

# Assessing Skills and Performance in Women's Sports

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## What Was the Question?

Physical education professionals continuously seek ways to enhance skills that will improve their students' performance. Thomas, Fellingham, and Vehrs (2009) developed and applied a notational system to rank the influence of selected soccer skills in determining success during women's collegiate soccer games.

## What Was Done?

The notational analysis system evaluates passing, dribbling, first touch, and individual defensive performances as they relate to scoring during women's Division I collegiate soccer games. Ten home games of a single team were filmed with a digital camcorder from a fixed position approximately 25 meters high and about 10 meters from the centerline. Data from the games were collected and interrater reliability was established between .987 and .997 for the four skills. Two areas were emphasized: skill performance and skill importance. The skill performance scores and game

outcomes for the team and their 10 opponents were coded and recorded. The statistical model for the notational system assessed the importance of each skill relative to goal scoring. The frequency of each performance score was also tallied for each game.

## What Was Found?

The notational analysis appears to provide an appropriate assessment of skill performance. The study indicates a positive association between each skill and scoring opportunities, as the results showed that higher skill-performance scores resulted in a greater number of shots on goal. The skill outcomes revealed that the dribbling score was greater than the scores for individual defense, passing, and first-touch skills. Based on importance scores, dribbling was the single most significant skill influencing the outcome of the women's games—approximately twice as important as any of the other skills in producing scoring opportunities. The importance scores for passing and first touch were nearly identical. Since separating passing from first-touch actions is difficult, the authors suggest practicing them in combination and for a majority of available practice time. The authors emphasized that the passing and first-touch importance scores are not additive, and therefore do not replace dribbling as the most important soccer skill relative to scoring.

## What Does the Study Mean?

Both physical educators and coaches typically assess physical performance by observing activity and making subjective conclusions about their impression of the activities. The guidelines in the national standards (National

Association for Sport and Physical Education, 2004) stipulate competent performance of motor skills and movement concepts in activity performance. Therefore, physical education practitioners use their knowledge, experience, and training to analyze physical performance. Notational systems that provide a statistical model (Thomas et al., 2009) to assess which skill provides the best performance outcomes of an activity can provide physical educators and coaches with a degree of objectivity in assessing skill performance. Additionally, providing objective support for how to allocate practice time by skill gives coaches guidance for maximizing practice time and game success.

## Reference

Thomas, C., Fellingham, G., & Vehrs, P. (2009). Development of a notational analysis system for selected soccer skills of a women's college team. *Measurement in Physical Education and Exercise Science, 13*, 108-121.

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