CAP Project

MODULE 3 VIDEO 7 INGREDIENTS DATA: MATERIALS

Welcome to Module 3 Video 7. This video will follow the same pattern as Module 3: Video 6 but, instead of focusing on personnel, I'll be talking about the specific data you need to collect for each material and equipment ingredient and showing you how to enter this into CAPCAT 1.2 Plus. I'll continue using ingredients needed to implement Reading Recovery.

You'll recall that there are 4 pieces of information you need to gather for each ingredient used to implement each component of the program: type, quantity, percentage of use, and price.

For materials and equipment, the type is captured by documenting the name of the item, for example, laptop; the brand name, or model, if there is one; how it's used to implement the program; any special features needed like compatibility with an operating system or state standards; and the useful lifetime of the item - that means how often it needs to be replaced, or how long it lasts.

For quantity, you need to know how many of these items are required to implement the program.

Back in Module 3: Video 5, I introduced the idea of creating overview tables where you can collect and summarize key details about ingredients before you start entering data row by row in the ingredients tabs. Here's my overview table summarizing the materials and equipment information for Reading Recovery.

I've listed four items, two at the district office and two at the school sites.

First, I've listed a laptop which is acquired by the district for the Teacher Leader (TL) to use for data entry, communication, accessing online materials, and so on. No particular brand or model type is specified so I'll have to come up with one myself. There is only one Teacher Leader in the district, so the quantity of laptops is 1. The laptop, when new, is expected to last three years before it needs to be replaced, so that's what I record as its useful lifetime.

Next, I have a set of Reading Recovery (RR) materials, also acquired by the district, for the Teacher Leader to use when delivering Reading Recovery instruction to the students she serves. Again, because there's only one Teacher Leader, I only need one set of the materials for this purpose. I use seven years as a useful lifetime because that's the average tenure of Reading Recovery staff at this district and these materials are acquired when a teacher is first trained to deliver the program.

I also have sets of Reading Recovery materials listed at the school level where each Reading Recovery teacher needs one for the same purpose.

And finally, I have a package of classroom supplies at the school level that's used for Reading Recovery instruction as part of program delivery. Each Reading Recovery teacher needs their own package, and it must be replenished every year, so I've listed the useful lifetime as one year.

It's not often that materials are so neatly bundled into sets and packages. The set of Reading Recovery materials includes an assortment of children's books and Reading Recovery guides, as well as a magnetic board and letters, an easel, and an erasable white board.

The classroom supplies include items like paper and markers. These items could be listed individually if you can gather that level of detail. However, materials usually constitute a small percentage of overall costs compared with personnel so it's less important to chase down every last detail except for any unusual materials or equipment that are specific to the particular program you are studying. An exception to this is technology-based programs where the costs of licenses and equipment can be high, so it's important to value them accurately.

Overall, it's helpful to remember that your ingredients list serves not only to provide the basis of estimating costs but as a recipe for anyone who is considering implementing this program. So even if some items don't cost very much, you may not be able to implement a program without them.

Next, you need to gather information that will allow you to determine what percentage of the value of each material or piece of equipment to attribute to the program you're implementing. It's easy if you know the item is only ever used for this particular program, in which case you can assign 100% of its value to it. But in

schools, it is quite likely that materials and equipment are used for many different activities so you can spread its value among these. But it's not very likely that anyone's keeping track of the precise distribution of use across activities. In some cases, equipment is used across multiple sites not just multiple programs making things even more complicated.

You can come up with a reasonable estimate by asking personnel using the item to tell you how many different activities it's used for, where, and also how its use is distributed across activities, sites, and users.

For example, a laptop owned by the district office may be used by staff implementing two different programs, with about the same amount of time for each one, so you could assign 50% of the laptop's value to each of the 2 programs.

However, let's say for the program you're interested in, (red circle appears) the district office personnel use the laptop to work with five different schools, (5 arrows and schools appear) then 10% of the laptop's value is attributable to each school.

Another way to get to the percentage of value of an item to attribute to the program, is to find out for how many hours the item is used to implement the program over a fixed period of time, and the total number of hours the item is potentially available for use over that same time period. You can simply divide the former by the latter to get the percentage of time attributable to your program.

So, for example, if the district office personnel tell you they use the laptop to help them implement a program for 4 hours per week at each school, and that they use the laptop for a total of 40 hours per week, then the percentage of value attributable to the program for each school will simply be 4 divided by 40, which is also 10%.

It is often the case that you will get some of this information and will need to come up with assumptions about the missing information during the analysis phase which we'll address in Module 4.

Here's the relevant information we were able to gather for the Reading Recovery program. The laptop and Reading Recovery materials were only used to implement this program, so we attributed 100% of their value to Reading Recovery.

For classroom supplies, we know from our data collection about personnel that the Reading Recovery teachers spend half their time on Reading Recovery and half their time on other literacy activities, so we made an assumption that 50% of the supplies are used for Reading Recovery.

For distribution across sites and participants, we made similar assumptions about the materials as we did for the personnel items. So, for items used by the Teacher Leader who works with all Reading Recovery schools in the district, we assumed they were attributable to schools in proportion to the number of students participating in Reading Recovery at each school.

For items used by the Reading Recovery teachers at each school, we assumed that the items were used equally for each student served.

Now let's move on to materials prices.

You'll usually be looking for a purchase price which may include taxes, shipping, and insurance or a warranty, although some of these items may be listed as separate ingredients.

Here's the price data we collected.

We were not given any specifications for the laptop, so we found the price of the best-selling laptop available on the Best Buy website in 2017 when we were doing our study. The price was $399.99.

For the set of Reading Recovery materials, we combined information from Reading Recovery Council of North America's website with information from the school district's Reading Recovery implementation guide to obtain a price of $3,000. The price was the same for the Teachers Leader set and the Reading Recovery teacher sets.

The district's Reading Recovery implementation guide was also the source of our price of $250 for the package of classroom supplies.

We expected these prices would be the same in any other district nationwide, so we used them for both our local and national cost estimates.

You may also remember that, in Module 3: Video 6, I described a few optional cost breakdowns. The first one is the cost stage.

The set of Reading Recovery materials is labeled “Start-up” because it is only acquired when each Reading Recovery staff member is first trained.

The laptop and the classroom supplies are labeled “Ongoing” because they need to be replaced on a regular basis.

The next 2 columns allow you to indicate who bears the cost of each ingredient and the source of funding for this item. Although the materials were acquired by the school or district, the costs of these items are actually covered by the federal government through its Title I program.

Now, just like I did for personnel, I’ll show how to enter one material ingredient, the laptop, into CAPCAT 1.2 Plus so it’s set up ready for analysis.

This time you'll be looking for the Materials tab along the bottom of CAPCAT 1.2 Plus.

This is what the Materials tab looks like when you first get to it. Let’s enter the data I showed you for the laptop.

In the Site name column, I use the dropdown to select District Office from the list of sites.

Next, I choose “District” from the dropdown list in the Site Type column.

In the Condition column, I choose “T” for Treatment.

Then I write the name of the item under Material.

The program is only implemented for a year during the study, so I am leaving the default value of 1 for the Year of Use.

I use the dropdown list in the Component/ Activity column to choose “Program delivery”.

And then, in the Activity/purpose column, I write how this item is used for Reading Recovery.

The next 2 columns I fill in at this stage are the units and quantity for the laptop. Our unit is a laptop and the quantity we need is just one.

With materials, in particular, it’s very important to make sure that your units and quantity align with your price so, for example, if your unit is a laptop and you only

need 1, but the purchase price you find is for a set of 30, you will need to divide that price by 30.

Next, I need to indicate what percentage of the laptop's usable time is attributable to Reading Recovery. We already know it's 100%, so I simply enter 100 in this column.

In the Cost stage column, I again leave the default label of Ongoing as that's correct for the laptop.

In the next column, which is the period over which the cost is spread, I need to enter the useful lifetime for this item in years. For items labeled as "Ongoing," the default value is one year because CAPCAT is set up to assume that ongoing costs recur every year. However, the laptop only needs to be replaced every 3 years, so I changed this default value to 3.

The next set of columns are for the local price data which I explained earlier in the overview table and those data are simply copied here.

And the national price data are copied into this set of columns but, for this item, the details are exactly the same.

Remember that you don't have to enter both national and local price data – you can use just one set of columns or the other.

These next 2 columns are optional ones that allow CAPCAT to produce certain cost breakdowns for you in the results tables. In the first one, I use the dropdown to indicate that it's the Federal government who bears the cost of this ingredient.

And, in the next column, I use the dropdown to indicate that the source of the funds for this ingredient is Title I funding.

And now you repeat this process for any materials or item of equipment that you need for each year for all components of the program.

Once you are done with materials, you can move on to facilities and other inputs which I will address in the next 2 videos.