

Determining the effectiveness of Small-Sided Football (SSF) implementation in metropolitan Association Football

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Abstract

The aim of this research was to assess and analyse a large group of practicing coaches' perceptions of Small-Sided Football (SSF), a modified games-based training and playing format, and whether its implementation throughout the grassroots of Australian Association Football has been effective. A survey was developed and completed by 127 coaches based in the Sydney metropolitan area. The demographic and psychometric data collected indicated that the governing body, Football Federation Australia (FFA), has effectively implemented SSF across the board. This study has shown that more work could be done in the areas of education and training, and the issue of winning versus development. Coaches indicated support of FFA's philosophy and implementation of SSF, and are willing to adapt and implement the curriculum together with promotion and support of club administrators.

Keywords: small-sided football, Australian Association Football, Football Federation Australia, coaching experience

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Introduction

After the creation of a new national governing body for football in Australia during 2005, Football Federation Australia (FFA) set out to enforce revolutionary reform throughout the game's grassroots. In developing its national plan, one of the fundamental components was the implementation of the Small-Sided Games (SSG) model for players aged between six and twelve years. This model consists of a uniform training and playing format that by 2011 should be standard procedure throughout all associations and their member clubs within Australia (Football Federation Australia, 2007).

The SSG model is part of a national plan to develop players to an international standard and/or world's best practice. FFA's mantra on the cover of its National Football Development Plan (2007) is "Making Australia a World Leader in the World Game." During 2008, FFA released its Small-Sided Games Handbook, and then rebranded it as Small-Sided Football (SSF) during 2009. This document has been copied to all member associations and clubs as a blueprint for success during the developmental stages of a player's life.

SSF is based on the street football concept seen throughout Europe, and in particular, the Netherlands. FFA has employed a string of Dutch technicians to facilitate this model throughout Australian football. Utilising components of the Dutch football philosophy, known as TIC, FFA has also produced its National Football Curriculum (2009). TIC stands for "Technique," "Insight" and "Communication." It is believed that no matter how small children are, or how elementary the standard of play, the players possess a certain degree of technical ability. Insight is primarily a question of experience and football intelligence that a child will develop over time. The connection between technique and insight is bridged by communication, that is, the interaction between players and the elements involved in the game, first and foremost the interaction with the ball (Michels, 2001; van Lingen, 1997).

In order to gain a conceptual understanding of the structure of SSF, FFA's model is outlined in Table 1.

The objective of SSF between the ages of six and twelve is to develop technical ability. As outlined in FFA's National Football Curriculum (2009), "learning to master the ball, learning to act with the ball purposefully, and learning to play together purposefully" (p.16) are fundamental outcomes. So, the "T" in TIC is of particular focus during this elementary stage of learning. The Dutch believe the key outcomes for participating in the game from six to twelve years are; familiarity through play, gaining control over the ball, as the ball is the most important obstacle, and to always be involved in small-sided games where each player achieves as many ball contacts as possible (Kormelink & Seeverens, 1997; van Lingen, 1997).

Table 1. Small-Sided Football (SSF) playing formats. Reproduced from “Optus Small-Sided Football Handbook,” by Football Federation Australia, 2009, p. 10. Copyright 2009 by Football Federation Australia. Retrieved from http://www.footballaustralia.com.au/site/_content/document/00000576-source.pdf.

Playing Format	Under 6	Under 7 & 8	Under 9 & 10	Under 11 & 12
Numbers	4 v 4	5 v 5	7 v 7	9 v 9
Field Size	30m x 20m	30m x 20m	40m x 30m	60m x 40m
Field Markings	Markers or painted line markings	Markers or painted line markings	Markers or painted line markings	Markers or painted line markings
Penalty Area	Nil	Nil	8m length x 16m width	8m length x 16m width
Goal Size	Min: 1.80m x 0.90m Max: 2.00m x 1.00m	Min: 1.80m x 0.90m Max: 2.00m x 1.00m	Min: 4.80m x 1.60m Max: 5.00m x 2.00m	Min: 4.80m x 1.60m Max: 5.00m x 2.00m
Goal Type	Markers, Poles, Goals	Markers, Poles, Goals	Markers, Poles, Goals	Markers, Poles, Goals
Ball Size	Size 3	Size 3	Size 3	Size 4
Goalkeeper	No	No	Yes	Yes
Recommended Playing Time	2 x 15 minutes	2 x 20 minutes	2 x 25 minutes	2 x 30 minutes
Half Time Break	5 minutes	5 minutes	5 minutes	7.5 minutes
Referee	Game Leader	Game Leader	Instructing Referee	Instructing Referee
Competition Tables & Finals	No	No	No	Optional

Note. FFA has amended its playing formats since the publication of its Small-Sided Football Handbook (2009), making minor adjustments to the field size, penalty area and goal size along with the removal of competition tables and finals as an option for Under 11s.

The unique defining element of Dutch football is space and the theory that space is flexible. The Dutch believe that the size of a football field can be altered by a team playing on it. In particular, spreading play to the wings aiming to make the pitch as large as possible to increase and exploit the available space (Winner, 2000). In order for a team to utilise this space, it must have possession of the ball. This is a fundamental component of Dutch football. Possession is no guarantee for success but it has the great advantage that the opponent is forced to do a lot more running after the ball (Kormelink & Seeverens, 1997; Michels, 2001; van Lingen, 1997).

Perhaps, the most critical aspect in the implementation of SSF is how the coaches, largely made up of volunteers and/or parents, coach the players to play the games. Implementing SSF from a coaching perspective requires significant cultural change. Traditionally, coaching

methodologies in Australia have been based on the direct instruction model. The direct instruction model is thought to have provided an organised learning environment based on movements, skills and concepts organised and segmented into blocks of time, providing high levels of feedback in order for learners to practice each task or skill. This method has been the universal method of choice for teaching and to a similar extent coaching from around the 1890s well into the 1970s (Metzler, 2000) and is still used today.

There is merit to the direct instruction model; it breaks skills down into small steps, is visually demonstrative in nature and well structured. However, there are some central issues around information overload from coaches, unnecessary detail, varied competency levels, boredom and the need for greater tactile stimulation (Metzler, 2000). In contrast, the games approach, on which SSF is based, is more about training for the game scenario. Its core focus being enjoyment, creativity, expression, and innovation whilst promoting inclusion, active participation regardless of ability, and encouraging decision-making (Griffin & Butler, 2005; van Lingen, 1997).

The aim of this research is to assess and analyse the impact SSF has had on the grassroots and in particular, feedback on the experiences from the people coaching it. As coaches act as facilitators and mentors to young children (McMorris & Hale, 2006), it is of the utmost importance to appraise the coaching environment for the betterment of youth development and sustained growth for the sport. Areas such as coaching qualifications and experience, understanding of the SSF model, perceptions on winning versus development, and support of the national philosophy are key components of the attitudes and culture surrounding coach education.

The research question for this paper is: Determining the effectiveness of Small-Sided Football (SSF) implementation in metropolitan Association Football. Since its implementation during 2008, a number of associations have had two full seasons to trial its effectiveness. FFA has conducted its own research, as outlined in the Small-Sided Football Handbook (2009), surveying “over 70,000 children across all Member Federations in varying age groups” (p.4). However, it is in the best interests of the game to allow independent research to be conducted on coaches in order to gauge how SSF is applied at the grassroots to facilitate a strong development pathway for Australia’s youth.

Methods

In an effort to determine the effectiveness of SSF implementation in metropolitan Association Football, six FFA member associations based in the Sydney metropolitan area were chosen at random to complete a series of demographic and psychometric questions. Questions

were predominantly measured using a Likert-type scale, a form of ordinal and psychometric measurement (Gratton & Jones, 2004; Smith, Todd & Waldman, 2009). The numbers represent categories rank ordered from 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = strongly agree. With this kind of data it is possible to describe people’s level of satisfaction. However, the distances between the categories might not be equal. This means that the reader cannot assume that someone who gives a 5 score is five times more satisfied than someone who gives a 1 (Smith, Todd & Waldman, 2009).

Table 2. Outline of qualitative research survey questions with the aim to determine the effectiveness of Football Federation Australia’s, Small-Sided Football (SSF) implementation.

Number	Question
1	Sex
2	Age
3	How many years have you been coaching?
4	Club (list the name of your football club and where you are currently coaching)
5	Age group coaching (if more than one, indicate in additional comment field)
6	Coaching licence held (if not current, indicate in additional comment field)
7	Playing experience
8	I prefer the Small-Sided Football (SSF) model to the previous format
9	Feedback from parents has been supportive of the implementation of SSF
10	My club has taken positive steps to implement SSF throughout the club
11	I have been provided with coach education and training on how to implement SSF by my club or association
12	There has been an increase in volunteerism from parents since the implementation of SSF
13	I have noticed a marked increase in the number of touches each player receives on the ball under the SSF model
14	The fundamental shift away from competition (winning/points tables/finals) has made for a more inclusive and enjoyable experience for children
15	The cost to me as a coach in implementing SSF has increased compared to previous years
16	As a coach, I fully support Football Federation Australia's national philosophy that skill development between the ages of six and twelve is best achieved through “fun”
17	I believe an improved pathway has been established through the SSF model to identify talented young players
18	Additional comments

Each question was structured to establish each participant’s actual coaching scenario and/or understanding based on perception. This form of analysis is subjective but valuable in gaining an insight into the challenges, barriers and issues within the coaching environment. The questionnaire was constructed and distributed via the internet with a link sent to each participating association.

Chief football administrators were contacted and briefed on the aims and objectives of the research paper. It was agreed that each participating association would distribute an email with a link to the survey to their member clubs, who in turn, forwarded the link onto their SSF coaches.

The research question, structure, and objectives were decided after a review of available literature including key documents produced by FFA, the National Football Development Plan (2007), Small-Sided Football Handbook (2009) and FFA National Football Curriculum (2009). Additionally, a review of available literature on Dutch football methodology and direct instruction versus games sense-based training principles provided a holistic basis for which to compile the series of questions, as outlined in Table 2.

Results

Of the six associations selected, three decided to participate with two providing the majority of the data. There were a total of 127 complete surveys. Discussion on the interpretations associated with each question is beyond the scope of this research paper and perhaps an opportunity for further study. However, a number of important observations can be made in relation to specific questions. Of the 17 defined questions, 10 have been selected for review.

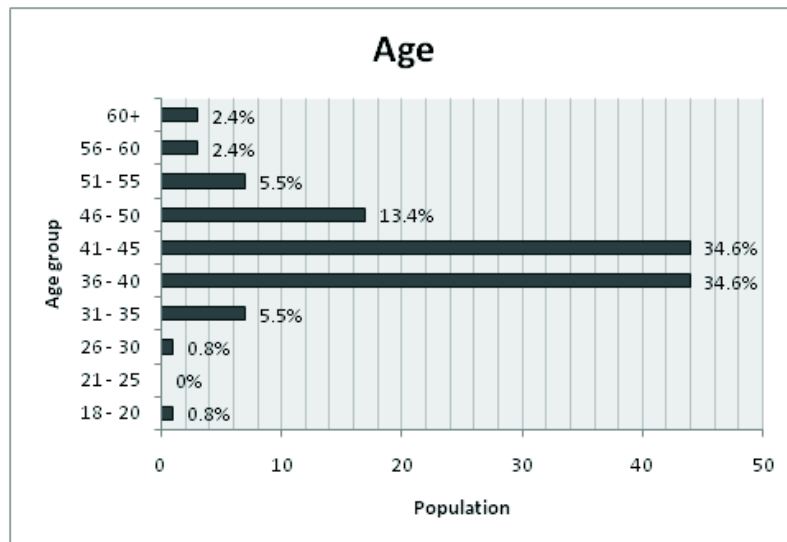


Figure 1. Population by age. Majority aged between 36 and 45 years.

Demographic questions are outlined in Figures 1 through 4, with psychometric questions

summarised in Table 3. Demographically, 85.8% of the sample population are males. The majority of respondents are aged between 36 and 45 years, with less than 5 years coaching experience, coaching from Under 6s to Under 8s with no FFA accredited coaching qualifications.

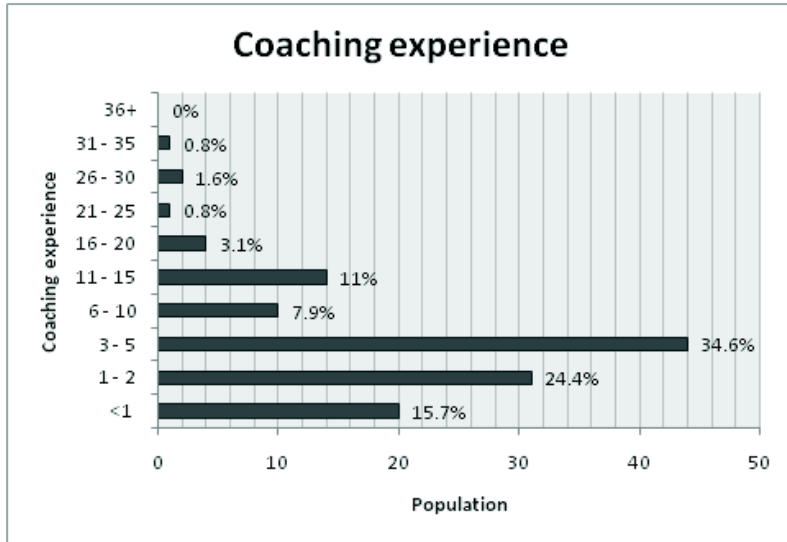


Figure 2. Coaching experience by year. Majority of coaching experience between 1 and 5 years.

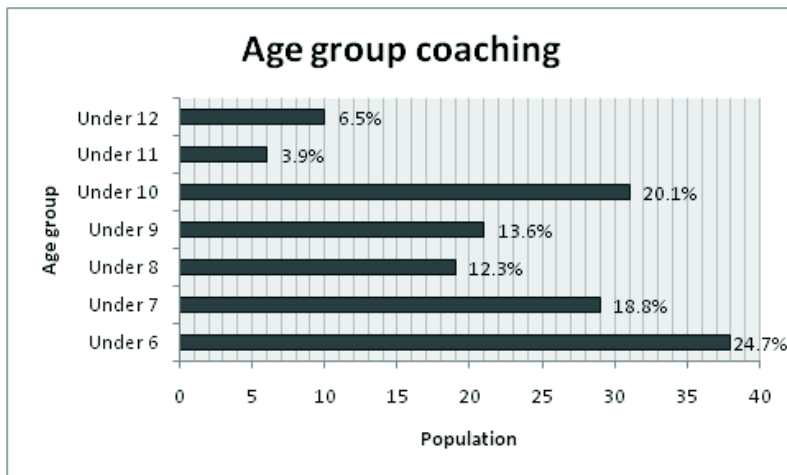


Figure 3. Population of coaches by age group coaching. Majority coaching Under 6s to Under 8s.

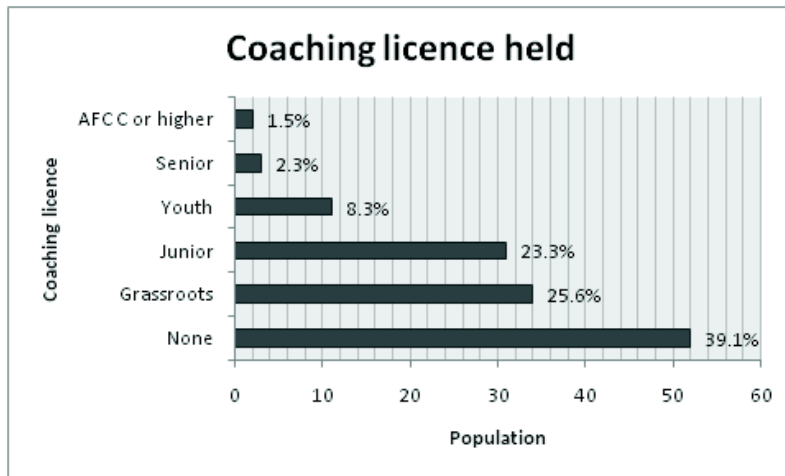


Figure 4. Level of formal coaching accreditation. Overrepresentation of coaches with no qualifications.

Table 3. Summary of Mean (M) and Standard Deviation (SD) for psychometric questions.

Question	Mean (M)	Standard Deviation (SD)
I prefer SSF model to the previous format	3.99	1.08
My club has taken positive steps to implement SSF	4.57	0.61
I have been provided with SSF coach education and training	3.95	0.87
I have noticed a marked increase in the number of touches on the ball	4.09	0.93
The fundamental shift away from competition has made for a more inclusive and enjoyable experience for children	3.50	1.17
I fully support FFA’s national philosophy of skill development through “fun”	4.24	0.97
I believe an improved pathway has been established to identify talented players	3.27	1.05

Chi Square was used to explore relationships using the ordinal data collected from the Likert-type scales. It does two things in one test. It is a test of independence and also a test of association, formally testing the null hypothesis that two things are independent (Barnes & Lewin, 2005). That is, the removal of results by chance. With this in mind, a number of fundamentally important questions have been selected and tested with the “Probability” or “P value” indicating that answers given were not attributed to chance. Key questions were tested with observations outlined in Table 4.

Table 4. Probability of Chi Square (X^2) with key data interpretations.

Question	Chi Square (X^2) or "Pvalue"	Interpretation
How many years have you been coaching?	<0.01	Overrepresentation of coaches with <1 year; majority between 1 and 5 years coaching experience
Age group coaching	<0.01	Overrepresentation of coaching Under 6s; underrepresentation of coaching Under 11s and Under 12s
Coaching licence held	<0.01	Majority of coaches with no coaching qualifications; overrepresentation of coaches with grassroots certificate
I prefer the Small-Sided Football (SSF) model to the previous format	<0.01	Overrepresentation of coaches who strongly agree and agree
My club has taken positive steps to implement SSF throughout the club	<0.01	Overrepresentation of coaches who strongly agree and agree
I have been provided with coach education and training on how to implement SSF by my club or association	<0.01	Overrepresentation of coaches who agree
I have noticed a marked increase in the number of touches each player receives on the ball under the SSF model	<0.01	Overrepresentation of coaches who strongly agree and agree
The fundamental shift away from competition (winning/points tables/finals) has made for a more inclusive and enjoyable experience for children	<0.01	Overrepresentation of coaches who agree; reasonable number of responses neutral and disagree
As a coach, I fully support Football Federation Australia's national philosophy that skill development between the ages of six and twelve is best achieved through "fun"	<0.01	Overrepresentation of coaches who strongly agree and agree
I believe an improved pathway has been established through the SSF model to identify young players	<0.01	Underrepresentation of coaches who strongly agree and strongly disagree; overrepresentation of coaches who agree; overrepresentation of coaches who remain neutral

In response to the psychometric line of questioning, results have shown that SSF coaches generally prefer the SSF model to the previous format, and clubs have taken positive steps to implement SSF with the majority agreeing that they have been provided with SSF education and training. Furthermore, the majority have noticed a marked increase in the number of touches on the ball. Interestingly, there is a mixed response to the questions of winning versus development and the removal of competition with just under half either unsure or despondent with the removal of scores, points tables, and finals. An overwhelming majority believe that skill development is best

achieved through fun; this is in line with FFA's national philosophy. However, the identification of a clear pathway for talented players has not returned a favourable response.

Discussion

The results have presented a number of consistencies between this independent research and that conducted by FFA as outlined in its, *Small-Sided Football Handbook* (2009). However, there are some inconsistencies which need to be addressed, and perhaps, represent an opportunity for further study. In particular, the need for an increase in coach education and training has been clearly identified with 39% of SSF coaches without an accredited coaching qualification; a further 26% held a Grassroots Certificate.

When linked with coaching experience, a 40% majority of SSF coaches had less than 1 year to 2 years coaching experience with 75% having no more than 5 years. When reviewing available literature on teaching and/or coaching games, Bunker and Thorpe's (1982) *Teaching Games for Understanding* (TGfU) model has been advocated by various professionals as a sound idea in relation to games education (Butler, Oslin, Mitchell, & Griffin, 2008; Griffin & Butler, 2005; Holt, Streat, & Garcia Bengoechea, 2002; Mandigo, Butler, & Hopper, 2007). According to Randall (2008), "TGfU requires that teachers know games enough that they can create and modify existing games to satisfy a particular need. For example, teachers may have to create or modify a game to highlight the particular tactic to be focused on that day" (p.17).

This presents the question, "Are coaches sufficiently qualified to coach SSF?" In this research, the results indicate they are not. When analysing the demographic data provided in this sample, interestingly, most SSF coaches are male, aged between 36 and 45 years, and coaching children primarily from Under 6s to Under 8s. During these significant developmental stages of a young player's life, they like to play with freedom. However, key outcomes should be achieved as stated in FFA's *Small-Sided Football Handbook* (2009) such as, "dribbling, passing and receiving, ball feeling, juggling and shooting" (p.9). Therefore, coaches need to have a conceptual understanding of how to best utilise games in a supportive and inclusive coaching environment. Perhaps, FFA should specifically target middle-aged men in an effort to improve coach education, as they appear to be more likely, based on this research, to volunteer their time to coach their children and children of their peers or community.

Analysis of the survey sample based on psychometric questioning has returned mostly positive results which are encouraging for FFA. In particular, 95% of coaches believe that their club has taken positive steps to implement SSF with 81% indicating that they have been provided with education and training. Here, education and training appear to contradict their

coaching qualifications. This could be a limitation perhaps based on an individual's perception of what is meant by education and training. In a technical sense, 80% of coaches have noticed a marked increase in the number of touches a player receives on the ball which is in line with the national philosophy, as is the ideology that skill development is best achieved through "fun" with 85% in favour of the inclusive position taken by the governing body. This reflects positively on the idea that developing a deeper understanding of the game, decision making and the ability to use information in a variety of situations is the main purpose of the implementation of the games model (Griffin & Butler, 2005; Hubball, Lambert, & Hayes, 2007; Kirk & MacPhail, 2002; Light, 2004; McBride & Xiang, 2004).

However, the debate surrounding competition has returned the most divided response in this research. As the removal of competition, that is, winning, points tables, and finals, is a fundamental component of FFA's national philosophy and central to the SSF model amongst this age group, results indicate 46% of respondents were either neutral, in disagreement or strong disagreement with the removal of competition. FFA justifies the removal of competition in its Small-Sided Football Handbook (2009) by stating, "With the emphasis on participation and enjoyment, and an associated removal of the current emphasis on the importance of winning, children are much more likely to enjoy their football playing experience" (p.5).

Feedback provided in the additional comments field of the survey, or Question 18, has highlighted some continuing themes in relation to competition and/or the lack of, leading to an increase in dropout rates and dissatisfaction with the game, which FFA claims SSF is less likely to incur. Respondent #67 stated, "What we must be careful of with our game is not to turn our players to other codes due to it being non-competitive." Similarly, Respondent #38 stated, "Personally, I have lost six extremely talented children to rugby league because of the introduction of SSF." Likewise, Respondent #104 stated, "The lack of competition is difficult for children to understand. The lack of competition is hard for parents to embrace." Also, Respondent #19 stated, "Parents are very sceptical as they are used to the big game and that winning is more important than skill development."

There is a need for persistent education on the benefits of development first, winning later. As stated in FFA's National Football Curriculum (2009), "short-term losing, long-term winning or short-term winning, long-term losing" (p.10) is for the governing body to decide. Based on this survey sample, evidence suggests that coaches' attitudes towards winning over development provide significant barriers to effective implementation of the SSF model. When linked to the question of establishing an improved pathway to identify talented players, results have shown a 58% majority are either neutral, in disagreement or strong disagreement on whether this has been implemented. Respondent #37 stated, "Unfortunately, I saw no evidence of this during the season."

Similarly, Respondent #86 stated, “I have been given no information on the pathway and wouldn’t know how to go about finding it.” A recommendation to FFA would be for more transparency and access to this information for the broader football community.

Conclusion

By collecting data and feedback from coaches charged with implementing revolutionary reform at football’s grassroots, one could conclude that coaches agree with FFA’s philosophy in implementing SSF across the board. However, this study has shown that more attention is required in the fundamental areas of education and training, and the debate over winning versus development. Although the SSF model is in its infancy in Australia, evidence suggests that with a mandate, promotion and support from club administrators, coaches are willing to adapt and implement the curriculum for the betterment of Australia’s youth development.

Reference

- Barnes, S., & Lewin, C. (2005). An introduction to inferential statistics: Testing for differences and relationships. In B. Somekh, & C. Lewin (Eds.), *Research methods in the social sciences* (pp. 226-235). London: SAGE Publications.
- Butler, J., Oslin, J., Mitchell, S., & Griffin, L. (2008). The way forward for TGfU: Filling the chasm between theory and practice. *Physical & Health Education Journal*, 74(2), 6-12. Retrieved from SPORTDiscus with Full Text database.
- Football Federation Australia. (2009). *FFA national football curriculum*. Retrieved from http://www.footballaustralia.com.au/site/_content/document/00001254-source.pdf
- Football Federation Australia. (2007). *National football development plan: Making Australia a world leader in the world game*. Retrieved from http://www.footballaustralia.com.au/site/_content/document/00000540-source.pdf
- Football Federation Australia. (2009). *Optus small-sided football handbook*. Retrieved from http://www.footballaustralia.com.au/site/_content/document/00000576-source.pdf
- Gratton, C., & Jones, I. (2004). *Research methods for sport studies*. Abingdon, Oxon: Routledge.
- Griffin, L.L., & Butler, J.I. (Eds.). (2005). *Teaching games for understanding: Theory, research, and practice*. Champaign, IL: Human Kinetics.
- Holt, N., Streat, W., & Garcia Bengoechea, E. (2002). Expanding the teaching games for understanding model: New avenues for future research and practice. *Journal of Teaching in Physical Education*, 21(2), 162-176. Retrieved from SPORTDiscus with Full Text database.
- Hubball, H., Lambert, J., & Hayes, S. (2007). Theory to practice: Using the games for understanding approach in the teaching of invasion games. *Physical & Health Education Journal*, 73(3), 14-20. Retrieved from SPORTDiscus with Full Text database.
- Kirk, D., & MacPhail, A. (2002). Teaching games for understanding and situated learning: Rethinking the Bunker-Thorp model. *Journal of Teaching in Physical Education*, 21(2), 177-192. Retrieved from

- SPORTDiscus with Full Text database.
- Kormelink, H., & Seeverens, T. (1997). *The coaching philosophies of Louis van Gaal and the Ajax coaches*. Leeuwarden: Uitgeverij Eisma bv.
- Light, R. (2004). Coaches' experiences of game sense: Opportunities and challenges. *Physical Education & Sport Pedagogy*, 9(2), 115-131. Retrieved from SPORTDiscus with Full Text database.
- Mandigo, J., Butler, J., & Hopper, T. (2007). What is teaching games for understanding? A Canadian perspective. *Physical & Health Education Journal*, 73(2), 14-20. Retrieved from SPORTDiscus with Full Text database.
- McBride, R., & Xiang, P. (2004). Thoughtful decision making in physical education: A modest proposal. *Quest* (00336297), 56(3), 337-354. Retrieved from SPORTDiscus with Full Text database.
- McMorris, T., & Hale, T. (2006). *Coaching science: Theory into practice*. Chichester, West Sussex: John Wiley & Sons Ltd.
- Metzler, M.W. (2000). *Instructional models for physical education*. Needham Heights, MA: Allyn and Bacon.
- Michels, R. (2001). *Team building: The road to success*. Leeuwarden: Uitgeverij Eisma bv.
- Randall, L. (2008). Implementing TGfU in the field. *Physical & Health Education Journal*, 74(2), 16-20. Retrieved from SPORTDiscus with Full Text database.
- Smith, K., Todd, M., & Waldman, J. (2009). *Doing your undergraduate social science dissertation*. Abingdon, Oxon: Routledge.
- van Lingen, B. (1997). *Coaching soccer: The official coaching book of the Dutch Soccer Association*. Spring City, PA: Reedswain Videos and Books Inc.
- Winner, D. (2000). *Brilliant orange: The neurotic genius of Dutch football*. Soho Square, London: Bloomsbury Publishing.