

ADG

ATTACKER DEFENDER GOALKEEPER

A New Alternative to the Penalty Shootout

1 December 2022

Attacker Defender Goalkeeper © Tim Farrell 2008

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Introduction

What's Wrong with the Penalty Shootout?

1. Exposes Players to Psychological Trauma, Racism and Death Threats

The shootout fosters long term psychological trauma for players who miss critical kicks as Bossis, Six, Baggio, Conti and many others have detailed. Death threats were made against several players at the 2018 World Cup.¹ Tammy Abraham received racial abuse and death threats after missing a penalty in the 2019 UEFA Super Cup.² Three English players received racial abuse after missing penalties in the 2020 Euro final.³ FIFA, IFAB, FIFPRO and any group who is concerned about player welfare, need to act before there's a real-life tragedy.

2. Fails to Showcase the Game

Every time a match ends with a goalkeeper guessing the wrong way and a ball dribbling into a goal, or a player crumbling to the ground at the penalty spot, the sport is devalued. In contrast, ADG provides a tie-breaker format where fans can see spectacular and exhilarating goals.

Would you rather watch a player like Ronaldo, Neymar or Mbappé walk up and convert a penalty to win a major competition, or watch them at full speed, swerve past a defender and bend the ball into the back of the net? However, ADG isn't just about the attacking players, it also gives defenders and goalkeepers equal opportunity to shine.

3. Team Kicking First has 20% Advantage

The reason is because the team kicking second is usually playing catch-up and experiences greater pressure with each kick.⁴ Incredibly, nine consecutive shootouts were won by the team who kicked first at the FIFA World Cup from Japan/Korea 2002 to Brazil 2014.

How does ADG work?

The referee tosses a coin and the team that wins the toss, decides whether to attack or defend in the first ADG contest. The teams receive an additional substitution. The referee meets separately with the teams and records their five attackers.

The attacker receives the ball at the ADG mark, which is 32 yards from the goal line. Having seen the attacker, the opposition field their defender. The defender and goalkeeper must be at least 10 yards from the ball until it is in play.

Half the field is in play. The attacker kicks off and has 20 seconds to try and score a goal. The contest will end if any of the following occur:

- A goal is scored
- The ball goes out of play
- The goalkeeper controls the ball with their hands inside the penalty area
- The 20 seconds elapses
- The attacker commits a foul

If the defender or goalkeeper commits a foul, the attacker is awarded a penalty kick, and the 20 second time period is disregarded for the remainder of that contest.

Teams take turns attacking and defending. Teams play a total of ten ADG contests. At the completion of the contests, the team with the most goals is the winner. If scores remain level, the same players from the first contest, will compete in the first sudden death contest.



UEFA SUPERCUP
ESTABLISHED - 14 AUGUST 2019
LIVERPOOL FC vs CHELSEA FC

YOKOHAMA
TYRES

NIKE VAPORKNIT

The Advantages

1. Reduces Psychological Trauma, Racism and Death Threats

While missed penalty kicks are usually the contributing factor in deciding a shootout, it will be the goals that decide ADG. This distinction is crucial, as a negative natured competition is transformed into a positive one. Indeed, while the shootout creates a malignant environment where players are routinely exposed to psychological trauma, racism and death threats, ADG creates heroes. In fact, there's considerable first-hand evidence that a missed penalty kick in a critical match fosters serious long-term psychological trauma. See page 30.

2. Showcases the Game

In stark contrast to the penalty shootout, ADG showcases the skill, speed, athleticism and dynamic beauty of modern football. Conversely, if the match was a cagey scoreless draw, supporters still have the opportunity to see brilliant and exciting goals during ADG.

3. Removes Advantage of Kicking First

Data reveals that the team who takes the first kick in the penalty shootout wins 60% of the time.⁴ As the team who wins the toss can always elect to kick first, it's an inherently unfair situation for the opposition. The scoring rate for penalties by professional players in the shootout since 1970 has been 73%.⁵ So, the team kicking second is usually playing catch-up and therefore experiences greater pressure with each kick. ADG's scoring rate is estimated at 20%. The dramatically lower scoring rate removes the expectation that the player will always score. Of course, when the associated psychological pressure is removed, there won't be any advantage in attacking first in ADG.

4. Coach and Strategy are Vital

After selecting his five attacking players, the coach instructs the remaining players which of the opposing team's attackers they should defend against. Furthermore, the coach can also strategise with his players on the best way to defend against their specific opponent. Modern football has brought the coach centre stage and this is a great opportunity for them to utilise their knowledge and tactical skills to influence the outcome of the match. Contrast this with the shootout lottery, where the extent of their involvement is usually limited to asking players if they are willing to take a penalty kick.

5. All Players Compete

As every player competes in ADG, it's a fairer test of a team's overall football ability.

6. Encourages Fair Play during the Match

Teams who have received yellow and red cards are at a disadvantage during ADG. This is fairer for teams who have played within the laws and the spirit of the game. See page 33.

7. Encourages Attacking Play during the Match

ADG counteracts a scenario of a team playing totally defensively, in the belief that their best chance of winning is via the penalty shootout. This is especially common when a team has had a player sent off and is referred to as "playing for penalties." See page 34.

Unlike the penalty shootout, ADG forms part of the official match, so warnings and cautions are carried forward into ADG. As any additional sanctions during ADG will likely hinder teams as they progress through the elimination stages of tournaments, there's more incentive for teams to attack and try and win the game in normal play.

Teams will be discouraged from substituting creative attacking players during the match, as their skills will be invaluable if ADG eventuates. By keeping these players on the field it increases the likelihood of a winning goal during normal play. See the example on page 34.



The Laws

Attacker Defender Goalkeeper (ADG) occurs after normal play has ended and unless otherwise stated, the relevant Laws of the Game apply. Warnings and cautions issued during normal play are carried forward into ADG.

Procedure

Before ADG starts

1. Unless there are other considerations (e.g. ground conditions, safety etc.), the referee tosses a coin to decide the half of the field where ADG will take place, which may only be changed for safety reasons or if the goal or playing surface becomes unusable.
2. The referee tosses a coin again and the captain of the team who wins the toss, decides whether to attack or defend in the first contest.
3. If at the beginning of ADG one team has more players on the field than the other, they maintain that advantage.
4. The referee meets separately with each team and records their five attackers and the order in which they will compete.
5. A goalkeeper is ineligible as an attacker.

During ADG

6. Only the eligible players and match officials are permitted to remain on the field of play.
7. The players currently not competing must remain within the centre circle in the disused half of the field and will be supervised by an assistant referee.
8. The attacking team's goalkeeper must remain a safe distance behind the assistant referee who is positioned on the goal line.
9. If a team is unable to field their designated attacker or an eligible substitute, the team will forfeit that contest.
10. After seeing the attacker, the opposing team fields their defender.
11. Players designated as an attacker are ineligible as a defender.
12. If a team is unable to field a defender or an eligible substitute, the attacker will compete one-on-one against the goalkeeper.
13. The defender and goalkeeper must be at least 9.15m (10 yards) from the ball until it is in play.
14. Half of the field is in play.
15. The attacker kicks off from the ADG mark and has twenty seconds to try and score a goal.
16. The attacker may touch the ball an unlimited number of times.
17. If a goal is scored, the contest is over.
18. If the ball goes out of play, the contest is over.

19. If the goalkeeper controls the ball with their hands inside the penalty area, the contest is over.
20. If twenty seconds elapse, the contest is over.
21. If the attacker commits a foul, the contest is over.
22. If the defender or goalkeeper commits a foul, the attacker is awarded a penalty kick, and the twenty second time period is disregarded for the remainder of the contest.
23. If before the penalty kick has been taken, the attacker commits an offence that would normally result in the defending team receiving an indirect free kick, the contest is over.
24. If after the penalty kick has been taken, the attacker touches the ball again (with any part of the body), before it has touched another player, the contest is over.
25. If an incident occurs that would normally require play to be restarted by a dropped ball, the contest must be restarted.
26. The referee keeps a record of the contests.
27. An eligible player may change places with the goalkeeper.
28. With the exception of the condition explained above, players may not change places.

Subject to the conditions below, the teams play a total of ten contests

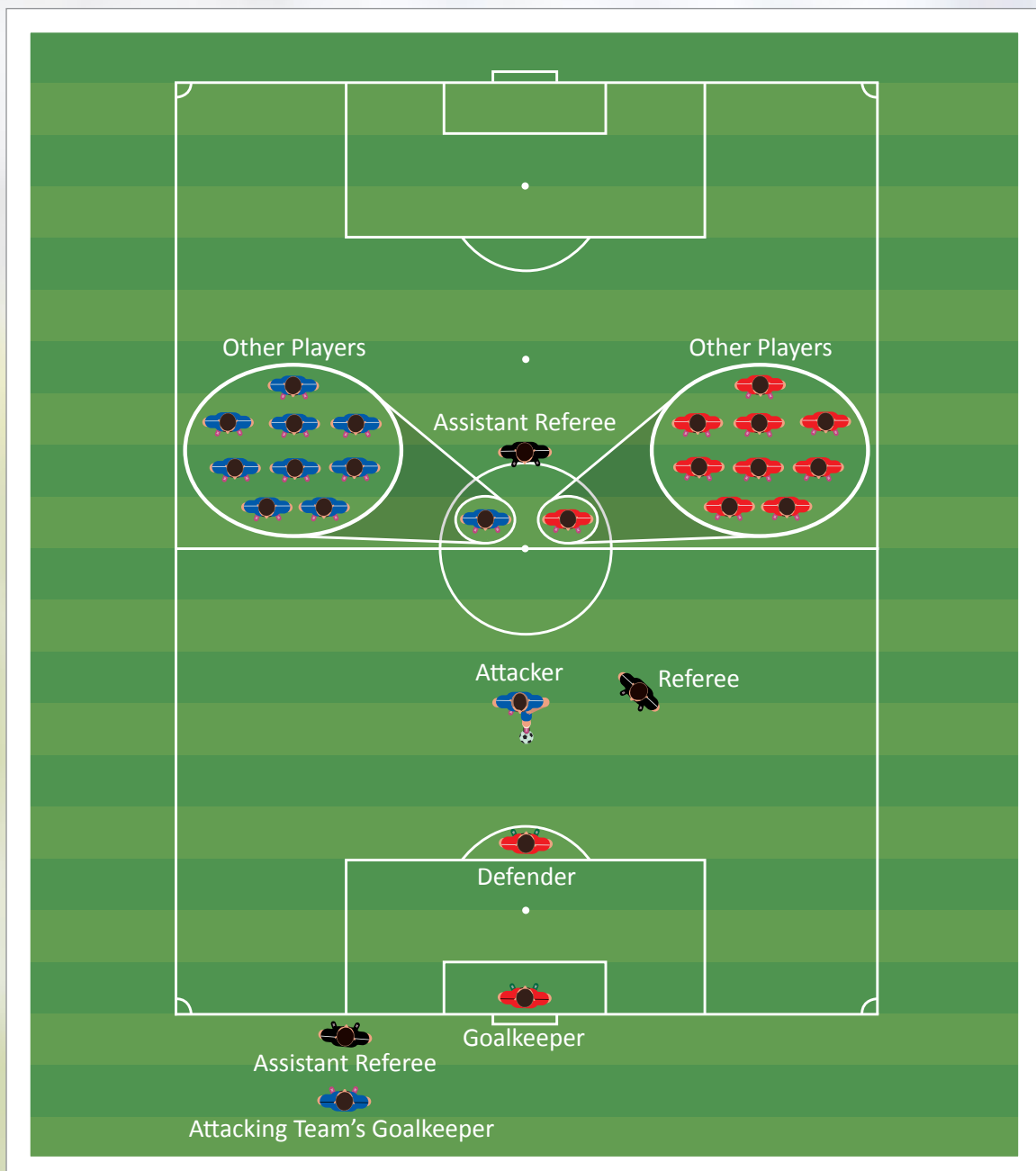
29. Teams take turns attacking and defending.
30. With the exception of each team's goalkeeper, a player is not allowed to compete in a second contest until all eligible players on both teams have competed in a contest.
31. If before the completion of the ten contests, one team has scored more goals than the other could score, even if the contests were to be completed, no more contests will occur.
32. If at the completion of the ten contests, the scores are level, then the contests continue with the same order of players, until one team has scored one more goal than the other from the same number of contests.

Substitutions, cautions and sending-offs during ADG

33. Teams receive an additional substitution and corresponding substitution opportunity.
34. A defender or goalkeeper who commits an offence which denies the attacker an obvious goal-scoring opportunity, is not cautioned or sent off unless:
 - The offence is holding, pulling or pushing, or there is no attempt to play the ball, in which case the player is cautioned.
 - The offence is one which is always punishable by a yellow or red card. (e.g. reckless or excessive force challenge)
 - The offence is handball, in which case the player is sent off.
35. The referee must not abandon the match if a team is reduced to fewer than seven players.

ADG Kick-off Positions

- The attacker receives the ball at the ADG mark, which is 29.26m (32 yards) from the goal line and equidistant from the touchlines.
- The defender and goalkeeper must be at least 9.15m (10 yards) from the ball until it is in play.
- The referee is positioned for a kick-off.
- One assistant referee is positioned on the goal line and assists the referee with decisions in a similar way to an additional assistant referee.
- The attacking team's goalkeeper remains behind the goal line assistant referee.
- The other assistant referee is positioned within the centre circle of the disused half of the field and supervises the players who are currently not competing.



ADG Kick-off Positions for Players and Referees



FINAL MILANO 2016
STADIO SAN SIRO 18 MAY
Real Madrid vs Atletico Madrid

Trade Online
Plus500

RES

AUTHENTIC
ECCO 2015

The Laws Explained

Before ADG starts

Law 1 is self-explanatory and is similar to the law from *Kicks from the Penalty Mark*, which requires the referee to toss a coin to decide the goal where the kicks take place.

Law 2 is self-explanatory and is similar to the law from *Kicks from the Penalty Mark*, where the team winning the toss has the choice of kicking first or second.

Law 3 is designed to encourage fair play. Teams who received red cards during normal play will be at a disadvantage during ADG.

Law 4 requires each team to designate their five attackers with the referee prior to the start of ADG. If a team has had a player or players sent off, the law ensures the team still fields an attacker for five contests.

Law 5 is self-explanatory.

During ADG

Law 6 is identical to the law from *Kicks from the Penalty Mark*, which allows only the eligible players and match officials to remain on the field of play.

Law 7 is similar to the law from the *Kicks from the Penalty Mark*, and requires the players who are currently not competing to remain within the centre circle in the disused half of the field. An assistant referee will supervise these players.



Law 8 is similar to the law from *Kicks from the Penalty Mark*, which designates the positioning of the goalkeeper who is the team-mate of the current kicker.

Law 9 describes how a team will forfeit a contest if they are unable to field an attacker. This would occur if the player was sent off. Another example is an attacker who is injured, with his team having already used their additional substitution.

Law 10 describes how the decision to field a specific defender is made only after seeing the opposition's attacker.

Law 11 is self-explanatory.

Law 12 states how an attacker is allowed to go one-on-one against the goalkeeper. This arises if a team begins ADG with more players than the opposition.

Law 13 is similar to the law from *The Start and Restart of Play*, which requires opponents to be at least 10 yards from the ball until it is in play.

Law 14 is self-explanatory.

Law 15 designates kick-off from the ADG mark, which is 29.26m (32 yards) from the goal line. The law also stipulates a twenty second time limit. This mitigates against a standoff between the attacker and the defender. Twenty seconds ensures urgency, but also provides ample time for unpredictable and exhilarating contests.

Law 16 is included to circumvent *The Start and Restart of Play* law that states, “If the player taking the kick-off touches the ball again before it has touched another player, an indirect free kick, or for a handball offence a direct free kick, is awarded.”

Law 17 is self-explanatory.

Law 18 stipulates that a contest will end if the ball goes out of play. Both the referee and the assistant referee on the goal line will adjudicate on whether a ball is in or out of play.

Law 19 and Law 20 are self-explanatory.

Law 21 is self-explanatory and an example is an attacker who loses the ball, and fouls the defender while trying to regain it.

Law 22 stipulates a penalty kick if the defender or goalkeeper commits a foul. As the twenty second time period is disregarded, the contest concludes when one of the following occurs: (a) a goal is scored, (b) the goalkeeper controls the ball with their hands inside the penalty area, (c) the ball goes out of play, or (d) the attacker commits a foul or an offence as described in Law 23 or 24.



Law 23 is self-explanatory and an example is an attacker, who during the penalty kick, feints to kick the ball after completing their run-up.

Law 24 is similar to the law from *The Penalty Kick*, which stipulates a free kick, if the kicker touches the ball again, before it has touched another player.

Law 25 is self-explanatory.

Law 26 requires the referee to keep a record of the contests. While they have already recorded the attacking players, as each contest unfolds, they also record: the defenders and goalkeepers, if a goal is scored, and the score.

Law 27 is identical to the law from *Kicks from the Penalty Mark*, which allows an outfield player to become the goalkeeper. This situation may arise if a goalkeeper is sent off or injured, with the team having already used their additional substitution. Any on-field attacker or defender can become the goalkeeper, and this is regardless of whether the player has already competed in a contest.

Law 28 is self-explanatory and an example would be a team with an injured defender. A player who is already on the field may not change places with the injured player. Of course, if the team still has their additional substitution available, they can simply replace the injured player with a substitute.

Subject to the conditions below, the teams play a total of ten contests

Law 29 is similar to the law from *Kicks from the Penalty Mark*, which requires five kicks to be taken alternately. The teams take turns attacking and defending.

Law 30 is self-explanatory and is similar to the law from *Kicks from the Penalty Mark*, where each kick is taken by a different player, and all players must take a kick before any player can take a second kick.

Law 31 is self-explanatory and is similar to the law from *Kicks from the Penalty Mark*, where if one team has an unassailable lead, the match is over.

Law 32 is similar to the law from *Kicks from the Penalty Mark*, which describes the sudden death procedure that occurs if scores are still level after the ten kicks. The players from the first contest, will now compete in the first sudden death contest.

Substitutions, cautions and sending-offs during ADG

Law 33 allows each team an additional substitution and corresponding opportunity. If teams suffer an injury during ADG, the additional substitution ensures that they will not be unfairly disadvantaged. Any unused substitutions from normal play are also carried forward into ADG. However, to prevent the number of substitutions from becoming unwieldy and slowing the game down, they can only be utilised within the same substitution opportunity.

Law 34 addresses offences that deny the attacker an obvious goal-scoring

opportunity (DOGSO). With the attacker competing against just a defender and goalkeeper, goal-scoring opportunities will be a normal occurrence. Therefore, to avoid an excessive number of sanctions, the punishments cannot be as severe as during normal play. Moreover, as a foul on the attacker always results in a penalty kick (a very good opportunity to score), the goal-scoring opportunity lost by the offence is always restored. So, regardless of whether the offence occurs inside or outside the penalty area, if the foul is careless, the player is not cautioned or sent off.

However, to discourage unfair play and analogous to the Laws of the Game, holding, pulling or pushing, or any offence which is not an attempt to play the ball, receives a yellow card. Of course, reckless or excessive force challenges remain yellow and red card offences, respectively. Finally, a handball DOGSO remains a red card offence.

Law 35 is identical to the law from *Kicks from the Penalty Mark*, and requires the referee to continue with ADG even in the event of a team having less than seven players on the field.



Denying an Obvious Goal-Scoring Opportunity (DOGSO)	Sanction
Careless Foul	None
Reckless Foul	Yellow Card
Holding, pulling or pushing, or no attempt to play the ball	Yellow Card
Excessive Force Foul	Red Card
Handball	Red Card



Fouls, Misconduct and Injuries

Unlike the penalty shootout, ADG forms part of the official match, so warnings and cautions are carried forward into ADG. The Laws of the Game regarding what constitutes a warning or cautionable offence apply during ADG. With the exception of denying an obvious goal-scoring opportunity, as specified in Law 34, laws regarding what constitutes a sending-off offence also apply. Let's examine some implications with the 2006 World Cup final as a hypothetical example.

Careless Foul by Defender

During the first contest, the French defender Sagnol makes a careless tackle on the Italian attacker Del Piero. Despite Del Piero having a clear path towards goal, as per Law 34, Sagnol is not cautioned or sent off. As per Law 22, Del Piero receives a penalty kick.

Second Yellow Card for Defender

During the first contest, Sagnol fouls Del Piero. The foul is deemed reckless enough to warrant a yellow card. It's Sagnol's second yellow card, so he is sent off. As per Law 22, Del Piero receives a penalty kick. And as per Law 12, Del Piero will now compete one-on-one against Barthez.

Red Card for Defender

During the first contest, Del Piero strikes a powerful shot towards goal. Sagnol commits a handball offence to deny an obvious goal scoring opportunity. As per Law 34, Sagnol is sent off.

Red Card for Goalkeeper

During the fifth contest, the French goalkeeper Barthez fouls the Italian attacker Pirlo. The foul is deemed to have been committed with excessive force and Barthez is sent off. As per the Laws of the Game, the French can remove an outfield player and bring on a substitute goalkeeper. For instance, in the hypothetical example on page 17, the French could remove the current defender Gallas, and replace him with a substitute goalkeeper.

However, if the French had already used their additional substitution, then as per Law 27, they would have to make an on-field player their goalkeeper. Once again, Gallas would be a likely choice.

Red Card for Attacker

During the first contest, the attacker Del Piero loses the ball and fouls the defender Sagnol. The foul is deemed to be committed with excessive force and Del Piero is sent off. If ADG enters sudden death, then as per Law 9, Italy will forfeit the first sudden death contest because they will be unable to field their designated attacker.

Injured Attacker

During the first contest, Sagnol fouls Del Piero with a careless challenge. As per Law 22, the attacking team receives a penalty kick. Del Piero is injured and assisted from the field. As per Law 33, the Italians can replace Del Piero with their additional substitution. The substitute will then take the penalty kick.

Injured Defender

During the first contest, Sagnol tackles Del Piero and forces the ball out of play. As per Law 18, the contest is over. However, Sagnol has sustained an injury and is assisted from the field. If ADG reaches sudden death, then as per Law 33, the French can replace Sagnol with their additional substitution.

Injured Goalkeeper

During the fifth contest, the French goalkeeper Barthez is injured and has to leave the field. As per Law 33, the French can use their additional substitution to bring on a substitute goalkeeper.

However, if the French had already used their additional substitution, then as per Law 27, they would have to make an on-field player their goalkeeper.



2006 FIFA World Cup Hypothetical

Let's examine ADG with the 2006 FIFA World Cup final as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) The Italians have eleven players and the French have ten due to Zidane's red card. The Italians have Zambrotta on a yellow card, while the French have Makelele, Malouda and Sagnol all on yellow cards. The Italians win the coin toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Buffon (GK)
3	Grosso
4	De Rossi
5	Cannavaro
7	Del Piero
8	Gattuso
9	Toni
15	Iaquinta
19	Zambrotta ■
21	Pirlo
23	Materazzi



16	Barthez (GK)
3	Abidal
5	Gallas
6	Makelele ■
7	Malouda ■
11	Wiltord
15	Thuram
18	Diarra
19	Sagnol ■
20	Trezeguet

Contest 1

Italy have Del Piero as their attacker and France select Sagnol as their defender. Barthez is the goalkeeper. The referee blows his whistle and the stadium clock counts down from twenty seconds. Del Piero dribbles the ball past Sagnol and gets a powerful shot away that leaves Barthez flailing. Goal!

Contest 2

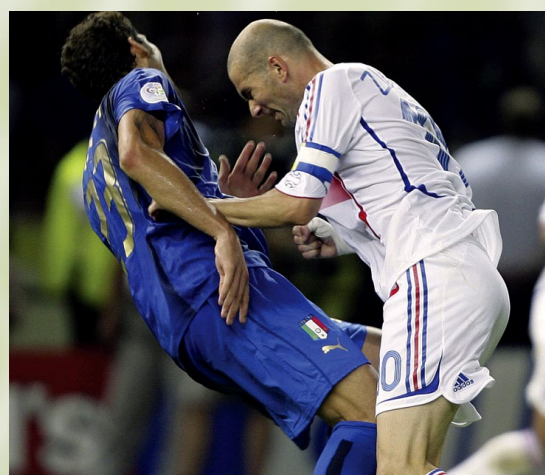
France have Makelele as their attacker and Italy select Grosso as their defender. Buffon is the goalkeeper. Grosso brilliantly tackles Makelele and kicks the ball over the touchline.

Contest 3

Italy have De Rossi as their attacker and France select Thuram as their defender. De Rossi skips past Thuram and shoots from distance. Barthez makes the save.

Contest 4

France have Malouda as their attacker and Italy select Zambrotta as their defender. Malouda is immediately fouled by a reckless challenge from Zambrotta. The defender receives his second yellow card of the match and is sent off. Malouda converts the penalty kick.



Contest 5

Italy have Pirlo as their attacker and France select Gallas as their defender. Gallas dispossesses Pirlo of the ball and kicks it over the halfway line.

Contest 6

France have Diarra as their attacker and Italy select Gattuso as their defender. Diarra attempts a long range shot directly from the kick-off. Buffon makes the save.

Contest 7

Italy have Iaquina as their attacker and France opt not play a defender. Remember that the French are a man down because of Zidane's red card. Iaquina dribbles into the penalty box, fakes out Barthez with some clever footwork and angles the ball into the net.

Contest 8

France have Wiltord as their attacker and Italy select Materazzi as their defender. Wiltord manages to get past Materazzi, but his long range shot misses the goal.

Contest 9

Italy have Toni as their attacker and France select Abidal as their defender. Toni hops past Abidal and gets a powerful shot away. Barthez makes a spectacular diving save.

Contest 10

The French need to score in the tenth contest to push ADG into sudden death. France have Trezeguet as their attacker, while Italy will have Cannavaro as their defender. Cannavaro makes a superb tackle on Trezeguet and kicks the ball over the touchline. Italy win the 2006 World Cup!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Del Piero	Sagnol	Barthez	Goal	ITA 1-0 FRA
2	Makelele	Grosso	Buffon	-	ITA 1-0 FRA
3	De Rossi	Thuram	Barthez	-	ITA 1-0 FRA
4	Malouda	Zambrotta	Buffon	Goal	ITA 1-1 FRA
5	Pirlo	Gallas	Barthez	-	ITA 1-1 FRA
6	Diarra	Gattuso	Buffon	-	ITA 1-1 FRA
7	Iaquinta	-	Barthez	Goal	ITA 2-1 FRA
8	Wiltord	Materazzi	Buffon	-	ITA 2-1 FRA
9	Toni	Abidal	Barthez	-	ITA 2-1 FRA
10	Trezeguet	Cannavaro	Buffon	-	ITA 2-1 FRA

2008 UEFA Champions League Hypothetical

Let's examine ADG with the 2008 Champions League final as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) Chelsea have ten players due to Drogba's red card, while Manchester United have the full eleven. Chelsea have Essien, Carvalho and Ballack on yellow cards. United have Ferdinand, Vidić and Tévez also on yellow cards. United win the toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Čech (GK)
3	A. Cole
5	Essien ■
6	Carvalho ■
8	Lampard
13	Ballack ■
21	Kalou
26	Terry
35	Belletti
39	Anelka



1	Van der Sar (GK)
3	Evra
4	Hargreaves
5	Ferdinand ■
7	Ronaldo
8	Anderson
11	Giggs
15	Vidić ■
16	Carrick
17	Nani
32	Tévez ■

Contest 1

Manchester United have Ronaldo as their attacker, while Chelsea select Terry as their defender. Čech is the goalkeeper. Ronaldo fakes out Terry with some sublime footwork. He quickly dribbles the ball towards goal and dispatches a thunderous shot. Goal!

Contest 2

Chelsea have Ballack as their attacker and Manchester United select Ferdinand as their defender. Van der Sar is the goalkeeper. Ballack skips past Ferdinand and bends the ball towards goal. Van der Sar makes a spectacular save.

Contest 3

Manchester United have Tévez as their attacker and Chelsea select Cole as their defender. Cole makes a fantastic tackle on Tévez and kicks the ball over the touchline.

Contest 4

Chelsea have Kalou as their attacker and Manchester United select Vidić as their defender. Kalou skips past Vidić and shoots from outside the penalty box. Van der Sar makes an amazing save to deny the goal.



Contest 5

United have Nani as their attacker and Chelsea select Carvalho as their defender. Nani is outpacing Carvalho when he's tackled from behind. Carvalho receives his second yellow card of the match and is sent off. Nani has sustained an injury and is assisted from the field. United use their additional substitution to bring on Fletcher. Fletcher converts the penalty.

Contest 6

Chelsea have Essien as their attacker and United select Carrick as their defender. Essien out muscles Carrick and gets a powerful shot away. Another great save from Van der Sar.

Contest 7

United have Giggs as their attacker and Chelsea opt not to field a defender. Remember that Chelsea are down a man because of Drogba's red card. Giggs quickly dribbles his way into the penalty box and shoots. Čech gets a fingertip to the ball and it's enough to push it over the crossbar.

Contest 8

Chelsea have Lampard as their attacker and United select Anderson as their defender. Lampard has to score or United will be champions. Anderson tussles with Lampard before making a terrific tackle and kicking the ball out of play. Manchester United win the 2008 UEFA Champions League!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Ronaldo	Terry	Čech	Goal	MAN 1-0 CHE
2	Ballack	Ferdinand	Van der Sar	-	MAN 1-0 CHE
3	Tévez	A. Cole	Čech	-	MAN 1-0 CHE
4	Kalou	Vidić	Van der Sar	-	MAN 1-0 CHE
5	Nani/Fletcher	Carvalho	Čech	Goal	MAN 2-0 CHE
6	Essein	Carrick	Van der Sar	-	MAN 2-0 CHE
7	Giggs	-	Čech	-	MAN 2-0 CHE
8	Lampard	Anderson	Van der Sar	-	MAN 2-0 CHE

2011 FIFA Women's World Cup Hypothetical

Let's examine ADG with the 2011 FIFA Women's World Cup final as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) The Americans have eleven players and the Japanese have ten due to Iwashimizu's red card. The Americans have not received any cautions but the Japanese have Miyama on a yellow card. The Americans win the coin toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Solo (GK)
3	Rampone
6	LePeilbet
7	Boxx
9	O'Reilly
10	Lloyd
11	Krieger
13	Morgan
17	Heath
19	Buehler
20	Wambach



21	Kaihoru (GK)
2	Kinga
4	Kumagai
6	Sakaguchi
8	Miyama ■
9	Kawasumi
10	Sawa
15	Sameshima
17	Nagasoto
20	Iwabuchi

Contest 1

USA have Wambach as their attacker, while Japan select Kumagai as their defender. Kaihoru is the goalkeeper. Wambach edges past her defender and is inside the penalty area when she shoots. But the shot is wide and the goalkeeper watches it safely fly by.

Contest 2

Japan have Kawasumi as their attacker and USA select Buehler as their defender. Solo is the goalkeeper. Buehler makes a careless tackle and it's a penalty kick for Kawasumi. The attacker hits a solid penalty and Solo can't prevent the first Japanese goal.

Contest 3

USA have O'Reilly as their attacker and Japan select Sameshima as their defender. Sameshima makes a decisive and well-timed tackle that forces the ball over the touchline.

Contest 4

Japan have Nagasoto as their attacker and USA select LePeilbet as their defender. Nagasoto slides past LePeilbet and Solo is quickly off her line. Nagasoto attempts to chip the goalkeeper, but the shot is too high and the ball sails over the crossbar.

Contest 5

USA have Lloyd as their attacker and Japan select Kinga as their defender. Lloyd is barely off the ADG mark when she's fouled by a careless challenge from Kinga. Kaihoru saves Lloyd's penalty kick.

Contest 6

Japan have Iwabuchi as their attacker and USA select Rampone as their defender. Iwabuchi skips past Rampone and shoots from just outside the penalty box. Solo makes a brilliant save to deny the goal.

Contest 7

USA have Heath as their attacker and Japan don't play a defender because of Iwashimizu's red card. Heath dribbles into the box and slots the ball home.

Contest 8

Japan have Miyama as their attacker and USA select Boxx as their defender. They tussle before Boxx kicks the ball out of play.

Contest 9

USA have Morgan as their attacker and Japan select Sawa as their defender. Sawa dispossesses the ball from the attacker and kicks it over the touchline.

Contest 10

Japan have Sakaguchi as their attacker and USA have Krieger as their defender. Krieger stumbles, but Solo is off her line and manages to sweep the ball up before the attacker can attempt a shot.

Contest 11

ADG enters sudden death. As per the first contest, USA have Wambach as their attacker, while Japan have Kumagai as their defender. A perfectly timed tackle from the defender forces the ball over the touchline.

Contest 12

As per the second contest, Japan have Kawasumi as their attacker, while USA have Buehler as their defender. Kawasumi is away and gets a long range shot off. Solo manages to palm the ball away, but Kawasumi scampers for a follow up shot. It's a stinging effort and the ball rockets into the goal. Japan win the 2011 FIFA Women's World Cup!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Wambach	Kumagai	Kaihoru	-	USA 0-0 JPN
2	Kawasumi	Buehler	Solo	Goal	USA 0-1 JPN
3	O'Reilly	Sameshima	Kaihoru	-	USA 0-1 JPN
4	Nagasoto	LePeilbet	Solo	-	USA 0-1 JPN
5	Lloyd	Kinga	Kaihoru	-	USA 0-1 JPN
6	Iwabuchi	Rampone	Solo	-	USA 0-1 JPN
7	Heath	-	Kaihoru	Goal	USA 1-1 JPN
8	Miyama	Boxx	Solo	-	USA 1-1 JPN
9	Morgan	Sawa	Kaihoru	-	USA 1-1 JPN
10	Sakaguchi	Krieger	Solo	-	USA 1-1 JPN
11	Wambach	Kumagai	Kaihoru	-	USA 1-1 JPN
12	Kawasumi	Buehler	Solo	Goal	USA 1-2 JPN

2012 UEFA Champions League Hypothetical

Let's examine ADG with a semi final from the 2012 Champions League as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) Both Real Madrid and Bayern München have eleven players. Madrid have Pepe, Granero and Arbeloa on yellow cards. Bayern have Robben, Alaba, Badstuber and Gustavo also on yellow cards. Madrid win the toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Casillas (GK)
3	Pepe ■
4	Ramos
6	Khedira
7	Ronaldo
8	Kaká
11	Granero ■
12	Marcelo
14	Alonso
17	Arbeloa ■
20	Higuaín



1	Neuer (GK)
10	Robben ■
17	Boateng
21	Lahm
25	Müller
27	Alaba ■
28	Badstuber ■
30	Gustavo ■
31	Schweinsteiger
33	Gomez
39	Kroos

Contest 1

Real Madrid have Ronaldo as their attacker, while Bayern München select Lahm as their defender. Neuer is the goalkeeper. Lahm shadows Ronaldo to the edge of the penalty box, but Ronaldo still manages to get a good shot away. Neuer makes a difficult save.

Contest 2

Bayern have Robben as their attacker and Madrid select Marcelo as their defender. Casillas is the goalkeeper. Robben slips past Marcelo and has a long range curling shot. But it's too high and Casillas watches it fly over the crossbar.

Contest 3

Madrid have Kaká as their attacker and Bayern select Alaba as their defender. Kaká seems away but a great sliding tackle from Alaba forces the ball over the touchline.

Contest 4

Bayern have Müller as their attacker and Madrid select Arbeloa as their defender. Müller skips past Arbeloa and shoots from just inside the penalty box. It's a bullet of a shot and Casillas can't reach it. Goal!



Contest 5

Madrid have Higuaín as their attacker and Bayern select Boateng as their defender. Higuaín is past Boateng when he's fouled by a careless challenge. It's a penalty kick for Higuaín. Neuer guesses correctly, but can't prevent the ball going into the goal.

Contest 6

Bayern have Schweinsteiger as their attacker and Madrid select Pepe as their defender. Schweinsteiger decides to take a shot "free kick" style directly from the kick-off. Schweinsteiger hits a cannon of a shot and the ball hurtles past the goalkeeper and into the back of the net.

Contest 7

Real Madrid have Granero as their attacker and Bayern select Badstuber as their defender. Granero is past the defender and is about to shoot when he's fouled outside the penalty area by a careless challenge from Badstuber. Granero hits an accurate penalty kick, but a wonderful save from Neuer prevents the goal.

Contest 8

Bayern have Gomez as their attacker and Madrid select Ramos as their defender. Ramos steals the ball and in the ensuing struggle is fouled. The contest is over.

Contest 9

Madrid need to score or Bayern will be victorious. Madrid have Khedira as their attacker while Bayern select Gustavo as their defender. Khedira slides past Gustavo and gets a powerful shot away. Neuer gets a fist to the ball and punches it over the goal line. Bayern München are through to the final of the 2012 UEFA Champions League!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Ronaldo	Lahm	Neuer	-	RMA 0-0 BAY
2	Robben	Marcelo	Casillas	-	RMA 0-0 BAY
3	Kaká	Alaba	Neuer	-	RMA 0-0 BAY
4	Müller	Arbeloa	Casillas	Goal	RMA 0-1 BAY
5	Higuaín	Boateng	Neuer	Goal	RMA 1-1 BAY
6	Schweinsteiger	Pepe	Casillas	Goal	RMA 1-2 BAY
7	Granero	Badstuber	Neuer	-	RMA 1-2 BAY
8	Gomez	Ramos	Casillas	-	RMA 1-2 BAY
9	Khedira	Gustavo	Neuer	-	RMA 1-2 BAY

2014 FIFA World Cup Hypothetical

Let's examine ADG with a semi final from the 2014 FIFA World Cup as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) Both the Netherlands and Argentina have eleven players. The Netherlands have Huntelaar on a yellow card, while Argentina have Demichelis also on a yellow card. The Netherlands win the toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Cillessen (GK)
2	Vlaar
3	De Vrij
5	Blind
7	Janmaat
10	Sneijder
11	Robben
15	Kuyt
16	Clasie
19	Huntelaar ■
20	Wijnaldum



1	Romero (GK)
2	Garay
4	Zabaleta
6	Biglia
10	Messi
11	Rodriguez
14	Mascherano
15	Demichelis ■
16	Rojo
18	Palacio
20	Aguero

Contest 1

Netherlands have Huntelaar as their attacker, while Argentina select Zabaleta as their defender. Romero is the goalkeeper. Huntelaar slides past Zabaleta and shoots from outside the penalty box. Romero makes a fantastic save to prevent the goal.

Contest 2

Argentina have Aguero as their attacker and Netherlands select Blind as their defender. Cillessen is the goalkeeper. Aguero hops past Blind and gets a long range shot away. Cillessen gets a hand to the ball and it's enough to help it over the crossbar.

Contest 3

Netherlands have Sneijder as their attacker and Argentina select Garay as their defender. Sneijder only takes a few paces before he's brilliantly tackled by Garay who then kicks the ball over the halfway line.

Contest 4

Argentina have Messi as their attacker and Netherlands select Vlaar as their defender. Messi tussles with Vlaar but eventually he's away and has a clear path towards goal. Cillessen is near the edge of the six yard box when Messi delicately chips the ball over his head and into the goal.



Contest 5

Netherlands have Robben as their attacker and Argentina select Rojo as their defender. Robben is able to skip past Rojo and dribbles the ball into the penalty box. Robben gets a good shot off, but Romero manages to palm the ball out of play.

Contest 6

Argentina have Mascherano as their attacker, while the Netherlands select Clasie as their defender. Clasie stumbles slightly and Mascherano has a clear path towards goal. Cillessen is off his line, but a heavy touch from Mascherano allows the goalkeeper to sweep up the ball.

Contest 7

Netherlands have Kuyt as their attacker and Argentina select Demichelis as their defender. Kuyt is barely off the ADG mark when he's fouled by a careless challenge from Demichelis. Kuyt hits his penalty low and hard. However, Romero guesses right and at full stretch manages to steer the ball around the goal post.

Contest 8

Argentina have Palacio as their attacker and Netherlands select De Vrij as their defender. De Vrij makes a strong challenge and gains possession of the ball before kicking it over the touchline.

Contest 9

Netherlands need to score in the ninth contest or Argentina will be the winners. Netherlands have Wijnaldum as their attacker, while Argentina select Biglia as their defender. Wijnaldum is away from Biglia and approaches the goal area. Biglia is in pursuit and just as the attacker is about to shoot the defender makes a perfectly timed tackle which forces the ball over the goal line. Argentina are through to the final of the 2014 FIFA World Cup!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Huntelaar	Zabaleta	Romero	-	NLD 0-0 ARG
2	Aguero	Blind	Cillessen	-	NLD 0-0 ARG
3	Sneijder	Garay	Romero	-	NLD 0-0 ARG
4	Messi	Vlaar	Cillessen	Goal	NLD 0-1 ARG
5	Robben	Rojo	Romero	-	NLD 0-1 ARG
6	Mascherano	Clasie	Cillessen	-	NLD 0-1 ARG
7	Kuyt	Demichelis	Romero	-	NLD 0-1 ARG
8	Palacio	De Vrij	Cillessen	-	NLD 0-1 ARG
9	Wijnaldum	Biglia	Romero	-	NLD 0-1 ARG

2020 UEFA Euro Hypothetical

Let's examine ADG with the 2020 UEFA Euro final as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) Both Italy and England have eleven players. The Italians have Chiellini, Jorginho and Bonucci on yellow cards, while England have Maguire on a yellow card. The Italians win the toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



21	Donnarumma (GK)
2	Di Lorenzo
3	Chiellini ■
5	Locatelli
8	Jorginho ■
9	Belotti
11	Berardi
16	Cristante
19	Bonucci ■
20	Bernardeschi
24	Florenzi



1	Pickford (GK)
3	Shaw
5	Stones
6	Maguire ■
7	Grealish
9	Kane
10	Sterling
11	Rashford
14	Phillips
17	Sancho
25	Saka

Contest 1

Italy have Berardi as their attacker, while England select Shaw as their defender. Pickford is the goalkeeper. Berardi is barely off the ADG mark when Shaw makes a solid but perfectly timed tackle that forces the ball over the touchline.

Contest 2

England have Kane as their attacker and Italy select Chiellini as their defender. Donnarumma is the goalkeeper. Kane slides past Chiellini and gets a long range shot away. Donnarumma makes a superb save to deny the goal.

Contest 3

Italy have Belotti as their attacker and England select Grealish as their defender. Belotti stumbles and the duo tussle before Grealish kicks the ball out of play.

Contest 4

England have Sancho as their attacker and Italy select Florenzi as their defender. Sancho glides past the defender and shoots from just inside the penalty area. Donnarumma punches the ball away and a follow up shot from Sancho blazes wide.



Contest 5

Italy have Bernardeschi as their attacker and England select Maguire as their defender. Bernardeschi edges away from Maguire and gets a powerful shot away. A great save from Pickford lifts the ball over the crossbar.

Contest 6

England have Sterling as their attacker, while Italy select Bonucci as their defender. Sterling shoots from distance and strikes the woodwork. The ball rebounds into Bonucci's path and he dispatches it over the goal line.

Contest 7

Italy have Locatelli as their attacker and England select Phillips as their defender. Locatelli attempts a long range shot directly from the kick-off. Pickford watches as the ball flies wide.

Contest 8

England have Saka as their attacker and Italy select Di Lorenzo as their defender. Saka gets a powerful shot away, but Donnarumma makes a spectacular diving save.

Contest 9

Italy have Cristante as their attacker and England select Stones as their defender. Cristante slips past Stones and a long range rocket finds the back of the net. Goal!

Contest 10

England need to score in the tenth contest or Italy will be the champions. England have Rashford as their attacker, while Italy select Jorginho as their defender. Rashford is away and gets a fierce shot off. Donnarumma just barely manages to punch the ball away and a follow up shot from Rashford sails wide. Italy win the 2020 UEFA Euro!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Berardi	Shaw	Pickford	-	ITA 0-0 ENG
2	Kane	Chiellini	Donnarumma	-	ITA 0-0 ENG
3	Belotti	Grealish	Pickford	-	ITA 0-0 ENG
4	Sancho	Florenzi	Donnarumma	-	ITA 0-0 ENG
5	Bernardeschi	Maguire	Pickford	-	ITA 0-0 ENG
6	Sterling	Bonucci	Donnarumma	-	ITA 0-0 ENG
7	Locatelli	Phillips	Pickford	-	ITA 0-0 ENG
8	Saka	Di Lorenzo	Donnarumma	-	ITA 0-0 ENG
9	Cristante	Stones	Pickford	Goal	ITA 1-0 ENG
10	Rashford	Jorginho	Donnarumma	-	ITA 1-0 ENG

2020 Women's Olympic Hypothetical

Let's examine ADG with the 2020 Women's Olympic final as a hypothetical example. (While the author believes that ADG after 90 minutes will be the optimal format, the players listed below are those who were on the field at the completion of extra time.) Both Sweden and Canada have eleven players. The Swedes have Asllani on a yellow card, while the Canadians are yet to receive a caution. The Swedes win the toss and choose to attack in the first contest. Both teams receive an additional substitution. The referee meets separately with the teams and records their five attackers and the order in which they will compete.



1	Lindahl (GK)
2	Andersson
3	Ilestedt
4	Glas
5	Bennison
8	Hurtig
9	Asllani ■
14	Björn
15	Schough
17	Seger
19	Anvegård



1	Labbé (GK)
3	Buchanan
4	Zadorsky
6	Rose
7	Grosso
8	Riviere
9	Leon
10	Lawrence
14	Gilles
17	Fleming
19	Huitema

Contest 1

Sweden have Anvegård as their attacker, while Canada select Gilles as their defender. Labbé is the goalkeeper. Gilles makes a strong challenge and manages to dispossess the ball from the attacker and force it over the touchline.

Contest 2

Canada have Grosso as their attacker and Sweden select Seger as their defender. Lindahl is the goalkeeper. Grosso skips past Seger and dribbles into the penalty box. She fakes out Lindahl with some clever footwork and slots the ball home. Goal!

Contest 3

Sweden have Asllani as their attacker and Canada select Buchanan as their defender. Asllani skips past Buchanan and fires off a rocket of a shot. Only a full stretch save from Labbé prevents a spectacular goal.

Contest 4

Canada have Rose as their attacker and Sweden select Björn as their defender. Rose is barely off the ADG mark when Björn makes a perfectly timed tackle and kicks the ball over the halfway line.



Contest 5

Sweden have Hurtig as their attacker and Canada select Riviere as their defender. Hurtig is past Riviere when she's fouled by a careless challenge. It's a penalty kick for the attacker. Hurtig scuffs her attempt and Labbé is presented with an easy save.

Contest 6

Canada have Leon as their attacker and Sweden select Glas as their defender. Leon slides past Glas and Lindahl comes racing off her line. Leon attempts to chip the keeper, but her kick is too short and Lindahl makes a comfortable save.

Contest 7

Sweden have Schough as their attacker and Canada select Lawrence as their defender. Schough has only taken a few paces when she's fouled by a reckless challenge from Lawrence. The defender receives a caution. Schough hits a solid penalty kick, but Labbé guesses right and gains control of the ball.

Contest 8

Canada have Huitema as their attacker and Sweden select Ilestedt as their defender. Huitema scoots around Ilestedt and Lindahl is quickly off her line. Huitema curls her shot towards the far corner of the goal. Lindahl can only stand and watch as the ball grazes the outside of the post.

Contest 9

Sweden need to score in the ninth contest or Canada will be the gold medal winners. Sweden have Bennison as their attacker, while Canada select Zadorsky as their defender. Zadorsky stumbles and Bennison has a clear path towards goal. Labbé comes hurtling off her line. A bad touch from Bennison allows the keeper to sweep up the ball before the attacker can strike her shot. Canada are the 2020 Tokyo Olympics women's football gold medallists!



#	Attacker	Defender	Goalkeeper	Result	ADG Score
1	Anvegård	Gilles	Labbé	-	SWE 0-0 CAN
2	Grosso	Sejer	Lindahl	Goal	SWE 0-1 CAN
3	Asllani	Buchanan	Labbé	-	SWE 0-1 CAN
4	Rose	Björn	Lindahl	-	SWE 0-1 CAN
5	Hurtig	Riviere	Labbé	-	SWE 0-1 CAN
6	Leon	Glas	Lindahl	-	SWE 0-1 CAN
7	Schough	Lawrence	Labbé	-	SWE 0-1 CAN
8	Huitema	Ilestedt	Lindahl	-	SWE 0-1 CAN
9	Bennison	Zadorsky	Labbé	-	SWE 0-1 CAN

Question and Answer

Aren't penalties just a simple and fair solution to a difficult problem?

Simple, yes. Fair, no. Professor Ignacio Palacios-Huerta in his book *Beautiful Game Theory: How Soccer Can Help Economics* studied 1001 penalty shootouts from 1970-2013. It includes virtually all the shootouts in the history of the main elimination tournaments such as the FIFA World Cup, European Championships and Copa América. It also includes club matches from the UEFA Champions League and Europa League, the Spanish Cup, German Cup and the English FA Cup.

What Palacios-Huerta discovered was that the team who took the first kick won 60% of the time.⁴ The reason is because the team kicking second is usually playing catch-up and experiences greater pressure with each kick. So, data clearly shows that the penalty shootout is like a lottery where the team kicking first has 20% more tickets!

IFAB have also rejected the ABBA kicking sequence which mirrors the tennis tie-break. However, ABBA was just putting a band-aid on a broken leg. It didn't address the penalty shootout's two other major problems – it doesn't showcase the game and it exposes players to psychological trauma, racism and death threats.



What psychological impact does the penalty shootout have on players?

Michel Platini was seemingly aware of the potential for long term psychological trauma when he said, “A football match should be decided by an action of play. Not some contrived process whose end result is to mark a fine player such as Bossis, Baresi or Baggio for the rest of his career.”⁶ I wrote to Platini several times when he was UEFA President, but never received a response. I was disappointed that someone with such close personal experience to the trauma of the penalty shootout, and who was apparently concerned with player welfare, couldn't find time to respond.

Roberto Baggio who was instrumental in getting Italy to the final of the 1994 World Cup, but missed the decisive kick in the shootout says, “It affected me for years. It is the worst moment of my career. I still dream about it. If I could erase a moment, it would be that one.”⁷ Maxime Bossis, the French defender who missed the last penalty in the 1982 World Cup semi final says, “You know players miss penalties all the time, but you still feel guilty. I would rather we lost in extra-time. I've never taken another penalty since then.”⁸

Didier Six, who missed his penalty kick in the same match, states explicitly how people's negative attitudes and prejudice can exaggerate the long term psychological damage that players often suffer. Six says, "At a certain point it gets too much. You are forty-five but people still see you as missing the penalty. I had difficulty finding a job because they said, 'That one is unstable.' And all that has come from this missed penalty kick." ⁸ Former England manager Terry Venables says, "Penalties put too much strain on one player. It could ruin his career if he's not a strong character. If you feel for the rest of your life that everyone could of had a winners' medal but for you, it's a hard thing to get over." ⁶

The first shootout in a European Cup final occurred in 1984 when Liverpool defeated A.S. Roma. The match is largely remembered for the antics of Liverpool goalkeeper Bruce Grobbelaar and his wobbling legs. Roma's favourite son, Bruno Conti, smashed the ball against the top of the crossbar and later described his missed penalty as "unspeakable pain" and said "my heart shrank to nothing and I was psychologically destroyed." ⁸ Roma's captain was Agostino di Bartolomei, who scored with his kick, but later suffered from depression and committed suicide on the tenth anniversary of the game. It's a stark and tragic reminder that professional athletes are as susceptible to mental illness as any other group in the community.



Does any other sport on the planet have such a self-destructive element as football's penalty shootout? And who will be the next player to be sacrificed? Imagine an icon of the sport like Messi, Ronaldo or Marta propelling their team to a World Cup final, only to miss the decisive kick in the penalty shootout. And what of the fourteen year-old boy or girl who misses the kick that loses their team the championship match? Do they continue playing football, or abandon it for another sport?

Christian Karembeu described it best when he equated the penalty shootout not with an old fashioned Wild West gunfight, but with a game of Russian roulette. "It is loading a bullet into the chamber of a gun and asking everyone to pull the trigger. Someone will get the bullet, you know that. And it will reduce them to nothing." ⁶

Some people will argue that the shootout simply parallels the ups and downs of real life. But the "two imposters" of triumph and disaster are already ever present within the regular ninety minutes. Indeed, it's common to see a player turn from villain to hero, or hero to villain, in the space of a single match. If there's one thing football doesn't need, it's a tie-breaker to remind us of the capriciousness of life.

Today's players also have to endure all the scrutiny and vitriol from social media. Death threats were made against several players at the 2018 World Cup.¹ While three English players received racial abuse and a mural was vandalised after they missed penalties in the 2020 Euro final.³ FIFA, IFAB and FIFPRO need to act before there's a catastrophic real-life tragedy.

How can ADG reduce trauma, racism and death threats? Isn't a missed goal in ADG going to have the same repercussions as during the shootout?

An average of 2.6 goals were scored at the 2018 World Cup. Football is the ultimate low scoring game. However, the shootout turns the game upside down and creates the expectation that the kicker will always score. Penalties takes a positive natured sport and turns it into a competition, where it's not the goals, but the misses, that invariably determine the winner.

Players measure themselves against their team-mates. If four of your team-mates convert penalties and your solitary miss loses the match, you're going to feel singularly responsible for the defeat. You're going to feel guilty about letting your team-mates and your supporters down.

ADG's scoring rate is estimated at 20%, or three to four times lower than the shootout. So, the expectation from team-mates and fans is that you won't score. They hope you do, but they don't expect it. Now there may be more expectation on the gifted genius, or the speedy superstar who's great on the ball. If they score a scintillating goal, of course they're going to be a hero. However, if they don't score, they won't be saddled with feelings of guilt and responsibility, because it's likely none of their team-mates scored either. And that's how players ultimately measure themselves. They measure their own personal performance, against that of their team-mates.

A talented player who doesn't score in ADG may feel disappointment, but they won't experience the burden and trauma of knowing they lost the game. It's like the difference between watching a player miss a penalty kick during normal play and during the shootout. The player who misses during normal play is usually angry or disappointed with themselves. But they don't appear as that desolate or inconsolable figure who knows that they've just cost their team the match or the championship.



How often are shootouts occurring?

Since the 1982 FIFA World Cup, 20% of elimination matches have gone to penalties. So, if we project forward to the 2026 World Cup, the 48 teams will be divided into 16 groups, comprising 3 teams. This means an additional 16 knock-out matches. So, we can anticipate at least 6 shootouts per tournament. That also means a massive increase in the amount of abuse, racism and psychological trauma that players will be subjected to.

What was the inspiration for ADG?

Everyone talks about the 1994 World Cup final and I also remember what happened to Baggio. A.S. Byatt writes, "One does not remember the winners. One remains haunted by the losers." ⁹ So, I think I've had alternatives gestating for a while. But, it wasn't until I watched the 2008 UEFA Champions League final that I put pen to paper and began to flesh out an alternative.

What was the main idea behind ADG?

The underlying problem with the shootout is the expectation that the kicker should always score. So, I said, "How do we change that expectation?" It was then I had the idea of including a defender. The challenge was then to develop a tie-breaker that would combine the skill, speed and athleticism of modern football, with the climactic drama and tension of the shootout.

Briefly describe how ADG works?

The referee tosses a coin and the team that wins the toss, decides whether to attack or defend in the first ADG contest. The teams receive an additional substitution. The referee meets separately with the teams and records their five attackers.

The attacker receives the ball at the ADG mark, which is 32 yards from the goal line. Having seen the attacker, the opposition field their defender. The defender and goalkeeper must be at least 10 yards from the ball until it is in play.

Half the field is in play. The attacker kicks off and has 20 seconds to try and score a goal. The contest will end if any of the following occur:

- A goal is scored
- The ball goes out of play
- The goalkeeper controls the ball with their hands inside the penalty area
- The 20 seconds elapses
- The attacker commits a foul

If the defender or goalkeeper commits a foul, the attacker is awarded a penalty kick and the 20 seconds is disregarded for the remainder of that contest.

Teams take turns attacking and defending. Teams play a total of ten ADG contests. At the completion of the contests, the team with the most goals is the winner. If scores remain level, the same players from the first contest will compete in the first sudden death contest.

What advantages does ADG have over the penalty shootout?

ADG has seven fundamental advantages. It reduces psychological trauma, racism and death threats, because goals scored, instead of missed penalty kicks, determine the winner. It showcases skill, speed and athleticism. It removes the unfair advantage for the team kicking first. Coaching and strategy are vital. All players compete. It encourages fair play and attacking play during the match.



How does ADG encourage fair play during the match?

Unlike the penalty shootout, ADG forms part of the official match, so warnings and cautions are carried forward into ADG. Additionally, teams that have received red cards during normal play are at a significant disadvantage during ADG. This is much fairer for teams who have played within the laws and the spirit of the game.

Let's use the 2010 World Cup quarter-final between Uruguay and Ghana as an example. In the last minute of extra time a Uruguayan player deliberately handled the ball and denied Ghana a match winning goal. As we all now know, Ghana missed the penalty kick and went on to lose the match during the shootout.

Once Ghana had missed the penalty kick, Uruguay were not subject to any further disadvantage for the remainder of the match. In fact, it doesn't matter how many players a team has had sent off, if they can make it through to the penalty shootout, then they are at no further disadvantage to their opponents.

However, if ADG rather than the penalty shootout had ensued, Uruguay would have been without a defender for one of the contests. This gives the Ghanaians a distinct advantage, which is something most rational football fans around the world believed they were entitled to. So, ADG is much more effective than the penalty shootout at punishing teams who are guilty of unsporting and illegal play.

How does ADG encourage attacking play during the match?

Teams can't play for penalties, which is especially common when a team has had a player sent off. A coach will instruct all his eleven players to stay behind the ball and hope to snatch a win in the penalty shootout. In ADG, a team who has received a red card is a defender down, which means an opposition's attacker goes one-on-one against their goalkeeper.

Couldn't teams could play for ADG, just like they do for penalties? Well, if you were so confident in your team's superior football ability during ADG, why not just apply those skills to normal play and try and win the match in 90 minutes?

While Law 34 is designed to minimise yellow and red cards, sanctionable offences are of course still more conceivable during ADG than the penalty shootout. As any additional sanctions will likely hinder teams as they progress through the elimination stages of tournaments, there's additional incentive for teams to play attacking football and win the match before ADG.



ADG also encourages teams to keep creative attacking players on the field. In the 2006 World Cup final the French replaced Ribéry and Henry after 100 and 107 minutes, respectively. Would these substitutions have occurred if ADG rather than penalties was imminent? Both are sublimely talented attacking players, who despite their genuine fatigue, would be invaluable for ADG. But their presence on the field for the duration of normal play, increases the chances of a French goal and the match being decided prior to ADG.

Why use the 32 yard ADG mark?

ADG was originally envisaged with the attacker kicking off from the centre mark. This was to ensure that ADG wouldn't require any extra markings on the field. However, expert feedback suggested that kicking off from the centre mark would present too significant a challenge for the attacker. The result being that less than 15% of contests would likely result in a goal.

For ADG to be effective as a tie-breaker, a scoring rate of 20% is required. This rate removes the expectation the attacker will always score and also ensures that if ADG enters sudden death, the duration of the match won't be unduly prolonged. Another reason 32 yards was selected is because the apex of the penalty arc is 10 yards from the ADG mark. So, it acts as a marker for the defender's position at kick-off.

The ADG mark also adds variability, with the potential to score directly from kick-off. Fans love a long-range free kick and this is another opportunity for them to see spectacular goals.

Why use the 20 second time period?

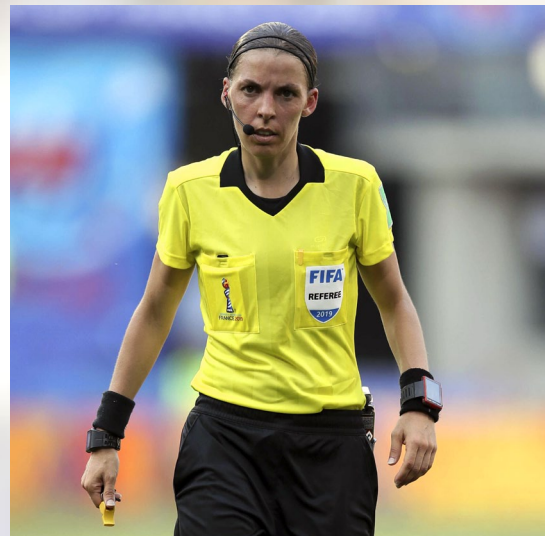
To avoid any sort of standoff between the attacker and defender. For example, the attacker trying to fake the defender into moving a certain direction. The 20 seconds provides a sense of urgency, but also allows ample time for attackers of all abilities and ages to progress towards goal and attempt a shot. Where a stadium has a clock visible to spectators, the 20 second countdown would be shown on the clock via a link to the referee's watch.

What about goals right on 20 seconds?

In the event of a goal on the 20 second mark, the referees can receive an audible beep when the 20 seconds elapse. The assistant with their view along the goal line, is in the best position to adjudicate on exactly when the ball crosses the line. For major tournaments it would be logical to enhance goal line technology, so it can indicate if the ball crosses the line before the 20 seconds elapse.

How does a team determine who will be their attackers and defenders?

These decisions will lie with the team's coach. The coach will consult with his team and determine his five attackers and the order in which they will compete. As for the defenders, it's a case of anticipating who the opposition's attackers will be and selecting players to defend against them.



What are the differences between refereeing in ADG and normal play?

As the attacker competes against just a defender and goalkeeper, fouls will always be a denying an obvious goal-scoring opportunity (DOGSO) offence. However, as a foul on the attacker, regardless of whether it occurs inside or outside the penalty area, always results in a penalty kick, the goal-scoring opportunity lost by the offence is always restored.

So, to avoid an excessive number of sanctions, the punishments during ADG are not as severe as during normal play. If it's a careless DOGSO, the defender or goalkeeper is not cautioned or sent off. While a DOGSO during ADG that involves holding, pulling or pushing, or no attempt to play the ball, receives a yellow card, instead of the normal red. Of course, reckless or excessive force challenges remain yellow and red card offences, respectively. Finally, a handball DOGSO remains a red card offence.

What are the duties of the assistants?

One of the assistants is positioned in the disused half of the field and supervises the players who are currently not competing. The other assistant is positioned on the goal line and assists the referee with decisions in a similar way to an additional assistant referee. Both the referee and the assistant on the goal line will adjudicate on whether a ball is in or out of play.

Won't ADG put extra pressure on the referees and their assistants?

Any alternative to the penalty shootout that places the emphasis back on football skill, will inevitably put some pressure back on the referee. So, I doubt there would be anyone involved with refereeing who is eager to see the shootout replaced. In fact, it was actually a member the FIFA Referees' Committee who submitted the penalty kick shootout as a replacement for the coin toss in 1970. And it's a tie-breaker format that makes it virtually impossible for the referee to make a mistake that influences the outcome of the match.

However, without the clutter of bodies hindering visibility and with the referees always in close proximity to the play, refereeing mistakes during ADG should be a rarity. And as the players currently not competing must remain in the disused half of the field, a group of players can't surround and intimidate the referee.

Furthermore, two incidents that often result in contentious decisions, the offside law and whether a foul is committed inside or outside the penalty area, are not factors during ADG.

Another issue is when a goalkeeper moves off their goal line before the penalty is taken. Until recently, the Laws of the Game stated that the kick must be retaken and

the goalkeeper cautioned. However, it's created so much recent controversy that IFAB were forced to modify the law. The goalkeeper will now receive a warning for the first offence, and only a second offence will result in a yellow card. Indeed, the late great Johan Cruyff, who played in the North American Soccer League (NASL) and experienced the 35 yard shootout said, "With penalties you've always got problems about whether the goalkeeper moved. You don't get this with the (NASL) shootout."¹⁰ Likewise, in ADG a penalty kick only occurs when the attacker is fouled, so this problem will occur much less frequently.

Finally, Video Assistant Referees (VAR) are helping referees with match-changing decisions. In fact, the natural stoppages within ADG ensure that VAR will be much less disruptive than during normal play.

And aren't the costs of a slight increase in pressure on the referee outweighed by the benefits? Quite simply, what ADG will deliver is spectacular and exhilarating goals. It's due to the skill and grace of movement of the world's great players that we call football the "beautiful game" and the reason why it's the most popular sport on earth. It's also of course why Messi, Ronaldo and Marta are continuously rated as the world's best players. As the marketing people say, "If you've got a great product, let the product speak for itself."

Refereeing Implications	ADG	Normal Play
Increased visibility	✓	✗
Referee always in close proximity to play	✓	✗
Mass confrontation avoided	✓	✗
Offside not applicable	✓	✗
Foul inside/outside Penalty Area not applicable	✓	✗
Minimise issue of GK off goal line before PK	✓	✗
Natural stoppages make VAR less disruptive	✓	✗

How is ADG different to other alternatives that have been tried?

Any successful alternative has to be about scoring goals. I was never a fan of ideas like counting woodwork strikes, corners, cautions or any of the other things that have been suggested. We have to see the ball going into the net. I think the Americans were on the right track with their NASL shootout, which was later used in the MLS. The shootout started 35 yards from the goal and the player had five seconds to shoot. Johan Cruyff said, “This is spectacular and not as brutal as penalties.”⁶ In a documentary in 2006 he said, “I still think in Europe they should try it.”¹¹ Another recently departed legend of the game, Carlos Alberto, said in the same film that the NASL shootout “makes the game more emotional.”¹¹

The dynamic nature of the American shootout rendered the penalty shootout as a static and clinical contest. MLS discarded their shootout in 1999 because they wanted “to bring the MLS game into accordance with how the game is played throughout the world.”¹² Former USA goalkeeper, Winston DuBose says, “FIFA wanted to whip America into line with the rest of the world. Can you imagine Lionel Messi against Tim Howard, or something like that? It would be unbelievable to see that, fantastic. FIFA’s extremely reluctant to change and it’s crazy.”¹³

So, how does ADG compare? Well, the NASL shootout still only involves five attackers from each team. ADG of course involves every player, so it’s a fairer test of a team’s overall ability. ADG also showcases defensive skills. For example, you might see a defender make a perfectly timed sliding tackle to deny a shot on goal.

Another difference is that ADG provides a vital role for the coach, with strategy being a major factor. Furthermore, and similar to penalties, the NASL shootout doesn’t disadvantage teams who have received yellow or red cards. So, another major distinction is that only ADG promotes fair play.

Some also people argued that the NASL shootout became too predictable, with the keeper always dashing to the edge of the penalty area. Including a defender and extending the time by 15 seconds, ensures unpredictable contests will unfold. Furthermore, in ADG the attacker also has the option to shoot directly from kick-off.

If the IFAB was to reconsider the NASL shootout, it would be a very hard sell. You’re bringing back a product that hasn’t been on the shelf in over 20 years. So, the critics will say, “If it was so good in the first place, why was it discontinued?” And for the record, ADG was not inspired by the NASL shootout and it was only after developing the ADG proposal that the author became aware of it.

Feature	ADG	NASL
All players compete	✓	✗
Showcases defensive skills	✓	✗
Coach and strategy are vital	✓	✗
Unpredictable contests	✓	✗
Promotes fair play	✓	✗
Shoot from kick-off	✓	✗
New idea	✓	✗

What about other alternatives?

One idea that's often discussed is having the shootout take place before extra time. The team that wins the shootout takes a half goal advantage into extra time. The premise is that it forces the team that lost the shootout to attack in extra time. But it's also going to encourage the team with the advantage to sit back and try for a goal on the break. With modern teams so adept at counter-attacking football, the odds of them actually scoring another goal and shutting the game down will be very high.

With alternatives like endless extra time, or the intermittent removal of players, there's always going to be the issue of excessively long matches and an increased likelihood of player injury. Not to mention the scheduling nightmare, because no one can guess how long these matches are going to last. In contrast, ADG would be completed within 10-15 minutes.

It's also highly likely that if the above alternatives were introduced, supporters might miss the dramatic climax of the penalty shootout. The beauty of ADG is it combines the skill, speed and athleticism of modern football, with the climactic drama and tension of the shootout.

What will ADG's scoring rate be?

The scoring rate for penalties in the shootout for professional players since 1970 has been 73%.⁵ While the rate for the 35 yard shootout in the NASL and MLS



was about 33%.¹³ Of course, competing against both a defender and a goalkeeper makes ADG more difficult. However, this will be partially offset by increasing the time limit from 5 to 20 seconds, and punishing fouls, including those outside the penalty area, with a penalty kick. So, we can estimate that the ADG scoring rate will be approximately 20%.

How does ADG remove the 60/40 advantage for the team kicking first?

ADG's low scoring rate removes the expectation the player will always score. When the associated psychological pressure is removed, there won't be any advantage in attacking first in ADG. Which is in contrast to the massive advantage of winning the coin toss and electing to kick first during the penalty shootout.

Now some people assume that regardless of the actual scoring rate or the type of competition involved, going first in an ABAB sequence will always present some sort of inherent advantage. For instance, serving first in the deciding set of a tennis match is generally acknowledged as an advantage. However, the actual statistics reveal that just as many players ultimately win the match when serving second in the final set.¹⁴

If a foul receives a penalty kick, won't there be too many penalties and cards?

The rate for converting penalties during normal play is 80%, which is even higher than during the shootout. As mentioned, ADG's scoring rate is estimated at 20%. So, if the defender commits a foul, it's three to four times more likely the attacker will score. The defender has to treat the field of play as one big penalty area and be prudent when challenging the attacker for the ball. This will result in a very limited number of penalties and sanctionable offences. And as per Law 34, a careless DOGSO offence is also not sanctioned.

How does ADG deal with injuries and substitutions?

Newly introduced law changes allow teams at the 2022 FIFA World Cup to use up to a maximum of five substitutes per match, with a maximum of three substitution opportunities. The tournament also allows for a squad of twenty-six players, so up to fifteen substitutes can be nominated prior to the start of a match.

Now let's suppose that ADG is occurring instead of the penalty shootout. During ADG, as per Law 33, each team is allocated



an additional substitution. So, under the current laws, even if a team has already used its five substitutes, the coach will still have ten players available on the bench from which to select their ADG substitute.

What about injury concerns with players cooling down before ADG?

A criticism that ADG sometimes attracts, is that as players cool down they will inevitably suffer more injuries. But data collected by the English FA Medical Research Programme and published by the *British Journal of Sports Medicine* in 2003-2004 on the timing of hamstring¹⁵ and ankle strains¹⁶ contradicts this premise. A total of 91 football clubs from the English football leagues committed to the study which occurred over two seasons.

The research found that the two periods when players' core body temperatures are at their lowest levels,¹⁷ namely the first 15 minutes of the match and the 15 minutes immediately following half time, actually contained the lowest number of injuries in both the studies.^{15,16} In fact, almost half of the reported injuries occurred during the last 15 minutes of each half when body temperatures are actually at their highest. These findings support the notion that fatigue, rather than core body temperature, is the predisposing factor for these injuries.

Before the start of ADG there will be a five to ten minute period where the referee tosses the coin, coaches select players and discuss tactics, and the referee records the attacking players. During this time the players will be able to rest, rehydrate and lessen fatigue levels.

How would ADG integrate with the other tie-breaker procedures?

There are three procedures to determine the result of a match or a home-and-away: away goals, extra time and kicks from the penalty mark. ADG could be a fourth procedure and tournaments could then choose between the shootout and ADG. While tournaments could opt to play away goals and/or extra time and then ADG, the author believes that 90 minutes of normal play followed directly by ADG will be the optimal format.

In recent years there has been a lot of conjecture about the relevance of the away goals rule. “I believe the tactical weight of the away goal has become too important,” says Arsène Wenger. “Teams get a 0-0 draw at home and they’re happy. Instead of having a positive effect it has been pushed too far tactically in the modern game. It has the opposite effect than it was supposed to have at the start. It favours defending well when you play at home.”¹⁸

“It was an artificial regulation brought in to avoid a third match”, says former Scotland manager and UEFA technical director Andy Roxburgh. “It was to encourage elite teams to attack. What actually happens is that it works the other way around. It’s encouraged home teams to defend. It gives certain goals an added value and you can argue that’s artificial. It encourages caution that wouldn’t be there if you removed it. It was introduced for the right reasons, but it’s time to look at it.”¹⁹



Journalist and author of *Inverting the Pyramid: The History of Football Tactics*, Jonathan Wilson writes, “The away goals rule first made an appearance in European football in the Cup Winners’ Cup in 1965, primarily to eliminate the need for replays, which were costly and difficult to arrange. Given the alternative was flipping a coin, it probably seemed the lesser of two evils and, besides, back then it made a certain sense. Only 16% of all European away games then resulted in an away win. Away trips were difficult as travel was gruelling and away teams would often face unfamiliar and hostile conditions. As a consequence, the tendency was for the away side to absorb pressure and try to keep the score down.”¹⁸

“But circumstances have changed. In each of the last five years, between 30 and 35% of matches in European competition have been won by the away side. Even if you wanted to make the argument that the away goals rule has worked, the original rationale for its introduction has gone. Transport is better now and there is a great homogeneity of conditions. While the differences between a German side and a Spanish side, or a Russian side and a French side, are far less than they were. Away trips simply aren’t as frightening as they once were and so the away goal becomes a weird distorter.”¹⁸

In 2021 UEFA announced the abolition of the away goals rule in all club competitions.

What about extra time and the chance of excessively long matches?

While penalties often conclude within 5-10 minutes, ADG will take about 10-15 minutes. In a similar fashion to the relevance of away goals, there's also been debate about the value of extra time in an era of high-tempo and pressing football. During the 2018 FIFA World Cup, Croatia played extra time on three occasions. So, by the time they reached the final they had effectively played an additional match. The Croatian team's fatigue in the second half of the final, spoiled what would have been a much more competitive match.

Of the last 13 UEFA Champions League finals to go into extra time, 11 have ended without a single goal during the added 30 minutes. So, if we combine the lack of goals with professional players' increasing schedules and the dwindling attention spans of global sporting audiences, then the value of extra time in modern football is certainly debatable.

Tournaments such as the Copa América and Copa Libertadores have already eliminated extra time, with all knockout matches except finals, going straight into the penalty shootout.

So, for those tournaments selecting ADG, the choice remains whether to play away goals and/or extra time, or simply play ADG after 90 minutes.



Why not keep football a simple game?

The phrase “a simple game” dates back to 1862 when a teacher at Uppingham School in England drew up a set of ten laws entitled *The Simplest Game*. These ten laws which are also known as the Uppingham Rules totalled a mere 253 words.²⁰ By contrast, the word count for the seventeen laws in the current edition of IFAB's *Laws of the Game* is over 16,000.

What was indeed once a simple game has morphed into a sophisticated sport where players, coaches and referees dedicate decades to perfecting their skills. Over the past 150 years the Laws of the Game have expanded exponentially and the sport has undergone many transformations. Consequently, the idea of football being “a simple game” is an anachronism.

So, while some might complain that ADG is too complicated, we must also acknowledge that the sport's rulebook spans over 220 pages. In fact, the word count for the thirty-five ADG laws is actually less than that for the penalty shootout! Regardless, many concepts which are highly detailed and ostensibly complicated on paper, become deceptively simple when they are physically played out and people can visualise them. This will be the case with ADG.

The penalty kick itself is over one hundred years old, isn't that justification for the shootout?

The late Australian broadcaster, Les Murray writes, "To begin with penalty kicks were invented as tools of punishment for offences. It is inherently abhorrent that tools of punishment should be used to decide games. Proponents of shootouts make the case that penalties are part of football. Yes, but only when someone has committed a foul inside the penalty area. As genuine, intended arbiters of a game's outcome, they are not part of the game and never have been. The men who drew up the Laws of the Game all those years ago would be spinning in their graves at the thought that penalties are now deciding World Cup finals."²¹

Isn't ADG just a gimmick and not real football?

Everyone is frightened of change, but we also know that the penalty shootout is an unsatisfactory solution and that's why we've seen things like golden goal and silver goal. Now while these experiments were ultimately deemed unsuccessful, this should in no way hinder or disqualify the development of other new alternatives. I know people will say that ADG isn't real football and contrary to the Laws of the Game, but I will always argue that ADG is more about the purity of football and the dynamic beauty of the game than the shootout will ever be.

Of course, ADG is a bold alternative. But the very nature of a diabolical problem necessitates creative thinking, innovation and evolution. Most elements of the game such as pitch quality, stadium design, real-time statistics, kit, crowd control, safety, and most recently, refereeing technology, have evolved since the seventies. But the game's ultimate tie-breaker remains a relic from a bygone era. Football must continue to evolve if it's to preserve its place as the most loved sport in the world. ADG should be viewed as another step forward in this evolutionary process.

What's the future hold for ADG?

You often hear people say, "Don't fix what's not broken." However, FIFA have repeatedly acknowledged the problem and that's why other alternatives are always discussed. Even Sepp Blatter, for all his faults, declared the shootout a tragedy and in 2012 asked Franz Beckenbauer to come up with an alternative. Beckenbauer said something about them being better than the coin toss, and that was it! So, regrettably there's an astonishing amount of arrogance and wilful neglect exhibited by the sport's law makers and administrators.

ADG was discussed by the IFAB in 2009. In the ensuing years the proposal has been radically improved. Subsequently, IFAB acknowledged the 20% advantage for the team kicking first and ABBA was trialled. We've also witnessed the global sporting community's growing recognition of their responsibility towards athlete's mental health. However, football remains oblivious to the dangers, with the penalty shootout continuing to promote psychological trauma, racism and death threats. It's a cancer on the sport and a black mark against FIFA, IFAB, FIFPRO and every football administrator.

I've tried to develop a detailed proposal and anticipate likely problems, but as with any proposed alternative, only practical testing will reveal its actual strengths and flaws. It's then of course a matter of getting feedback from the game's stakeholders such as players, fans, coaches and managers, referees, sponsors and administrators.

When the shootout was introduced in 1970, football was a very different game. Four years earlier Pelé was literally kicked out of the World Cup and even considered quitting the sport. Five decades later the game deserves a tie-breaker that rewards and showcases the modern footballer for their immense skill, speed and athleticism. Things have to change soon, otherwise as Karembeu says, "Someone will get the bullet, you know that. And it will reduce them to nothing."

FIFA World Cup Penalty Shootout Data

YEAR	STAGE	WINNER	LOSER	SCORE	PSO SCORE	WKF*
1982	SF	West Germany	France	3-3	5-4	N
1986	QF	West Germany	Mexico	0-0	4-1	Y
1986	QF	France	Brazil	1-1	4-3	N
1986	QF	Belgium	Spain	1-1	5-4	N
1990	Last 16	Rep. of Ireland	Romania	0-0	5-4	N
1990	QF	Argentina	Yugoslavia	0-0	3-2	Y
1990	SF	Argentina	Italy	1-1	4-3	N
1990	SF	West Germany	England	1-1	4-3	N
1994	Last 16	Bulgaria	Mexico	1-1	3-1	N
1994	QF	Sweden	Romania	2-2	5-4	Y
1994	Final	Brazil	Italy	0-0	3-2	N
1998	Last 16	Argentina	England	2-2	4-3	Y
1998	QF	France	Italy	0-0	4-3	Y
1998	SF	Brazil	Netherlands	1-1	4-2	Y
2002	Last 16	Spain	Rep. of Ireland	1-1	3-2	N
2002	QF	South Korea	Spain	0-0	5-3	Y
2006	Last 16	Ukraine	Switzerland	0-0	3-0	Y
2006	QF	Germany	Argentina	1-1	4-2	Y
2006	QF	Portugal	England	0-0	3-1	Y
2006	Final	Italy	France	1-1	5-3	Y
2010	Last 16	Paraguay	Japan	0-0	5-3	Y
2010	QF	Uruguay	Ghana	1-1	4-2	Y
2014	Last 16	Brazil	Chile	1-1	3-2	Y
2014	Last 16	Costa Rica	Greece	1-1	5-3	Y
2014	QF	Netherlands	Costa Rica	0-0	4-3	N
2014	SF	Argentina	Netherlands	0-0	4-2	N
2018	Last 16	Russia	Spain	1-1	4-3	N
2018	Last 16	Croatia	Denmark	1-1	3-2	N
2018	Last 16	England	Colombia	1-1	4-3	N
2018	QF	Croatia	Russia	2-2	4-3	N

* Winner Kicked First in Penalty Shootout.

Famous Quotes

*“When you go into extra time, we’re talking about drama.
But when we reach the penalty shootout, it’s a tragedy.”*²²

Joseph S. Blatter
Former FIFA President

*“A football match should be decided by an action of play.
Not some contrived process whose end result
is to mark a fine player such as Bossis,
Baresi or Baggio for the rest of his career.”*⁶

Michel Platini
Former French Player

*“You know players miss penalties all the time, but you still feel guilty.
I would rather we lost in extra-time.
I’ve never taken another penalty since then.”*⁸

Maxime Bossis
Former French Player

*“At a certain point it gets too much.
You are forty-five but people still see you as missing the penalty.
I had difficulty finding a job because they said, ‘That one is unstable.’
And all that has come from this missed penalty kick.”*⁸

Didier Six
Former French Player

*“It affected me for years. It is the worst moment of my career.
I still dream about it.
If I could erase a moment, it would be that one.”*⁷

Roberto Baggio
Former Italian Player

*“It is loading a bullet into the chamber of a gun and
asking everyone to pull the trigger.
Someone will get the bullet, you know that.
And it will reduce them to nothing.”*⁶

Christian Karembeu
Former French Player

*“So far, penalty shootouts have been used.
When or if someone clever comes up with something more interesting,
something the players will find more alluring or psychologically
more demanding, perhaps we can change the current system.”*²³

Antonín Panenka
Former Czechoslovakian Player

“My heart shrank to nothing and I was psychologically destroyed.”⁸

Bruno Conti
Former A.S. Roma Player

“They (penalties) are to sport what Love Island is to Romeo and Juliet.”²²

Simon Jenkins
Writing in The Guardian

*“Penalties are not football.
They are not even as television people keep telling us, great drama.
They are cheap melodrama.”⁶*

Simon Barnes
Writing in The Times

*“They (FIFA) wanted to whip America into line with the rest of the world.
(The NASL shootout is) unbelievably exciting.
Can you imagine Lionel Messi against Tim Howard, or something like that?
It would be unbelievable to see that, fantastic.
FIFA’s extremely reluctant to change and it’s crazy.”¹³*

Winston DuBose
Former USA Goalkeeper

“I don’t think you can give anyone advice for penalty shootouts.”⁸

Gianluigi Buffon
Former Italian Goalkeeper

“Penalty kicks don’t necessarily mean the best team came out on top.”²⁵

Claudio Taffarel
Former Brazil Goalkeeper

*“The main factor in a penalty shootout is luck again.
You need to stay calm and focussed, but the biggest thing you need is luck.”²⁶*

Peter Shilton
Former England Goalkeeper

“Everyone knows it’s unfair to have games decided by a penalty shootout.”²⁵

Gerardo Martino
Former Manager of Paraguay

“The penalties are always a lottery.”³¹

Luiz Felipe Scolari
Former Manager of Portugal

*“We ought not be subjecting people to this kind of pressure.
Penalties put too much strain on one player.
It could ruin his career if he’s not a strong character.
If you feel for the rest of your life that everyone could of had a
winners’ medal but for you, it’s a hard thing to get over.”*⁶

Terry Venables
Former Manager of England

*“Penalty shootouts have nothing to do with football.
It’s like shooting poor wee ducks at a fairground.”*⁶

Alex Smith
Former Manager of Aberdeen

*“We realised we could not really beat Marseille unless they made a mistake.
So I told my players to be patient and to wait for penalties.
We practiced penalties a lot in our closed training
session on Tuesday and it paid off.”*²⁹

Ljupko Petrovic
Former Manager of Red Star Belgrade

*“We can walk away with our heads held high.
I don’t have a reason (to resign),
we only lost a game on penalties.”*³⁰

Roberto Donadoni
Former Manager of Italy

*“Of course coaches like shootouts because they
can say that defeat was not their fault.
But the people who run the game should take the long-term view.”*⁶

Michel Platini
Former UEFA President

*“Penalty shooting is always an uncertain affair
because there is a lot of luck involved.”*²⁸

Franz Beckenbauer
Former Manager of West Germany

*“One does not remember the winners.
One remains haunted by the losers.”*⁹

A.S. Byatt
Writing in The Observer

*“Penalties are awful, unfair, but what else is there?”*⁶

Laurent Blanc
Former French Player



References

1. Matt Roper, *World Cup 2018: Colombia players who missed penalties against England receive death threats from angry fans*, Independent, 5 July 2018
2. Jack Figg, *Chelsea ace Tammy Abraham receives death threats and is racially abused after penalty shootout miss against Liverpool*, The Sun, 16 August 2019
3. *Racist abuse of England players Rashford, Sancho & Saka 'unforgivable'*, BBC, 12 July 2021
4. Professor Ignacio Palacios-Huerta, *Beautiful Game Theory: How Soccer Can Help Economics*, Princeton University Press, 2014
5. Jose Apesteguia & Ignacio Palacios-Huerta, *Psychological Pressure in Competitive Environments: Evidence from a Randomized Natural Experiment*, American Economic Review 100: 2548–2564, December 2010
6. Clark Miller, *He Always Puts it to the Right*, Orion Books Ltd, UK, 1999
7. Steve Slater, *Penalties will put World Cup players on the spot*, <http://uk.reuters.com>, 27 May 2010
8. Ben Lyttleton, *Twelve Yards: The Art and Psychology of the Perfect Penalty*, Bantam Press, 2014
9. AS Byatt, *Lie back and think of Europe*, The Observer, 29 June 2008
10. P Doyle, N Miller, *The joy of six: Short-lived football rule changes*, www.guardian.com, 25 September 2015
11. Paul Crowder and John Dower, *Once In a Lifetime: The Extraordinary Story of The New York Cosmos*, Passion Pictures/Cactus Three/ESPN Original Entertainment/Greene Street Films, 2006
12. Don Garber teleconference, *Shootout banned; TV lineup changed*, CNN, 18 November 1999
13. Ian Plenderleith, *Rock 'n' Roll Soccer: The Short Life and Fast Times of the NASL*, Icon Books, 2014
14. Kenneth Jensen, *Keys to the match: In tennis, is it an advantage to serve first?*, IBM Big Data & Analytics Hub, 16 January 2014
15. C Woods, RD Hawkins, S Maltby, M Hulse, A Thomas, A Hodson, *The Football Association Medical Research Programme: an audit of injuries in professional football: analysis of hamstring injuries*, British Journal of Sports Medicine 2004; 38:36–41
16. C Woods, R Hawkins, M Hulse, A Hodson, *The Football Association Medical Research Programme: an audit of injuries in professional football: an analysis of ankle sprains*, British Journal of Sports Medicine 2003; 37:233–238
17. AM Edwards, NA Clark, *Thermoregulatory observations in soccer match play: professional and recreational level applications using an intestinal pill system to measure core temperature*, British Journal of Sports Medicine 2006; 40:133–138
18. Jonathan Wilson, *Is the away-goals rule counterproductive?*, www.guardian.com, 13 March 2013
19. Johnathan Fadugba, *Should the Away Goals Rule be Scrapped?*, Four Four Two, 22 April 2015
20. Sir Stanley Rous and Donald Ford, *A History of the Laws of Association Football*, FIFA, 1974
21. Les Murray, *Sudden Death Romance*, www.theworldgame.sbs.com.au, 13 February 2008
22. Simon Jenkins, *How to improve the World Cup?*, The Guardian, 4 July 2018
23. Soccer: Blatter against shootout in final, The New York Times, 27 September 2006
24. Chris Wyatt, *The art of taking a penalty*, <http://news.bbc.co.uk>, BBC Sport, 5 June 2008
25. Kevin Baxter, *In World Cup, penalty shootouts kick up controversy*, The Los Angeles Times, 9 July 2010
26. Peter Shilton: *I wanted to be a goalkeeper from the moment someone put two coats down in the playground*, www.malehealth.co.uk, 8 June 2006
27. *There Must Be A Better Way Than Penalty-kick System*, The Philadelphia Inquirer, 24 June 1986
28. Barry Wilner, *Argentina's Maradona too much for England*, The Deseret News, 23 June 1986
29. *The joy of six: inspired tactical switches*, www.guardian.co.uk, 10 July 2007
30. Mitch Phillips, *Mental approach holds key to penalty success*, Reuters, 25 June 2008
31. Herman Miller, *'Wayne should not be vilified' - Beckham*, The Guardian, 2 July 2006