



Transcript for Session 020

Listen to the podcast session, see resources & links:

<http://chandoo.org/session20/>

Transcript:

Hi. Welcome to <http://chandoo.org/> podcast session 20. This podcast is aimed to make you awesome in data analysis, charting, dashboards and VBA using Microsoft Excel.

Thank you so much for joining us today. I have an excellent episode lined up for you. Before we get into the topic for the day, let me share a couple of quick announcements. As you probably know, I am leaving for the U.S. in a week's time and I am going to be conducting a couple of classes there as well as attending a conference in Dallas. I am really excited about my upcoming trip to U.S. and I will definitely share another podcast episode either while I am in U.S. or as soon as I get back to India chronicling all the good experiences that I have there, all the nice things that I accomplish and all the awesome people that I meet there.

Stay tuned for that episode as well.

Let us move into our topic for the day. Today our topic is "**Time saving strategies for Business Analysts**". We could have a podcast that targets time saving strategies for everyone but then I kept thinking that wouldn't everybody using Excel have different needs. So, I thought that based on my work experience as a Business Analyst, it would be prudent for me to just target that area of Excel usage and talk about it. Today's episode is really about looking back at how I was working as a Business Analyst and sharing some of those time-saving strategies that I have deployed so that you can benefit from them.

Before we talk about the actual strategies that a Business Analyst would deploy to save time, let us take a minute to understand what kind of work a Business Analyst does. Back when I finished my MBA program in 2006 and started working as a Business Analyst, there were a lot of things that I did. After about 3 years of working as an Analyst, I eventually quit the job so that I could work full-time on my own business of <http://chandoo.org/>. Today when I sat down and tried to develop the agenda for this podcast, I felt really stuck. I couldn't list down all the strategies for time-saving. So, I thought it might be better for me to draw a mind map of what I was doing as a Business Analyst and based on those activities, figure out what time-saving strategies I was using or I should use if I want to appear efficient, effective and awesome in front of my bosses and colleagues.

If I am a fresh Business Analyst, the kind of thing that I would be expected to do can be categorised in 5 buckets. There could be other areas that you might be required to handle as a Business Analyst. But, these are the 5 buckets that fall into the work that you do with Excel. As a Business Analyst, I can imagine my work falling into these 5 buckets. We will talk about these things in detail in just a few minutes, but to list them first, the buckets are:

1. Tracking



2. Analysis
3. Reporting
4. Data management
5. Modelling

As a Business Analyst, your job involves doing so much more than just these 5 things. For example, the very first thing that comes to my mind when I talk about an Analyst is communication. As an Analyst, we are expected to communicate with others in the company, often sharing our thoughts, ideas, plans, visions, apprehensions or anything else for that matter, so that everyone in the company can perform better. That is not part of your work in Excel. Obviously Excel is a vehicle for communication but when you are looking at Excel and trying to work in it, you are not really communicating. You are either talking to yourself or you are talking to Excel. But, once the file is done and you send it as an attachment or present in the Board room, you are communicating. We are not going to talk about the soft aspects like communicating, people skills, or team management as they have nothing to do with how well you know Excel or what kind of Excel knowledge you have. As far as Excel is concerned, these are the 5 most important areas in which an Analyst works. Just to repeat, the five areas are tracking, analysis, reporting, data management and modelling. I was doing all these five and navigating my way around them for a majority of my working day when I was working with Excel. Eventually, I developed some time-saving strategies. These are not rocket science; we will eventually get into the strategies. But, let us talk about these five areas. It will help those of us who are aspiring Business Analysts or those of us who are getting into this world but are not really sure what to expect. So you'll have a chance to understand what these are.

The first one is **tracking**. This is where you are supposed to keep track of some data. A good example would be maintaining a to-do list for your team. As an Analyst, I was once deployed in a client location where we were developing a big project for them using some Information Technology tools and programming. My role was that of a Project Analyst there. I was doing a lot of things, one of which was to keep track of all the issues that we were encountering in our journey at the client location. This is nothing but tracking. I was keeping track of this and from time to time, we would have a review meeting where we would highlight the pertinent issues so that the management could take action or initiate some steps so that we didn't have any risks arising out of the issues. So, tracking is something that happens every day in millions of organizations around the world. As you are listening to this, probably you are also tracking something at the back of your mind, knowingly or unknowingly. For example, you might be thinking, "Hey, Chandoo mentions a good point here. I should go back and visit that particular file or article at the end of the podcast." This is nothing but your mind keeping track of a certain thing as a simple and very rudimentary to-do list in your short term memory so that you can re-visit it when you get a chance. So, tracking is something that we all do inherently and almost intuitively. This is an area where you can lose a lot of time if you don't know the proper techniques. So tracking is the first one.

The second one is **analysis**. This is where the hard-core analytical work of a Business Analyst comes into the picture. You are supposed to analyse data, come up with insight and information, figure out what's going on there, use the data to solve a particular problem and all sorts of things. This can be called analysis. Analysis can be further divided into lots of different areas, for example there is marketing analysis, financial analysis, strategic analysis, statistical analysis, operational analysis and lots of different things. We are not going to talk about all those individual things; instead we will understand some of the time saving tactics and strategies that you can deploy when you are analysing data.



The third one is **reporting**. As the name suggests, this is where you are really building a report or a dashboard or a scorecard, so that you can share information with the decision makers, stakeholders, colleagues or customers in a structured format.

The fourth one is **data management**. As an Analyst, this is often where you are also the custodian of some sort of database. Most of the times the data management activity takes place not in Excel but in a typical computer database like Oracle, SQL server, MySQL or something like that. That is structured data. It is highly structured, corporate data. You also have lots of small chunks of data that are given to you for maintenance purposes. Nobody really puts the name tag of database administrator on your head. But, as an Analyst, you are expected to work around various data management activities. For example, keeping track of hundreds of thousands of rows of data. Or, keeping track of different files that are scattered all over the network or cloud. Keeping track of all these kinds of things is nothing but data management.

The final one is **modelling**. As an Analyst, this is where you are expected to create an Excel-based model for a real life scenario. We don't have to get into the details as the name is very self-sufficient. As an Analyst, you are always building models so that you can mimic real world scenarios on a computer and then eventually go ahead and find the best solution or solve a problem or forecast the future based on that model and figure out strategies for it.

These are the five areas in which most Analysts would find themselves working in when they are using Excel to do things. You are tracking, analysing, reporting, modelling or managing the data. For each of these five areas, I have two simple time saving strategies. These are not the only strategies; there will be more. But for the sake of podcast time and limitations and all those structural problems, let us focus on each of the five areas and figure out what the two best time saving strategies that you need to be aware of and use if you want to save time and appear as an efficient and effective Analyst.

Let's talk about **tracking**. When it comes to tracking, the two strategies that immediately come to my mind are tables and data validation. The first one is **tables**. When you are tracking, you are often maintaining data in a similar structure. For example, let's take a look at the issue tracker that I was asked to build and maintain. We had this project at the client location where there were lots of issues cropping up from time to time. For example, we could have an issue that goes something like this - the computer that we are using for testing has insufficient resources - too little RAM or the processing power isn't good etc. This is an issue. When it happens, we would record it in our issues log and every week, at the beginning of the week, we would have a stand up meeting where the issues were discussed and eventually solved. This issue log has a definite structure, for example the issue log that we were maintaining had columns like the date on which the issue was logged, description of the issue, the person who raised the issue, the person responsible to resolve the issue and the due date. Eventually, as we started keeping track of lots and lots of issues, we had additional columns like priority of the issue. So, if we had 10 issues and one of them is high priority and we only have time to solve one issue, we would go with the high priority issue and figure out a solution for it. That's the kind of structure that we were following to keep track of the issues. When it comes to building an issue tracker, it is important to use what is already available in Excel. That's where tables come into the picture. You could set up a simple table using Excel 2007 or above (the tables feature is supported in all those versions) and create a table that has these definite columns. The advantage of tables is that you can just focus on the data



part and forget about the format and structure etc. The table is easy to maintain. As you add extra data, it automatically expands to contain all of that data. The beauty is that if you are doing any further analysis on top of this table, all of that analysis can easily be updated as soon as you add extra data. If that part is confusing, let us imagine what could happen if you are maintaining an issue tracker as a non-table. You have column A for date, column B for issue description, column C for the person who raised the issue and in your team you have 5 or 6 members. Currently, you have close to 100 issues on that page where you are maintaining them. As a Manager, you are curious to know how many issues Rachel (one of the team members) has raised. Or, you want to know how many issues Joey is responsible for. These kinds of questions are often asked when you have a tracking system in place. Once the tracking data is there, as a smart Analyst or Manager, we are always asking questions about the tracked data so that we can improve our performance. When somebody asks this question, there are two ways to solve it. If the table is built, we would write the formula in a particular way. But, since we are using a non-table solution, we would have written a COUNTIF or SUMIF formula that just goes and counts the number of times Rachel has raised an issue. Using a COUNTIF formula is fine as long as you have say 100 issues. However, in the next week you add ten more issues. When you add ten more issues, you have to go back to your COUNTIF formula and make sure that the references are now from C1:C110 instead of C1:C100 because the reference has changed. This is where tables can be handy. Once you set up a table, the reference is no longer relevant because tables use a structural reference. So you would write a formula like:

```
=COUNTIFS(raised by, "Rachel")
```

This will always refer to all the issues in the issues table regardless of the number of rows. Again, visualizing this while listening to an audio podcast can be tricky. But, don't worry. You can always go to <http://chandoo.org/session20/> where we will have detailed show notes, resources and links for this podcast. Please go there to access a link about tables and structural references so that you can learn more about tables. Tables are one of the key, time-saving strategies to use when you are building a tracker. They will save you a ton of time, make sure the tracker looks good and is presentable almost in its raw state. And, tables are easy to maintain. Whenever we talk about saving time while working with Excel, we always have to keep the maintenance aspect in mind. If you are able to save a minute or ten now, but it creates a maintenance hassle for us that requires that we spend ten extra minutes every week, that's not worth it. Tables are easy maintenance. Once you set up a table, you can almost forget about it. Everything that is built on top of the table works beautifully when you add data or make changes to the table. That's the first strategy.

The second strategy for tracking is **data validation**. Often when you are building a tracker, similar to the issue tracker we built, it is something that will be maintained on the network or in a shared environment so that other people can also access it and add information to it. When others are adding information, for example if Rachel logs in to the network drive and opens the issue tracker workbook and she adds an issue there. When others are doing it, it is important to have some ground rules. We do have ground rules in general; when we have a team meeting we would say something like, "Hey this is an issue tracker. In column 1 please only put the date. Please don't put anything else because that column is only supposed to contain dates. Add in a detailed description in column 2. Add in your name as per your employee tag in column 3 (i.e., don't abbreviate your name, don't say Rach for example). Spell out the full name because that is what we want to use." All of this is fine and good, but when the person using it starts working with it, they may conveniently forget about all of this. There's no one to blame here, it's just human nature. No matter how many instructions are available, we are sometimes very bad at following them. This is where data validation comes into the picture. When you are building a tracker



and you know that there is a way in which you can avoid spending extra time cleaning up the data later, you can use the data validation feature. If you have invalid data, for example column A contains the data in certain instances and in some instances someone has written Tuesday instead of the date. It's not a date but the day of the week. Someone might say they had an issue on Tuesday or yesterday. These are all technically dates for a human mind. But, from an Excel point of view, they are not valid dates. When you try to use that kind of data for reporting or further analysis, you end up with a lot of extra clean-up work. This is where data validation is handy. You can set up rules that say something like "enter only numeric values here" or "enter only certain dates" or "enter only specific values from a list". These are all popular ways to restrict the kind of data that goes into a cell. When you apply data validation on tables, the data validation automatically gets extended to any new rows you are adding. Now you can see how tables, coupled with data validation, can help you save even more time.

These two strategies are very powerful and useful. Just to repeat, the two good time saving strategies for tracking are tables and data validation.

Next comes **analysis**. When you are analysing data, there are literally millions of ways to do so. Maybe a million more! If we talk about each and every specific way of analysis, we will never finish this podcast. So, here, I will tell you two simple strategies that I always use and that you should also keep in mind. My very first strategy is to **use pivot tables**. Many times we try to solve a particular problem or we try to answer a particular analytical question by writing a very long winded or complex formula. But, the same can be answered very easily using a pivot table. This is not true for all the problems but about 80-85% of business problems that we see day in and day out can be answered very quickly and easily with a pivot table. Since our intention here is to save time and minimize effort, pivot tables are really the low hanging fruit of the analysis world. Just go ahead and start using them. That way you will start to appreciate how much more you can do. If you can get 80% of the work done in 5-10% of time, then you have more time to chase those un-solvable problems or figure out manual solutions for those easily. That's where pivot tables come into the picture. If you are new to pivot tables, I encourage you to tune into our podcast episode 18 where we talk about pivot table virgins and how to lose your pivot table virginity. It is quite an interesting and very short format podcast, so it's easy to listen to and implement. Again, it's one more way to save time. That's about pivot tables.

The second tip is to **build your formula muscle**. This is what I call it; I don't know what else to call it. Excel has more than 400 different formulas and if you talk about the ways to combine one formula with another, we are quickly in a zone of millions of combinations. Talking about all those combinations won't help. But, I want to tell you that if you want to be a successful and efficient Analyst, then you need to build your formula muscle. There is no simple, straightforward way to it. But, fortunately, there is always help. If you're starting out as an Analyst, I encourage you to spend some time and learn the essential formulas for Analysts. This is where some of the previous podcast episodes can help. You can tune into episodes 2, 6 and 7 of <http://chandoo.org/> podcasts where we talked extensively about various important formulas for Analysts. **Episode 2** talks about various **LOOKUP formulas** including VLOOKUP. **Episode 6** talks about **generic strategies to become a better Analyst**. We talk about formulas in this episode too. In **episode 7** we talked about **SUM formulas**. If I have to say what 80% of the formulas required for analysing data are, I can close my eyes and say that SUM and LOOKUP formulas would comprise it. If you master how to use SUM and LOOKUP formulas, you are almost at 80% of the level of most Excel users and Analysts.



The next step is to go that extra 20%. The effort that you need and the time that you need to spend to reach that 80% level is ridiculously low. At the same time, it is surprising how many people don't even know that much. I encourage you to spend some time and learn these formulas. Go to <http://chandoo.org/session2/> or <http://chandoo.org/session6/> or <http://chandoo.org/session7/> or maybe all three of them. If you have already downloaded those podcasts to your phone or tablet, just schedule them and listen to them when you have some free time so that you can quickly build your formula muscle. Once you have built that formula muscle, it becomes easy to add more to it. In a new situation you would need to figure out a formula for it and it will get added to the already built formula muscle, so it's kind of easy to bulge up your formula muscle that way. I won't talk about muscles anymore! These are the two very important time saving strategies when it comes to analysis. Just to recap, the strategies are pivot tables and formula muscle.

There is one **extra bonus strategy** that is also very relevant but not useful for all types of Analysts. This is **PowerPivot**. If you are already learning how to use pivot tables and if you are using data that has lots and lots of rows, then it makes sense to spend some time to understand what PowerPivot can do for you. Again, you can go to <http://chandoo.org/> and on the home page itself you will find some information and links about PowerPivot. Also, I will put some resources in the show notes of this podcast which can be accessed at <http://chandoo.org/session20/>. That's a bonus time saving tip. Once you learn how to use PowerPivot, the initial step can be time consuming. It could take a couple of weeks, a month or 2-3 months for you to wrap your head around PowerPivot technology and understand how it can help you. But that initial investment will pay huge dividends over the course of your Analyst career. So these are the strategies for analysis.

Now let's talk about time saving strategies when it comes to **reporting**. Again, as I said, there are many ways to save time. We will talk about two of the most important strategies here. When it comes to reporting, one of my most favorite strategies is to **use format painter**. This is based on the philosophy that I personally follow. I would like to be as lazy as possible when I am using Excel. I want Excel to do all the work for me. This is where I strive to be lazy when I am working with Excel. When I am building a report, I am always asking myself, "Hey if I am done formatting a particular label in this way, I don't want to do the same steps again for all other 25 labels in the report." If that's the case, then I would use format painter, copy the formatting from a particular label, cell or chart and then replicate those same format settings for all other things on the report that I want. This is format painter. This is also the same thing that Paul Woods has mentioned in our previous podcast episode (episode 17) where he talked about the Top 10 non-Excel MS Office tips. Well we said non-Excel but format painter is universal, so it is quite powerful and useful. So use format painter and that will help you save a lot of time when you are working on reports.

The second time saving strategy that I often follow is called **templates**. When you are building a report, they often have a set format. They are supposed to be in a certain layout and the same thing gets repeated every time you publish a fresh report with new data. In such cases, you could build a template of that report and re-use the template every time you need to create a fresh copy of that report. This will save you a ton of time especially with formatting, cleaning up and laying out things. When I was working before and even today when I am doing something for myself or a client, if the actual part of calculations and figuring out of formulas takes 40% of the time, the other 60% of the time goes into formatting and making everything look good and consistent. With the usage of templates we can save a lot of that 60% and that gives huge gains in to our time and productivity. So try to use format painter



and templates when you are building reports as much as possible. You could build a template for an entire worksheet or workbook or you could build a template for a simple chart or anything like that and re-use it. These are the two techniques.

Now let's talk about time saving strategies for **data management**. Data management is where you are maintaining a huge amount of data with you and keeping that data clean and simple and all sorts of things like that. When you are working with such huge data sets, one of the most important ways to save time is to learn some of the simple **shortcuts for navigating data**. These shortcuts are nothing but the arrow keys and a combination of CTRL with arrows keys. If you are using CTRL+down arrow, it will take you all the way to the bottom-most row in the same column. Likewise CTRL+left arrow/up arrow/right arrow are ways in which you can quickly navigate your massive data. Likewise there are other shortcuts - page down, page up, CTRL+page down, CTRL+page up - as well as a special shortcut called GO TO. If you press the F5 key in Excel, it will open up the Go To box and you can quickly type a cell address or a range name and Excel will take you there. This is a very powerful way to navigate a workbook that has a lot of things going on. When it comes to data management, I think learning shortcuts have a huge impact on how fast you can work with data. In fact shortcuts are the first thing that come to anybody's mind when we talk about time saving but in my opinion shortcuts are something that we all know and it is a really low hanging fruit. Actually, we can say that it is a fruit that has already fallen on the ground and we just have to pick it up! Since you are already listening to <http://chandoo.org/> podcast, I would imagine that you know a bunch of shortcuts yourself. So there is no need to talk about shortcuts as a primary time saving strategy. But, when it comes to data management, it plays an important role. So learn those navigational shortcuts.

Again, I will leave a link to a detailed shortcuts page on <http://chandoo.org/> where you will be able to find many of these navigational shortcuts and memorise them. Please visit <http://chandoo.org/session20/> for that.

The next data management strategy is '**text to columns**'. This is a built-in feature in Excel. Often when we are managing data, we received data from another system, and this other system may not be exporting Excel workbooks. They may be exporting a .csv or .txt file. Most of the times, in corporate environments, .txt files or .csv files are the gold standard. Every database, system, batch process or extraction procedure that is built into corporates are likely building .csv files. These .csv workbooks or .txt files are the ones that you are going to deal with when you are inheriting this data and eventually moving into a data management position. This is where the text to columns feature can be very useful. It is a very powerful feature built right into Excel that can help us parse a bunch of text into several columns and split text into multiple columns based on some delimiters or certain length conditions etc. Text to columns can save you a ton of time especially if you are dealing with data that is coming to you as a .csv or .txt format or that is coming to you in a fixed layout that you need to separate out into separate columns for further analysis. So use it.

If you are using Excel 2013, there is one more bonus for you. The bonus feature is called '**flash fill**'. Flash fill might sound magical but, in reality, it is similar to auto fill in Excel but it is slightly more smart. They have built a lot of rules and conditions into auto fill and called it flash fill. Let us say that you have a column of data that contains a two letter State code. The data goes something like this:

Dallas, TX
Houston, TX



Columbus, OH

The OH and TX are the two letter codes for the State. And, you want to extract just the State name. As the first column is there, if you type TX in the next column a couple of times to fill up the State manually, Excel flash fill can automatically guess what you are trying to do here which is to extract the last two characters from the previous column's text. So it can go ahead and suggest an auto fill option for the entire column, and if you press enter, that suggestion will be accepted and it will be filled down for you. I am going to put a demonstration of this particular flash fill feature on the podcast show notes page on <http://chandoo.org/session20/>. Make a mental note of it, and whenever you get a chance, visit that page so that you can see it in action and understand how it works better. That's a bonus trick for you for data management or data clean-up. Use flash fill so that you can fill up data based on the previous column's data or something like that.

There is one more bonus for those of you who are running Excel 2010 or Excel 2013. You could use **PowerQuery**. PowerQuery is a very powerful way to handle data and manipulate data in many useful ways. I know I am teasing you with PowerQuery every now and then. I will definitely try to have a podcast about PowerQuery in the next 3 or 4 episodes. So wait until that time to understand what PowerQuery can do for you. And if you are already curious, go ahead and download PowerQuery, deploy it on Excel and see what happens. Play with it; there is no harm.

These are the time saving strategies for data management. Just to recap, the two most important strategies are shortcuts and text to columns. And two bonus strategies are PowerQuery and Flash Fill.

Now we are at the last aspect of a Business Analyst's work which is **modelling**. When you are building models in Excel, the best way to save time is to **follow some standard best practices**. Don't go and re-invent the wheel yourself. If you are building a model, there are several documented, followed and understood modelling best practices. So follow them. If you don't know where to start, we got you covered. In the previous episode (episode 19), my good friend Daniel shared with us quite a few good habits of modelling. So get started with those good habits and then go to the show notes page on <http://chandoo.org/session20/> where I will provide you with more links of modelling best practices. For me, that's the easiest way. Usually any model that you are building in Excel (not any model, but almost 95% of models) will have this kind of structure - input, assumptions, some sort of processing and output. So you can imagine these four black boxes or four boxes in a model - inputs, assumptions, some calculations and output. If you structure your model around that kind of a block diagram and identify clearly what each area is and demarcate them, then your model is more or less constructed. The only things that you probably have to figure out are how to use the inputs in the calculation part to calculate the output. That is where your experience as an Analyst comes into the picture. So follow best practices if you want to save time.

The second rule that I have for you when it comes to modelling is a **derivation** of:

$$E=mc^2$$

We all know the famous rule that was pioneered by Einstein. There is a play on it. It's a rule that I call:

$$F=mc.$$

Don't worry, it doesn't mean that force equals mass multiplied by the speed of light! That's not what it means. $F=mc$ is a simplified way of saying that **one formula (f) should be in many cells (mc)**! What we really mean by this is that whenever you are building a formula in a model, you should always think of ways in which the same formula can be re-used in multiple places just by changing the references using



relative and absolute references. This way what happens is that you are only figuring out the formula logic once. And once that formula logic is figured out, you can use it in many places throughout your model. So you don't have to write the same formula again and again and you save time. If you are wondering how this should be implemented, here is a simple example. Let us say you are building a model for machines in a particular plant. You are the Manager of the Operations department and you are taking care of various machines that are used in your plant. Let's say that you manufacture pens. You have a special pen making machine and you want to model the lifetime of that machine in Excel so that you can figure out the cost of purchasing the machine, how many years it will last, how many pens it will produce and eventually work out the economics of the machine purchase decision or something like that. There are certain things that are given, for example the cost of the machine. The machine needs to be purchased from a German vendor and it costs 3 million dollars. So it's a given fact. We can use that as an input.

Cost of machine = USD 3 million

Those of you who have familiarity with Finance or Operations already know the concept of depreciation. A business will purchase the machine for 3 million dollars by paying the amount up-front most likely. But they will not incur 3 million dollars as expenditure in the same year. The way it works is as follows. Let us say that the pen making machine lasts for 25 years. If you are purchasing the machine today, its lifetime is 25 years. So you would depreciate a certain amount of the machine price every year until 25 years. In year 1, you would depreciate 10% of the machine amount. In year 2, you would depreciate another certain percentage of the amount. In your model, you will have a depreciation schedule. This is really an accounting or modelling term. But in plain English, it means that in our costing model, we would have built a table with 20 rows with each row telling us the depreciation amount for a particular year. If I have to build this depreciation model with $F=mc$ as my mental model or ground rule, then we should not be writing 20 different formulas. We should be writing only one formula for year 1 and filling it down for the rest of the years so that the depreciation is automatically calculated for all other years. This is where the $F=mc$ concept comes into the picture. It is easy to appreciate this idea once you are building something where a similar type of calculation has to be done in many places. This kind of thing happens quite often either when you are building models or making reports. For example if you are making a report where you are showing the profit percentage by product and you are selling 100 different products. We don't want to write a formula for each and every one of those 100 products. We want to write the formula only once for one particular product and then the rest of the formulas should be automatically written by filling down or something like that. This is where you should think about how to best write the formula only once and let Excel apply it to many cells. If you can do that then you are going to save tremendous amounts of time especially in your modelling and reporting scenarios.

These are the ten strategies. Let me do a quick recap. There are five areas in which Analysts will mainly work - tracking, analysis, reporting, data management and modelling. For tracking, tables and data validation are the best ways to save time. For analysis, pivot tables and formula muscle are required in order to save time. For reporting, using templates and format painter can help us save time. For data management, learning some of the navigational shortcuts and using features like text to columns can help us in saving time. When it comes to modelling, follow some of the best practices and figure out formulas so that you have to only write them once but they can be applied to multiple cells.

These kinds of strategies will help us save a lot of time when we are working as an Analyst.

I hope you enjoyed this particular podcast and I hope you will apply these strategies to your next project



or next task as a Business Analyst and I hope you save some time.

Please take a minute to tell me how you feel about this podcast. I want to hear from you and know the benefits you are gaining from these podcasts and how you are using the thoughts and ideas that we are presenting here so that I can also improve. Please go to <http://chandoo.org/session20/> and leave your comments there.

Also, if you have a minute, please visit our iTunes page and provide your honest feedback and review there. Your reviews will help me make more episodes and better podcasts. If you provide a review there, more people will discover our podcasts and see that review and maybe sign up for our podcast so that they can also learn and become awesome like you.

Thank you so much for listening. I hope you have a great day ahead. Bye.