general rubric (not specific script), single-sentence meaning reconstruction

i) provide initial sentence from the 'textual layer' of the reading.

ii) separate into meaning blocks (it's okay if student doesn't do this herself or himself. teacher can do it.)

iii) ask student student to explain in her or his own words what is happening in each meaning block.

use various prompts to help student do this.

but importantly; don't make it too easy for student, or else student won't learn, won't progress and improve own skills.

iv) display the student's first response as the v1.

v) teacher tells student, for each part of meaning block, level of 0-100% accuracy, in 10% increments. often with a range from x to x+10%, e.g. "that's about 20 to 30% accurate.

then asks, "how can we improve that ?".

tells student also if the meaning reconstruction is complete or if it is missing an element ("there is a phrase in the textual layer that you are not including in your meaning reconstruction").

vi) specific typical prompt:

teacher tells student: "to paraphrase the word [x] from the original sentence, you use the word [y]. I would say that [y] is about 40-50% accurate to describe what [x] means. What is a better paraphrase to describe the word in the original sentence (textual layer)? Can you think of a paraphrase that more accurately describes the word from the original sentence (textual layer) ?"

vii) if student does not immediately come up with something, explain to the student with explanation of the meaning of the word chosen, "that word you chose is more about _, and not quite what the word [x, in the original sentence] is getting at. How can we better describe that original word ?"

viii) display student response as v2.

ix) repeat above teacher guiding student to come up with v3.

x) student arrives at the end of the meaning reconstruction when the accuracy is ca. 80-90%.

this happens for beginners usually after 3 to 5 versions. (sometimes more)

display all versions together, so student can see.

xi) give student an overview explanation of what each version improved in the prior version.

this shows the student the progress made.

xii) explain that after 3-6 months of practice, the student will be able to get to the 90% accuracy level with v1, v2, v3.

and then after several more months, v1 or v2 will be highly accurate.

introduction script, detailed (for chatbot to walk student through basics of EE Method)

meaning blocks

first note the entire original sentence:

The Mole had been working very hard all the morning, spring-cleaning his little home.

then break it into meaning blocks. (the student needs to learn how to do this herself or himself. but in the beginning it is okay if the chatbot shows the student the meaning blocks, and gradually the student figures out how to do this. the essential skill for student from the beginning is the meaning reconstruction)

ask the student, "how many different meaning blocks are there in this sentence, such that each 'meaning block' is one self-contained unit of meaning?"

then tell the student to use parenthesis to mark the separate 'meaning blocks'

In this sentence there are two meaning blocks.

(*The Mole had been working very hard all the morning*) , (*spring-cleaning his little home.*)

meaning reconstruction

explain to student that the *sentence-level* method of *meaning reconstruction* means the student will be doing a *meaning reconstruction* (paraphrase) of each meaning block,

We'll do this for one meaning block at a time, and work through every meaning block in the paragraph. before going on to the next paragraph.

this takes time. but it is the best way to gain 100% reading comprehension.

Making a paraphrase means that we do not repeat any of the words from the actual sentence (except for names of characters). instead, use a synonym.

So instead of the word "sunny", we would say "bright light' (v1) or "bright daylight" (v2) .

Instead of the word "fence", we would say "dividing section" (v1) or "dividing wall" (v2)

it's okay if your paraphrase sounds a little awkward – this happens more often with really simple words like _sunny_ or _fence_.

This might seem obvious. But the only way to have highly accurate reading comprehension is to make sure that we really and truly understand what these words mean, both single and together in a meaning block. The best students have a very deep understanding of simple ideas.

A lot of times we have a sense that we kind of understand something – but that means we don't really understand the thing.

I'd like you to read a description of a mathematician from a recent article. His name is June Huh, and June was awarded a famous prize called the Fields Medal, and is one of the best mathematicians in the world. He is able to make connections that get to a more profound understanding of a topic.

"If you talk to [June] for five minutes about some calculus problem, you'd think this guy wouldn't pass a qualifying exam. He's very slow." So slow, in fact, that at first Wang thought they were wasting a lot of time on easy problems they already understood. But then he realized that Huh was learning even seemingly simple concepts in a much deeper way — and in precisely the way that would later prove useful.

The point is – a lot of ideas that we think are simple, in fact are complex and contain a lot more information and meaning than we think they do. They are not really simple at all.

If you spend time working on the *sentence-level* method of *meaning reconstruction* you will have a much deeper understanding of what both simple and difficult sentences mean.

You'll notice this as you are working through different versions. Your first version will contain mistakes that you don't notice while you are making that first version. A lot of time, these are mistakes that you don't think you would ever make. But these are common mistakes that almost everyone makes in their first version.

A big problem in reading comprehension, is that we think we already understand something very well because it is simple. But even a simple sentence and idea can be difficult to understand.

Standard Explanation (specific script) – example of meaning reconstruction, to explain to student what this is all about and what student is supposed to do.

Let's work through part of the first paragraph today.

Here is the first sentence of Wind in the Willows.

"The Mole had been working very hard all the morning, spring-cleaning his little home."

break each sentence into meaning blocks.

The first thing we have to do is to break the sentence into 'meaning blocks'. The 'meaning block' is the basic unit of meaning that we will be working with. It's a "self-contained unit of meaning": this definition tells us that this one part of the sentence has a whole and complete meaning by itself. Even if it is just one part of a sentence.

Use your pencil to mark a parenthesis around each meaning block. this will help you to visually separate them on the page.

it's okay if you can't identify the meaning blocks right away. that's not the most important thing for you to learn right now, so you can ask me to help you identify the meaning blocks within each sentence.

This sentence has two meaning blocks.

meaning block no.1 is:
(The Mole had been working very hard all the morning)

meaning block no.2 is:
(spring-cleaning his little home)

In the original sentence the two meaning blocks were separated by a comma. The comma is a useful indicator because it often separates two different meaning blocks. But we have to be careful and not rely too much on the comma, because within one meaning block there can be many commas.

Example – meaning reconstruction

Now, let me show you how to do the meaning reconstruction of the first meaning block. Then, after i've shown you this example, you can do the meaning reconstruction yourself on the second meaning block, and the other sentences of the first paragraph.

Please note: the meaning of the first sentence is relatively straightforward.

There is a very important Essay Engineering concept about 'hidden' meaning, that is demonstrated in the second sentence. So even if you think this is obvious, wait to see the second sentence.

meaning block no.1 is:
(The Mole had been working very hard all the morning)

instead of repeating the word _work_, we can use the term 'moving things'.

instead of repeating the words _very hard_, we can use the term 'a lot'

instead of repeating the words _all the morning_, we can use the term _that day_.

It's okay to repeat the word *the Mole* because this is a name of a character. (If the word were just an animal, like the word 'dog', it would not be okay to repeat it.)

When doing the meaning reconstruction, it's very important to not repeat the same word from the original sentence (the 'textual layer')

The only exception is for the name of a person ("Daisy" or "Nick"), or the name of a place (Chicago, or New York). These names you can repeat in your meaning reconstruction when they appear in the original sentence.

A very simple word like "work" is harder to find a synonym for. so it's okay if your paraphrase doesn't sound exactly right. just do the best you can, and try to find something that seems somewhat right. We can always improve it later.

That's the best part about the Essay Engineering method – you can just work at making little improvements at each step, in order to make a big improvement at the end.

now let's see the first version of our meaning reconstruction using the paraphrases for the word *work*, for the word *very hard*, and for *all the morning*.

First Version

[original sentence] (The Mole had been working very hard all the morning)

v1. The Mole had been moving things a lot that day.

Now, the important thing about doing the meaning reconstruction, is to not worry about getting it perfect. Just do the best job you can the first time. It's important to get something written down so we have something to start with, and then you will learn how to improve each version with my help.

Let's look now at the first version:
v1. The Mole had been moving things a lot that day.

the term _moving things_ is supposed to explain what *work* means. but _moving things_ is only about 30-40% correct. When we work, sometimes we move things. but that's not really what the word *work* is about. It means something different.

If a person is just moving things, then that's because they are helping a person take all of their belongings from one house to another – because the person is moving. But that's not what the Mole is doing here.

For our next version let's find a better term than _moving things_ to paraphrase the word _work_ in the original sentence.

Let's also find a better term to improve on _that day_.

Since the paraphrase *that day* just tells us it happened on a certain day. But the original sentence says that the Mole was working *all the morning*.

Second Version

[original sentence] (The Mole had been working very hard all the morning)

v2. The Mole had been trying hard a lot at the start of the day.

[original sentence] (The Mole had been working very hard all the morning)

The term *trying hard* is a good improvement on *moving things* in v1.

The term *trying hard* is a more general activity, the way *work* is.

I would say that *trying hard* is about 50% correct. It's a good improvement on the 40% accuracy of *moving things*. The activity *trying hard* is similar to work, but it is not quite the same thing. So in our next version, we'll find a way to improve that.

The term *at the start of the day* is a big improvement on the v1 term *that day*. That's good progress.

I would say, *at the start of the day* is about 60-70% correct. Can you think of why it's not 90-100% right to describe what *that morning* means ?

Take a minute to think about this question and let me know if you can come up with an idea.

[wait 30 sec].

It's okay if you can't come up with an idea. If you want to think a little more, you can. If you want me to help you understand this, you can tell me "let's go".

The term _the start of the day_ is just one point in time. It's the very first moment of the day. And it has a sense of being a short length of time.

But the Mole is working during the _morning_, and in fact the sentence says _all the morning_. Which is not a short length of time.

The term _all the morning_ means not just one part of the morning, and not just the start of the morning. So what's another word for _all of_?

We could use the word _entire_. Or the term _the whole_.

What's another word that we can use instead of _start_ to describe the _morning_ ? The word _part_ works well, as in the term _part of the day_.

So let's improve *start of the day* with the term:
the entire part of the day
or
the whole part of the day.

Third Version

[original sentence] (The Mole had been working very hard all the morning)

v3. The Mole had been doing things a lot the whole part of the day.

doing things is about 60-70% right. it's very good improvement on *trying hard*, because *trying* to do something is not doing something. And the *work* the Mole does is definitely doing something and not just *trying*. Especially because for a simple word like *work* it is more difficult to get a good paraphrase for.

But it's a little bit too general of a verb to describe what *work* is about.

Can you think of a better term ?

We could say:

the Mole was *doing assignments*, like a student does in school.

or

the Mole was *completing tasks and jobs*

here, we might notice that job is very similar to *work*. Except a _job_ is a noun, and _work_ in this sentence is a verb.

Can you see something else we can improve about *part of the day* that will get us

We want to specify which *part of the day* we are talking about.

We mean the *first part* of the day.

We might want to say _half the day_, even though it's not 100% right. Since if the Mole wakes up at 8 am and is working until 12pm, then he's going to still be up from 12pm until maybe 9pm or 10pm. So the morning is only four hours, which is a lot less than half the day; it is more like a third of the day.

Do you see how a simple concept can be more complex than we think it is ? The difference between *half the day* and the *first part of the day* is not so simple as we might think.

Fourth Version

v4 The Mole had been completing tasks and jobs a lot the entire first part of the day

Okay, this is really good. I would say that this is 90-100% accurate.

Let's look at the four versions again, starting with the first version, so we can see the improvement.

We made a small improvement with each new version. But all the different improvements together made the fourth version a big improvement on the first version.

v1. The Mole had been moving things a lot that day.

v1. The Mole had been moving things a lot that day.
v2. The Mole had been trying hard a lot at the start of the day.

v1. The Mole had been moving things a lot that day.
v2. The Mole had been trying hard a lot at the start of the day.
v3. The Mole had been doing things a lot the whole part of the day.

v1. The Mole had been moving things a lot that day.
v2. The Mole had been trying hard a lot at the start of the day.
v3. The Mole had been doing things a lot the whole part of the day.
v4 The Mole had been completing tasks and jobs a lot the entire first part of the day.