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Research in adult literacy has often focused on what occurs outside of the classroom. Excellent research has been done exploring the lives of learners, their motivations to attend, and how they apply new learning. However, studies focusing on the actual process of learning in the classroom have been considered the domain of content specialists in reading and math, who pay little attention to the social context of the classroom or to the social-psychological realities of learning for marginalized adults. This research has two broad goals:

1. To conceptualize and measure *learner engagement* in adult literacy classrooms.
2. To understand how engagement impacts learning.

This research draws on the literature related to learner engagement and on qualitative data from field research. Engagement is one of several classroom processes (Beder & Medina, 2001) that are important in understanding the adult literacy classroom. Various researchers have specified different ways of understanding the broad construct of engagement (Fredricks, Blumenfeld, & Paris, 2004), including contextual, socio-emotional, psychological, and cognitive components. Of interest in this study is cognitive engagement, a learner's active use of self-regulating strategies in purposeful classroom learning (Corno & Mandinach, 1983). A number of studies have measured this construct among K-12 and college students (e.g., Helme & Clarke, 2001; Meece, Blumenfeld, & Hoyle, 1988) using both qualitative and quantitative approaches. However, there is little research related to cognitive engagement of adult students in adult literacy programs. A grounded theory study (Strauss & Corbin, 1990) of engagement in adult literacy classrooms provided qualitative data, including video and transcripts of classroom interactions, to enhance our theoretical understanding of cognitive engagement. Combining our findings from the literature with this observational data, for this study we defined cognitive engagement as "the mental effort that individuals actively use to focus on tasks that lead to learning". The model for our discussion appears in Figure 1.

Figure 1. Model of learner engagement
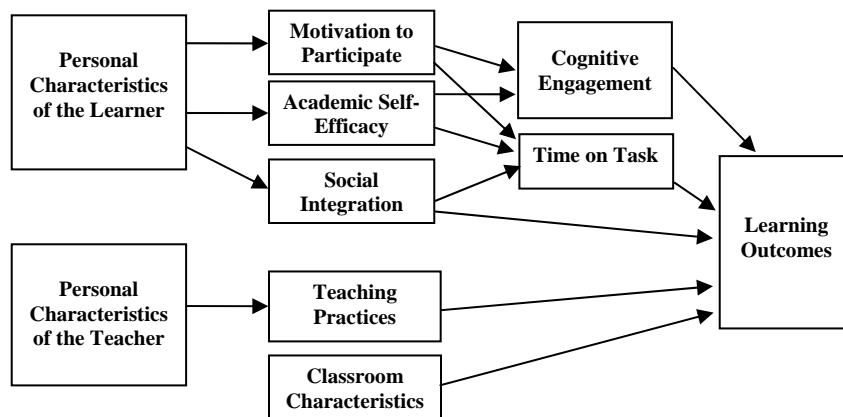
To test this conceptual model, we have collected data on a variety of variables using three distinct data sources: (a) student questionnaires, (b) teacher questionnaires, and (c) program records. The specific variables and the sources from which we are collecting data are:

1. Learning outcomes (basic skill improvement and goal attainment) from teacher questionnaire and program records.
2. Cognitive engagement (14 self-assessed indicators) from student questionnaire.
3. Time on task (total hours attendance) from program records.
4. Motivation (12 self-assessed indicators) from student questionnaire.
5. Academic self-efficacy (6 self-assessed indicators) from student questionnaire.
6. Social integration (2 self-assessed indicators) from student questionnaire.
7. Teaching practices (10 self-assessed indicators) from teacher questionnaire.
8. Classroom characteristics (type of class, number of students) from program records.
9. Personal characteristics of the learner (18 self-assessed indicators of self-esteem and demographic information) from student questionnaire and program records.
10. Personal characteristics of the teacher (demographic information) from teacher questionnaire.

The data collection strategy was planned to minimize both classroom disruption and teachers' time and effort.

Development of the instruments was a rigorous, 12-month process that included (a) construct clarification through wide reading and grounded field work, (b) construction of an initial, 145-item item pool, (c) successive refinement through critique sessions, (d) experimentation with various response scales, and (e) formal and informal pilot-testing. We also developed and field tested a protocol for collecting self-report survey data from low literate adults, designing procedures for "assisted self-completion" in the classroom. Data has currently been collected from 220 learners at the National Adult Literacy Lab Site in New Brunswick, New Jersey. The multi-faceted data set is being analyzed in SPSS using simple and multiple linear regression to test the "arrows" in Figure 1.

This study contributes to both research and practice in adult literacy. It has often been assumed that survey research is not suitable to use for data collection with low-literate adults. Our results with this instrument indicate that carefully developed self-report measures can be a valid option for research in adult literacy classrooms – and thus for giving voice to large numbers of oppressed learners. The findings will allow us to understand better, both on a theoretical and practical level, the factors that enhance learning for low literate adults, and the actions that educators can take to improve that learning.

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