

# A comparison of test methods and player perceptions

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**Do current test methods measure “what the players perceive or experience?”**



**Do current test methods simulate in-game conditions?**



# Test Method Validation

How can we verify the suitability of test methods?

1. 'Appropriate' in-game simulation
2. Classification or benchmarking to previous data
3. 'Appropriate' biomechanical simulation
4. Repeatability and reproducibility
5. Compare to player perceptions



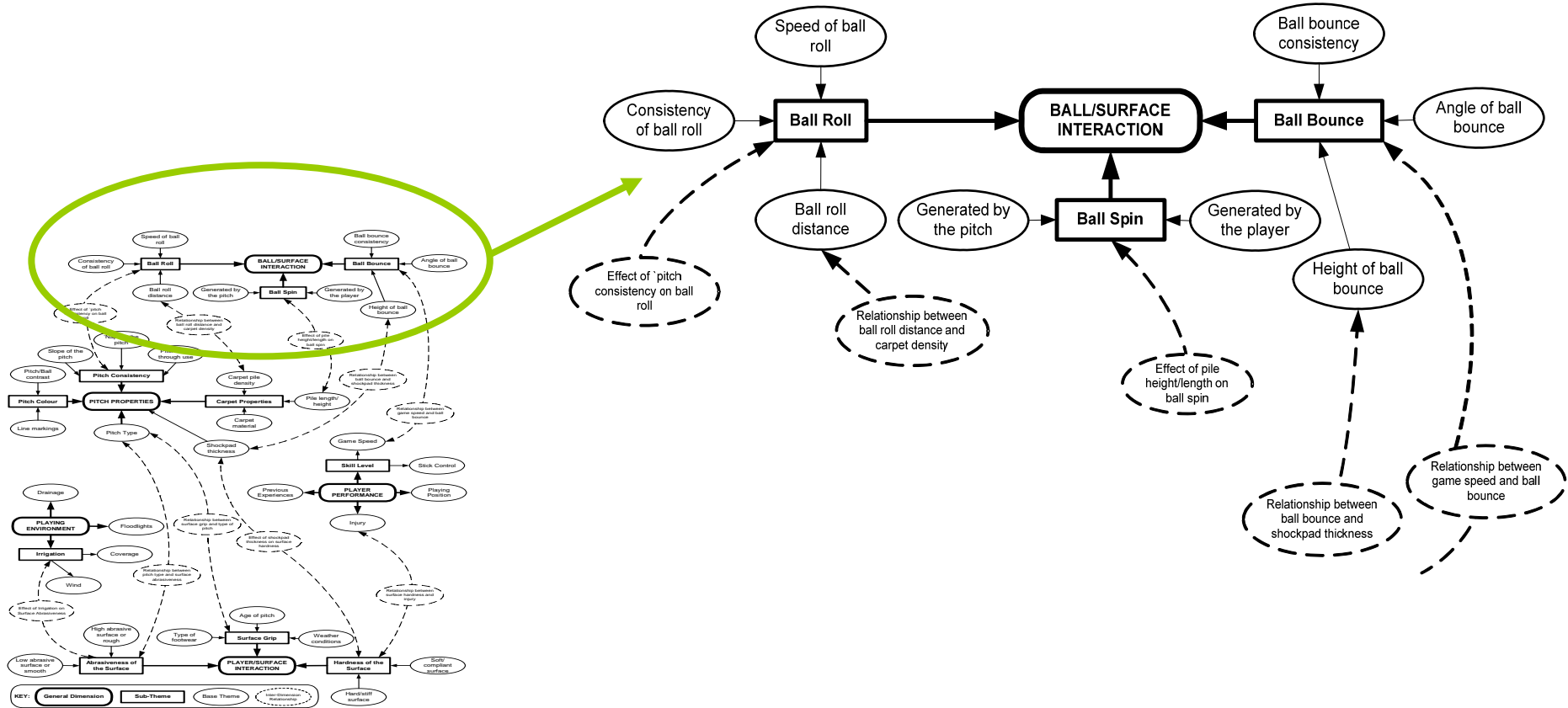
# Data Collection Methods

## Three Significant Sections of Data Collection:

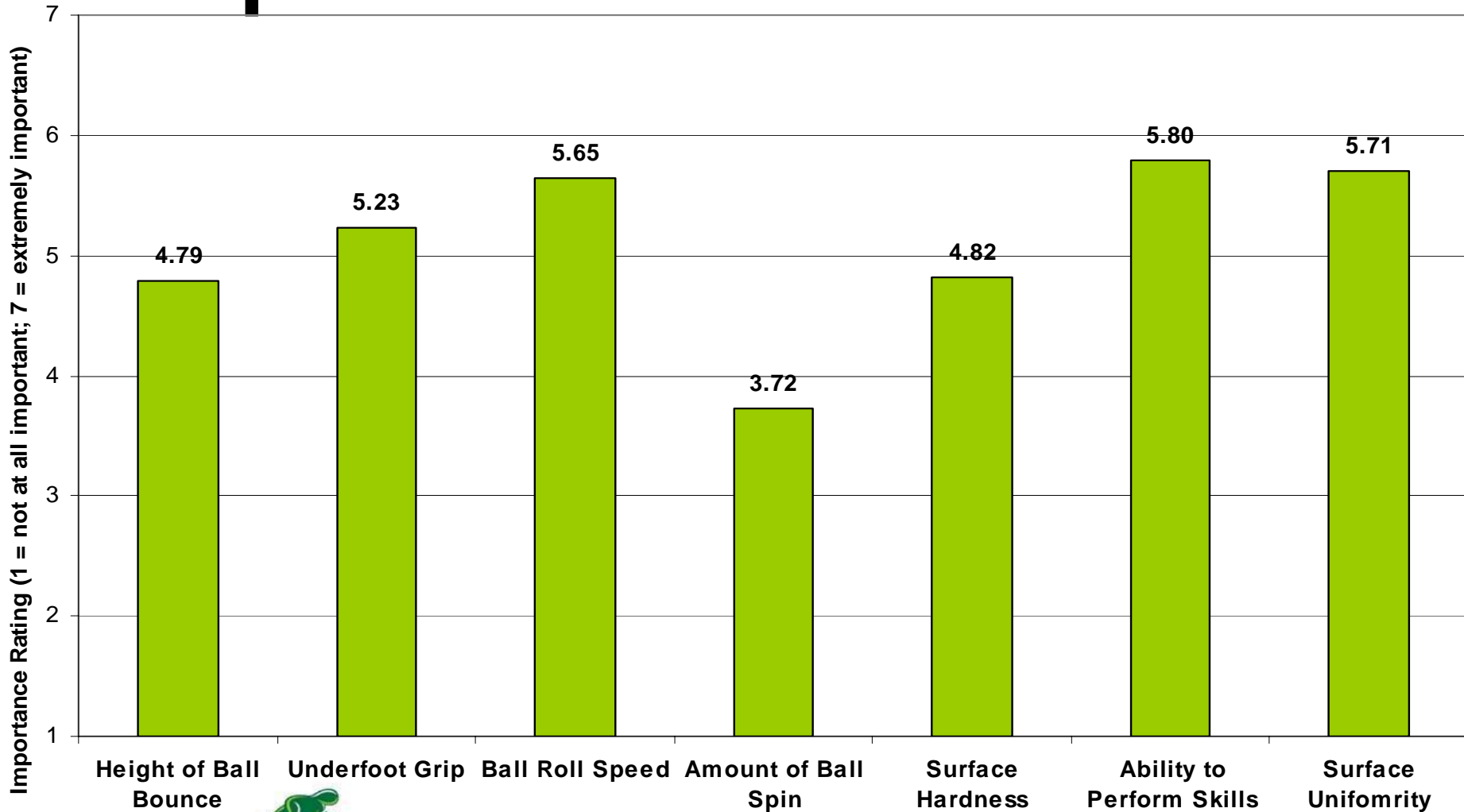
1. In-depth Qualitative Subjective Interviews (N = 22)
2. Quantitative Preference Questionnaires (N = 204)
3. Pitch Specific Questionnaires (N = 87)



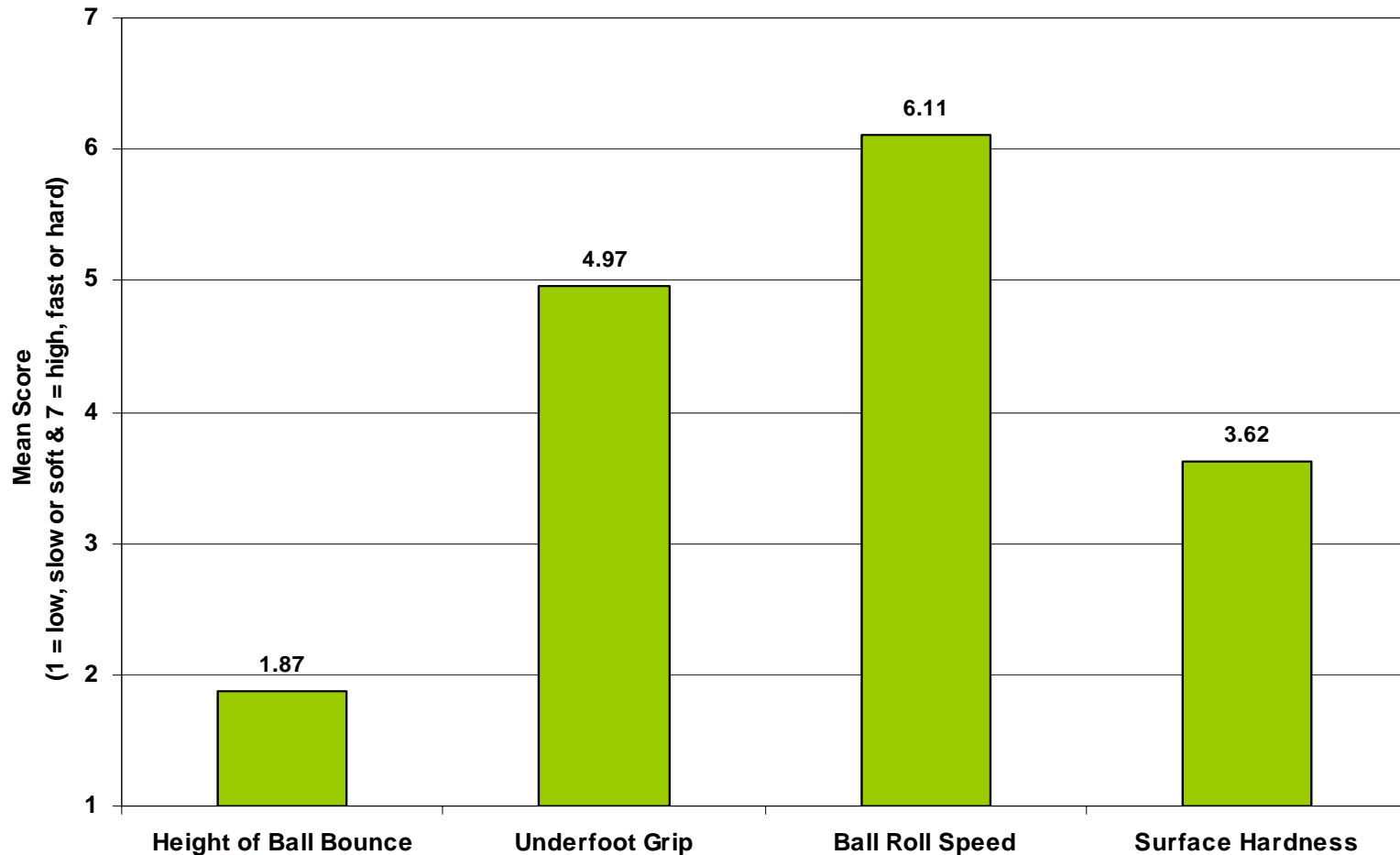
# Structured Relationship Model



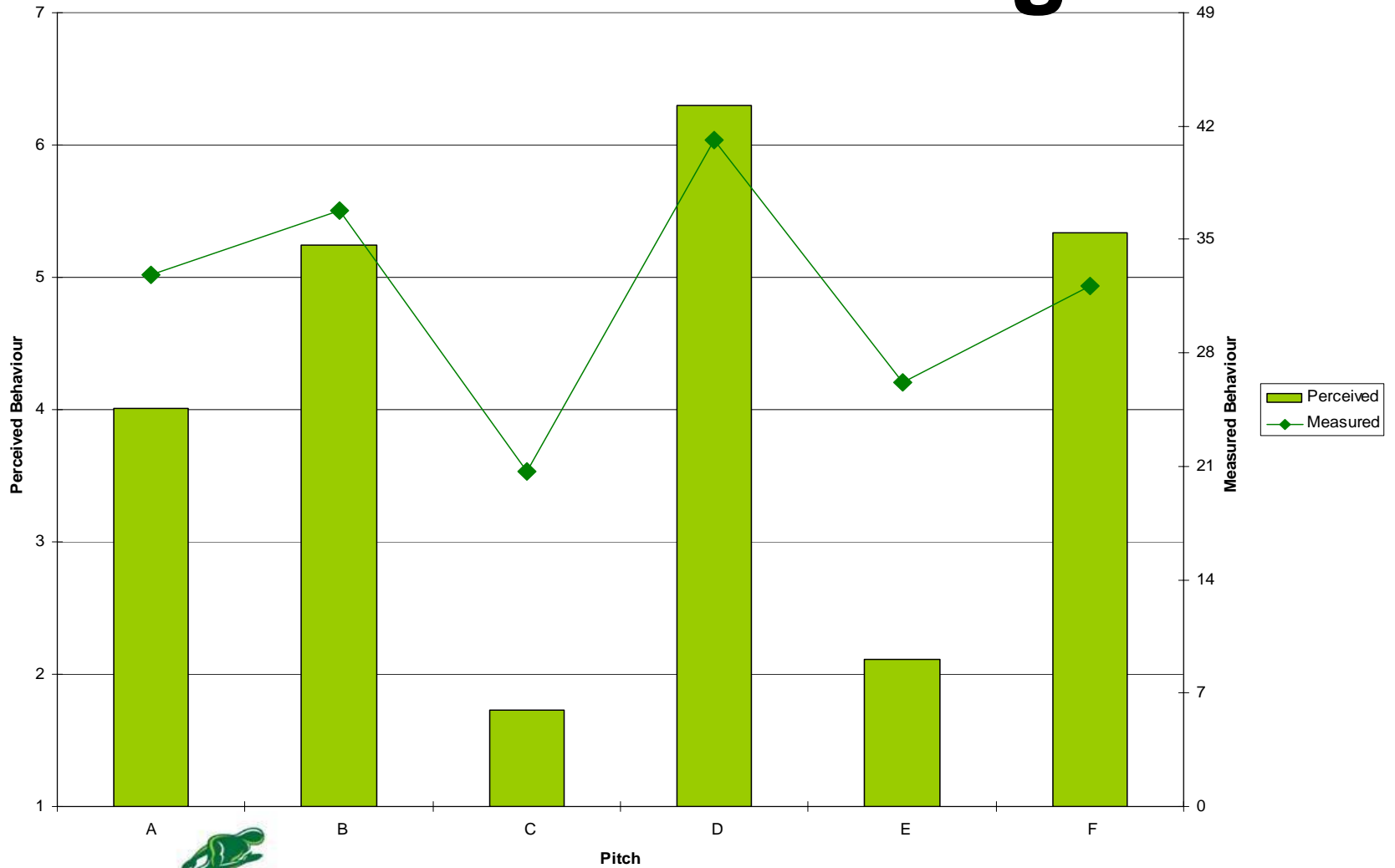
# Importance Characteristics



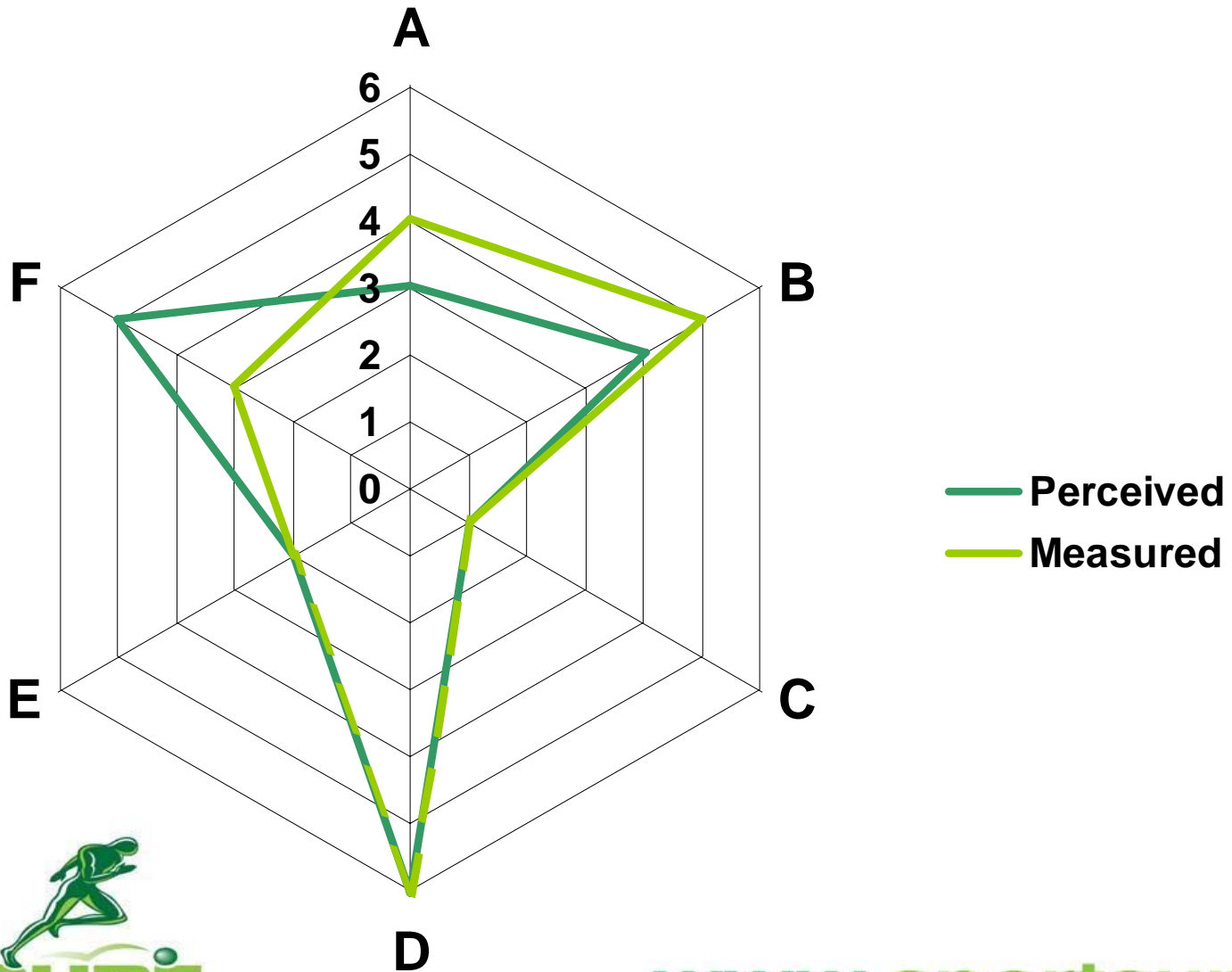
# Players Preferences



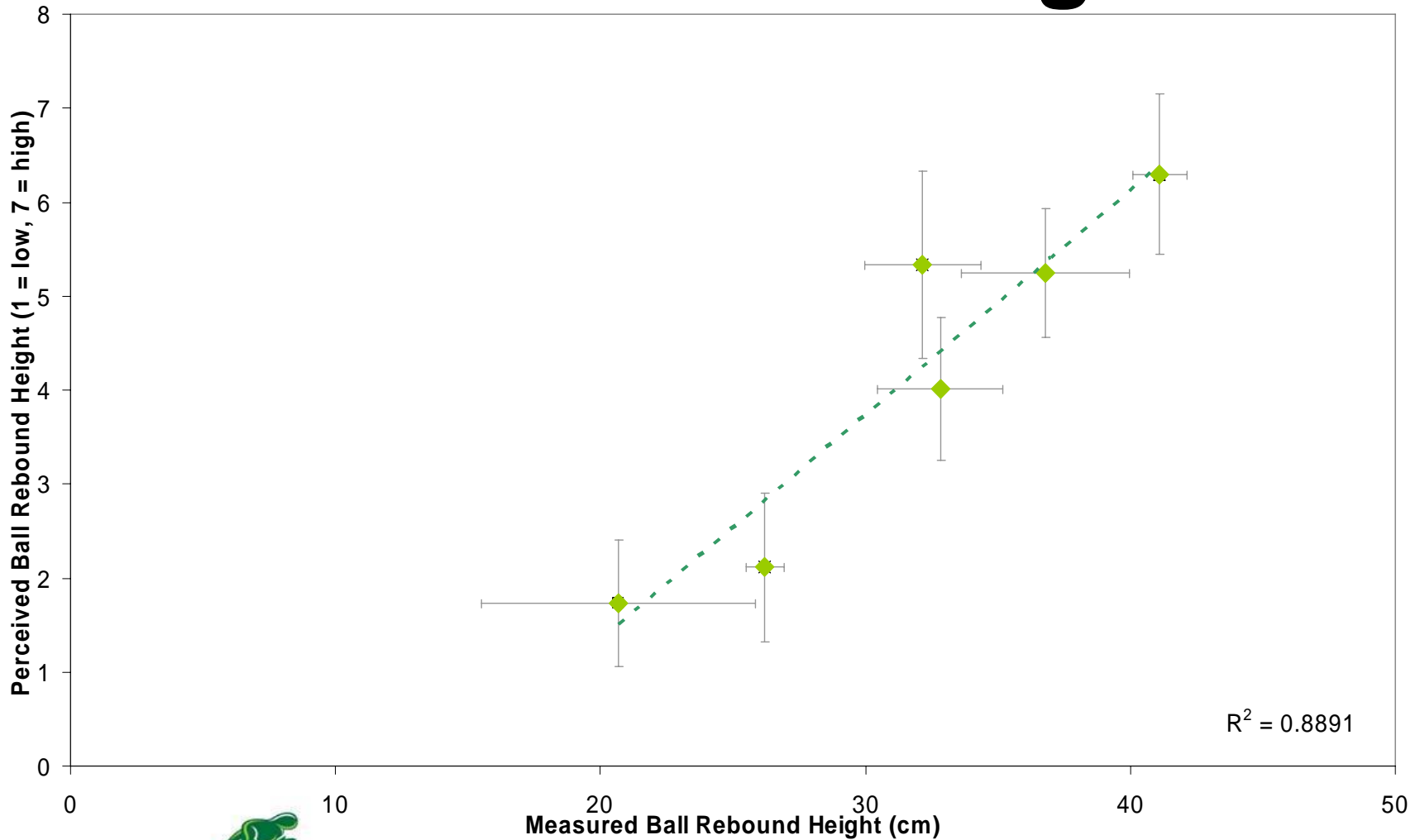
# Ball Rebound Height



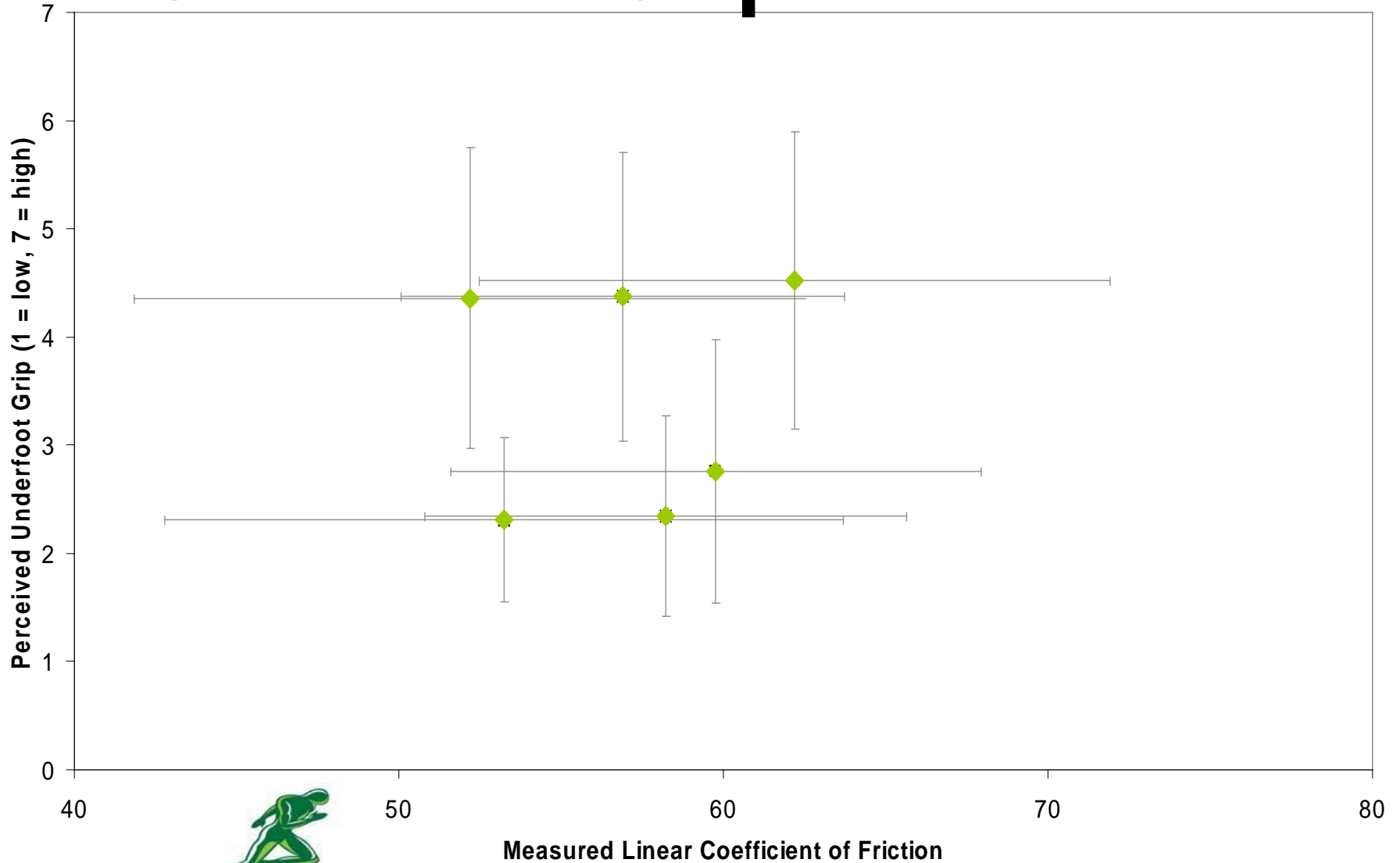
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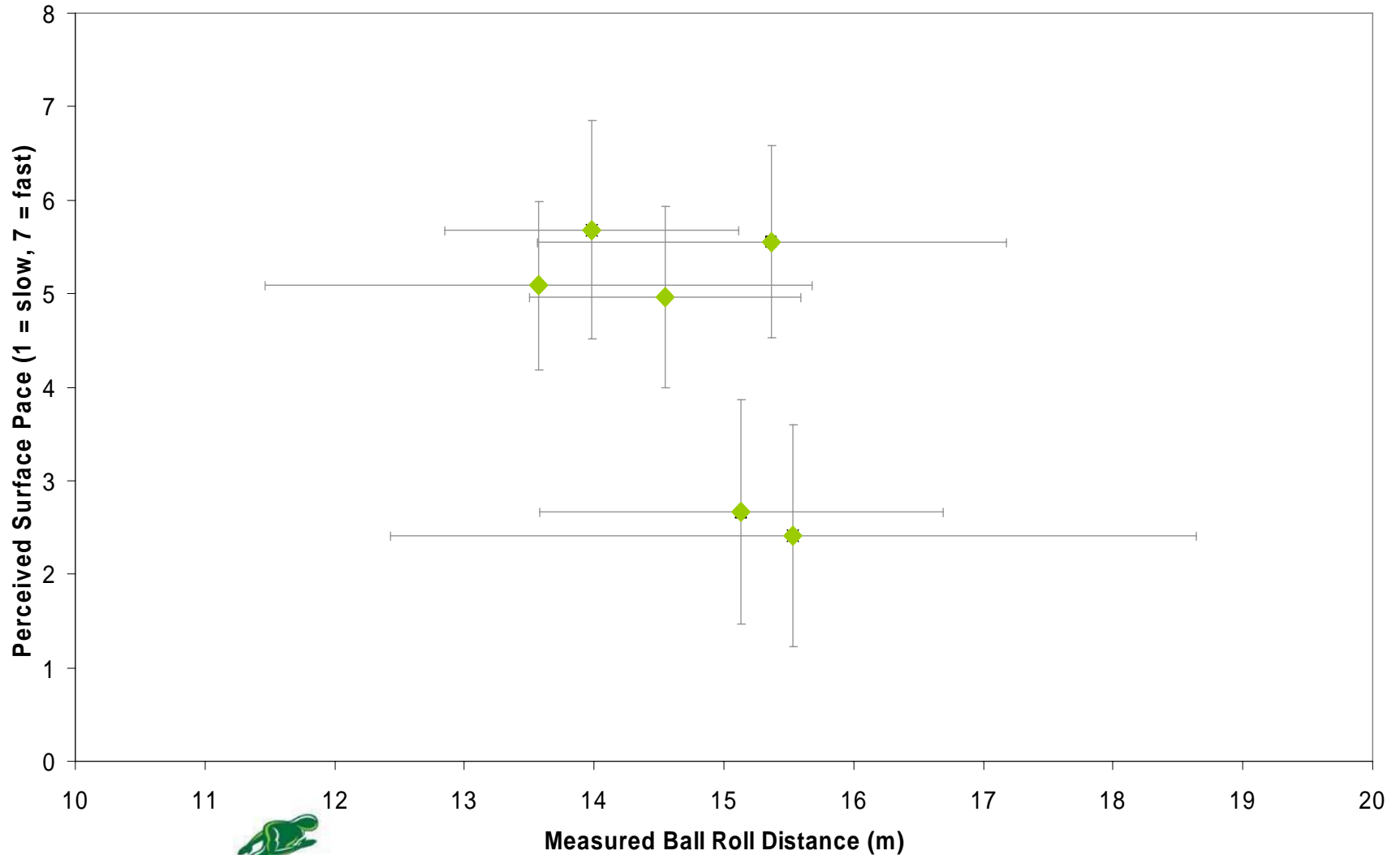
# Underfoot Grip: Pendulum



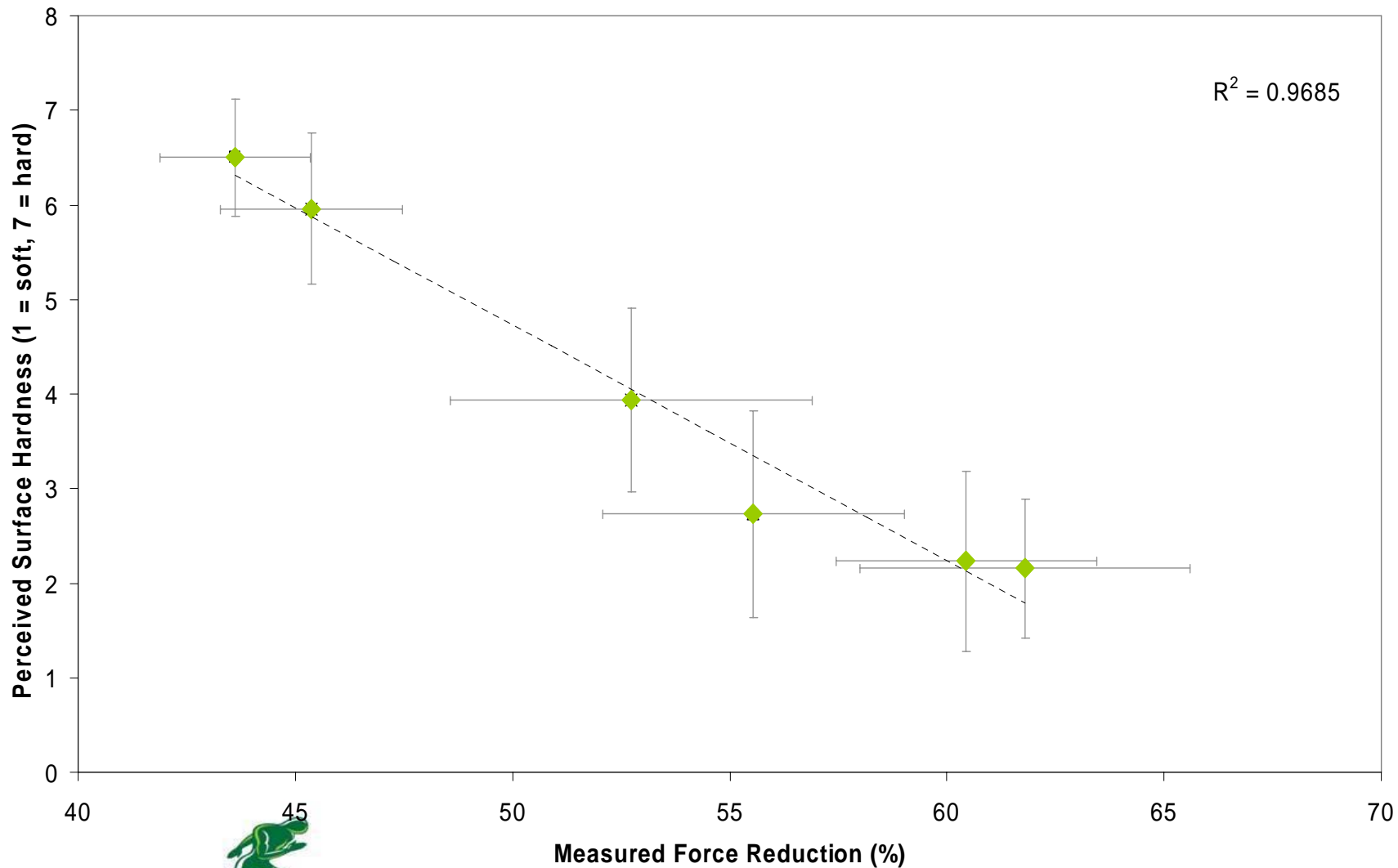
# Underfoot Grip: Rotation



# Ball Roll Distance



# Surface Hardness



# Summary

The usefulness of Berlin artificial athlete, ball rebound resilience and rotational traction test equipment/methods to index/classify sports surface have been reinforced by strong correlations with players perceptions.

The appropriateness of 'ball roll' and 'pendulum friction' tests have been brought into question





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