

# What's the right amount of reading instruction?

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John Carroll ([1963/1989](#)) proposed an innovative model of academic learning. According to Carroll, learning was a function of five variables: student aptitude, opportunity to learn, perseverance, quality of teaching and ability to understand. It wasn't the list of variables that was so provocative, but how Carroll defined each.

He operationalised all those in terms of instructional time. For instance, aptitude – then usually a score on an IQ test – was, for Carroll, a matter of the how much time was needed to learn something. A young Einstein may be able to master a K–12 physics curriculum in 42 minutes, while it might take Tim Shanahan 42 years!

Opportunity referred to the amount of instructional time schools provided. If teachers devoted 100 hours to physics instruction, Einstein would have it made given his aptitude, while I might be better advised to become a reading teacher.

Even if schools allotted 42 years to physics, I still might not make it. What are the chances I'd sit still for all those laws of motion, electrons and quarks? Perseverance, the time students are willing to be taught, figures in learning as well.

Even quality is a matter of time in this scheme. If the quality of teaching is low, then kids will need relatively more teaching to be successful.

No one has come up with ingenious ways to measure those time-based variables. However, the point it made about instructional time was invaluable.

In the 1970–1980s, researchers following Carroll's lead explored time and its relationship to academic achievement, including in reading (e.g., [Fisher et al., 1981](#)).

They learned a lot about instructional time. As a result, educational scientists now have a different conception of instructional time and how it should be considered in research studies.

In my opinion, reading educators don't think enough about time and its importance.

Studies have, again and again, demonstrated the power of amount of instruction in determining student learning ([Gay et al., 2021](#); [Sonnenschein et al., 2010](#); [Walberg et al., 1986](#)).

Here are 7 key ideas about instructional time that every reading educator should know.

## 1 There's a difference between allotted time and academic learning time.

When scholars first looked at the amount of teaching, they were surprised to discover that there was not much connection to learning.

That's when they started distinguishing allotted time from academic learning time (ALT). ALT refers to the amount of time students are engaged in academic tasks likely to lead to learning ([Fisher et al., 1981](#)).

Observational studies reported big differences in ALT ([Smith et al., 2001](#)). Sometimes as much as 100%!

Ms Jones may provide 90 minutes a day of ALT, while Ms Smith's kids only get 45.

Year after year, the Jones's kids test out higher than the Smith's kids, and Ms Smith concludes, "Yep, the principal always gives me the lowest kids."

Scheduling 90 or 120 minutes of literacy instruction doesn't mean kids get that much actual teaching.

Some teachers struggle with classroom management, or they may be pushed into grouping schemes they can't handle. Big mistake.

Those kinds of things are time robbers. They prevent allotted time from being translated into ALT.

This can play out a couple of different ways. The obvious one has to do with unruliness, misbehaviour, noisiness. Those problems threaten the learning of everyone.

But mismanagement is not always an issue of poor discipline. Some kids lose out to inattention, daydreaming and obeying but not engaging ... the kids who sit politely and

quietly but who fail to engage with the lesson. The page turners who don't read.

Allocated time is not the important issue, ALT is!

## 2 Time is a value, not a variable.

When researchers began looking at instructional time, they treated it as a variable. It was routinely included in lists of factors that influence learning (e.g., ability, motivation, quantity of instruction, quality of instruction, classroom climate, home environment, peer group, mass media exposure).

However, that isn't the way scientists have learned to deal with time.

An example here may help.

We know that iron rusts when the metal molecules bond with the moisture in air. But scientists used to think that it was time that caused rust.

Modern scientists blanch at the thought of that now. For them, time can never be a causative factor, only a measure of such factors. With rust, oxidation (that bonding of molecules) is the cause, and the time the iron is exposed to humidity is a measure of the amount of oxidation exposure.

In education, time itself shouldn't be the issue. No, it's the kind of teaching, the kind of educational environment or the kind of curriculum that are influencing learning. Time is a valuable way to estimate how much exposure kids are getting to those kinds of teaching and curricula.

Unfortunately, we tend to say things like, "phonics works" or "research supports comprehension strategies."

What we should be saying is, "kids benefited from 30 minutes of daily phonics instruction for a school year" or "we had measurable comprehension improvement from 8 weeks of strategy teaching."

Time should be seen as dosage. Too often we're satisfied that teachers are teaching writing or teaching phonics. But we should be asking, "Are they teaching enough of those things?"

## 3 Think components, not overall time.

Principals often proudly tell me that their teachers are required to teach reading/ language arts for two hours per day. That's not nothing, but it's not enough.

I think the lack of specific attention to time is why many teachers neglect certain aspects of reading, while overdoing others.

I've visited kindergarten classes with no phonemic awareness instruction, and third grade classes without writing (since their goal is higher reading scores). I have vivid memories of a second-grade class with an overwhelming 90 minutes per day of phonics and spelling. I'm often asked if having the kids read a paragraph for fluency practice is enough (no, I don't think so).

None of that makes any sense.

In Chicago, we overcame that problem by portioning the literacy instruction time among word learning, text reading fluency, reading comprehension and writing. That meant kids got a lot of attention to all the key

components of reading development.

Making sure that enough time is accorded to each of those curricular components that research has identified as making a difference in reading achievement is not micromanaging.

What we found was that when teachers knew they were required to spend considerable time on fluency instruction or vocabulary, they got very interested in how best to teach those things. It's easy enough to hide your weaknesses in a 90–120-minute block if no one is paying attention to how those minutes are being divided up. But when you find out you have 30 minutes of fluency instruction to provide, how to accomplish that becomes a much more important question to a teacher.

## 4 Aim at learning goals not instructional activities.

Some time-based instructional schemes prescribe specific daily activities: student reading time, small group instruction time, writing, teacher read alouds, ABC Reading Program, etc.

Those schemes help teachers to fill their days.

But filling up a day's schedule and curating a powerful set of learning experiences are not the same thing.

Organise your instructional time around what you are trying to accomplish, rather than on certain activities. If you have set aside time to teach kids to bring their prior



knowledge to bear on the text that they are reading, then your minutes of reading comprehension this week should be focused on that. The texts and activities that you choose should be aimed at accomplishing that goal.

Focus on increasing kids' vocabulary knowledge, not on teacher read alouds. You may decide to structure a teacher read aloud in a way that will help address that vocabulary knowledge goal, but there are other effective approaches to that too. When it comes to time, keep eyes on the learning prize, not the activity that might be used to address it.

### 5 Rate and time are not the same thing.

Time has to do with the number of minutes or hours that we devote to a subject. Rate is more bound up in what happens within that time allotment.

For instance, research suggests that the number of interactions that take place between students and teachers (like how many questions they get to answer) makes a difference in learning ([Allen et al., 2013](#); [Folmer-Annevelink et al., 2010](#)). Often the amount of interaction is limited. The teacher asks a few questions and calls on a couple of kids to answer them. No one must think about the information because they aren't likely to be called upon.

That suggests a useful way of evaluating classroom instruction. How many opportunities do kids have to respond in an hour? The traditional teacher might end up with a very low rate of response – asking few questions, calling on few students. In another classroom, the teacher might provide slates and all students are expected to respond, at least in writing, to every question.

In decoding lessons, I'm often concerned about how many words kids get to segment, or sound out or spell. Some teachers move those lessons along better, getting everyone to do those kinds of things multiple times in a lesson.

And what about the amount of writing that occurs in a writing

lesson or the amount of reading in a comprehension lesson? (How many words are written or read in the time provided?)

We want substantial amounts of time devoted to key aspects of literacy learning. But these time allotments should be replete with reasonably high rates of action and response.

### 6 Not all learning time is equivalent.

Too often teachers assume that all activities common to language arts lessons are equally valuable. That's not the case. Some activities have higher payoffs – in terms of learning – than do others.

Some examples: studies of free or independent reading in which kids pick the texts and read on their own with little teacher involvement provide learning opportunities. However, studies show that the payoffs from using time in that way is markedly lower than when engaged in instructional activities with more teacher input (e.g., text selection, purpose, monitoring, feedback, direct instruction) ([Shanahan, 2022](#)).

Or, think about a phonics lesson. There is likely to be more learning payoff from a highly interactive lesson that provides opportunities to hear sounds matched to letters and words, and to sound out words with teacher guidance, than would accrue from having students completing worksheets quietly at their desks. Kids need to learn to connect phonology (sounds) with orthography (spellings) and that is best done with audible lessons.

I understand that at times teachers need time fillers, but instructional planning should always be a quest for what kind of lesson is most likely to foster the learning that we're aiming for.

### 7 Time and Tier 2 success.

Some kids have trouble learning. They just don't make the same progress as the other kids.

That's why we have the so-called Tier 2 programs – additional

opportunities for kids to catch up and keep up.

Tier 2 programs should focus on important reading skills that kids might lag in (that means having instruction available for supporting both the decoding and language gaps that might occur).

Tier 2 programs should provide enhanced learning opportunities – focused, purposeful, specific, well-presented lessons with minimal distractions and minimal need for adjustments for student heterogeneity.

Tier 2 programs – and here is the time issue – should provide *additional* instruction, not replacement instruction. Pulling kids out of reading lessons to get other reading lessons down the hall is unlikely to increase learning. Tier 2 gives kids a chance for a double dose of instruction, but that means that schools need to schedule Tier 2 teaching thoughtfully so that it adds to the teaching the children receive.

If you want to raise reading achievement, take a careful look at the amount of time allotted for reading, how that time is divided among key learning goals, how engaged children are in that time, and the amount of actual reading, writing and interaction that is taking place. I think you might be sadly surprised at what you see. We can do better.

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*This article originally appeared on the author's blog, [Shanahan on Literacy](#).*

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