

THE EFFECT OF MUSCULAR STEADINESS
UPON THE SHOOTING ACCURACY OF
VARSIY BASKETBALL PLAYERS.

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INTRODUCTION - Anything that exists, exists in a same amount, therefore it can be measured. Basket shooting ability undoubtedly exists, and existing can be measured. The problem, however, is more difficult than the bare statement of facts would indicate because we must first discover those characteristics which operate either independently, or as a pattern to produce accuracy in basketball shooting; and second, these characteristics must be carefully measured. The keen observer of basketball notices certain characteristics which all good basketball shots seem to possess: eg: among the more predominate are: -- Coolness during the game (muscular steadiness); Speed (reaction time); Vision (to see the field ahead and to the side); Intuition (perceptonal ability), etc. The writer, taking his cue from the opening statement of this paragraph had set himself the task of measuring each of these characteristics listed above and connecting the results with the actual scoring record of each individual member of his squad.

THE PROBLEM - Scientifically conducted experiments in basketball have been few and far between, and those that have been made, have been largely of the laboratory type and not in the natural, normal basketball environment. Kellogg, measuring muscular stability, found that exercise produced an increased instability. His study was conducted in the psychological laboratory in an environment far removed from a basketball court. Eaton, (1) measuring the stability of freshmen basketball players in the normal playing environment, found that their stability varied greatly as a result of competition. These two studies mentioned above are typical of the investigations in this field. But they failed to determine the relationship, if any, which existed between muscular stability and changes in muscular stability and other performances. In light of these investigations concerning muscular stability, the chief aim of this study is to determine the relationship of muscular steadiness and changes of muscular steadiness to shooting accuracy.

EXPERIMENTAL CONDITIONS - The apparatus selected to measure steadiness was a modified plate and stylus tester of the Whipple type.

SUBJECTS - The subjects were twenty members of the Indiana University Basketball squad during the season of 1933 - 34.

There were three testing situations:

S1. Just before starting practice.

S2. After one hour of practice.

S3. At the close of practice one hour later.

The apparatus was located in front of the playing floor and the S1 was tested standing with right arm fully extended and straight from the shoulder. The testing period was of 10 seconds duration. The tests were taken each practice period during the entire basketball season.