Executive Summary

National Field Test of *Workplace Essential Skills*

Jerome Johnston, Shannon J. Young, and Leslie Petty
Institute for Social Research
University of Michigan

A national field test of the *Workplace Essential Skills* (WES) program from LiteracyLink® was conducted in 14 sites in 6 states and Washington D.C. beginning in September, 2000 and concluding in June, 2001. All four WES strands (Employment, Communication, Reading, and Math) were tested with a variety of adult learners in 6–8 classrooms per strand. In WES, each strand is comprised of multiple units—8 for Employment, 7 for Communication, 4 for Reading, and 5 for Math. A unit consists of one half-hour video, a chapter of instruction in a printed workbook, and a collection of related online activities. The goal of the field test was to assess the *potential* of the materials to enhance the knowledge and skills of Adult Basic Education (ABE) students under optimal conditions, defined here as six hours of classroom instruction for each unit of instruction.

Student learning and job-seeking behaviors were measured using a pre-post research design. Each student served as his/her own control; there was no control group. A combination of standardized and tailored tests was used to assess learning in each of the content areas. Where possible, standardized measures such as the CASAS ECS Reading and Math tests were used to see how well WES could fare in a climate where certain funding sources for adult education are increasingly tied to the NRS requirement that every student show measurable progress during the time spent in a course of instruction.

The evaluation was conducted in two phases. The first phase, called the National Field Test (NFT), was conducted in the Fall of 2000 in 14 sites with a range of literacy providers including CBOs, community colleges, public schools, and one library. Teachers were trained to use WES by the developers. The second phase—called the

Prelude to Success program—added another site in Winter-Spring of 2001 where instruction was more intense. In the *Prelude* program, two teachers at the Brooklyn (NY) Educational Opportunity Center (BEOC) taught a more intensive version of the Employment and Math strands. Students in these classes had applied to Brooklyn's vocational training program and were promised admission to it if they first attended WES classes. BEOC staff were experienced at adhering closely to research and instructional protocols. In addition to the usual WES testing, *Prelude* participants were followed through the first semester of their vocational training to see if the WES impacted their further education.

A Summary of Findings

A content analysis of WES reveals a curriculum that exposes students to good practices in American business. These practices are in areas such as how work is organized, communicating with customers, and using math to complete a specific task. WES covers the tools used to organize work as well as the intellectual skills needed to process the tools. In many instances WES provides skill-based instruction; however, the program's emphasis is more on knowing what to expect in the workplace than on mastering particular skills. The WES curriculum offers students a framework through which to understand the purposes for learning specific knowledge and skills. The field test measured both the knowledge and skills learned when studying WES.

Reading and Math

In the Reading and Mathematics strands, results were impressive. Impact was assessed using the CASAS ECS Reading and Math tests. The test developers expect a learner will increase his or her score approximately five points with 100 hours of instruction. In both the reading and math areas of WES, instructional time was much shorter—24 hours for reading and 30 hours for math. More than half of the students showed gains in their reading and math scores in that limited instructional time. Approximately 15% showed scaled score gains of 5 points or more; another 25% had larger gains. This shows impressive instructional potential. However, the scores of almost half of the students did not increase at all. There may be great potential in the materials for some, but more

research is needed to understand why other students did not demonstrate any learning gains on the tests.

Employment

Underemployed adults need to improve in many areas if they are going to secure a new or better job. This includes learning how the job market works, how to prepare a good resume and cover letter, and—most importantly—how to use their knowledge and skills to successfully present themselves to potential employers. Based on our test of job-seeking knowledge, the test groups were already quite knowledgeable about the concepts taught in the WES Employment strand prior to studying the strand (pretest average: 74%). Students in the National Field Test (NFT) did not improve their scores significantly on this measure. The *Prelude* group scores improved by 15%. It is likely the *Prelude* teachers were able to provide more intense instruction than the typical NFT teacher since they had additional administrative and data collection support as well as a more concentrated instructional timeframe in which to help students engage the materials. But the *Prelude* students may have been a bit more motivated. More of these students had job experience and were planning to look for a job in the coming months.

When it comes to filling out a job application, the average ABE student in our sample knew how to complete most sections of a sample job application, though few attended to grammatical and mechanics-based errors. *Prelude* program students again improved twice as much as their NFT counterparts. Further analysis revealed that the students in both groups who were the least familiar with job applications before studying WES improved the most—92% of students scoring at the lowest levels on the baseline test improved one-half proficiency level or more on the standardized CASAS job application test.

After studying the Employment strand, students knew the basics of preparing a resume, but they still needed more work in two areas—describing the skills associated with prior jobs and understanding the necessity of including a section on references.

Finally, in the behavioral-motivational arena, studying the Employment strand helped students formulate a plan to find a job and actually begin the search. Between 20% and

25% of the students in the Employment strand increased their job-seeking activity in areas such as searching for job information at the library, preparing a resume and sending it to an employer, and actually securing a job interview.

The Employment strand includes a wide array of information and advice about job-seeking. Engaging the materials in depth has the potential to help adults improve their job-seeking knowledge and skills, though the materials need to be supplemented with multiple opportunities to practice the skills introduced in the strand.

Workplace Communication

The Workplace Communication strand covers appropriate use of written and oral communication in the workplace. It is designed to help students recognize "good practice" in these areas and provides some instruction in the skills of writing a memo, reading a chart or table, and filling out a form. Students who studied this strand improved a small amount in their ability to recognize good practices in written, oral, and non-verbal communication in the workplace. However, they did not improve their skills in the use of common workplace forms. In terms of recognizing good practices, students learned more about written communication (e.g., the variety of formats used for business messages, the meaning of "jargon", etc.) than oral communication (e.g., eye contact with customers is important, when you are part of workgroup you solve problems together, etc.). The knowledge gain for written communication was 14%, for oral and non-verbal 7%. Students may have learned more than is suggested by these modest increases. It is difficult to capture in a written test the kind of incidental knowledge taught in this strand. The coverage is broad, and what is taught about any one area is at an introductory level.

Three performance tests were used to assess student gains in the skills of producing and interpreting workplace forms. Strand participants were fairly skilled at filling out a form—e.g., a room-reservation request—before they began studying WES and thus there was little room to improve. With two other skills—writing a memo and extracting information from a chart—students' skills were low to begin with and they did not improve appreciably as a result of studying the strand. This is not surprising given the complexity of completing these tasks. While the WES materials familiarize students with

these forms, there is insufficient instruction, or opportunity to practice and get feedback, built into the materials and tasks. In typical K-12 programs, the topic of extracting information from tables and charts is covered over many chapters. Similarly, writing a good office memo requires much more than simply knowing what a memo format looks like. The quality of a memo depends on a set of underlying skills having to do with organizing information and presenting it in a compelling way—skills that are usually acquired over time and with real life experience.

The Communication strand introduces many important concepts regarding workplace communications, and this knowledge provides an important overview of common forms of workplace communication. But improved skills in any one of these areas, from writing a memo to interpreting accurately the wishes of a customer or manager, require additional instruction and practice that only a teacher and multiple opportunities to engage the skill can provide.

Impact on Further Education

As it became clear WES could enhance students' work-related knowledge as well as their confidence in their abilities, it seemed natural to ask if the WES experience could have an impact on how they fared in other classes designed to increase specific skills. Following the completion of the WES program, students in two classes at the Brooklyn Educational Opportunity Center (known as the *Prelude to Success* students) were tracked through the end of their first semester in vocational classes. The performance of WES students in these classes was compared with that of a matched set of controls who were close in age, were of the same gender and had similar TABE reading and math scores. *Prelude* students' performance was also compared with all other students in vocational classes at BEOC, most of whom had much higher TABE scores.

Results were mixed. Both matched controls and *Prelude* students dropped out at a lower rate than other vocational students, but matched controls had the lowest rate (matched controls 19%, *Prelude* 31%, other vocational students 43%). When it came to average grades in their vocational courses *Prelude* students performed as well or better than the other groups. While the study numbers are quite small, these findings suggest WES

Prelude students benefited from studying the Math and Employment strands in ways that facilitated their success in the more traditional vocational classes.

Further Thoughts

Since the publication of the SCANS report (Secretary's Commission, 1993) there has been growing national interest in finding ways to enhance the workplace skills of adults, particularly ABE learners and others with minimal employment skills. These adults need to develop a broad range of skills to succeed in the workplace. WES addresses four large categories of workplace-related skills: employment, communication, workplace reading and workplace math. It presents an overview of each of these areas and teaches some of the basic skills students need in a work environment. However, because the range of skills needed is so diverse, WES by itself cannot provide sufficient instruction in all areas. Rather, it serves to present the major areas to students and provides them with basic knowledge and a jumping off point to further build those skills. Full mastery of most skills will typically require additional practice. For example, the communication strand teaches students about verbal and non-verbal communication. It provides models in the videotape and examples in the workbook. However, to fully master these skills, students need to engage in interactions with others in a directed manner—the type of activity teachers should be encouraged to use in conjunction with the WES materials. The WES materials provide an orientation to the key issues; further instruction, practice and teacher guidance are needed if students are to fully master the workplace skills.

Another important consideration—one that cuts across all adult literacy instruction—involves assessing students' individual instructional needs. For example, whereas one student might struggle to compose a letter, another might have had considerable experience with workplace writing tasks and need to focus on verbal and nonverbal communication. The WES Skills Preview that appears at the beginning of each workbook can be a useful intake assessment tool. It can help teachers use the flexibility of the WES curriculum to tailor instruction to the needs of each student.

Finally, students in the field test made limited use of the online activities. Employment students attempted only 20% of the activities; math students attempted the highest

number, 42%. This was quite surprising given the enthusiasm of administrators, teachers, and students for an ABE product that had an online component. Additional research needs to be done on this topic. There is great interest in using online learning with this population and it is important from a policy perspective to understand the reasons for the low usage.

Workplace Essential Skills provides a wide array of materials to help ABE students prepare for the workplace. The coverage of workplace topics is quite comprehensive, but their self-teaching potential is uneven. Careful assessment of student needs by teachers familiar with the needs of individual students, coupled with instruction tailored to these needs, is crucial to realizing the full potential of the materials.