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SPEAKERS

Sumon Majumdar

So so far we have used Excel to figure out the efficiency using the formula, which was points plus rebounds, plus assists, and so on, divided by the games play. Now, well, I don't have a particular clicker question for you here. Uh, what I would like you to do is think about how, how will you adjust this formula to give defensive players more credit. Because defensive players probably don't score as many points, but they do other stuff like steals and blocks and so on. So should they get more credit for that? And, and how would player rankings change as a result? An even more involved question would be to think and research that how would you measure NFL players? Would you use a similar sort of formula to measure the efficacy of NFL players. And I'm going to end this video by showing you two other things. One is a quick trick in Excel about ranking players. And secondly, how you can use this exactly, almost identical procedure in Google Sheets to do a same sort of calculations, especially if you're not a Microsoft person.

Okay, so now we have used Excel to figure out the efficiency measures for the different players, right. And so here are the players that we have, right, and we are interested in looking at how they rank in terms of efficiency. Now, of course, one way to do it is to just eyeball the whole thing and look at, okay, who is number one was number two, and so on. But Google, but Excel gives you an easy way to sort these players according to their efficiency. And the way to do that is if you go up to the Sort and Filter button here, and there, you have the option of sorting from smallest to largest, or largest, or sorting from largest to smallest, it's a let's do largest to smallest. Right? Now, when it's going to sort the numbers in this column, right, there's data next to it. So what you want is that data to also move along with when a when it sorts values in this particular column. So my, the Excel gives you the option of doing that, you can do it by expanding the selection. So expanding the selection means it's going to select all this data. And if it moves this one particular row up or down, it's going to move all the data in that row up or down, which is a pretty nifty feature. Right, so we have selected expand the selection, and then I do sort. Right, and now see, it sorts the players from the highest efficiency to the lowest efficiency in this group. And, and if you now look across here, you see the highest efficiencies, Anthony Davis, with 33, then comes Lebron with 32.69, then comes Giannis with 30, and so on. So, so it automatically has now ranked those players by efficiency. Now you can do the same thing for each group. For example, if you take the legends, right and do the same thing, let's select them, and then

Sort and Filter from largest to smallest. And again, it does expand the selection, yes. And let's Sort, doing that, right. So it it now ranks the legends. In terms of the best efficiency to the lowest starting with Shaquille O'Neal, then comes Magic Johnson, Kareem Abdul-Jabbar and so on.

But as I said, right, so this is one particular measure of efficiency, you will not really buy into it, you may think that this doesn't give defensive players enough, enough credit, right? Or maybe we have divided here, remember the formula for efficiency divided by the number of games played. Now it could be that not all players play the equal number of minutes in a game. Some players or impact players who come in for a very short while. Some play the whole game, right? You may want to then divide this instead by the games played by the number of minutes played, right. So the good thing about Excel is that it's very easy for, once you have the data, it's very easy for you to do all of that, right. And in fact, what I have done is that, you'll find this, this particular Excel file in the module. And this, this first page of this Excel file has the basic stats, right. But if you go to the second page, it gives you all sorts of extra statistics, right. And you can play around with that to come up with your own formula, and see how the players rank based on your own formula.

So the good thing about this is that once you get the hang of how to deal with data in Excel, it becomes very easy to handle big data sets. And not just in sports. But in business, like in marks, for example, most professors use an Excel spreadsheet like this to calculate marks for the whole class, right? Businesses use Excel, you can use it in lots and lots of different applications. So hopefully, you'll find this pretty useful tool. And one last bit. So if you prefer to use Google Sheets, instead of Excel, you can do almost the same thing that you do with Excel. So here I have imported the Excel file into Google Sheets. And so see, here I have the efficiency, and I'm going to do exactly the same thing as I did before use the equal to sign, then D3, plus E3, plus F3, plus G3, plus H3, that's the blocks, minus I3, minus J3, minus K3, sorry, K3, divided by the number of games played, which is C3. And if I hit Enter, it's going to calculate the efficiency for Lebron James. And in fact, in Google Sheets, it asks you suggested autofill, that do you want to fill the column with the same formula? I do the check mark, then it automatically calculates this for all the other players.

So hopefully, I've been able to introduce you to some nifty tools in Excel, and in Google Sheets. And, as with any software and any tools, you don't learn them just by looking at the video. You learn them by doing hands on. So I hope you'll take this opportunity. But I already have posted the Excel file on the module. So I'm hoping that you will take that Excel file and use it yourselves in computing efficiency, come up with new formulas, try and fiddle around with the formula, see how the players rank up using different formulas. And that's the way you are going to learn how to use the formula tool in Excel, and also the ranking tool that I just showed you. And again, this is useful, as I've said, not just in sports analytics, but in a wide variety of contexts. So let's stop this particular example here. And then we'll move on to our next example which will be from Geography