

# A study of Double Dummy Analysis by Andrew Simmons Presentation 5 – Finding a Trump Fit



The following hand came up at a club night

<p>♠ A 6 5 4 3 ♥ 6 2 ♦ 10 ♣ Q J 9 8 6</p>	<div style="border: 1px solid black; padding: 5px; width: 40px; margin: 0 auto;">             N W E S           </div>	<p>♠ K 9 8 ♥ K Q 5 4 ♦ 7 2 ♣ K 7 4 2</p>
<p>♠ 10 7 ♥ J 10 9 ♦ K J 5 4 3 ♣ A 10 3</p>		<p>♠ Q J 2 ♥ A 8 7 3 ♦ A Q 9 8 6 ♣ 5</p>

**Fig 69 Dealer North – Both Vulnerable**

If North passes then South could Open 1D. North will surely respond 1S. What next?

The results for this hand showed that over half of the South hands opted to rebid Diamonds after which North has little option but to pass. The result is varying degrees of disaster from minus 1 to minus 4.

Only two out of 7 pairs played in Spades and made eight tricks

( note: this hand could be opened with a Lucas Two by North – see Presentation 4)

Perhaps it is wise to support partner with a 3 card major, especially when holding an honour or two in the suit. We can analyse the probabilities of fit level using my bridge analytics. There are three things to consider:

When partner's hand is already known to have at least four cards there is a possibility of it having more. The analytics show that on average you can expect such a hand to contain 4.9 cards. So, with 3 in your hand, on average you can expect to get somewhere close to an **8-card fit** in the Spade suit. Most of us understand that as a satisfactory situation.

The other part of the equation is the Diamond suit. When you have five Diamonds and no other information about the suit, how many can you expect partner to have? The analytics show us that you can expect partner to have on average 2.3 cards. So **on average** you can expect just over a **7-card fit** in the Diamond suit.

You know you are going to be in a part-score. 2S scores the same as 3D. Spades are also more likely to find an 8-card fit. With a better trump fit and more points available why risk against the odds to play in Diamonds. It is more likely that you will end up in the best contract if you bid 2S.

Armed with the above information the conclusion is clear. After bidding a 5-card minor suit you should support your partner's major suit response bid if you have three of them. You will now be playing this kind of hand in tune with the expectations of probability. So you will succeed more often than you will fail.

♠ K 9 5 3  
 ♥ Q 10 9  
 ♦ J 8 2  
 ♣ A 8 2  
 ♠ A Q 7 4 2  
 ♥ A 5  
 ♦ K 10 6  
 ♣ Q 6 3  
 ♠ 6  
 ♥ J 8 6 4  
 ♦ A Q 9 7 3  
 ♣ 10 7 5

**Fig 70 Dealer West – N/S Vulnerable**

On the traveller, half of the E/W pairs have bid 1NT and made 7 or 8 tricks. The other half have all made better scores because they are in Spade contracts making 9 or 10 tricks.

When I ask people about how they support their partner's major suit one level open they sometimes say that raising that suit has to show 4 card support. I just don't get this. When partner opens 1S or 1H he will have either at least 5 cards of that Major or greater strength with the intention of a NT rebid.

With this hand opener has bid the major and responder must say something. Those who chose to bid 1NT have all ended up with poor scores. Did the 1NT response promote the partnership's best interest? I have always imagined that an 8-card major suit trump fit is a worthy goal. I therefore support the view that after partner opens 1H or 1S, a 1NT response shows 6-9 HCP with less than 3 of the opened suit. This way you will never miss an 8-card major suit fit. Some partnerships guarantee 5 cards when they open a Major suit. In the above example East can then bid 2 Spades showing a 'losing trick count' of 9 and at least 3-card support.

A discipline promoted by the analytics is illustrated well with the following hand that has 10 tricks to be made by N/S in either Diamond or Heart contracts.

♠ K 2  
 ♥ A Q 9 6 5  
 ♦ A Q 10 9 7  
 ♣ 3  
 ♠ Q 10 9 8 6 3  
 ♥ 7 4  
 ♦ 3  
 ♣ J 10 8 5  
 ♠ A 5  
 ♥ 10 3 2  
 ♦ K J 8 5  
 ♣ 9 7 4 2

**Fig 71 Dealer North – Both Vulnerable**

Two thirds of the N/S pairs played this hand in 2D or 3D after South couldn't resist the Diamonds in this auction:

1♥ Pass 1NT Pass  
 2♦ Pass Pass (or sometimes 3♦)

By denying 3 card support South has triggered a chain reaction that has an inevitable bad consequence.

If you support hearts straight away with a 2H response the hand will play in the correct trump suit. Also, because opener has a 4 loser hand supported by a perceived 9 loser response he has a chance to bid the Game.

This is another example where a 5-card Major promise promotes the development of fit for the best place to play.

The following hand has was played in a club duplicate session on 25<sup>th</sup> Jan 2018 with a very competitive field

♠ K 8 5 4 2  
 ♥ 4  
 ♦ 6 4  
 ♣ K 10 7 5 3  
 ♠ J 9 7 3  
 ♥ J 7 6  
 ♦ Q 7 2  
 ♣ A Q 6  
 ♠ A 10 8  
 ♥ K Q 9 5 3  
 ♦ A K 8 5  
 ♣ 4

**Fig 72 Dealer East – N/S Vul**

N/S had issues with this hand

5 pairs played in Spades for a good result  
 5 pairs played in NTs for a bad score  
 2 pairs signed off in 2D, an equally bad result

2♦ by South is an awful contract. Who in their right mind wants to play in an almost certain 6-card trump fit? Two pairs did!

3NT by North is an awful contract too because there is a good fit for Spades

It could be argued that all of those pairs deserved their poor scores.

This hand shows the importance of finding an 8-card trump fit. The auction is an opportunity to understand each other's hand shape and knowledge of suit fit expectation can be brought to bear

Look at this first from North's perspective

Here is North's hand

♠ K 8 5 4 2  
♥ 4  
♦ 6 4  
♣ K 10 7 5 3

and the auction goes:

North	East	South	West
	Pass	1♥	Pass
1♠	Pass	2♦	Pass
?			

**What to bid next?**

**What do you know about partner's hand?**

It's an unbalanced hand

It has at least 5 Hearts and at least 4 Diamonds

Likely to be 5-4-2-2 or 5-4-3-1 these two combinations equal 23% of all known hand shapes

Other possibilities are 5-5-x-x or 6-4-x-x (10% of all known hand shapes)

The fit level for the red suits is most likely a 6-card trump fit – 7-card trump fit at the most unlikely best.

So you must not let the auction rest with a red suit as trumps as this is obviously disastrous.

It is reasonable to plan on the basis that partner has four black cards. If you rebid Spades then what is the likelihood of a Spade fit?

You have 5 Spades

Partner has not got 4 spades or else would have immediately supported

Therefore you know opponents have at least 5 spades between them. There are 3 spades still to account for.

Here is an arithmetic way of looking at the problem and it clearly supports the results of my Analytics. There are 10 possible combinations as to how the remaining spades will break between the other three hands

1-1-1  
2-1-0  
2-0-1  
1-2-0  
1-0-2  
0-1-2  
0-2-1  
3-0-0  
0-3-0  
0-0-3

This means there is:

40% chance partner will have none  
30% chance partner will have 1  
20% chance partner will have 2  
10% chance partner will have 3

So from your perspective there is a 90% chance that your trump fit for spades is at best 7 cards

If you bid 2♠ then you are showing extra length in spades and you might get lucky. You might also get left with a 7-card trump fit if partner is 5-4-2-2

If you bid 2NT you are suggesting you have a Club stopper as well as having already shown minimum 4 Spades.

Either of these bids is also suggestive to partner that you cannot help out with the red suits.

I would choose 2NT on two grounds. Firstly, the Spades are not brilliant in quality to play as trumps with less than an 8-card trump fit. Secondly, the extra information about the Club stopper might be useful for partner.

So now let's look at the actual hand that South held

♠ A 10 8  
♥ K Q 9 5 3  
♦ A K 8 5  
♣ 4

Let's assume this is the auction

North	East	South	West
	Pass	1♥	Pass
1♠	Pass	2♦	Pass
2NT	Pass	?	

### What do we know about our partner's hand?

Partner has clearly got the black suits.

He's not interested in the red suits, having passed over two chances to show any support

He has at least 4 Spades

He has a stopper for Clubs

If partner was 4-4 in the black suits he would have 5 red cards. Then he would have less than 3 Hearts or he would have bid Hearts instead of NT on his second rebid and he must have less than 4 Diamonds or he could have passed. At very best he has 3 Diamonds and 2 Hearts which would not produce an effective trump suit.

What are the chances that partner has 5 Spades? There are 6 Spades unaccounted for. Using the same arithmetic as above the possibilities are:

2-2-2	4-0-2	3-3-0
1-4-1	4-2-0	3-0-3
1-1-4	0-4-2	0-3-3
1-2-3	2-4-0	1-5-0
1-3-2	0-2-4	1-0-5
4-1-1	2-0-4	5-1-0
1-1-4	2-1-3	0-1-5
2-1-3	2-3-1	5-0-1
3-1-2	1-2-3	0-5-1
4-1-1	3-2-1	6-0-0
1-4-1	1-3-2	0-6-0
2-3-1	3-1-2	0-0-6
3-2-1		

This means there is:

14% chance partner will have none (5 of the 37 possible combinations)

86% chance partner will have at least 1 (32 of the 37 possible combinations)

So there is an excellent prospect that we have at least an 8-card Spade trump fit.

When you bid 3 your partner now knows your hand shape is either 5-4-3-1 or 5-5-3-0

He can then make the appropriate bid. With a 7-loser hand he might bid game. On the actual result shown below even a part score in Spades produced a better than average result at 72%.

25 <sup>th</sup> January 2018 - Board 18 - NS vul							
NS	EW	Contract	By	NS	EW	MPs	
9	9	4S=	N	620		21.8	2.3
8	7	2D-2	S		200	2.3	21.8
7	5	3NT-1	N		100	9.8	14.2
6	3	4S=	N	620		21.8	2.3
5	1	3NT-1	N		100	9.8	14.2
4	13	3NT-1	N		100	9.8	14.2
3	11	3NT-3	N		300	0.1	23.9
2	8	3NT-1	N		100	9.8	14.2
1	6	2D-1	S		100	9.8	14.2
13	2	4S-1	N		100	9.8	14.2
12	14	2S+1	N	140		17.4	6.6
11	12	4S=	N	620		21.8	2.3

The next example was played seven times in a beginner's session and eight times at a normal club night.

♠ K J 9 7 4	
♥ 6 5	
♦ A 8 7	
♣ Q 8 6	
♠ A 8 5	♠ Q 3
♥ J 10 9 8 7 3	♥ A Q 4
♦ Q 5 4	♦ K J 6
♣ 2	♣ A K 7 4 3
	♠ 10 6 2
	♥ K 2
	♦ 10 9 3 2
	♣ J 10 9 5

**Fig 73 Dealer East – E/W Vulnerable**

In the beginner's session only two pairs found the Heart Game contract and some even went off in 3NT

In the normal club night four pairs found the Heart Game. Pairs in 3NT at least made their contracts

In all cases the Heart Game produced the best score for E/W

**Finding the correct denomination is definitely the key to performance on this hand.**

If the auction starts off:

<b>North</b>	<b>East</b>	<b>South</b>	<b>West</b>
	1♣	Pass	1♥
1♠	?		

Now what does East do?

Because of the likelihood of an 8-card fit he should bid 3♥ that shows the hand is strong and invites partner to pick the best final contract.

Interestingly, North's overcall helps East to do something constructive and could have forced a change of mind over a possible NT rebid

If instead the auction starts off:

North	East	South	West
	1♣	Pass	1♥
Pass	3NT	Pass	Pass

East may well bid 3NT if this was the re-bid he had in mind when he first opened 1♣  
West can only assume that East cannot support Hearts so Pass seems the only option

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If East instead opens 2NT then West has an easy time:

North	East	South	West
	2NT	Pass	2♦
Pass	2♥	Pass	4♥

Opening one of a suit then rebidding 3NT when you have a balanced 19 HCPs can often go wrong as was the case here.

By opening 2NT this hand is being fairly described to partner. Partner is in a much better position to find the right final contract. There are lots of techniques available like Stayman and Transfers that can be deployed to assist. So with 5 or 6 cards in either Major suit the responder has easy options.

## CONCLUSIONS

1. If you have three cards in a suit that partner has bid then you are likely to have an 8-card fit.
2. If you have a five card suit and no other supporting information then you could expect a 7-card fit.
3. Analytics therefore support raising partners major suit bid if you have 3 card support.