2017 STAR Research Review

The purpose of the STAR research review conducted annually is to identify any developments in reading research that call for changes in project content. In addition, the results of the review are used to keep the STAR team up-to-date on any new research related to the training and technical assistance they are providing.

Fracasso, L.E., Bangs, K., & Binder, K.S. (2016). [The contributions of phonological and morphological awareness to literacy skills in the Adult Basic Education population](). *Journal of Learning Disabilities, 49,* 140-151.	Skills in decoding (being able to correctly pronounce nonwords) and morphological awareness (knowing how words are built) of 63 ABE students were compared to their abilities in spelling, vocabulary, and listening and reading comprehension. Of the students, 10 were beginning level readers, 20 were intermediate, and 33 were advanced. Reading and listening comprehension were assessed with sentence level tasks. Morphological awareness was a unique predictor of spelling, vocabulary, and listening comprehension. Decoding was a unique predictor of spelling and listening and reading comprehension. Morphological awareness was related to reading comprehension via vocabulary.
Hardin, B.L., & Koppenhaver, D. (2016). [Flipped professional development: An innovation in response to teacher insights](). *Journal of Adolescent & Adult Literacy, 60,* 45-54.	In flipped professional development (PD), practitioners watch and listen to training materials when and where they choose, following which they apply their learning while being guided by trainers. Flipped PD reduces the need for face-to-face sessions and enables such sessions to focus on technical assistance and problem-solving. In this article, experiences from a project involving 36 K-12 teachers enrolled in flipped PD that focused on reading instruction are reported. The authors conclude:
	> We have no data with which to argue that the flipped PD model offers superior learning opportunities to more traditional methods of PD; we studied neither the learning outcomes of participants nor their students in the initial trial. It is significant, however, that teachers judged the flipped PD model to be an effective approach. This judgment increases the likelihood that teachers will continue to engage in future PD opportunities and recommend the experiences to colleagues. The flipped approach offers a cost-effective model that supports the inclusion of many elements of best practice identified by research (pg. 53).

McKoon, G., & Ratcliff, R. (2016). Adults with poor reading skills: How lexical knowledge interacts with scores on standardized reading comprehension test. *Cognition, 146,* 453-469.	Among the goals of this research were to better understand what standardized tests of reading comprehension measure and what underlies the difficulties of adults who score low on them. Adult native English speakers with TABE scores ranging from the 4th-7th grade levels (n=124) were shown strings of letters (e.g.,"trade"; "trude") and asked to decide as quickly and accurately as possible whether the letter strings represented a word or not. Results showed that learners' TABE performance was significantly related to how well they performed on this task. Speed and accuracy in making decisions about the letter strings were not significantly correlated with each other, however. In other words, knowing that learners have the same accuracy does not necessarily mean they have the same skills because their rate can be different.
Mellard, D.F., Woods, K.L., & Lee, J.H. (2016). Literacy profiles of at-risk young adults enrolled in career and technical education. *Journal of Research in Reading, 39,* 88-108.	Within a sample of learners enrolled in a job training program, students reading around the 8th grade level were compared with those reading below. Differences were found in the groups' word reading ability and processing speed, but not their language comprehension and cognitive processing/working memory abilities. Self-reports of learning disabilities were also higher in the lower literacy group (28% vs. 14%). The authors conclude: The lower literacy group will likely need more intensive instructional efforts (e.g., smaller instructional groups, targeted or focused instruction on specific reading components and instructors with more specific knowledge of reading instruction) and increased learning opportunities (e.g., additional practice on more occasions) for them to progress… (pg. 17-18).
Nightingale, E., Greenberg, D., Branum-Martin, L., & Bakhtiari, D. (2016). Selecting fluency assessments for adult learners. *Journal of Research and Practice for Adult Literacy, Secondary, and Basic Education, 5,* 18-29.	Fluency in 116 native English speaking literacy learners (81% of whom identified as African American/Black) was assessed with 4 measures: • Test of Silent Word Reading Fluency – where learners presented with rows of words, ordered by difficulty and without spaces in between, must draw lines between word boundaries • Test of Silent Word Contextual Reading Fluency – same as above, except words are presented in passages

	• Test of Word Reading Efficiency – learners are asked to read aloud a list of words and pronounceable nonwords • Woodcock Johnson Reading Fluency – after silently reading a sentence, learners indicate whether each sentence is true Participants demonstrated low skills on every measure (with mean grade equivalents ranging from 2.2 to 5.2). However, correlations among scores on the tests varied quite a bit, leading the authors to recommend that care be taken when reading studies about struggling adult readers' performances on reading fluency tests, and when selecting reading fluency measures.
Rampey, B.D., Keiper, S., Mohadjer, L., Krenzke, T., Li, J., Thornton, N., & Hogan, J. (2016). *Highlights from the U.S. PIAAC Survey of Incarcerated Adults: Their skills, work experience, education, and training: Program for the International Assessment of Adult Competencies: 2014* (NCES 2016-040). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved February 13, 2017 from http://nces.ed.gov/pubsearch.	Profiles and skills of incarcerated adults participating in PIAAC were compared with those of non-incarcerated adults from the main PIAAC household assessment. 93% of the prison test takers were male, compared to 49% in the household assessment. Prison test takers were 34% White, 37% Black, and 22% Hispanic compared to 66% White, 12% Black, and 14% Hispanic for the household sample. 35% of the prison sample were aged 25-34 and 24% were 34-44; in the Household sample, both age groups were 18%. 64% of the prison sample reported having a high school credential as their highest level of attainment, compared to 50% in the household survey. 29% of the prison sample scored below Level 2 in literacy, compared to 19% in the household sample. However, average literacy scores for incarcerated adults did not differ from their household peers with the same level of educational attainment.
Tighe, E. & Schatschneider, C. (2016). Examining the relationships of component reading skills to reading comprehension in struggling adult readers: A meta-analysis. *Journal of Learning Disabilities, 49,* 395-409.	Results from 16 studies of adults enrolled in ABE, adult secondary education, adult English second language courses and Job Corps were analyzed to determine the relative contributions of component reading skills to reading comprehension. Morphological awareness (i.e., ability to manipulate and combine word parts), language comprehension, fluency, oral vocabulary knowledge, real word decoding, and working memory were all found to be strong predictors of reading comprehension.
To, N.L., Tighe, E.L., & Binder, K.S. (2016). Investigating morphological awareness and	Adults were asked to listen to a word followed by a sentence with a missing word (e.g., "employ. It is difficult to find _____") and provide the correct form of the

[processing of transparent and opaque words in adults with low literacy skills and in skilled readers](#). *Journal of Research in Reading, 39,* 171-188.	missing word (i.e., "employment"). Participants were native and non-native English speakers enrolled at ABE centers (n=61) and in college (n=89) For both the adults with low literacy skills and skilled readers, performance on this task explained unique variance in word reading and reading comprehension. In addition, results indicated that adults with low literacy skills were more impaired than skilled readers on items containing phonological changes (e.g., confide vs. confidence) but not on items involving orthographic changes (e.g., rely vs. reliable).
What Works Clearinghouse (WWC) (2016). WWC intervention report: *READ 180©*. Available from http://ies.ed.gov/ncee/wwc/Docs/InterventionReports/wwc_read 180_112916.pdf	WWC reviewed 9 studies assessing the effectiveness of *READ 180©*, a program for students in grades 4-12 who are reading 2 or more years below grade level. *READ 180©* is designed to run 90 minutes a day and consists of 3 parts: whole group direct instruction, small group rotations, and whole group wrap-up. WWC concluded that *READ 180©* has positive effects on comprehension, potentially positive effects on reading fluency, and no discernible effects on alphabetics. Initial start-up costs of *READ 180©* for 60 students is $43,000, which includes 2.5 days of professional development.

Student Achievement in Reading ([STAR](#)) is a reform initiative that focuses on improving the reading of intermediate level adult basic education students. STAR works with states, local programs and teachers to provide:
- training in evidence-based reading instruction.
- technical assistance in developing the systems and procedures needed to implement and sustain evidence-based reading instruction.

Two sources were used to select the articles for the 2017 review of research:
1. Subject matter experts in adult literacy research nominated articles to include.
2. The term "adult literacy" was used as a search term in the Academic Search Premier (EBSCO) database to locate articles published since the last review.

Articles from either source were excluded if they were:
- Essays, book reviews, or narratives describing personal experiences.
- Research conducted in languages other than English.
- Research with a primary focus other than reading.
- Studies not related to STAR's rationale and/or design.

[Mary Beth Curtis](#) presented this list at the annual STAR research update webinar in April, 2017.