

# JCU team's winning basketball formula

September 29 2017

---



Credit: CC0 Public Domain

James Cook University scientists have come up with a winning formula for basketball teams looking to take home Olympic gold.

JCU Associate Professor Anthony Leicht and Dr Carl Woods, along with Dr Miguel Gomez from Spain, analysed every moment of 156 men's

basketball games played at the last four Olympics.

"Unlike regional or national competitions, where players are together for a whole season, players within teams at the Olympics have a limited opportunity to interact together. So, it's valuable for coaches to know what factors contribute to a winning performance for these teams," said Dr Leicht.

The scientists found Olympic success in basketball comes down to two main factors.

"We measured 12 team performance indicators and found that it was a combination of field-goal percentage and defensive rebounds that provided the greatest probability of winning (>93%)," said Dr Leicht.

Field goals are scored from open play and are worth two or three points depending on the distance the attempt is made from the basket. A defensive rebound occurs when a shot is missed and the defending team gains [possession](#) of the ball (as opposed to the attacking team retaining possession).

Dr Leicht said the scientists have established a practical model coaches can use to make different game plans based upon accumulating performance indicators.

"For example, if a team was unable to generate an adequate field-goal percentage of around 64%, then a [coach](#) could shift strategic focus toward the generation of more than 40 defensive rebounds to preserve a higher probability of winning," he said.

Dr Leicht said as far as he was aware, the current study was also the first to identify 'steals' - winning possession from the opposition - as a key performance indicator for victory in an elite basketball competition.

"So, in addition to selecting players capable of accruing a high field goal accuracy, coaches and analysts should focus on devising defensive strategies that contribute to 'defensive rebounds' and 'steals' during their preparation of national basketball teams for the Olympics.

"Such preparations would likely lead to increased team possessions and the probability of match success during the Olympic games," he said.

Dr Leicht said more work needed to be done, as the winning factors may be different for women's [basketball](#), and such things as physical [performance](#) indicators and accumulated fatigue levels over the tournament had not been closely looked at.

Provided by James Cook University

Citation: JCU team's winning basketball formula (2017, September 29) retrieved 27 April 2024 from <https://phys.org/news/2017-09-jcu-team-basketball-formula.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.