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ABSTRACT

If, by looking more closely at word identification, knowledge of word meanings, and reading comprehension, some interesting similarities and differences are found between children and adults who are learning to read, then the approaches that work best with each group can be identified. When children learn to read, fluency of word identification follows the development of accuracy quite closely, with the initial period of fluency completed by the fourth grade. For adults, however, it is not unusual to find that the level at which they are able to read fluently lags several grade levels behind their level of accuracy. At about the fourth grade level, children can read all words the meanings of which they know, and they begin to see words in print that they can read but which are unfamiliar to them. Adults at the fourth grade level and beyond are much less likely than children to encounter words in print that are totally new to them. In contrast to children, it is not at all unusual to find that adults' grade levels in reading comprehension are higher than the grade levels of words they are able to recognize in print. Children's ability to comprehend by listening exceeds their reading comprehension up until about the eighth grade. Adults, however, differ very little between their reading and listening levels. Building on what is already known may help develop literacy in adults. (Twenty-one references are attached.) (RS)

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Developing Literacy in Children and Adults: Are There Differences?

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Differences between children and adults as learners have been well documented in the research literature (1). And, as anyone here who has ever worked with children and adults who are learning to read already knows, some very striking differences do exist. Given that there are differences between children and adults who are learning to read, though, can understanding how literacy develops in children help us to understand better how to develop it in adults?

I think that this question underlies the Harvard Adult Literacy Initiative. And I'd like to examine it a bit further. To do so, I want to focus on three components that theory and research identify as important sources of developmental changes in reading (2)-- word identification, knowledge of word meanings, and reading comprehension. If, by looking more closely at each of these components, we find some interesting similarities and differences between children and adults who are learning to read,

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we may be in a better position to identify which approaches will work best with each group.

Let's begin with word identification. A great deal of theory and research has examined the ways in which children learn to identify the words on a page (3). And, even though there has been much disagreement about the best ways in which to promote children's ability to do so (4), most everyone acknowledges the need for children who are learning to read to learn how to identify the words in an accurate and fluent way.

Let's focus on fluency for a moment, which, when used in reference to word identification, means not only that a person is able to identify words accurately, but also that he or she is doing so in a more or less effortless way.

When children learn to read, fluency seems to follow the development of accuracy quite closely, with the initial period of fluency, or "ungluing from print" as Jeanne Chall has referred to it, completed by the fourth grade. Studies of children's oral and silent reading rates across the first few grades in school help us to understand further the course of development that fluency follows. For example, in second grade, children who are not experiencing difficulties in learning to read are usually reading

aloud at a rate of about 70 words per minute (5), and silently at about 90 (6). By fourth grade, oral reading rate has jumped to about 125 words per minute, and silent reading rate has increased to 150 words or more.

In adults who are learning to read, the relationship between accuracy and fluency seems to be a bit different. For instance, many adults who can read accurately at the fourth grade level read aloud more slowly than do fourth grade children (7). In addition, with adults, it is not at all unusual to find that the level at which they are able to read fluently lags behind, by several grade levels, the level at which they are able to read accurately (8). In other words, "ungluing from print" for adults doesn't seem to occur at the same reading grade levels as it does for children.

Becoming a fluent reader, or "automatic" as it's sometimes called, may be a different process for adults than for children, one that's more difficult for them to acquire. Or, lack of fluency in adults might be a consequence of the process they're using to identify words on the page, relying on cues that slow them down. It might even be that since fluency comes about through practice with texts on which one is already accurate, reading instruction for adults just needs to focus on fluency more. Whatever the reason (and it may be different for different

people), lack of fluency disrupts comprehension (9), overloading one's ability to remember and make sense out of what one has read, or causing one to adopt inappropriate strategies to speed things up. Lack of fluency makes reading a task to avoid, one that brings little satisfaction or enjoyment to the person doing it.

Let's leave word identification for the moment and turn to knowledge of word meanings. When children first learn to read, they know the meanings of all the words they're learning to identify, and they know the meanings of many words that they haven't yet learned to read. And over the course of the next few years of reading instruction, what they're learning to do is helping to close the gap that exists between what they know and what they can read. It's at about the fourth grade level for children who aren't experiencing difficulty that this first gap gets closed -- that is, they can now read all the words whose meanings they know. And a second gap begins -- they now encounter words in print that they can read, but which are unfamiliar to them. Thus begins what Jeanne Chall has referred to as "reading to learn", the period through which children use reading to acquire new words, meanings, and concepts (10).

Again, as with fluency in word identification, the picture for adults seems to be somewhat different. Like children learning

to read, adults also know the meanings of many more words than they are able to identify in print. So, like children, adults encounter that first gap, and in the process of learning to identify words, they are able to close it as well. It's the second gap that can differ between adults and children. At the fourth grade level, and often far beyond, adults are much less likely than children to encounter words in print that are totally new to them. The problem is, however, that very often these words, although not totally new, are also not totally known.

As skilled adult readers, much of our knowledge about word meanings has been acquired incidentally, as the result of our encounters with words in multiple contexts (11). Less-skilled adult readers have also acquired knowledge about word meanings in this way, although the contexts in which they have encountered words are usually less varied and are frequently aural rather than written in nature. They may recall hearing or seeing a particular word before, and may even be able to recall the context in which the word occurred. But often less-skilled adult readers find it difficult to separate the meaning of the word from the context in which they remember it occurring (12), as was the case with a man who assumed that beneficial had something to do with money because he remembered that there used to be a company called "Beneficial Finance". As a result, adults who experience difficulty in

reading can end up, much more often than children learning to read, trying to apply incomplete or imprecise knowledge about word meanings.

Just as children need to learn to become aware of when new and unfamiliar words are causing them difficulties in comprehension, adults have to realize that their prior knowledge can be insufficient for understanding what they are reading. And, often, adults will benefit from instruction in strategies for dealing with this situation (13). Without such strategies, frustration and lack of enjoyment can occur.

What about development of comprehension in children and adults? Are there similarities and differences we need to take into account?

Just as is the case with their knowledge of word meanings, when children are learning to read, their ability to understand written language far surpasses their ability to read it themselves (14). What this means is that when we test children's reading ability, what we find is that their word identification places a limit, or a "cap", on what they can understand (15). Remove this cap or limit, as is what happens when we give them a listening

rather than a reading task, and they are able to understand written materials at levels higher than they can read (16).

Adults who are learning to read also experience difficulties in identifying words in print. But these problems often don't show up in the same way as they do with children. For instance, in contrast to children, it is not at all unusual to find that adults' grade levels in reading comprehension are higher than the grade levels of words that they are able to recognize in print. Such a seeming contradiction underscores the need to recognize that adults bring strategies and knowledge to the task of learning to read that most children do not. Helping adults to identify which of these strategies will ultimately benefit their learning as much as their performance must often become an instructional goal.

Another way in which adults' and childrens' reading comprehension seems to differ is in terms of its relationship to listening comprehension. As I mentioned earlier, children's ability to comprehend by listening exceeds their reading comprehension up until about the eighth grade (17), at which point reading comprehension begins to be better than listening. With adults who are learning to read, on the other hand, there very often will not be as much of a difference between their reading

and listening levels as one finds with children reading at the same level (18). In part this may have something to do with children being read aloud to, familiarizing them with written language in ways that adults haven't had. The smaller gap between reading and listening comprehension in adults than in children may also stem from adults' heavy dependence on context during reading to get around problems in word identification -- a strategy that might make reading and listening levels less different for them than for children. Again, whatever the reasons, the results of research in this area suggest that in adults whose reading comprehension is at the second through fourth grade levels, listening comprehension ability may only be at the third through fifth grade levels (19). This in turn suggests the need to consider, from the very start, ways in which we can teach adults how to comprehend better, so that once they have acquired accuracy and fluency in word identification, they will be better equipped to learn from what they can read.

I've been able to look, only briefly, at three components of reading (word identification, knowledge of word meanings, and reading comprehension). For each, I've tried to describe some similarities and differences in the ways that each component seems to develop in children and adults. In doing so, my goal has been to illustrate the value of using an understanding of how literacy

develops in children as a basis for understanding how to develop it in adults.

Approaches to developing reading ability in children and adolescents have long been influenced by our understanding of reading in skilled adult readers. Drawing on our knowledge of what proficient mature reading is like, we have been able to construct theories that help us to understand the various factors involved in reading development, and the ways in which the relationships among these factors change along the way (20).

Using knowledge derived from the study of skilled reading to inform instruction of children has not required that we treat children as miniature adults. And, although some seem to want to argue otherwise (21), using knowledge derived from the study of children's reading development to inform instruction of adults who are learning to read does not require that we believe that these adults have the same needs as children. Rather, what it does require, I think, is an acknowledgment that we have managed to learn something about literacy and literacy development over the past century's worth of theory and research. And a recognition that understanding the best ways to develop literacy in adults might possibly be accomplished through building on what we already know.

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