## A developmental study to investigate an individual rating system for elite Gaelic football.

Len Browne<sup>1</sup> and Denise Martin<sup>2</sup>

<sup>1</sup>Centre for Performance Analysis, ITC, Carlow, Eire.

<sup>2</sup>School of Business and Humanities, Institute of Technology, Blanchardstown, Dublin 15.

Recent studies have begun to examine the match demands of elite Gaelic football, however these have generally investigated from a team perspective. This aim of this study was to develop a valid and reliable system for assessing individual performance in Gaelic football.

The individual performances of 31 players from one team were analysed over the course of 7 games, played in the senior Division 1 National Football League competition 2016, using SportsCode V8 software. Five categories were used to rate individual performances; score attempts, gaining possession in open play, use of possession in open play / in set piece, defensive actions, and on-pitch time for each player was noted. There were multiple sub-categories and outcomes within each category (Table 1). All variables were defined by an expert coaching panel and weighted according to the pitch area, score-line and time in the match when they occurred. The sum of positive and negative actions was divided by the time on pitch to calculate player ratings. System reliability was tested via an inter-operator comparison of the performance of 4 players showing a correlation of 0.981. After the competition, the 4 coaches of the team were asked to select their top 10 players ranking them 1 - 10.

Table 1.	Categories and subcategories of variables used to rate individual performance in elite Gaelic
Football.	

Score Attempts	Gaining Possession	Using Possession	Using Set Piece	Defensive Actions
Goal	High ball challenge	Foot pass complete	45 scored	Free conceded
Point	Won clean	Foot pass turnover	45 unsuccessful	Free con. & scored
Wide	Lost clean	Hand pass complete	Free retained	Free won
Save/drop short	Won Break	Hand pass turnover	Free lost	Forced turnover
Hit post	Lost break	Opening pass	Throw in won	Block
Inside op score zone	Compete assist team	Assist to score	Throw in lost	Opponent scored
Shot under pressure	Compete lost	Ground kick	Side-line ball ret.	Pass intercepted
Score under pressure	Pick up loose ball	Carry at speed	Side-line ball lost	Pressure
Miss under pressure	-	Free conceded	Penalty scored	Pressure effective
Miss outside 45		Free won	Penalty unsuccessful	Pressure ineffective
Score outside 45		Blocked	Free scored	
Goal chance missed		Dispossessed	Free unsuccessful	
		Ball out of play	45 conceded	

The results of the coaches' ranking were similar to the system ranking. With the exception of one player, all of the system's top 10 ranked players were identified by the coaches as top performers, ranking in various positions. Two additional players were consistently in the coaches' top 10 rankings but ranked at 16 and 17 in the system. The team won 3 of the 7 games and there was a trend for these to coincide with a high collective team score.

This pilot study shows that individual performance in Gaelic Football can be reliably and objectively rated and that the ratings map well with the opinions of team coaches and match outcomes. An analysis of the roles of the two players ranked consistently higher by the coaches than the system offer an opportunity to modify and improve it. One of these players was a 'man-marker' whose negative role meant more limited opportunities for game involvement. Success in this role could be quantified by an analysis of his opponent's performance. Indeed the system could be used for the measurement of opposition performance to identify individual and collective strengths and weaknesses.