

Adult Education in Non-Classroom Settings - A Pilot Test in Pennsylvania

Phase II: October, 2001 - June, 2002

August, 2002

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Abstract

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The Commonwealth of Pennsylvania expanded its exploration of the use of distance learning for adult basic learners: the 12 original pilot sites continued their programs for another year and 8 new sites from across the state were added. Each site had two half-time distance teachers. Sites experimented with teaching Workplace Essential Skills (WES) to adult basic students in non-classroom settings. The two groups of sites— original and new—were treated as separate cohorts for implementation and evaluation purposes. Staff from Johnston et al., an educational design and evaluation organization, continued to assist sites with program planning and held monthly conference calls with each group of sites to examine the key challenges involved in implementing their distance program.

Across the two cohorts, in their first five-month trial period, each site managed to recruit about 40 students to study WES at a distance and managed to keep about 40% of the recruits “active” for the five month period. But experience counts and it can be passed on to new teachers. Only 15% of the active students from sites in the original cohort completed one or more strands or reached the educational goal they had set when they began the program. But in the new cohort 78% of the active students met the criterion.

The original sites were more successful on their second time around. Each site increased the number of recruits from 40 to 79. Though the percent of students that were active across the eight months was the same (40%), the effective number of active students was almost double. Importantly, the number of active students that completed one or more WES strands or reached the educational goal they set when they began the program, was four times higher: 61%. Many of the students served by the pilot programs were unlikely to attend traditional classroom-based programs, suggesting that distance learning programs are likely to allow adult education providers to reach a previously unserved population.

The experience of the 20 sites indicates that, with a strong support framework such as that provided by the Pennsylvania Department of Education (PDE) Bureau of Adult Basic and Literacy Education (ABLE), it is possible for a wide variety of adult education providers to teach adult basic learners at a distance. Knowledge of the factors needed to implement a successful program increased considerably from the first phase of the project, with the new sites capitalizing on the experience of the original sites. Important lessons were learned regarding (1) characteristics of successful distance learning students, (2) effective designs for orienting students to the role of being a distant learner and (3) how to teach students at a distance. More experimentation is needed to test additional strategies in several areas, including student-to-student support programs and assessing student performance.

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- Donna Walter who collected, organized and analyzed much of the data reported here.

Background

Only a small fraction of ABE students who need further education and training are served in traditional classrooms. Distance from class locations, work schedules and the demands of daily life make it difficult for adults to attend regularly scheduled classes. Adult education providers are searching for alternative ways to reach the population in need of their services and distance learning is an attractive option. The Pennsylvania Department of Education (PDE) Bureau of Adult Basic and Literacy Education (ABLE) funded an initiative to explore the potential of distance learning to meet the needs of adult basic learners. The Bureau approached this project with the idea that distance learning is radically different from classroom learning and that teachers and administrators would need to develop new skills, new teaching methods and a new mindset to succeed in this arena. This initiative was designed to be *experimental* in nature, with the goal of learning what *does* and *does not* work in using distance education to reach the adult learner population. The Bureau was, in effect, inviting the pilot sites to join them in an exploration of a largely uncharted approach to working with adult basic learners.

The Bureau developed a framework in which distance education could be investigated. They selected a single curriculum, Workplace Essential Skills™ (WES) from the PBS LiteracyLink™ Project, and sent out an RFP inviting interested agencies to respond. WES is a multimedia curriculum, including workbook, video and online components, aimed at improving workplace related math, reading, communication and employment skills for pre-GED level students. It provides an online portfolio in which a student places his or her work for teacher review, and an online management system for teachers to monitor and respond to their students. A single curriculum was selected to allow for an examination across sites of “best practices” in implementing distance learning for adult basic learners. In addition, the Bureau contracted with the Tuscarora Intermediate Unit (TIU) to manage the project and provide training and on-going support for all participating sites. This report details the implementation of those experimental programs and identifies the best practices learned over the course of the project. It also examines how the elements of the structure provided by the Bureau played a crucial role in the successful implementation of distance learning programs.

The Experimental Framework: A Two-Phase Approach

Phase I. In Fall, 2000 adult education facilities in Pennsylvania were invited to submit a proposal to be part of an experiment to see whether it was possible to deliver Workplace Essential Skills at a distance to ABE students. Twelve “pilot sites” were selected from those that applied. In January 2001, each site sent two teachers and an administrator to a two-day training session where they received instruction in general strategies for distance teaching and specific strategies for teaching Workplace Essential Skills. Dehra Shafer and the TIU Adult Education Department staff provided technical assistance for this effort, both for the initial training of participants and for ongoing support of their efforts. The experiment ran from January-June of 2001.

Staff from Johnston et al. guided participants through a program planning process designed to help each site develop detailed plans for implementing WES in a distance modality. The planning process included an evaluation component designed to help project participants and the Bureau of Adult Basic and Literacy Education assess the strengths and weaknesses of different approaches.

The evaluation for the first year had three components: an initial planning document completed by each site, monthly conference calls among sites (moderated by Dr. Leslie Petty), and a self-analysis and revision of the initial planning document based on the experience of the previous five months (findings from this phase of the research are presented in Johnston and Petty, 2001).

Phase II. Following that initial phase, the original 12 sites were funded for another year of experimentation. In Fall 2001, 8 more sites were selected by a competitive RFP process in an attempt to increase the number of workforce regions within the state for which a pilot distance learning program was available. For the 2001 – 2002 period of the study, the two groups of sites (“original” sites and “new” sites) were treated as separate experimental cohorts. The evaluation component for the new sites was composed of the same three elements that had been used with the original sites: the program plan, monthly conference calls and a revised plan. Separate conference calls were held with each set of sites, to allow them to focus on the different issues

they were facing. All sites had an opportunity to interact and share information at a roundtable session held at the state's annual conference for adult educators. At the end of the second phase of their participation, teachers and administrators in the original sites were asked to complete questionnaires focusing on key issues in distance education.

Evaluation Strategy

The Initial Planning Document

Teaching at a distance is dramatically different from classroom teaching. Thus, while all of the participating sites were skilled and experienced adult educators, teaching at a distance was new to them. In Phase I, the Johnston et al. staff helped the original sites develop an initial plan of action. This document helped them plan for the key implementation activities associated with a distance learning program. Issues included recruitment, student orientation, computer connectivity and training, supporting students working at a distance, and evaluating student work. This was an effective planning and evaluation strategy, and was used again in Phase II with the new sites. (A copy of the Program Planner form is included in the Appendix.) As was done in Phase I, sites completed their plans within a few weeks of the training session and then e-mailed a copy of their plans to Johnston et al. All plans were then posted on a Web site designed for the project. This allowed each site to obtain copies of other plans for comparison purposes. Because the original sites had revised their plans at the end of Phase I, they were not asked to prepare a new plan for Phase II.

The planning document helped participants focus on the key issues involved in implementing a distance learning program for ABE learners. Because none of the sites had prior experience with this type of delivery, it was anticipated that many changes would be needed as programs began to recruit and work with students.

The Monthly Conference Calls: New and Original Sites

The conference calls were designed to explore ongoing issues of concern to the sites as they implemented their programs. It provided a forum for brainstorming, problem solving and

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sharing ideas. It was also a vehicle that the researchers used to explore best practices. Because the original and new sites were at different points in the implementation of their programs, and would therefore be focusing on different issues, separate calls were held for the two groups of sites.

Dates for the conference calls for both sets of sites were scheduled at the beginning of Phase II. About a week prior to each call, a reminder notice and an agenda for the call were e-mailed to all participants. The pre-planned topics for each group of sites are shown in the table below. Detailed agendas can be found in the Appendix. In most cases, sites were asked to submit their responses to a short series of questions about the topic prior to the date of the call. This allowed the moderator to get a sense for the concerns of the sites and to modify the agenda if necessary.

Conference Call Topics: New Sites

Month	January	February	March	April	May	June
Central Topic	Recruitment, orientation, internet access, distributing materials	Recruiting, orientation, communicating with students, & feedback on student work	Recruitment, orientation, materials distribution, student support & feedback	Student support & feedback, retention	Materials distribution, support, retention & attrition	Project review

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Conference Call Topics: Original Sites

Month	September	October	November	December	January
Central Topic	Recruitment, orientation, tracking student progress	Recruitment, orientation, tracking student progress	Recruitment, Time Use Diary, student assessment & planned variation experiments	Time Use Diary, supporting students, student assessment & planned variation experiments	Tracking the number of students/teacher, supporting students, PAACE conference plans & assessing student work

Conference Call Topics: Original Sites, continued

Month	February	March	April	May	June
Central Topic	No call; roundtable sessions at PAACE	Time it takes to provide instruction at a distance, assessing students, what components of WES are students using, & categorizing students	Supporting learners using the workbook, assessment	Teaching at a distance, assessment, student support groups	Project Review

Sites were asked to have one person call in to the conference, with others at the same site participating on a speaker phone, if desired. All calls were moderated by Dr. Petty and lasted approximately 90 minutes. Representatives from the Bureau of ABLE and TIU usually joined the calls as observers, and they participated on occasion, usually to clarify requirements of the experiment.

Calls began with each site giving a brief status report. Discussion then moved to the central topic of the call and then to topics of concern to the sites. Several topics were covered in multiple calls, because they were of continuing concern to participants. Participants were encouraged to use each other as resources and to use the group for problem solving and brainstorming. Following each call, Dr. Petty prepared a short summary of the issues covered and e-mailed it to each of the study participants.

End of Project Report: New Sites

The protocol for the new sites was the same as had been done in Phase I. At the end of the project, the new sites were e-mailed a copy of their original planning document that had been reformatted with space for revisions (see Appendix). Sites were asked to indicate what changes they would make in their initial plans based upon experience gained over the course of the study. They were also asked to provide a rationale for each change. In addition, sites were asked to provide statistics about their programs, including student enrollment and the amount of time spent by teachers and administrators in various project activities. Completed documents were e-mailed back to Johnston et al.

End of Project Questionnaires: Original Sites

Separate questionnaires were developed for the teachers and the administrators at the original sites. The teachers' questionnaire explored issues related to recruitment and orientation, supporting students at a distance, and understanding what students in the distance learning classes did. In addition, teachers were asked to reflect on how they performed a variety of teaching tasks (i.e., helping students set goals, motivating and encouraging students, and evaluating student work) both in a classroom setting and at a distance. The teachers also completed a separate form providing information about each of their distance learning students. The administrators' questionnaire explored the benefits and challenges of offering a distance learning program, gathered statistics on their agency's program and asked administrators to consider various options for assessing distance learning students. Copies of the questionnaires are included in the Appendix.

Questionnaires were emailed to all teachers and administrators. They had the option of completing the forms electronically and returning them via email or completing a print version to be sent via regular mail. All respondents selected the electronic option.

A Support Structure for Experimentation

All of this activity – both the implementation and the evaluation of the distance learning pilot programs – took place within a framework created by the PDE Bureau of ABLE to allow them to maximize the learning about using distance education with adult basic learners. In creating this pilot program, the Bureau recognized that web-based learning differs in significant ways from traditional classroom based learning and that adult educators would need time to learn how to do this successfully. While all pilot program participants were skilled and experienced adult educators, none had experience with teaching ABE students at a distance. This was a learning experience for all involved. Project staff accordingly created a structure that encouraged pilot sites to think creatively and attempt new approaches to reach and teach students using the online component of WES. They provided a variety of supports to help the sites succeed in that effort. The various support elements critical to the ability of the pilot sites to successfully implement distance learning programs are presented below.

Financial Support. Recognizing that web-based learning was a new challenge for adult educators, the Bureau provided funding for all pilot sites. These funds, which were taken from their State Leadership Money, allowed each pilot to support 2 teachers on a part time basis. They also provided some support for an administrator at each site, and allowed the TIU staff to conduct training sessions and provide technical assistance for all participating sites. In addition, funds were provided for an outside evaluation of the program implementation process.

Time to Grow a Successful Program. The program evaluators believe that distance learning for adult basic learners is so different from traditional classroom programs that it involves “re-inventing the school.” It requires that agencies look to different students and that they find new ways of teaching and interacting with them. It clearly takes an extended effort, as well as a period of “trial and error” to determine best practices. The Bureau’s pilot program recognized that it would take time for agencies to learn what worked and what did not work. They provided an extended period of time for sites to develop their programs, and included on-going assessment of practices and feedback to the pilot sites during the experimental period.

Experimentation is Encouraged. Again, recognizing that the pilot sites were treading uncharted waters, the Bureau and TIU staff explicitly encouraged an experimental approach. Sites were asked to think creatively and try many approaches in an attempt to learn both what worked and what did not work. Because of the experimental nature of the program – and because the goal of the pilot program was to determine best practices – both successful outcomes and unsuccessful efforts were deemed equally important to understanding how to implement web-based learning for adult basic learners.

However, since the agencies were accustomed to being held accountable for everything they do, it was at first difficult for them to accept the experimental nature of this project. Constant repetition of the experimental focus of the program was needed before the agencies really began to see themselves as experimenters. Once this occurred, they were more comfortable taking risks and attempting implementation approaches they had not previously used.

Without the sites fully accepting their role as “experimenters,” it is doubtful that this pilot program would have yielded such useful information. The freedom to try a variety of approaches – and to discard what didn’t work without fear of reprisals or loss of funding – allowed the sites to try different approaches.

Freedom from Accountability. To help encourage experimentation, pilot sites were not required to assess the distance learning students and include them in the numbers they report for accountability. Sites were required to provide a count of the number of students served by their WES distance education programs, but they did not need to provide evidence of educational gains or progress. This was important for several reasons: it further reinforced the experimental nature of the pilot program, encouraged sites to actively try new approaches, and allowed both the sites and the state a longer period of time to deal with the unique set of issues related to assessing distance learning students (The issue of assessing distance learning students will be addressed briefly later in this report. It is also the topic of a position paper being prepared by Project Ideal, a consortium of 14 states, including Pennsylvania, interested in exploring the use of distance education for adult basic learners).

Support for Pilot Sites. The Bureau provided support to the pilot sites as they created their distance learning programs. This included technical support on WES and teaching online and support in forming a community of adult education distance educators. The former helped teachers and administrators deal with the practical issues involved in implementing their programs, such as using WES' online management system. The latter provided professional development for project staff, helped ease any sense of isolation in this new endeavor and offered a means by which sites could help each other problem-solve. The two-day face-to-face training session, the monthly conference calls with the evaluation staff, site visits from the TIU's program coordinator's staff and the roundtable session held at the state's adult education conference (PAACE) were all components of the on-going support available.

The usefulness of the support provided by the Bureau and TIU staff was evident in the way that the new sites were able to learn from the experience of the original sites. The lessons learned by the original sites were shared with the new sites, thus sparing them the necessity of "reinventing the wheel." This foundation helped the new sites "get up to speed" more quickly and pointed to the value of experimentation and support.

These components – financial support, time to grow, encouragement of experimentation, freedom from accountability and support – were built into the design of the statewide pilot program. They provided a climate in which adult educators felt comfortable taking risks, trying new approaches, and honestly evaluating their efforts. They were the foundation upon which the success of the programs rested.

With the foundation firmly in place, each pilot site implemented a distance learning program they felt would best serve the needs of their particular community. The following section discusses some of the major things learned about teaching "WES at a Distance."

Student Enrollment and Teacher Time

Student Enrollment. It was important to learn about the students served by the “WES at a distance” pilot programs as a means to begin thinking about accountability issues. All sites were therefore asked to provide information on the number of students they served and the number who completed one of the four WES strands (math, communication, employment or reading). As part of their end-of-project plan revisions, the new sites were asked to provide quantitative information about their experiment. Similar information was gathered in the teachers and administrators’ questionnaires completed by the original sites. Table 1 shows the data. Consider first the success of sites that start a distance program from scratch and are asked to report on their success after just five months (columns 1 and 2 in Table 1). With two half time teachers devoted to recruitment and teaching, the original sites recruited an average of 45 students (column 1) and the new sites an average of 38 students (column 2). About 40 percent of those students completed their educational goal or were still actively studying WES at the end of five months. When the original sites were given a second try and eight months time, they recruited almost twice as many students—79. But their success rate was no better; 39 percent of the 79 were still actively studying WES or had completed their educational goal at the end of eight months.

Table 1: Student Enrollment and Retention

Student Enrollment	(1) Original Sites: Phase I (12 sites, 5 mos)	(2) New Sites: Phase II (8 sites, 5 mos)	(3) Original Sites: Phase II (12 sites, 8 mos)
Total Enrollment, All Sites in Group	547	303	945
Per Site Statistics (Avg / Pct / Range)			
Total Students	45 100% 11-151	38 100% 12-64	79 100% 11-153
Active students and students who completed a goal	20 40% 4-51	14 37% 6-31	31 39% 0-52
Inactive students and students who signed in to the WES online lessons but did little else	12 27% 0-45	17 45% 1-43	28 35% 0-125
Students that “dropped”	13 29% 0-69	7 18% 1-27	20 25% 0-48

All pilot sites in both phases of the pilot study were able to implement a distance learning project. As noted in the first phase, this suggests that not only is distance learning likely to work for students in a variety of settings, but that diverse agencies can successfully implement these programs. Distance learning programs can be adapted to meet the needs of the community they intend to serve.

Student Attainment and Retention. It is also important to begin to understand what students accomplished when enrolled in “WES at a Distance.” Table 2 presents data on the number of students who completed a WES strand or met their goals. In Phase II, an average of 11 students in the new sites completed a WES strand; this is considerably higher than the average of 3 students completing goals in Phase I.

Table 2: Student Attainment

Student Attainment	Original Sites: Phase I (5 months)	New Sites: Phase II (5 months)	Original Sites: Phase II (8 months)
No. of students that completed 1 or more WES strands and/or met their educational goal	3 0-14	11 1-40	19 2-52

Slightly more detailed data was collected from the original sites in Phase II. Recognizing that completing an entire strand may not have been the goal of all students, the original sites were asked to differentiate between students who completed a strand and students who met their goals (other than completing a strand). Both of these were considered to be “completers” and could be considered to be “retained.” The original sites reported that about 40% of students (or 19 students) could be considered “retained.” These are the students who stayed with the WES program long enough to meet their goals, complete one or more “strands” in the curriculum, or who were still actively pursuing their learning goals when the school year ended. The data from Phase II suggests that, compared to the first phase of the pilot study, the sites have now developed skills in several areas that may lead to greater success.

It is important to recognize that retaining students is a complex issue, involving student characteristics (e.g., motivation, readiness for the particular course), other demands on the student’s life (e.g., family, work), external barriers to education (e.g., lack of transportation to classes, the need for child care) as well as factors related to the educational program itself and teacher characteristics. Many of these issues are beyond the control of the teacher. Others, notably support and motivation, present challenges to the distance education teacher. At this time, there is not sufficient data to draw firm conclusions about the retention of students in online programs. It is worth noting that many students appear to “drop in” to WES – that is, they sign in and select a teacher, but do little, if anything else; this makes it difficult to get a true sense of student retention. In order to better understand retention of online students, it will be necessary to make a distinction between the student who simply is visiting or exploring the site, and the student who has made a commitment to participate in the instructional program. Additionally, one of the attractive features of distance learning – the fact that the student has

more control over the time period in which he or she works – also makes it more difficult to determine if a student is still active. Teachers in the pilot sites suggest that their “WES at a Distance” students were more likely to have “gaps” in their work (e.g., “attendance”) patterns than were their classroom students, but noted that these students were very likely to return to their studies when their life’s circumstances permitted. This suggests that it may be necessary to develop new ways to count active students that accounts for a potentially different pattern of learning and attendance.

Study Time. Another issue of concern is to understand what students enrolled in “WES at a Distance” did. To gather information on how much time students put into the “WES at a Distance” program, teachers in the original sites were asked to provide data on their individual students. Data gathered included student progress (e.g., signed on and did little else, dropped, completed strand or goal, active), the components of WES used (workbook, video, online) and an estimate of the amount of time the student worked on WES materials.

The measure of “study time” was very rough, and suffered from the disadvantage of asking the teachers to report this data retrospectively. For each student, teachers were asked to provide “your estimate of the amount of time student **probably** spent studying course materials including orientation.” They had three response options: *I haven't the slightest idea!; Less Than 12 Hours; 12 Hours or More.* Teachers were unable to provide this information for slightly less than half of their students: this may be due to limited contact with some students (e.g., they signed on as students, but did little else) or may be an effect of the retrospective nature of the measure (e.g., if a student worked on WES only in January and February, the teacher may have had trouble recalling them in detail by June, when the data was collected). For those students on whom information was available, teachers reported that an average of 61% spent less than 12 hours working on “WES at a Distance” and 39% spent 12 or more hours studying this curriculum. Thus, for many students, WES appears to have been an informal foray into education, rather than a structured program requiring an extensive time commitment. This may be useful for enticing new students into adult education programs and may also provide an option for the more committed student whose life demands prohibit him/her from taking a traditional class. This

may also have some implications for how WES at a distance students are counted for accountability purposes.

Teacher and Administrator Time. From a practical perspective, it is important to understand how much time it takes both teachers and administrators to offer a distance learning program. The new sites were asked to provide information on their recruitment, orientation and computer training sessions as one way of determining the time needed to implement WES at a distance. In addition, teachers and administrators in the original sites were asked to maintain a weekly record of the time they spent in various project related activities for a 6.5 month period. Together, these measures provide insight into the time spent in developing and offering a distance learning program.

Table 3 shows the amount of time the new sites spent on recruitment, orientation and computer training. There is a range of time spent in each of these activities. It is interesting to note that the new sites averaged a higher number of both orientation and computer training sessions than did the original sites. The evaluation of Phase I suggested that these activities might be important for successfully implementing a distance learning program. The increase seen in Phase II suggests that pilot sites were responding to that information and building these elements into their programs.

Table 3: Recruitment, Orientation and Computer Training Sessions

Recruitment Activities	Original Sites: Phase I		New Sites: Phase II	
	Average across sites	Range	Average across sites	Range
# of visits to other sites, agencies, etc. to promote the program	19	4 - 40	17	3 - 54
Avg. length of visits to other sites	1.2 hours	.33 - 2	2.5 hours	1 - 6
Avg. administrative time spent/week	6.3 hours	2 - 20	2.6 hours	1 - 5
Avg. teacher time spent/week	13	3 - 24	6.6 hours	3 - 12
Orientation Activities				
# of orientation sessions held for students	11 sessions	3 - 22	17 sessions	3 - 31
Avg. length of orientation sessions (in hours)	1.8 hours	1 - 3	1.1 hours	.25 – 1.5
Avg. # of students at orientation sessions	4	1 - 12	4.9	1 - 15
# of computer training sessions held for students*	7.75	1 - 18	10.8	2 - 19
Avg. length of computer training sessions (in hours)*	1.4	.75 - 3	3.8	1 - 12
Avg. # of students at computer training sessions*	2.75	1 - 7	8.4	1 - 20

NOTES. Active, Inactive, and Dropped were defined by each organization

* Among sites that held computer training sessions (N=5). Does not include site(s) that referred students to existing free computer workshops

Teachers and administrators at the original sites were asked to keep diaries of the amount of time they spent in various activities, including planning, developing partnerships and recruiting, orientation, preparation and teaching and providing technical support. The data are shown in Table 4. The teachers averaged 25 hours per month in distance activities. (On average, each teacher worked with 22 students.) Only half of that time was spent teaching; the other half was devoted to the activities necessary to obtain distance students: planning new approaches to recruit, developing partnerships with other entities such as One Stops and social service agencies. Eight percent of their time was spent orienting students to the requirements of distance learning. Many of the planning activities would not be part of a classroom teacher's

responsibility, so this is a big difference for distance. However, many of these activities could become less prominent as distance becomes a standard part of a center’s offerings.

Table 4: Time Required to Deliver “WES At A Distance”

Paid Activities, Oct-April	Avg Hrs/Mo	Percent
Planning	3.5	14%
Develop Partnerships/Recruit Students	6.9	28%
Orient Students	1.9	8%
Prep for Teaching & Teaching	11.7	47%
Tech Support for Students	1.0	4%
Total	25.0	100%

NOTE: Based on monthly time diaries submitted by 22 teachers over a 6.5 month period.

Table 5 and Figure 1 show how teachers allocated their time over 6.5 months of the project. It is interesting to note the change in how the time is used as the experiment progresses. For example, in the first three months of the record keeping, developing partnerships and recruiting students accounted for about 30% of the teacher’s time; this decreased to 17% in April. Over the same period, preparation and teaching increased from 38% of teacher time in October/November to half of teacher time in March and April. This suggests that as the programs became more established, the teachers were able to shift their efforts more heavily to teaching and student support.

Table 5: Teacher and Administrator Time Usage by Month

	Oct./Nov	Dec.	Jan.	Feb.	Mar.	Apr.
Planning	6.4/16%	3.7/18%	5.1/15%	4.6/17%	3.4/12%	4.7/17%
Dev. Partnerships & Recruit	12.3/31%	6.1/30%	10.2/30%	7.25/25%	5.5/19%	4.7/17%
Orientation	2.9/7%	1.2/6%	2.3/7%	1.9/7%	1.7/6%	2.2/8%
Preparation & Teaching	15.3/38%	7/35%	12.6/36%	11.5/42%	14.9/51%	14.2/50%
Tech Support	1.9/5%	.5/2%	2/6%	.5/2%	.4/1%	.9/3%
Other	1.2/3%	1.6/8%	2.2/6%	2.1/8%	3.4/12%	1.5/5%
Total	40/100%	20.1/100%	34.4/100%	27.6/100	29.3/100%	28.2/100%

In the end-of-experiment questionnaire teachers in the original sites were asked, “You already have a good idea of how much time it takes you to teach a group of students in a traditional class. How much time does it take to teach the same number of students in a distance class?” The choices for their response were “less time,” “about the same,” and “more time.” They were also asked to explain their response.

Figure 1

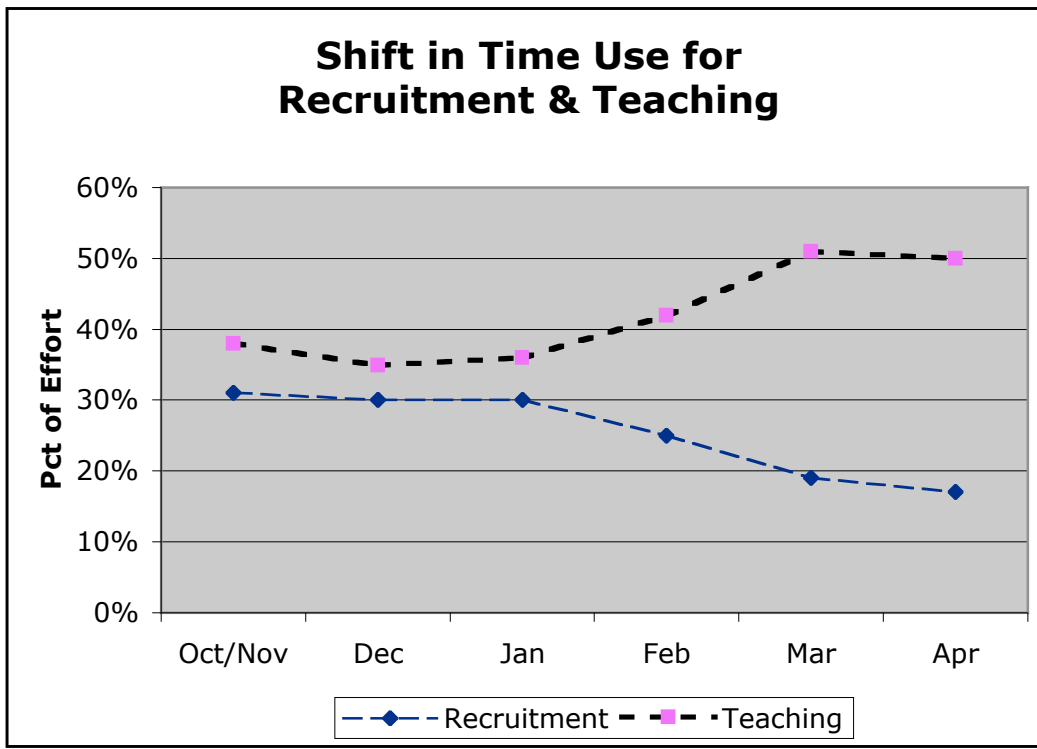


Table 6 shows their responses, and indicates that teachers are divided on how much time teaching at a distance takes. While half felt it takes more time, others felt it took the same amount of time, or less time, than teaching in a traditional classroom.

Table 6: Teachers Compare Teaching In A Distance Program With Traditional Classroom Teaching

More time	50%
About the same	22%
Less time	28%
TOTAL	100%

NOTE: n = 18

When asked to explain their answers, teachers who indicated that it took more than traditional classroom focused primarily on the amount of time it took to respond to each student

individually. Others felt it took more time because they were involved in recruiting students, which is not typically part of their classroom duties.

Teachers who felt it took less time, or the same amount of time, acknowledged the time it takes to respond to individual students, but commented that this was offset by the reduced prep time they needed because of the strength of the materials. Others commented that online learning was totally focused, with none of the distractions or wasted time common in a classroom. In addition, some of these teachers noted that the time it took decreased as they became more skilled at communicating with their students at a distance.

Key Implementation Issues

This section explores the key issues faced by the sites as they implemented WES. Most of these issues were originally raised in the planning process. As expected, sites were able to identify more and less effective strategies during the course of the project.

Recruitment

Recruitment remained a major issue in Phase II of the pilot study. New sites attempted to determine who the best target audience would be for WES at a Distance, while the original sites modified their recruitment approaches based on what they learned in Phase I. Recruiting went smoothly at some sites, while others – despite extensive efforts – struggled to recruit students. Student characteristics became an important concern as sites explored who to recruit and how to recruit them.

Who is the Target Audience?

Phase I of the pilot study clearly indicated that distance learning was not appropriate for all adult basic learners. During Phase II, sites tended to be more selective in who they recruited for participation in the pilot study. Feedback from both the new and the original sites suggested that students who were most successful at distance learning shared many of the following characteristics:

- Students were employed or actively seeking employment
- Students had a clear goal for their participating in the program
- Students read at a seventh grade level or higher
- Students had the ability to organize their time and work independently
- Students either had a computer at home or easy access to a computer at a place they felt comfortable (if using the online component)
- Student had computer skills that allowed them to navigate the WES site and the Internet (if using the online component)
- Students had a convenient place to pick-up and drop-off videos and workbooks (if using these components)

In contrast, most sites found that the distance learning with WES tended not to be as effective for students with lower level reading skills, limited computer skills, as well as those who were unemployed, taking the class as a mandatory referral and who had highly unstructured lives. Career training programs, One-Stops, local employers and computer training classes all emerged as having strong potential as sources for recruiting adult students to engage in distance learning.

Welfare-to-work programs. Welfare-to-work programs were a challenge for the pilot programs. At first glance, they appeared to be a logical resource for recruiting students: the participants were in need of the education and job skills provided by WES. The reality, however, was that most sites had little success in recruiting students from welfare-to-work programs; they reported that the students only participated reluctantly and only for as long as they were required to do so. This is consistent with the idea that successful distance learning students are likely to be self-motivated and have made a choice to participate in the program, rather than having been required to participate. It is worth noting, though, that two pilot programs did report great success in recruiting and maintaining welfare-to-work clients in their “WES at a Distance” programs. This may be due to the extensive involvement of the teachers with the staff and clients at these programs. Thus, while recruiting from welfare-to-work programs clearly has problems, it may be effective, depending upon the particular circumstances.

CareerLinks. Phase I found that CareerLinks centers were an effective recruiting resource for some sites, but provided little help for others. In Phase II, almost all of the sites reported that their CareerLinks center was a strong partner in recruiting students to study “WES at a Distance.” Many pilot sites held regular orientation sessions at CareerLinks and/or trained CareerLinks staff about WES. In some sites, WES was included in the general orientation offered at the local CareerLinks. Sites reported that the more the CareerLinks staff understood about WES, the more likely they were to actively refer clients. Additionally, many pilot sites found that the CareerLinks were a good fit for WES at a distance. Because the clients were in the process of seeking employment, they were motivated and the content was appealing to them

Partner agencies. In addition to building a relationship with the local CareerLinks, all of the pilot sites went beyond their usual approaches for recruiting adult learners and tried to establish relationships with other agencies in order to reach a population they did not typically serve. This was a time-consuming process and cultivating the relationships took a great deal of effort and care. However, once those relationships were in place, the pilot sites were often able to reach a group of adults who would have been unlikely to enroll in their traditional classroom-based programs. Perseverance was a common attribute among the sites that established the strongest partnerships with other agencies: they made repeated attempts at each agency they targeted and they approached several agencies until they found the right match.

Key to building a successful relationship with another agency was helping that agency understand the value of providing WES to their clients, employees or students. It was critical that these agencies did not feel as if the agency offering WES was a competitor, but rather that both agencies had different but important things to offer to clients, and that by working together everyone could benefit. The agency offering WES would gain students, while the cooperating agency or employer would gain an educational service for their clients or employees.

Local Businesses and Unions. In Phase I, some of the pilot sites found that building partnerships with local businesses proved to be an excellent source of students. In Phase II, a few sites again worked with local businesses to recruit their employees into “WES at a Distance” programs and one site worked with a union. These relationships took a considerable amount of time to

establish, but offered the promise of students who were interested and sufficiently skilled and motivated to succeed. As was the case with building partnerships with other agencies, it was critical that the employer understood the benefits he/she could gain from making this program available. In addition, several sites felt it was useful to be able to provide students with some type of certificate upon completion of a WES strand: this gave both the student and the employer concrete evidence of accomplishment.

Building Partnerships. Feedback from the pilot sites suggests that the following approaches may make these collaborative efforts more likely to yield appropriate students for studying “WES at a Distance”:

- After receiving approval from the administration of the cooperating agency, work directly with the teachers, counselors and other people who have direct contact with potential students. The better these people understand WES and how it might help their clients or students, the better recruiters they become.
- WES staff should maintain a regular (at least once a week) on-site presence at cooperating agencies. This allows the WES staff to answer questions, address potential problems and increases awareness of WES at the cooperating agency.
- Help an employer understand how WES will benefit both the employees and his/her business.

Orientation

Orientation of adult learners – to the WES materials, the computer skills needed, and to working at a distance – is critical to their success in distance learning. In Phase I, the pilot sites wrestled with the idea that face-to-face orientations were, in some very basic way, incompatible with distance learning. The evaluation staff urged them to reconsider this idea, based upon what is known about successful learning. They urged the sites to consider the wide range of issues a carefully planned orientation can address. Obviously, the orientation will introduce the student to the WES materials and to the concept of working at a distance. In addition, orientation allows the teacher to assess a student to determine if this program is a good match for their interests and abilities, and to determine if the student has the requisite reading and computer skills to succeed.

Orientation can also be a time during which the teacher can help the student set goals for participating in the program and clarify the expectations for course participants. Study skills, strategies for working at a distance and computer skills are other topics that can be covered in an orientation for distance learning students. Finally, orientation provides a way for teachers to take care of some of the “housekeeping” details, such as obtaining ways to contact the student (e.g., a home telephone number or e-mail address).

Based upon this understanding of what could be accomplished, most sites in Phase I opted to conduct face-face orientations, either in small groups or with individual students. They reported that this personal contact allowed the teachers to forge a relationship with the students; most teachers felt that some type of personal relationship helped them motivate students and keep them involved (motivating and retaining students will be discussed in more detail later). In Phase II, most, but not all sites, again decided to provide face-to-face orientations. A small number of pilot sites – particularly those whose students worked exclusively online – opted to orient their students either online or on the telephone. While the specifics of the orientations varied, most orientation programs shared several characteristics:

- Agencies were flexible in designing orientations, modifying them to meet the needs of individual students. For example, some sites typically offered small group orientations, but were willing to orient students on an individual basis if a student was unable to attend the group sessions.
- Teachers used the orientation process (whether face-to-face or at a distance) to build a relationship between the teacher and the student. Teachers who oriented their students at a distance reported that this was more difficult for them to do, but reported that they still felt it was an important goal for orientation.
- Many sites designed their orientation programs to include some assessment of student abilities. This helped the teacher provide instruction that was more closely matched to the student’s needs. The authors suggest that assessment and screening need to be a component of every orientation session. As noted earlier, distance learning is not suitable for all distance education students, and assessing a student – both formally and informally – during orientation helps identify those students with the greatest chances of success.

- Several sites found that they needed to add a computer training session, in addition to orientation, to ensure that their students had sufficient computer skills to learn online. Computer competence was a critical issue for those learners who wanted to use the online component of WES.

Computer Access, Computer Literacy and Technical Support

Computer Access. It was possible to study “WES at a Distance” without using the online component, although the online component was quite appealing to students and provided additional educational opportunities. Much has been written about the “digital divide” and most of the students participating in the Pennsylvania pilot program did not have a computer in their homes. Thus, finding locations where their students could easily and comfortably access computers was critical if students were to successfully engage WES online.

The pilot sites found that there were a variety of options to provide computer access to their students. Among the locations the pilot sites arranged for computer access were local businesses (for their employees participating in the WES program), CareerLinks public schools, computer labs at the agency offering the course, local libraries, housing authorities and other social service agencies. However, students were not always likely to use computers that were available. For example, although most public libraries have computers available, this was not an option selected by many students. There may be several reasons for this including that adult learners frequently do not feel comfortable in libraries and the fact that many libraries place time limits on computer use which are incompatible with the amount of time a student needs to complete a WES lesson (although some sites did negotiate with the libraries to modify the time limits for their students). Obviously, if students are to be successful in an online learning program, it is crucial that they have easy, reliable access to a computer.

It should also be noted that some sites had students who worked exclusively online; in some instances these teachers never met their students face-to-face. This group of students had easy access to a computer with Internet access and were comfortable enough using it to be able to function in a virtual classroom without the need for much technical support from their instructor.

Computer Literacy. A student needs to have some basic computer and Internet use skills if they are to successfully study “WES at a Distance.” However, students enrolling in the “WES at a Distance” pilot programs entered the program with varying levels of computer literacy. Some were already skilled computer users, while others needed to learn how to use a mouse and scroll down to read text. This means that it is necessary to assess students’ computer skills, and perhaps provide additional computer training, prior to allowing them to begin to work online. In Phase I, many of the pilot sites appeared to resist this idea. They were concerned that providing computer instruction in a face-to-face or classroom context would, in some way, diminish the distance element of the WES program. However, agencies have ways to ensure that a student has met the prerequisites for a given class. Just as an agency would not put a student with a third grade reading level into a GED class, it makes no sense to put a student who lacks computer skills into an online course. Thus, most of the pilot sites (except those whose students initially enrolled online and were clearly computer literate) did decide to look at students’ computer skills before admitting them to the WES pilot program.

Most of the pilot sites conducting face-to-face orientations found it was helpful to do an informal assessment of the student’s computer skills, often as part of helping them sign in as WES students. Many offered an additional computer session or sessions for students with weak computer skills, prior to having the students begin to work in WES. These computer classes varied widely, from a single one or two hour session to a structured class meeting for a total of 12 hours. A few pilot sites decided recruit from basic computer classes, or to only enroll students with demonstrated computer literacy.

Even if students are comfortable with using a computer and the Internet, it is still necessary to have some form of technical support available. Many of the sites provided print instructions, including screen shots, to walk the students through the WES site in a step-by-step fashion. A few of the agencies had technical support on staff available to help students or teachers who needed additional assistance. In addition, the PBS LiteracyLink technical support was used by teachers and was seen as an excellent resource.

Students' Use of WES Components

Teachers in the original 12 sites were asked to provide information on which of the WES components – video, workbook, online – each of their students had engaged while participating in “WES at a Distance.” It was possible for a student to use just a single component (e.g., the online) or a combination of components (e.g, workbook, video, and online). Six of the 19 teachers reported that almost all of their students used all three components or they used the workbook and online and ignored the video. Another five teachers reported that almost all of their students used just the online. Two of the teachers had students who did not have access to the Internet so they used only the video and workbook. The remaining six teachers had students that used a variety of media. Understanding how students used WES has implications for teaching.

Teaching at a Distance: Student Support and Motivation

A critical issue for any adult education program is the ability to keep students involved. This is difficult in a traditional classroom setting, but becomes even more challenging when dealing with students working at a distance. Students rely on teacher feedback about their work and support from both the teacher and other students to help them succeed in the coursework. In a classroom setting, this is usually accomplished as part of the on-going face-to-face interaction between teacher and student and between student and student. How can this be accomplished when teaching at a distance? How does it differ from what teachers typically do in a traditional classroom? Is it possible to orchestrate online learning in a way that allows students to support each other? Teachers in the pilot sites wrestled with developing ways to provide this type of social support for their students.

Ironically, some of the difficulties in supporting and motivating students in distance education programs may stem from the same attributes of distance learning that are attractive to students. Distance education appeals to many students because it removes some of the barriers that impede their attending a traditional classroom program at a regularly scheduled time. They may lack transportation to the class, have erratic work schedules or problems with childcare that make

attendance on a regular basis difficult, if not impossible. Distance education allows them to have a greater degree of control over the time and place in which they can further their education. However, it does so at a cost: it frequently removes many of the social supports that a classroom teacher and other students provide while simultaneously requiring them to structure their time and work independently. Thus, the teachers needed to develop new ways to motivate and support their online students. These issues were explored in the monthly conference calls. In addition, teachers in the original sites were asked to report how they handled a variety of teaching activities (e.g., plan lessons, provide feedback on student work) both in a traditional classroom and at a distance.

Most teachers in the pilot study reported that it was more difficult to support and motivate their students in a distance learning program than in a traditional classroom program, largely due to less frequent contact with the students and their inability to read the student's non-verbal communications and body language. In addition, many teachers felt it was more difficult to build a personal rapport with a student they rarely, if ever, saw in person; they felt that this lack of a personal relationship made it more challenging for them to find the best ways to motivate and support students. Despite these difficulties, teachers did find effective ways to support their students.

Feedback on Students Work. A key element of supporting students is providing feedback on their work. Teachers did this primarily through email. This included both the email system built into the LiteracyLink WES online component and separate email addresses for students, when available. Because the WES email system has limitations, some teachers helped their students obtain a free email account on a service such as Hotmail. Teachers also telephoned students as an additional way of offering support.

Teachers found that students expected prompt response to work they placed in their online portfolios. Most attempted to respond to students' work within 48 hours. The LiteracyLink online management system provides a way for a teacher to indicate if work has been *completed* (e.g., done to the teacher's satisfaction) or *attempted* (e.g., the student has done some work, but there is room for improvement), but does not provide a way for teachers to provide more detailed

feedback. Realizing the importance of good, specific feedback, the teachers created their own methods. Some worked within the LiteracyLink online system and provided feedback by inserting their comments – in all capital letters or italics – within the students’ text in their portfolio entry. Others moved outside of the online management system and sent separate emails in which they responded to work in the students’ online portfolios.

Teachers found it very difficult to provide feedback on the work that students completed in their workbooks. Although teachers tried to arrange ways to have students return completed workbooks or workbook pages, they rarely, if ever, received workbooks to correct. Instead, they asked the students (either on the phone or via email) what they had done in the workbook and if they had any problems they wanted to discuss. Teachers found this quite frustrating, as they were unable to provide the quality of feedback they would have liked to provided to their students.

Supporting and Motivating Students. Supporting and motivating students working at a distance was challenging. In the absence of face-to-face interactions with students, teachers relied on electronic communications. Among things teachers did to encourage and motivate their students were:

- Sent e-cards encouraging students and praising accomplishments.
- Sent individual, rather than group emails to students, to make the messages more personal.
- Emailed encouragement to students on a regular basis.
- Sent emails which asked questions and prompted students to think about their goals.
- Offered assistance to students in finding information or sites on the Internet that could help their studies.
- Telephoned students in order to have a synchronous conversation and learn more about the student’s goals and concerns.

- Telephoned students who had not been active online for a period of time to encourage them to stay with the program.
- Provided certificates upon completion of a pre-determined unit of work.
- Offered drop-in times for students who wanted assistance from a teacher in person.

All of these were methods of providing support from the teacher to the student. But, student-to-student support is also an important aspect of learning for many adult students. The author encouraged the pilot sites to experiment with two strategies for building student support groups—one electronic and one face-to-face. A few pilot sites experimented with establishing chat rooms for students but with very little success. It was difficult for a site to have a large enough concentration of students who were available at the same time (again, one of the attractions of distance education is the flexibility in terms of time that it provides for the student). It may be more effective to establish asynchronous communication methods, so that time constraints are not an issue. Another possibility would be to establish a statewide, rather than an agency-by-agency student support network; a statewide network would have a larger base of students and would allow students with similar interests to connect, regardless of physical location. Another possibility may be for students to have a partner with whom they meet regularly to discuss their online learning. At the one site where this was attempted, only one pair was established, but they were able to provide strong support for each other to stay with the program. Given what is known about the social component of learning, the issue of student-to-student support for online students is one that needs much more attention in the future.

Comparing Classroom and Distance Teaching

Teaching at a distance is different from teaching in a classroom. To better understand the ways teachers teach at a distance, the teachers in the original sites were asked to describe how they typically performed a variety of teaching activities in the classroom and at a distance. Many of the differences they report stem from the individualized nature of “WES at a Distance” and the fact that they had little, if any, face-to-face interaction with their students. These factors made

some aspects of teaching more challenging, while others were easier because teachers were able to adapt their methods to meet the needs of the individual student.

Helping Students Set Goals. Most teachers reported that they handled goal setting in a similar fashion whether they were teaching in a classroom or at a distance. It is most frequently done either at intake or orientation, and focuses on the needs of the individual student. Some teachers did report that as classroom teachers, goals were more likely to be established for the class, rather than for individual students. Additionally, teachers who worked with their students in strictly an online environment, used online discussions and emails to help their students set goals.

Develop Lesson Plans. This seemed to vary considerably between classroom practice and distance teaching. Many of the teachers said they did not actually plan lessons for “WES at a Distance,” instead relying on the WES curriculum; they indicated that this made lesson planning much easier. Others used the WES curriculum, but added additional content, including referring students to related Internet sites. Still others indicated that they were more apt to suggest a recommended schedule for students to complete the work in WES, but did not actually develop lesson plans or require students to adhere to a firm schedule. A few teachers commented that the individualized nature of “WES at a Distance” meant they were doing different lesson plans for each of their students.

In contrast, most teachers reported that lesson planning was a larger task for traditional classroom teaching. They were most likely to plan for the group, rather than for individual students, which some noted as a time saving. Most however, indicated that they spent more time in lesson planning for a traditional classroom because they needed to draw on materials from a variety of sources.

Assign Work to Students. Most teachers indicated that they did not typically “assign” work to their WES students. Instead, they were likely to suggest what materials the student should cover, often providing the students with a recommended sequence and time frame. When teaching a traditional classroom, teachers were likely to make regular assignments to the entire group.

Motivate and Encourage Students. Some of the methods teachers used to motivate and encourage their students were similar for classroom and distance teaching: using praise, constructive criticism, and offering positive feedback on students' work. Distance teachers did this primarily through email and phone contacts with their students or with occasional face-to-face meetings with their students. In the traditional classroom, teachers used these tools on a daily basis in their interactions with students, taking advantage of being able to make eye contact and observe body language. In addition, classroom teachers used group discussions, group motivation and peer support to help motivate students. Distance teachers sent e-cards, encouraged students to visit related websites and helped their students apply the WES content to real life settings.

Provide Feedback on Student Work. Classroom and distance teachers used different methods to provide feedback on their students' work. Classroom teachers were able to offer feedback, face-to-face, on a regular basis in the classroom. They provided both verbal and written comments and used class discussions to provide additional feedback. A few teachers commented that it was difficult to provide individual students with detailed feedback because of the demands of the group.

In contrast, feedback to distance students was individualized. Teachers provided feedback through the Online Management System, other email systems, and phone calls. Because they did not have the ability to make eye contact, respond to body language cues or answer immediate questions from students, they indicated that their feedback needed to be clear and concise to help avoid confusion.

Communicate with Students (Interact with them to build a relationship and a supportive learning environment). Classroom teachers reported that this happened in the classroom by creating an open and positive environment. They shared their personal experiences with students, asked questions, used humor and relied on day-to-day interactions to help create a relationship. For the most part, this was done with the group as a whole, and a few teachers noted that this made it more difficult to meet individual needs.

Distance teachers used email and phone contacts with their students to build relationships. They used some of the same techniques used in the classroom – humor, sharing personal experiences, asking questions. Relationships were built with individual students, rather than with a group. In addition, some teachers invited students to open computer lab sessions and provided students with a phone number at which they could be reached. Teachers felt they less frequently communicated with distance students than they did with classroom students.

Evaluate Student Work. Evaluating student work was more difficult at a distance than it is in the traditional classroom. Teachers reported using multiple methods in the classroom: oral and written comments, tests, attendance, portfolios, observations, checking students work as they completed workbook activities and comparing student performance to others in the class. A few teachers reported that evaluating work in classroom-based programs tended to be somewhat impersonal.

Evaluating work done by distance learners was frustrating for many of the distance teachers: although they were able to respond to work students placed in their online portfolios, they did not have access to work completed in the workbooks. In addition, while some pre-tested students using the Skills Preview in the WES workbooks, none were able to conduct post-tests to assess student progress. Despite these frustrations, many teachers felt that the evaluation they were able to offer students was highly individualized and personalized.

Present Content Knowledge to Students. For the most part, distance learning teachers relied heavily on WES to present the content knowledge to their distance learning students. Some supplemented the WES content with referrals to related websites or other materials. Teachers used email, phone, regular mail and drop-in meetings as ways to provide content knowledge to distance learning students. Others included as much content information as possible when providing feedback to students' online work.

Classroom teachers had a greater choice of methods of imparting content knowledge at their disposal. They presented information in class, frequently breaking concepts into smaller parts to make them easier to understand. They used a variety of teaching materials, including flip charts,

handouts, activities and videos. Some teachers also used student projects and field trips to present content information to students.

Reaching a New Population of Students

One reason distance education is attractive is that it offers the potential to reach students who might not be served in traditional classroom programs. To what degree did the “WES at a Distance” pilot programs attract new students. Preliminary data suggests that they did indeed reach a new audience.

Administrators in the original sites were asked to estimate (in consultation with their center’s distance teachers) the percent of students enrolled in “WES at a Distance” who probably would not have enrolled in regular classes at their center during that time. Similarly, when completing their revised plans, the new sites were asked how many of their “WES at a Distance” students would not have enrolled in a traditional classroom based program. Table 7 shows the data: 10 out of 12 of the original sites estimated that 60% or better of their distance students would not have enrolled in a classroom program at their center. The new sites had lower estimates, but still saw about half of their students as uniquely distance students.

Table 7: Estimate By Site Staff of the Percent of students in “WES at a Distance” Program Who Would Not Have Entered Their Classroom-Based Programs

Percent That Would NOT Have Enrolled in Regular Classes	Original Sites	New sites
0-20%	0	0
21-40%	1	2
41-60%	1	3
61-80%	2	2
81-95%	5	0
96-100%	3	0
Total	12	7

NOTE: One of the new sites did not provide estimates.

Thus, distance education programs appear to have strong potential to tap into a pool of adults not currently served. This option may increase access to education for an underserved population. However, more data is needed to confirm the findings of this pilot study.

Evaluating/Assessing Student Progress in Meeting NRS Standards

Assessing adult learners studying at a distance presents many thorny problems, ranging from the pragmatic (i.e., can you get adult learners working at a distance to come to an adult education center for testing—especially post-testing?) to broader concerns (i.e., what is the appropriate test to use in assessing students studying a pre-packaged program, such as WES, which may not match the content of the major statewide assessments used for NRS accountability purposes?). These issues are beyond the scope of this report, and will be addressed in an assessment paper being written as part of a long-term project examining distance education for adult learners (Project IDEAL). However, the issue of assessment was a concern to the Pennsylvania pilot sites. Although they had been freed from responsibility for any types of formal assessment during the pilot study, teachers and administrators were aware that this was an important issue. There are several types of assessment that are relevant to a distance education program: assessment for placement purposes, assessment to determine student progress and assessment for accountability purposes. As part of the evaluation, information about how the pilot sites evaluated student progress was gathered from the new sites and from the teachers in the original sites. In addition, administrators in the original sites were asked to react to a series of possible assessment mechanisms for use with adults studying at a distance.

How sites evaluated student progress. For most of the pilot sites, evaluating student progress was an on-going, and relatively informal process. Only a few sites used either a standardized test, or the “Skills Preview” at the start of each WES workbook as a way to determine if the student was an appropriate candidate to study “WES at a Distance”; none required their students to take any kind of posttest. Teachers responded to work that students placed in their online portfolios on a regular basis; this was their major method of determining if the student had mastered the content. Many teachers, however, expressed frustration with not being able to better evaluate their students’ progress. Some felt that online tests, or at least online versions of

the print “Skills Preview” and “Skills Review” in the workbook would be useful tools. (While there are security issues related to online testing, teachers were more interested in testing to help them and the student to ascertain progress than to meet the demands of an accountability program.)

What might be possible in assessing distance learning students. To begin to understand what types of assessment of student progress and accountability might be possible for “WES at a Distance” students, administrators from the original sites were asked how realistic/reasonable certain assessment protocols might be from both an agency (Table 7) and a student (Table 8) perspective. Although this is a very small sample, and the results must be interpreted cautiously, they do suggest that while adult education providers are open to many possibilities for assessment, they have some concerns about what might be acceptable to students interested in distance learning.

Table 7: Assessment Requirements: Administrator’s Perceptions of “Realism” From a Center or Teacher’s Perspective

Possible Requirement	“Realistic from a Center or Teacher’s Perspective”
Require students to come to a central location to take a pre-test prior to taking a distance learning class	67%
Require students to come to a central location to take a post-test in order to get credit for completing distance learning class	67%
Teacher must maintain a portfolio of each distance student’s work to use in assessing progress	100%
For programs with an online component: require students to successfully complete a specified number of assignments to get class credit	92%
For distance programs with a workbook component: require that students submit work to teacher on a regular basis	83%
For programs with a workbook component: require that students successfully complete a specified number of workbook pages to get class credit	92%
Require students to track the amount of time they spend working on assignments and use this as a basis for estimating “seat time.”	50%
The teacher maintains a log of student contacts, noting time and topic of contact	83%

NOTE: “Realistic” from the perspective of the administrators or teachers. Based on responses from 20 administrators.

As Table 7 indicates, the administrators feel that a variety of requirements for assessment could be workable for their agencies. They are the least optimistic about being able to require distance learning students to track the amount of time they work on assignments. Requiring students to come to a central location to take either a pre- or a post-test is seen as a somewhat less realistic requirement than are the options which place less of a demand on students.

Table 8: Assessment Requirements: Administrator’s Perceptions of “Realism” from a Student’s Perspective

Possible Requirement	% “Realistic from a Student’s Perspective”
Require students to come to a central location to take a pre-test prior to taking a distance learning class	58%

Require students to come to a central location to take a post-test in order to get credit for completing distance learning class	33%
Student must supply examples of work for inclusion in a portfolio maintained by a teacher	92%
For programs with an online component: complete a specified number of assignments to get class credit	92%
For distance programs with a workbook component: submit work to teacher on a regular basis	75%
For programs with a workbook component: require that students successfully complete a specified number of workbook pages to get class credit	92%
Require students to track the amount of time they spend working on assignments	50%

Table 8 further indicates that administrators have some reservations about what they can require from distance learning students. While slightly more than half think students might feel it is reasonable to take a pre-test in order to be admitted to a distance learning class, only one-third of the administrators believe that students will find it reasonable to be expected to come back to a central location for a post test. In addition, requiring students to track their time working on assignments does not seem realistic to half of the administrators.

Taken together, these results suggest that the Pennsylvania administrators are least receptive to assessment requirements that seem to place demands on the students to track time or take pre- and/or post-tests at a central location. This may be due to a concern that requiring students to come to a specific location seems contrary to the “learn any time, any place” goal of distance education. It may, however, be a slightly skewed view: because the pilot sites had not been expected to do any assessment as part of the experiment, this was not presented to the students as an integral part of the program. Just as an on-site orientation or providing computer training to students prior to starting an online learning program are not contrary to distance learning, so, too, on-site assessment may have a place. An example of this is seen in states that offer online GED programs (e.g., Maryland). Their students are required to take pre- and post-tests in proctored locations, although the rest of their studying is done online, at a time and place of their choosing.

Until secure ways of assessing students online are developed, on-site assessments should be considered as an option.

Administrator’s Recommendations About Offering Distance Learning

Administrators in the original sites were asked if they would recommend that distance education programs be offered at their center. They were asked to consider if they felt such programs offered “sufficient additional benefits to students in your area to warrant the time and expense” and to assume that their center “had sufficient compensation for teaching and administration.” Seventy-five percent reported that they would “strongly recommend” that their centers offer distance education and another 25% said they would “recommend with reservation.” None of the administrators indicated that they would not recommend including distance learning among the offerings they make available for their students.

When asked to explain their recommendations, most of the administrators mentioned the ability to reach students they were unlikely to serve in existing classroom programs. They liked having more options and being able to match an educational program to the needs of the individual student. Some suggested they might be more likely to employ a mixed model, in which distance education was combined with a classroom component.

Recommendations

The Pennsylvania pilot study provides strong evidence that “WES at a Distance” can be used successfully with adult basic learners, and that various types of adult education providers can implement this program as part of their offerings. It also provides some insights into the logistics of implementing a successful distance learning program. In addition, this pilot study highlights the importance of having a strong support system for fledgling distance learning programs. The results of this pilot study suggest recommendations for implementing and maintaining distance learning programs.

State and administrative level issues:

- It is critical to recognize the dramatic differences between classroom teaching and distance teaching. Providing time for agencies to develop new skills, professional development training for teachers and administrators and on-going support are important if agencies are to become skilled in this new educational approach.
- The experimental approach taken by the PDE Bureau of ABLE was effective in encouraging sites to try new approaches and in the willingness of participants to share their experiences. Distance education is an evolving field, and experimentation is needed to help discover best practices. Although some principles will be applicable to distance learning regardless of the course content, the differences among the various distance learning curricula (e.g., WES, GED Connection, Crossroads Café) suggests that each new curriculum will require some amount of experimentation.
- The new sites learned from the experiences of the original pilot sites; this suggests the need to find ways for those interested in distance education to share their knowledge. Creating a community of distance learning educators will help foster good practices and prevent practitioners from being isolated. It will prevent the need for each agency to begin from scratch, and will allow programs to get “up to speed” more quickly.
- The old sites clearly learned from their initial round of experimentation. They were able to double the number of students recruited in the second phase of the project.

- Although teaching at a distance differs from classroom-based teaching, the teacher still plays a critical role in motivating and supporting the student and facilitating their mastery of course content. Given a learning product with sound content and instructional strategies, teaching at a distance may require less of a “content expert” and more of a “facilitator.” In addition, it is important for both the teacher and the students to have clearly established expectations for the course before students begin.

Program Implementation issues

- Recruiting should be directed at those students most likely to succeed in studying at a distance. Evidence from the pilot strongly suggests distance learning is a better “fit” for students who: are employed or seeking employment, have clear goals for class participation, have the necessary reading and/or computer skills to handle course materials and who are easily able to access all course materials (e.g., obtain workbooks and videos, have easy computer access). This knowledge should be used to shape recruiting strategies. Career training programs, CareerLinks, local employers and computer training classes all have strong potential as sources for recruiting adult students to engage in distance learning.
- Orientation plays a crucial role in preparing students to succeed in a distance learning program. Face-to-face orientations are not incompatible with distance learning and offer some distinct advantages. However, it is possible to conduct effective orientations either online or on the telephone. A well-planned orientation can include student goal setting, assessment (either formal or informal) to determine if the distance education program is a good match for the student’s needs and abilities, instruction on working at a distance, organizing time and developing independent study skills in addition to an introduction to the curriculum. The orientation can provide the student with a firm foundation before they begin to study at a distance, thus increasing likelihood that they will stay with the program and reach their goals.
- If students are to use the online component of WES effectively, they need to have a minimal level of computer and Internet fluency. Programs must assess the computer skills of potential students prior to allowing them to engage WES and provide training for those who need to improve their computer skills.
- One of the most difficult aspects of teaching at a distance is motivating and supporting students. Teachers in this study used a variety of means to do this, including frequent contacts with students, positive messages, e-cards and phone calls. Teachers should be encouraged to continue to

explore ways to support students. In addition, creating ways for distance learning students to interact and support each other would provide another avenue for student support.

Areas for Future Research

Phase II of the pilot study explored many important issues related to the implementation of distance learning programs for adult basic learners. Several areas need additional research as the program evolves. Future research may want to examine the following areas:

Assessing learners studying at a distance. For good reason teachers in the pilot phase were not required to track student seat time or assess their learning gains. This gave the teachers time to discover what is required to recruit and orient adult learners to the requirements of studying at a distance. With this knowledge in hand they can now be confident that they can recruit a group of learners who will invest sufficient time at their studies that they might learn a measurable amount during their time in the program. In the next stage of the distance program in Pennsylvania teachers should be asked to collect several types of data on their learners.

Seat time. How many hours does each learner spend in testing, training, and in studying the materials?

Progress. Do students make measurable progress in mastering the material taught in WES?

Accountability. Do students who invest sufficient time and demonstrate that they are mastering the material show progress on the states accountability measures?

Measuring student progress and educational functioning level is a complex task. This fall Project IDEAL will release a white paper on assessing distance learners; this will cover a number of issues of importance to Pennsylvania. PDE should note that a number of accountability measures in use in the state are not well aligned with the WES content. The next phase of the pilot study should involve planned experimentation with various methods of assessing distance learners.

Identifying students most likely to succeed. Distance learning requires the use of instructional resources. It is important to maximize the likelihood that a student that starts in the program will stay with it long enough, and invest sufficient time to master the content. A research effort

should be launched which develops an instrument that assesses learners' levels on various factors known to be associated with success. At the end of next year's program these data should be compared with measures of learner success to help in the development of a profile of a successful distance learner that can be used to help select into distance programs only those students most likely to succeed.

Supporting learners working in non-classroom settings. The social aspects of learning are important in several ways. From a motivational perspective, human beings respond positively to other humans expressing interest in what they are doing. Learning is no exception. Knowing that someone—a teacher or fellow student—cares that they invest their time in studying or value their opinions helps to keep a person motivated to do the required study. From a learning perspective, there is ample evidence that much of learning is a social process; that a person learns better to the extent they share their ideas with others and hear how others make sense out of the ideas that are being studied. Providing a social dimension for distance learning is little understood. More experimentation should be done with ways to help learners in a distance program engage in social interaction (live or virtual) that can bring the social dimension to their learning.

Participating Sites

Original Sites

ARIN IU 28, Indiana:

Tom Dyniec, Nonna Randal, Shelia Wadding

Carlisle Area OIC, Carlisle:

Gerald Mellott, Deborah Walker, Donna Jones

Center for Literacy Inc., Philadelphia:

JoAnn Weinberger, Jane McGovern, Kelley Evans

Forbes Road Career & Tech Center, Monroeville:

Marie Bowers, Diane Balridge, Nicole Scott, Darlene Ward

Greater Erie Community Action Center, Erie:

Lynne Burke, Jill Yonko, Lorraine Bucklin

Greater Johnstown Career & Tech Ctr, Johnstown:

Leonard Shurin, Ralph Fetzer, Al Carnahan

IU 1, Coal Center:

Sue Conrady, Jamie Smith, Hilda Aikens

Lancaster-Lebanon IU 13, Lancaster:

Sandra Strunk, Susan Finn-Miller, Louise Bixler

Luzerne IU 18, Kingston:

Frank Nardone, Greg Stahora, Christine Murphy

Lycoming County Library System, Williamsport:

Linda Herr, Cliff Farides, Jen Hammond

Northampton Community College, Bethlehem:

Chris Coro, Ed Schiffer, Margarita Kershner

Temple University, CRHDE, Philadelphia:

Earl Acker, Marion Wells, Doretha Tillman, Fred Leinhauser

New Sites

Adult Literacy Lawrence County Choices, New Castle:

Marcia Anderson, Kathy Crable, Richard Yates

Community Action, Inc., Punxsutawney:

Katherine Stamler, James O'Connor, Rochele Hepler, Theresa Myers

Greater Pittsburgh Literacy Council, Pittsburgh

Arlene Cianelli, Rachel Zilcosky

Lincoln Intermediate Unit IU #12, New Oxford:

Henry Wardrop, Kathy Ford, Bill Pistner, Erica Runkles

Northwest Tri-County Intermediate Unit #5, Edinboro

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Somerset County Technology Center, Somerset:

Tom Wojcicki, Jamie Barron

Tri-County Opportunities Industrialization Center, Harrisburg:

Jeffrey Woodyard, Peter Bellis, David Krick, David Wisman

Tuscarora Intermediate Unit # 11 Adult Education Department/Lewistown Career Link,

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