How to finish a dart game. Discussion of various out shots, percentage out shots and game ending shots and strategies by Mike Sexton.

There has been much discussion in my 35 + years of dart playing about outs and the various out strategies that come into play. The purpose of this paper is to discuss out shots, out strategies, the pros and cons of some out shots, and, in my humble opinion, which shot to employ at various stages in YOUR game or match.

The first part of this document will deal with the Steel Dart game only. I'll get into the differences in the Plastic Dart game later in this document. Steel Darts is the original game of darts (OK there are others too) played by most players, in the early years, and is what we'll concentrate on in this portion of this document. We'll start with the high outs and work our way down. In the beginning I'll only discuss the standard 3 dart and 2 dart outs that are prevalent on most out charts. For this discussion we will assume that all *01 games (steel darts) must end with a double out finish. So let's get started.

The biggest out in the game is 170. This 3 dart out is only attainable by hitting Triple 20, Triple 20 and a Double Bull. The next possible out is 167. This requires a Triple 20, Triple 19 and Double Bull. Next is a 164. This requires a Triple 20, Triple 18 and a Double Bull. Next is a 161. This requires a Triple 20, Triple 17 and a Double Bull. The next big out is a 160. This requires a Triple 20, Triple 20 and a Double 20.

You'll notice that 160 leaves behind the necessity of the Double Bull finish. The 170, 167, 164 and 161 all require the Double Bull finish as they are the only 3 darts that will end the game with those scores remaining. There are still many situations in which a Double Bull will be the shot to take, we'll discuss those later in this text.

There is no out for a 159 with 3 darts. It is the only number below 160 not to leave on purpose. Below 170 you **DO NOT** want to leave yourself with a 169, 168, 166, 165, 163 and 162 score. If you leave one of those numbers then you do not have an out shot on your next turn. Think of it this way, if you don't leave yourself an out shot, you cannot end the game on your next turn. The very idea of knowing ones outs is to be able to end the game in the best (quickest) possible fashion. Anyone can do this except for those who do not know their outs. Some situations will require a more dire shot at the win rather than the conventional out shot. The entire purpose for knowing ones outs is to be able to leave yourself the best shot possible while counting down. In order to be a better player you must have an understanding of regular subtraction. This is very basic mathematics. It is really easy with a little practice. If you chalk a match occasionally it will help you with both the math and the different strategies used by your dart playing peers.

Let's go through the regular shots for 3 dart outs in quick fashion. For understanding the shots required on the out chart below the following legend will apply:

"T" = Triple, "D" = Double and "S" = Single.

So here we go.

As we discussed above, here are the biggest outs in the steel dart game:

170, T20, T20, D Bull 167, T20, T19, D Bull 164, T20, T18, D Bull 161, T20, T17, D Bull 160, T20, T20, D20

That's right, there are no 3 dart outs for 169, 168, 166, 165, 163 and 162, so try your best not to leave yourself on those numbers.

And then there is the dreaded 159.

With 159 remaining there is no 3 dart out possible. This means you missed a shot, made an error in your math while counting down, or you failed to think about where you were in the game during your last turn. Whatever the reason, you shouldn't be here. Don't let it happen again!! Do your best from here to leave yourself a nice out shot on your next turn. Sometimes it can't be helped or you missed, move on and setup the best out you can with your next turn.

158, T20, T20, D19
157, T20, T19, D20
156, T20, T20, D18
155, T20, T19, D19
154, T20, T18, D20
153, T20, T19, D18
152, T20, T20, D16 (or how about T19, T19, D19 if you're a 19 shooter)
151, T20, T17, D20
150, T20, T18, D18
149, T20, T19, D16
148, T20, T16, D20
147, T20, T17, D18
146, T20, T18, D16
145, T20, T15, D20
144, T20, T20, D12 (a nifty option is T18, T18, D18)
143, T20, T17, D16
142, T20, T14, D20
141, T20, T19, D12 (traditional out chart is T20, T15, D18)
140, T20, T16, D16

139, T20, T13, D20
138, T20, T18, D12
137, T20, T15, D16 (optional shot is T20, T19, D10)
136, T20, T20, D8
135, T20, T17, D12, (an option might be S-Bull, T20, D20- if the game is on the line then this is the percentage shot to take as it requires only one Triple for the game winning shot)
134, T20, T14, D16
133, T20, T19, D8
132, T20, T12, D18 (optional shot is T20, T16, D12 or how about a S-Bull, T19, D-Bull this is also a fine shot requiring only one Triple to end the game and is the best percentage shot with the game on the line)
131, T20, T13, D16
130, T20, T18, D8

For all out shots from 130 up (with the possible exception of 135 and 132 as noted above) you should be throwing at Trip 20 (or Trip 19 for you 19 shooters) with your first dart, every time.

NOTE: We are now getting into an area (130-99) where there are some additional thoughts to be considered. From 130 and below, you need to be thinking about what will leave you an out shot with 2 darts in your hand. We'll discuss those strategies later in this text.

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129, T19, T16, D12
128, T18, T14, D16
127, T20, T17, D8
126, T19, T15, D12
125, T18, T13, D16
124, T20, T16, D8
123, T19, T10, D18
122, T18, T20, D4
121, T20, T15, D8
120, T20, S20, D20
119, T19, T10, D16
118, T20, S18, D20
117, T20, S17, D20
116, T20, S16, D20
115, T20, S15, D20
114, T20, S14, D20
113, T20, S13, D20
112, T20, S12, D20
111, T20, S11, D20
110, T20, S10, D20 (or T20, S18, D16 or the 2 dart option is T20, D Bull)
109, T20, S9, D20
108, T20, S8, D20
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107, T19, S10, D20 (the 2 dart option is T19, D Bull)
106, T20, S6, D 20
105, T20, S5, D20
104, T18, S10, D20 (the 2 dart option is T18, D Bull)
103, T19, S6, D20
102, T20, S10, D16
101, T17, S10, D20 (the 2 dart option is T17, D Bull)
100, T20, D20
99, T20, S7, D16 or T19, S10, D16 no matter what, this shot requires 3 darts with one being a triple. 99 is another score you should **NEVER** leave yourself on purpose. You have made a mistake if you have 99 remaining. See comments above for 159!!
98, T20, D19
97, T19, D20
96, T20, D18

95, T19, D19 from 95 down there may be more desperate shots to take with the game on the line. You might want to start with a Bullseye here if your opponent is sitting on an out. Otherwise, a miss of the Triple 19 will still require a Triple shot before you have an out shot. With a single Bullseye, you can go single 20, Double Bull for a shot to win the game.

NOTE: You always want to have a shot to **WIN** the game, especially if the game is on the line. There is something to be said for taking away a game which you were losing by hitting the out shot that steals the game from an opponent who is sitting on an out, expecting to win that game. Having the shot to win (and perhaps steal) that game is what knowing ones outs is all about. Learning how to set yourself up for the win will make you a better dart player and a more regular winning dart player.

94, T18, D20 93, T19, D18 92, T20, D16 91, T17, D20 90, T18, D18 (a double bull double 20 is another way-especially with the game on the line) 89, T19, D16 88, T16, D20 87, T17, D18 86, T18, D16 85, T15, D20 84, T20, D12 83, T17, D16 82, T14, D20 (a double bull double 16 is a flashier shot) 81, T15, D18 (another good shot is T19, D12) 80, T16, D16 (triple 20 double 10 also works here) 79, T13, D20 78, T18, D12 77, T15, D16 (you could go with triple 19 double 10 if you're so inclined)

76, T20, D8

75, T17, D12

74, T14, D16

73, T19, D8

72, T12, D18 (triple 16 double 12 is also good here)

71, T13, D16

70, T18, D8, I like T10, D20 myself, and again, depending on where the game (or the match) is, from 70 points left (or lower), you may need a different shot to take the game out. More discussion later on desperate measures for outs when you need it on **THIS** shot (or turn).

69, T15, D12

68, T20, D4 (I have seen folks think too much on this particular out shot some opting to throw at triple 16 instead but think of it this way-throwing at the triple 20 with your first dart, no matter if you hit any 1, 20 or 5, you still have a game shot ending with double bull for the finish-**THIS IS KEY**-you want a shot to end the game for sure after your first dart-this shot is the one to take-besides triple 20 should be the preferred number in 01 games)

67, T17, D8

66, T10, D18 (you could throw double bull double 8 but that would not be a high percentage shot))

65, T11, D16 (I like single Bull, D20, especially with only 2 darts in hand)

64, T16, D8 (aiming at the larger band of triple 8 or triple 16 won't hurt you as a triple 8 still leaves you a double 20 game shot)

63, T13, D12

62, T10, D16

61, T15, D8

60, S20, D20

59, S19, D20

58, S18, D20

57, S17, D20 (an option is single Bull, D16-this is not a high percentage shot especially with 2 darts in your hand-the S17, Double 20 would be the high percentage shot to take) 56, S16, D20

55, S15, D20

54, S14, D20 (some folks might want to shoot the single 18 double 18-but this brings the possibility of busting your shot with an inadvertent triple 18 on your first dart) 53, S13, D20

52, S12 D20 (some folks want to shoot the single 20 double 16-but this brings the possibility of busting your shot with an inadvertent triple 20)

51, S11, D20 (a single 19 double 16 is a nice shot as well)

50, S10, D20 (some folks want to shoot the single 18 double 16-but this brings the possibility of busting your shot with an inadvertent triple 18)

49, S17, D16

48, S16, D16 (taking aim at the 8/16 wire won't hurt you as either 8 or 16 will leave an out shot)

47, S7, D20 (some folks are going to want the single 15 double 16)

46, S6, D20 (some folks are going to want the single 14 double 16)

45, S5, D20 (some folks are going to want the single 13 double 16)

43, S3, D20 (some folks are going to want the single 11 double 16)

42, S10, D16 (taking aim at the 6/10 wire won't hurt you as either 6 or 10 will leave an out shot)

41, S9, D16 (a single 17 and double 12 would also work)

I'm going to assume that everyone knows what to do from 40 down. If you don't then you really need to work on your basic math (subtraction) skills.

Many of the outs above can be modified or altered to get to your favorite out shot. As I said, we will discuss some other options for many of the outs that can be changed to suit a different strategy when needed. A triple 20 is normally the preferred start for many of the outs and it is assumed that 20's are the most prolific and practiced sector of the dart board. If you are more comfortable shooting 19's then many of the outs above can be altered to begin with a T19 to get you to a shot you have more confidence in. This list is not the end all of outs but rather a guide for the easiest and shortest routes to end a game.

An out shot also depends on where you (and your opponent) are during the game. Obviously if you have a 300 point lead in a game, you will not want to break your out down to a Double 1. That would be unwise. The outs that most players want to leave are Double 20, D18, D16, D12 and Double 8, for obvious reasons. I want you to remember however, that they are all the same size. You may not always be left with the Double you prefer but throw confidently at whatever out you (or your partner) have remaining.

I now want to discuss some other thoughts for different outs on some regular numbers and some percentage type shots that should be employed should the game be in a situation that warrants such action.

If you have 195 left with one dart in your hand, you better be shooting at the Bull because a single or double bull leaves you an out shot on your next turn. Nothing else, short of a Triple, will leave you an out shot. If you are a competent dart player that can hit high scores then you must be thinking about where your big outs are once you cross the mid 200's with your remaining score. If you are at 259 and throw a Ton, nice shot, BUT, you do not have an out shot on your next turn. The score of 100 was nice but you have not helped yourself be in position to end (or win) the game. If your opponent(s) were ahead of you, they will now have 2 turns to end the game before you have a chance to end the game. This is why it is of utmost importance to consider your options for outs on the way down in your scoring. If you had 259 and scored 80 points with your first 2 darts, then your third should be at Triple 19. Even a single 19 would leave you an out (160). This leaves you a game winning shot. It is unimportant whether you think you can hit the big out or not. If you never leave yourself the chance to hit it, you never will. As we all know, anybody can hit 3 consecutive darts in one turn, why not you? The more chances you give yourself, the more chances you will have to end the game and the more confidence you will gain by virtue of having tried to end the game as often and as quickly as possible.

While approaching your big out shot (a 3 dart out shot), stay with what you know. I've seen many good players try to shoot at the Triple 19 or the Triple 17 when they have a large number remaining thinking that it was a smart shot if they hit it to get to an even number. Thinking in that manner is not good for your game. Know what you want to hit and go get it. I know there are some players who like to shoot at the 19 regularly but if you're not one of those, stick to the Triple 20. It is the number everyone is most familiar with and most practiced at. I'm not saying to not go with what you feel. Only you know your game and sometimes we have to do what we feel while we are in the moment. However, if you are a normal player, then the 20's are what we shoot at to bring our score down. Why then would you not start your big out shot with the number you practice, or shoot at the most? It doesn't make sense to not go with your strength.

So let's talk about some other number combinations to consider when getting to an out and maybe needing a desperate shot to win the game or maybe just a different shot for strategy to win the game. Some of these will be what I call the "percentage" shots. The percentage shot is the one, in my opinion, that gives you the best chance to win the game, when the game is on the line. In other words, your opponent is sitting on a double and you're not, and you need to take the game out with this throw. The game is on the line and you must have an out shot to win. These are the times to throw a "percentage" shot. As you study your outs more and recognize the opportunities, you may employ some of these out shots more into your regular out strategy. This will help you by practicing the dire shot on a more regular basis. Practice is very important in darts and getting comfortable with certain shots will help you in the long run.

In my opinion you should begin every out attempt below 170 with a triple 20, however, there may be some exceptions to that rule, depending on the game situation.

Let's start with 135. I know the chart says T20 to start, however, if the game is on the line, (for reference, when I say the game is on the line, I mean to say my opponent is at or near an out already and this could be my last shot to take the game) I may try instead for a Bullseye. A single bull leaves 110, a 2 dart out with 2 darts in hand and a double bull leaves 85. Obviously if you shoot at the Triple 20 and miss, you do not have a game winning shot with 2 darts in hand. Starting with a Bullseye, does leave you a game shot with 2 darts in hand.

Next let's look at 132. As stated above with regard to the chart, if the game is on the line, I may try again for a Bullseye. A single bull leaves 107, a 2 dart out with 2 darts in hand and a double leaves 82. Again, this is the shot to take with the game on the line. Any other shot requires two triples to have a shot at the game (unless you go with D Bull, D Bull, D 16-not many players want to go that route-not a high percentage shot).

The 2 shots above illustrate a way to hit a single number (albeit a bull) that will then require you to hit only one triple for a shot at a game winning double. Anytime you can hit a single number instead of a triple, for a game shot, that would be preferred. The idea is to get to a game shot in the easiest fashion. This is known as a "percentage shot". In other words, hitting 2 triples is more difficult than a single (even a bull) and a triple. This concept comes into play in more shots than you might think and we will discuss some of them in this text.

Next let's look at 130. My thought on 130 is I have 2 darts to score 4 - 20's. Once I have 80, I have a Double Bull finish. That is 2 darts to get a triple. This is a good percentage shot (good odds) once again. There are more examples of this thought process to come.

Another game shot ("percentage shot") strategy is required for any number in the 120's. Let me explain the basic principle. If you have left yourself 129 and you shoot at a Triple 20 and hit a single 20, you have 109 left and no game shot with 2 darts in your hand. So at 129 my suggestion is to throw your first dart at a Triple 19 because a single 19 leaves 110, which is a 2 dart out with 2 darts in your hand. You want to have a 2 dart out shot with 2 darts in your hand. This is the basis for all percentage shots. You want to have a chance to win the game with the darts you have left in your hand. This principle applies to all of the following shots.

So for a 128, your first dart should be thrown at the Triple 18.

For a 127, you can throw at either a Trip 20 or a Trip 17.

For a 126, I like to think about having two darts to get a trip 19. Four 19's or 76 leaves you with 50 and a game shot (double bull).

For 125, I like to throw my first dart at a Trip 18 because a single leaves me 107. Some folks like the Bullseye shot here with the first dart and that's an acceptable strategy. A single Bull leaves you 100 with 2 darts in hand. The reason I like the 18 shot is I think it should be easier to hit a number segment rather than a Bullseye. A single 18, even if I miss the triple, still leaves me a 2 dart out shot with 2 darts in my hand.

For a 124, the first dart should be thrown at a Trip 20. A single 20 leaves 104, a 2 dart out shot, with 2 darts in hand.

For a 123, the first art should be thrown at a Trip 19. A single 19 leaves the 104 two dart out shot.

For a 122, the first dart should be thrown at a Trip 18. A single 18 leaves 104 with 2 darts in hand. This is another shot where I like to think I've got 2 darts to get the necessary Triple to leave me a game shot. 4 - 18's (72) leaves 50.

For a 121, the first dart can be thrown at either a Trip 20 or a Trip 17. Either single number leaves a two dart out shot with 2 darts in hand.

For a 120, you have the old fashioned "Shanghai shot" (Triple, Single and Double 20). A Single and a Triple 20 (80), in any order, leaves you a Double 20 game shot.

That explains the percentage shots in the 120 range. I think the thought process should make sense to anyone and hopefully gets you more winning shots.

The following are recommendations for the outs just above 100 and below 120.

For a 119, you must throw first at the Triple 19. A single leaves you 100 with 2 darts in hand. A first dart shot at the Trip 20 is not the proper shot or thinking as a single 20 leaves you 99, still a 3 dart out with only 2 darts in hand.

For a 118, your first throw should be at either a Trip 20 or a Trip 18.

For a 117, your first throw should be at either a Trip 20 or a Trip 17. A Trip 19 will also work.

For a 116 through a 110, your first throw should be at a Trip 20.

For a 109, your first throw should be at a Trip 20. The reason for me is even if I miss into a single 20 or a single 5, I still have a 2 dart out with 2 darts in my hand.

For a 108, I still shoot at the Trip 20, however there are some who say that a good percentage shot in this situation is to throw at the Trip 16. The reason being that a miss in the 8, the 7 or a single 16, all leave you a 2 dart out with 2 in hand. I do like the idea behind this particular percentage shot. This is a good shot in a dire situation (game on the line).

For a 106, your first throw should be at the Trip 20. Again a miss in the single 20 or the single 5 still leaves you a 2 dart out with 2 darts in hand.

For a 105, the same strategy as above applies. A 20, a 5 or a 1 all leave you a 2 dart out with 2 darts in hand.

For a 104, I like the idea (again) of having 2 darts to get 4 - 18's (72 points) which leaves me a game shot at Double 16. A Trip 20 is also still a good shot.

For a 103, your first throw should be at the Triple 19. Any miss in a number near 19 still leaves you a 2 dart out with 2 darts in hand.

For a 102, your first throw should be at the Triple 20. Again, any miss near the 20 leaves you a 2 dart out with 2 darts in hand.

For a 101, your first throw should be at a Triple 20 or a Triple 17 (with 3 darts in hand). Obviously with only 2 darts in hand the only shot is Trip 17 Double Bull. The reason I want to shoot at the Trip 20 with 3 darts in hand is, as explained above, the 20 is the preferred segment and a possible miss into the single 2 next door (when shooting for 17) would ruin your chances for an out shot with only 2 darts remaining in hand.

For a 100, your first throw should be at the Trip 20 to leave you a Double 20 for the game shot.

The above are some examples of game shots and percentage shots at various outs. Here are some more situational percentage shots so that you may have a try at a winning shot (double) in a game that is in peril or might be lost on your opponents' next throw. In these instances there is some urgency to the game and your thought process should be how can I get a shot to win this game? In these instances having a shot to win the game is all you can ask as the game is all but lost anyway.

Example, your opponent is sitting on an out and you have 95 left. The out chart says T19, D19, BUT if you hit a single 19 you still have 76 and still need a Triple in order to have a game shot. So a percentage shot would be to throw at the Bullseye. A single Bullseye leaves you 70 and you can throw a Single 20 to leave a game shot. If you accidentally hit a Double Bull you still have a single number to hit to leave yourself a game shot. **REMEMBER**, at this point, it's all about getting a shot to win the game! There are some who say this strategy should be employed for numbers from 95 through 81. There is some merit to this thought. I leave it to each player to throw his/her own comfort zone type shot. My ideas shared herein are to try to help you have more opportunities to have game winning shots and thus win more games. You must have the confidence to take shots to win games. The way to do this is practice leaving yourself a game winning shot. The more shots at winning the game you take, the more of them you will begin to hit. Practice the math. I used to work with my late son "Tim Sexton" using flash cards, that I made, that were relevant to dart number combinations. It worked! Whatever it takes for you to gain control of the basic math required, DO IT. It can only help you.

The Double Bull out is the last chance shot in many instances. Try to remember to shoot at a number that leaves you a single number and Double Bull out for any game that is in danger of being lost. A Double Bull shot for the win is preferable to no shot at winning the game. Any shot to win the game is at least a chance at victory. In some games that might be all you get.

There are many strategies and shots for the numbers below 95. I suggest referring to the out chart and various strategies listed above. As you learn your outs, more options will appear to you. Start practicing leaving yourself outs as you get below 200. Remember this: If you never leave yourself the big out shot, it is guaranteed you will never hit the big out shot. Similarly if you do not leave yourself a shot to win the game, you may not win that game. Those who leave themselves good game shots will win more games.

This book is made in memory of my son, Timothy Michael "Tim" Sexton. He had more raw talent than I've ever had. He was not good at the math combinations of darts, when he began to play, so I worked with him at a young age and he learned quickly. He then became a "dangerous dart player" because he knew what to shoot at when he got within range of an out, which gave him an edge.

I love you and miss you my son. I really miss playing darts with you and the zest you had for life and for the competition of the dart game. You really loved the game.

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