Readaloud preview study goals.

1. Get accurate measure of total sentence reading time
   1. From start of first fixation to start of the fixation that ends with a buttonpress
   2. Write an AWK script, very simple
      1. For each line in each .da1 file, add to a file with subject, item, condition numbers, start time of firstfixation, start time of last fixation, and the difference between the two. – [Related to point 1 in c, I assume “the last fixation” is the last one with 0 0 X Y values (in the sentence), is it correct?] The easiest way would be to take just the very last fixation on a .da1 line, whatever it is, but see below
      2. In R or Excel or whatever, get the subject and item means of these differences in each condition, analyze as desired [It sounds good!]
   3. Problems
      1. Sometimes there are 2 off-sentence fixations at the end; maybe try to filter these out (but that makes things harder) [Is it difficult to add X Y value as a filter condition?] not if I do it in eyedry which seems to be the right way
      2. Sometimes Ss look at the post-it note before pressing, sometimes they don’t (you can tell by scanning the .da1 files – if they end with -1 -1 X Y values, the eye is off the sentence [I tried to examine this with Da1 files and find it hard as the last fixation was in different column across sentences. It will be more straightforward to check this from asc files]). I haven’t looked at many of your .da1 files, but I don’t see a big problem here. Whenever there’s a fixation outside one of the analysis regions in the .cnt file, .da1contains -1 -1 XY values – I think it’s safe to assume that the last non -1 -1 fixation on a .da1 line is the last real fixation on a sentence. But you’re right, it’s not easy to detect the problem I mentioned from the .da1 files – unless you bring them into Word and let them wordwrap. This means that sometimes the total time will include the last fixation on the sentence, sometimes it won’t.
2. Get the time to reach the end of the sentence
   1. Add a routine to Eyedry
      1. The routine will identify the farthest-right fixation on the sentence, prior to any regressions (or looks to the post-it note)
      2. It will subtract the start of the very first fixation on the sentence from the start of this farthest-right fixation to get a measure of the time to reach the end of the sentence
      3. It will write out sub, itm, and ixs files with this measure, as usual
   2. Actually, this is redundant – I could make this routine do what the AWK script in 1 does and have it write out both the total sentence reading time, time to reach end, and their difference in the usual way.

Note, for oral reading trials, the difference mentioned in (2b) is an estimate of eye-voice span at the end of the sentence, assuming that people finished pronouncing the sentence before they pressed the button [I guess most subjects would finish pronounce the sentence before pressing the button, however, how to convince reviewers about this if they have questions?] Yeah, you’re right, this might be a worry. But it’s the best we can do, far as I can see, and if you get reasonable results – e.g. longer eye-voice spans with preview – you can make it very plausible.