconsistent and objective determination standard, which will be hard to truly reflect where they are situated in terms of stage of skill development.

This level test's twelve-level skill assessment system could become a reference standard to determine skill levels (based on standardized testing) that determines where we belong according to our skill tiers rather objectively. How does it apply in current college and university teaching scenarios? Most colleges and universities don't use the level test as a tool for skill diagnosis at the start of courses. Facing heterogeneous groups' skills, they can only take uniform teaching contents and progression. High-skill-level people will encounter difficulty getting enough advanced training in the course; low-skilled students may experience difficulty keeping up with the progress. Stratified teaching is an effective way to deal with student differences but has obstacles from the implementation level due to lack of a reliable basis to determine the starting point. The gap exists between the standardized assessment function of the level test and the need in college and university teaching to determine the teaching starting point at the application level.

3. Optimization Pathways for Specialized Basketball Teaching in Colleges and Universities Based on Level Assessment Standards

3.1 Level-Based Reorganization and Modular Design of Course Content

Specialized basketball courses offered by colleges and universities are also categorized at various levels according to the twelve-level progression logic of level assessment; vertically we can classify the course content into three ability stages that correspond to the beginner, intermediate and advanced level range for level tests. For Stage one covering Level 1-4, the main teaching content is focused on standardizing individual basic movement (basic stance, stationary dribbling, stationary passing, and stationary shooting); for Stage two covering Level 5-8, the teaching content includes technical combinations like moving dribbling, crossover dribbling in front of the body, jump-stop shooting and layups in multiple ways; for Stage three covering Level 9-12, the teaching content focuses on the complex application of techniques integrating speed and confrontation. Vertical organization maintains consistency with the difficulty gradient of course content and the natural process of acquiring skills^[5].

Horizontally: The course content is divided into several relatively independent teaching modules with a certain range of skills levels. What are the technical objectives that need to be achieved at this level? Training contents and evaluation standards will be included within a module which are linked by increasingly higher technical difficulty. For example, for the beginner module, we focus on standardization of the movement structure of stationary shooting; for the intermediate module focusing on the fluency of transition in moving shooting and for the advanced module focusing on shooting stability under defensive conditions. Reorganized according to level and modular design makes the course content have both systematics as well as flexibility.

3.2 Standardized Transformation and Process-Oriented Reconstruction of Teaching Evaluation

Optimization of the teaching evaluation may employ the evaluation logic of level assessment to realize the transformation in two directions: one is the standardized transformation of evaluation standards (refine evaluation standards from general description of technical completion to quantified

indicators at an operational level) e.g., evaluate shooting technique by breaking it up into observable segments such as hand placement on the ball, force generation sequence, release angle, and follow-through with clear standardization requirements and scores weights; other technical categories such as dribbling and passing also have this kind of indicator refinement so that the scoring will be more objective and give teachers a better basis for judging students' technical levels.

Secondly, reconstructing evaluation methods in processes (embedding evaluation in every stage of course progression) instead of evaluating only through the final examination. Implementation is as follows: unit achievement tests, i.e., carry out staged skill tests after each teaching module; Technical portfolio records, i.e., set up a technical development portfolio for each student recording evaluation results at each stage; Feedback mechanism, i.e., give specific technical improvement suggestions based on test results. Through the implementation of process-oriented evaluation, we can continuously provide feedback information for students throughout the course so that teachers can adjust their teaching strategy according to evaluation data, which makes the evaluation have diagnostic and guiding functions^[6].

3.3 Establishment of a Stratified Teaching System and a Dynamic Adjustment Mechanism

To implement Stratified teaching accurate determination of student's skills are needed: Level assessment is a referable tool to determine their skill level. We may design a simple skill diagnostic test at the beginning of the course based upon the content and standards of the level test. Select representative technical items for each level so as to allow teachers to relatively accurately determine which tier they belong to in the skill tier range. According to the result of the diagnostic test, we group them into several stratified groups according to different teaching contents, progress arrangement and attainment requirement. Those students who have low skill tiers will begin learning from the beginner module while those with high skill tiers can go straightly into the intermediate or advanced modules.

There should also have a dynamic adjustment mechanism accompany the operation of stratified teaching. It is impossible to cover all individual difference in the rate of student's skill development while learning by initial stratification. Basic thought of dynamic adjustment mechanism: set regular retest points when progressing through courses, do staged skill reassessment according to level assessment standards. Growing fast in their skills who reach higher-level standards can be adjusted to the group at the corresponding tier after the retest; those falling behind temporarily can be put into a group at one tier lower for supplementary training. There are generally two or three retake points per semester. Dynamic adjustment mechanism ensures the openness and mobility of the stratified teaching system, which prevents solidification of students' learning path because of a single stratification.

Conclusion

Systematically studying the reference value and application paths of the Basketball Skill Level Assessment issued by the Chinese Basketball Association from the perspective of standard analysis, alignment diagnosis and optimization construction aims at specializing basketball teaching in colleges and universities. Twelve-level skills progression system, quantitative evaluation standards for technical specifications, and the evaluation approach embedded in the training process set up by level assessment are a standardized skill development framework that has reference significance. Specialized basketball teaching in colleges and universities focuses on knowledge classification logic rather than the skill development sequence when organizing course content; emphasizes summative results but ignores process standardization in evaluating methods; and finds difficulty implementing stratified teaching because there lacks a starting-point determination tool in teaching organization. Three structural deficiencies are the major barriers preventing the level test to align with college and university teaching.

Therefore, we suggest that there are three ways of optimization including level-based reorganization and modular design of course content; standardized and process-oriented reconstruction of teaching evaluation; establishment of a stratified teaching system and dynamic adjustment which address the three-level problems found in the alignment analysis, forming an overall reform framework ranging from content to evaluation and then to organization. In future studies, it is possible to refine the alignment designs between the assessment content of the level test with college and university class-hour arrangements, as well as exploring (focusing on assessment methods for non-technical ability elements) transformation into college and university teaching context.

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