

Cory	Esmeralda*	Javier	Kimberly	Mac*	Rashaun
I	I	I	I	I	I
A	dinosaur	saw	A	I	a
I	my	a	I	I	in
I	I	in	A	saw	I
A	and	elephants	I	a	an
	kangaroo	red			a
	in	I			I
	zoo	a			red
	in	zoo			I
	a	a			a
	chair	in			the
	I	A			I
		chair			a
		I			in
		saw			a
					chair
					I
					on

\*bilingual reader

**Table 2.** Words Not Fixated but Produced Orally

is easy to see that he did not fixate words in the order in which they appear in print. The sequence begins with fixation number 501 in the white area below the word *red* and terminates with fixation number 508 at the beginning of the word *wearing*.

**4. Readers' fixations were not uniform in duration.**

As did Paulson (2000) in his study of adult readers, I refute the idea that readers' fixations are all of about the same duration. The first-grade readers' fixations ranged anywhere from a low of zero seconds (non-fixation) to over ten seconds. Figure 3 offers an example of this variation in Javier's fixation durations. The dots representing the fixations vary in size based on the duration, and the number accompanying the dot indicates how long the fixation duration was in seconds.

Javier's fixations vary by as much as one and a half seconds (from .40 seconds to 1.98 seconds) in this brief

excerpt of his reading of this page. All readers in this study consistently demonstrated that their fixations were far from being equal in duration.

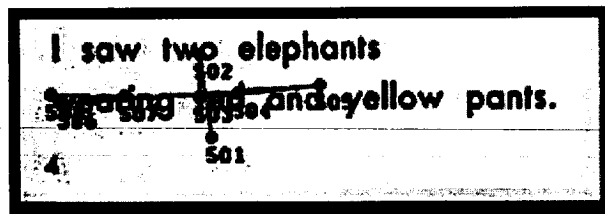
**5. Fixation durations on the same word in different contexts varied.**

The word *a* appeared seven times in the story, twice on one page. While examining fixation durations on the two *a*'s, I was struck by the differences of duration time on the same word in different contexts.

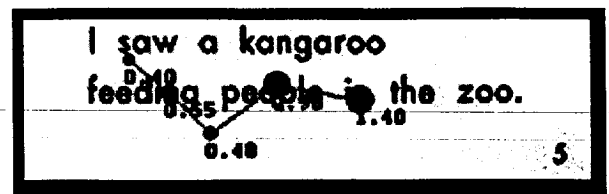
Table 3 shows the total fixation durations on the word *a* for individual readers in the seven instances that it occurred within the complete text. These total fixation durations ranged from zero (no fixation) to as long as 8.99 seconds.

On the surface, the role of *a* as an indefinite article in this text appears to be constant and entirely predictable. However, linguists such as Halliday and Hasan (1976) and Quirk and Greenbaum (1973) explored distinctive contextual differences in the use of nouns and determiners in noun phrases that create a system of cohesion within texts. Language users are aware of and consider these contextual differences as they communicate.

The word *a* is one of the most frequently occurring words in English texts, and is a determiner that signals the introduction of new information. All readers of English have pre-existing knowledge of how determiners can be used both in oral speech and in printed texts, based on their prior experiences with written and oral language. As readers read a printed text, they become familiar with the system of determiner use offered by that text. They form schemata about the use of determiners within the text that are informed by their reading of the text. The background knowledge then drives their predictions about features of the printed text. For example, readers would expect the word *a* to precede the word *bear* if the bear has not previously appeared in the text.



**Figure 2.** Readers' eyes do not always move serially from word to word, left to right.



**Figure 3.** Readers' fixations were not all about the same duration.