

The Relationship of the Component Skills of Reading to IALS Performance: Tipping Points and Five Classes of Adult Literacy Learners¹

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¹ This study was designed and carried out by investigators from Educational Testing Service and the National Center for the Study of Adult Learning and Literacy, with the assistance of Statistics Canada and the Ordinate Corporation. Researchers from the Westat Corporation were responsible for sampling, interviewer training, and data collection.

CONCLUSIONS

Implications of “Tipping Points” for Instruction

We have made a beginning at identifying “tipping points” in print and vocabulary abilities by noting that, at the .85 proficiency level, those abilities coincide with the onset of IALS Level 3 literacy skills, with all that Level 3 performance implies for improved quality of life opportunities. Our latent class analysis supported this finding when it created Class 1, which is made up of people distributed on either side of the IALS Levels 2 and 3 *and* whose key components skills in oral vocabulary and rapid, accurate word recognition were tightly arranged near or above the .80 proficiency level.

This methodology allows us to determine the levels of print skills (real-word recognition, pseudo-word recognition, and spelling) and meaning skills (receptive vocabulary) that are related to the transition from IALS Level 2 to IALS Level 3 real-world literacy. Knowing these “tipping points” makes it possible to identify those adult learners whose print and meaning skills are very close to those of Level 3 and above adult readers. These are intermediate adult readers, people who might be very near to achieving levels of literacy that could change their lives dramatically, if they were given a burst of intensive, tightly focused instruction.

At the present time, many adult literacy teachers in the U.S. tend to offer these intermediate and pre-GED adult readers instruction that is primarily organized around reading comprehension strategies, such as finding the main idea, using inferences, and detecting the sequence, and techniques for learning vocabulary through context. The teachers may be unaware of their students’ underlying needs in print and meaning skills, or they may believe that these component skills will develop naturally in the course of reading connected texts (Davidson & Strucker, 2002).

Our findings suggest that a different approach should be explored for these intermediate and pre-GED adults, such as the approach developed by Chall in the Harvard Adult Reading Laboratory (Chall, 1994) and later extended and adapted for adolescent group instruction at Boys and Girls Town in Nebraska by Curtis (Curtis & Longo, 1999). Instead of focusing primarily on comprehension itself, Chall and Curtis’ approach addresses the root causes of poor comprehension: lack of fluent, accurate word recognition and limited knowledge of word meanings. Direct instruction is provided in each of these areas, accompanied by extensive reading and discussion of complete texts at appropriate levels of challenge. If needed, instruction in comprehension strategies would take place only after students have acquired the necessary foundations of print and meaning skills.

These instructional approaches require that adult literacy teachers know how to give and interpret reading components assessments and how to plan effective instruction based on the results of those assessments. One implication of this for educational policymakers is that adult literacy programs should be staffed by teachers with extensive training in the areas of assessing and teaching reading.

Obviously, large-scale intervention studies are needed to establish which approaches work best for these “tipping point” students. Fortunately, several of the adult literacy studies currently underway and funded by National Institute of Child Health and Human Development and the Institute of Education Sciences are exploring this and other questions related to best practice in reading instruction for these adult intermediate readers.

The Relationship of the Component Skills to Comprehension

This research indicates that the components of vocabulary and word recognition have the same relationship to the IALS real-world literacy assessment that they have to more traditional academic measures of reading comprehension studied in the past (e.g., Perfetti, 1985; Gough and Tunmer, 1986). In short, performance on the IALS can be linked directly to levels of print and meaning skills. We think this is potentially good news for adult literacy practitioners because there is some clinical evidence (Chall, 1994; Curtis and Longo, 1999) that those component skills can be improved through focused teaching and that this in turn can lead to accelerated growth in comprehension.

The Importance of Rate As Well As Accuracy in Decoding

It is of interest that even though the IALS Prose test is essentially untimed, the TOWRE A, which demands fast as well as accurate real-word reading, is so strongly related to IALS performance. This means that it is not just that faster reading enables one to finish a timed comprehension test within the time limit, resulting in a higher score. Our finding offers support for the arguments made by Sabatini (2002), Carver and David, (2001), Adams (1994), and Perfetti (1985) that rate and accuracy in word recognition (decoding) are interrelated and that *both* rate and accuracy are critical for higher levels of reading comprehension. It also suggests that assessments of decoding are strengthened if, like the TOWRE-A and TOWRE-B, they include measures of rate as well as accuracy.

Establishing Reader Profiles

Latent class analysis of the PPVT, TOWRE-A and -B, our brief spelling assessment, and Digit Span shows that components proficiencies can be used to create meaningful classes or profiles of ABE, ASE, and ESL readers. Our background questionnaire data offer external validity for the preliminary five-class solution we present in this paper. The latent class analysis created, for example, Classes 2 and 5, which both contain

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native English speakers with signs of reading disability based on TOWRE-A and -B and spelling. External validity is offered by the fact that the significant percentages of native speakers of English in both classes reported trouble with early reading and the presence of learning disabilities. Similarly, Classes 3 and 4 emerged with vocabulary skills that were markedly weaker than their word recognition skills. This fits the classic description of an adult foreign language learner. Indeed, those two classes are made up overwhelmingly of ESL enrollees and other non-native speakers of English. Across all five classes, non-native English speakers' self-reports of their English speaking and reading abilities were consistent with their components and IALS reading proficiencies, ranging from those in Class 1 who reported very strong English abilities to those in Class 5 who reported very limited English abilities.

Implications of Our Latent Class Analysis for Instruction

Ultimately, the technique of latent class analyses of adult reader profiles could be used by the adult education system to identify different types of readers for instructional purposes, from beginners through GED levels. University and hospital reading clinics have been using this reading profile approach for many years (Chall, 1994; Chall and Curtis, 1990). As our analysis suggests, patterns of strengths and needs in reading can vary quite a bit among adult readers. Simply knowing a reader's score on a reading comprehension test usually does not give a teacher enough information to plan efficient, effective remedial teaching (Strucker, 1997). Establishing rigorous and valid classes of adult readers will help adult literacy centers move away from "one-size-fits-all" approaches to reading instruction, toward more focused and differentiated instruction.

The Future of Adult Literacy Test Design

Of particular note to adult literacy practitioners and policymakers is the relatively quick administration time needed for the components tests that were analyzed in this study. On average it took less than 40 minutes to administer IALS, PPVT, TOWRE-A and -B, spelling, and Digit Span. (This excludes the time for the rather lengthy IALS questionnaire and for the four brief language and additional cognitive measures that were administered using Ordinate's PhonePass©.) This means that it would be possible to design short, easy-to-administer batteries of components that could be given to large numbers of adults in literacy centers or in their communities. Although the PPVT and TOWRE-A and -B were scored by humans in this study, if computer speech recognition could be employed to score tests such as these, the entire battery could be delivered and scored online.

Finally, we hope that this research will suggest to educational policymakers in the various IALS countries that reading components assessments can make an informative addition to their current IALS literacy batteries. Components assessments not only contribute a vital piece of the puzzle in explaining why some adults possess limited

literacy abilities; they can also be used to develop and test instructional approaches that might be effective for the various different profiles of adult literacy learners who are present in a given society.

In addition, reading components such as word recognition and oral vocabulary are likely to be especially important for assessing literacy in developing societies where the overwhelming majority of adults are in IALS Level 1. Only components tests can tell policymakers whether Level 1 adults in these societies have acquired or begun to acquire the basic foundations for higher levels of literacy.

We believe that this study of adults' component reading skills marks the beginning of the next phase in the development of large-scale adult literacy assessment, a development that began back in 1985 with the Young Adult Literacy Survey, and has continued through the NALS, IALS, and the recently released U.S. National Assessment of Adult Literacy (NAAL) (2005). In this new phase, large-scale assessment has begun to move beyond simply providing accurate and reliable descriptions of broad adult literacy proficiencies. It can now take on the task of providing practical knowledge about adults' strengths and needs in reading, knowledge that can be used to guide the development of effective educational interventions. Having successfully defined the gaps between society's least and most proficient readers, large-scale assessment can now focus on what needs to be done to narrow those gaps.