Practicing DI can be FUN!!

Preparing for CAT can be a back breaking, mind numbing process; a process that can leave you dejected, low on confidence and with a feeling that all this is not really meant for you. Every CAT aspirant has gone through these emotions at least once during the entire journey from the start of the preparations to the final culmination during the interview.

However, when you sit back and look at the process of preparation as an outsider, you will appreciate that not all aspects of CAT preparation are painful. In fact, the pain point and its intensity varies from person to person and also in terms of time for each individual. Thus, you may find the Verbal Ability section very difficult at the beginning of your preparation but not so much when you reach the last lap. One major pain point for a lot of students is the DI section in the CAT paper as well as in other major MBA exams.

So, what are the major areas of concern?

1) I can understand the questions asked but the calculations are too tedious
2) I do the calculations well but end up selecting the wrong option
3) I think I have solved the question correctly, including the calculations, but the actual solution turns out to be completely different
4) I do not know/ take a lot of time to understand what data is required to solve the question

These questions can also be looked at in another light.

What does the DI section test you on?

Data Interpretation (or DI, as it is commonly known), is the process of collating large amounts of data, representing the data in a way that suits it the best and then making meaning from that data. The section tries to find how well you can read and understand a large amount of information and then sift through it systematically to analyse it and draw meaningful conclusions that lead to good decision making. Thus, DI is something that is essential not only for CAT preparation, but also during the MBA course and when you work in the corporate world.

What you see in the CAT or other MBA entrance exams are the tools that are used to accomplish this i.e. the line graphs, pie charts and so on. The art of doing well in the DI section has all to do with mastering these tools. You can divide this process into two steps:

1) Reduce the unfamiliarity with the tool by applying it in areas of comfort (i.e. learn exactly how a pie chart or a stacked bar shows data, how to read it and so on)
2) Increase your expertise at using the tool by applying it in areas of discomfort

This is the same process used when you learn to drive a car. When you take professional training, you first learn everything about the car and familiarize yourself by driving in small

and sparsely crowded lanes. Once you "know" the car, you go out of your comfort zone and start driving on crowded roads, on the highway, in the peak rush-hour and so on. Getting better at DI is no different.

Reduce Your Unfamiliarity

When you just start driving, you feel very comfortable when you know the layout of the road and the area. It is unnerving when you have to focus on the car as well as the turns to take. Apply the same concept to Data Interpretation and you will know where to start.

Identify an area that you are deeply interested in. It could be anything from sports, finance, economics to movies to something entirely different. For instance, cricket is a national religion in India. It can be said with a lot of certainty that most CAT aspirants also follow cricket. If you belong to this group, use cricket to aid you in your DI preparations. Let me tell you how to do so.

One of the most popular websites on cricket is www.cricinfo.com. Start visiting this website to kick off your DI practice.

This website has a statistical tool available called "***Statsguru***". Using this tool, you can play around with numbers as much as you want and practice DI in an area that you like.

Let us elucidate the areas where you can improve:

1) **Question Types**: No matter how difficult, the basic building blocks of all DI questions are ratio and proportion, count or percentages as a part of a whole and percentage change (increase as well as decrease). "Statsguru" helps you do all of this. For example, pick up any player of your choice, say Sachin Tendulkar. Start by asking a query on his performance in 9 different countries in the last 5 years. The tool returns a table which gives the runs scored by the player as per the conditions mentioned by you. Now, you are ready to start practicing DI. Analyse the data and ask yourself questions such as "For which year was the percentage growth in runs scored the highest?" or "The percentage increase in the batting average in year 2009 was how much percent more than the percent increase in average in the year 2006?" or "The number of runs scored in the Indian subcontinent in 2005 was how many times the number of runs scored in the Caribbean throughout the given period?" and so on. First answer these questions without timing yourself. Once you have reached a certain comfort level in answering such questions, start timing yourself and see if there is any change in accuracy. The answer to this question will determine the next step. If you are successful up to this point, start complicating the data. Now, you can add a parameter where multiple players are compared across 9 countries and over a period of 10 years. This will give you a really large table. You can again ask yourself the same questions and make them slightly more difficult. You can do this by

introducing some parameter that is defined in the question (such as "strike rate" or "batting average") and ask yourself questions such as "How many Indian players have a strike rate of at least XXX and a batting average of at the most YYY in this country in every year from 2000 to 2010?" Here, you will identify the data that is required to calculate the strike rate and batting average, do the requisite calculations and take care that you are doing all this only in the time and place range specified. Thus, this will give you all round practice.

2) **Calculation Speed and Accuracy:** As explained earlier, you will first answer easy questions and then the more complicated ones. At a point, you will realize that your calculations have automatically improved, in terms of speed as well as accuracy. This is because the numbers that you will work with will be "live" numbers that are not artificially put there to reach an integral or round-number answer. As such, they will actually be difficult in terms of calculations. Once you have practiced on such numbers, you will actually find the numbers in the online CAT manageable. Since you will be working with numbers that are unwieldy and complicated, you will start using techniques such as approximations, reciprocals, elimination of answer options and smart guesswork, even without your realizing it. Thus, you will actually start working smarter in terms of DI preparation. **Please DO NOT use a calculator or a mobile phone when you do these calculations** as doing that will be like blowing away your chance of doing well in the entrance exams.

3) **Familiarity with data representation tools:** You may think that all this, even if beneficial, will help only if tables are involved. This will not help you practice line or pie charts. However, you may be mistaken. We need to collectively thank Microsoft for all the features that MS Excel has. Once you have a table with you, you can represent the data any which way you want. With a table and MS Excel, you can do whatever you want in terms of DI practice. Let me tell you ways in which you can work on various charts and diagrams:
--- ***Bar Chart***: Pick any innings from a one-day international and get an over-by-over breakup. You can easily create a bar graph from this. If you want a two-bar chart, compare the over-by-over breakup for each team. If you want a multiple-bar chart, compare 4 or 5 players in different conditions over a certain period.
--- ***Line Graph***: Again, pick any innings from a one-day international or a T-20 and plot the run rate over the whole innings. You can do this for both teams for a two-line graph and the average runrate for multiple teams for a multiple-line chart.
--- ***Pie Chart:*** Create a wagon wheel for a player and analyse it. If you want to work on multiple pie charts, create the wagon wheel for multiple players in the same match and analyse their performance.

You will observe that once you start practicing, your skill in solving DI sets will automatically improve. Let me preempt some of the questions that you may still have:

1) **Why do I do this on cricket? –** The basic objective behind choosing cricket is that since DI is slightly intimidating by itself, you select an area where you are very comfortable or an area that you like. By doing this, you need to attack only one part of the preparation, i.e. the actual DI set and not worry about understanding the data. If you were to start with say, economic indices and questions were asked on PPP, per capita income and so on, you would need to attack the set **AND** understand the technical aspect, which is not what you want to do when you start. Remember, the story of the car and the crowded road.
2) **Can I do such an analysis only on cricket? –** No. It is not essential that you do this only on cricket. You can do this on any sport that you like. However, it is a known fact that among sports, cricket and baseball lend themselves to a lot of statistical analysis. This is not to say that other sports don't, but these two give a greater chance to experiment and practice.
3) **What if I don't follow any sport? –** An analysis of this kind can never be restricted by the boundary of sport. If do you not follow any sport, you could be following something else. If you are someone who loves the stock market and all it components, go to the **NSE/BSE** website or go to the **AMFI/IRDA** website and play with data. For instance, if you love to invest, pick up the Equity Fund of any ten Mutual Funds and plot its performance on a line graph. Now, analyse this line graph using questions of the type shown above. If you want to practice on multiple pie-charts, select ULIP schemes of different insurance companies and compare their sector-wise allocation of funds. If you are the kind of person who has a greater interest in say, public welfare and social activities, go to the website of any of the UN organizations, say UNICEF and obtain data from there. Or you can get data from the HRD ministry website or the website of say, MMRDA or BMC, and analyse data. You can extend this logic to any area of your choice. With the advent of technology, finding data is not time consuming. Once you have the data, use MS Excel and then you can take over from there.

Understand that the objective of this whole step is to increase your comfort level with the representation and reading of data and the accompanying calculations. When you start with this activity, you may find the tool difficult to use. In case that continues after a few attempts, you can look at working on readymade tables available on the same website under the Statistics homepage. Note that this can never be the only practice that you do in DI. You have to come out of your comfort zone and now tackle subject areas that you are uncomfortable with.

Increase your Expertise:

There is no point in just knowing how to drive a car. This knowledge is meaningful when you can apply it to unfamiliar territory. Similarly, just increasing your familiarity with graphs, charts and tables is not sufficient. The next step is to be able to tackle them in areas that you **ABSOLUTELY HATE!**

If you a sports-loving engineer and hate finance, now make it a point to look at the performance of one scrip, one mutual fund scheme and one ULIP thrice a week. As explained above, plot it by applying various conditions and analyse its performance. Luckily, most financial websites provide analytical tools that allow creating these charts yourself. The objective here is to reduce the unfamiliarity of the subject area. Finally, who knows, you may actually end up becoming an expert investor and making a lot of money due to this sustained analysis. If you are not a sports loving person, try and do a similar analysis on data from various sports.

One way of improving DI skills is to look at either **government census data**, **budgetary allocations** or at **company balance sheets**. These have the twin advantages of having large and cumbersome figures and being from areas that you are generally uncomfortable with.

Note that this is not something that has to be done separately, or as additional preparation for DI. You can internalize this and do it whenever you want. If you have had a grueling 10 hour day in office and are in no mood to officially “prepare” for CAT, you can still “practice DI” by following the ideas given earlier. Visualize a scenario where you practice a standard DI set when you are tired versus a scenario where you are actually comparing Sachin Tendulkar and Ricky Ponting’s performances for fun and getting to practice DI without realizing it.

To conclude, note that this is not the only way in which you can make your study pattern more enjoyable. You can definitely think of more ways yourself. This is simply intended to be a tool which you can use or an idea, whose power you can harness to make your preparation more productive.

WISH YOU ALL THE VERY BEST.