Instituto del Progreso Latino’s Cyber ESL program:

Final report by the research team at the Center for Urban Research and Learning at Loyola University of Chicago

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Submitted by Malcolm Bush, Jiffy Lansing, Claudia Zapata-Gietl, Kathryn Thomas, and Carolina Escobar

In September 2014, Instituto del Progreso Latino, a nonprofit multi-service educational provider to the Hispanic community on Chicago’s southwest side, began a new program, Cyber-ESL. This program combined online access to an English as a Second Language cyber-program and substantial in person support to students. A research team from the Center for Urban Research and Learning at Loyola University of Chicago (CURL) was recruited to provide a process and outcome evaluation of the program. The online access was provided via loaned laptop computers and free internet access for students’ use in their own homes. This report summarizes the research team’s findings.

The research team is most grateful to all the Instituto staff connected with the program for their sterling efforts to facilitate our work and their most generous hospitality. The process evaluation in particular worked because of the staff’s openness to participating in discussions about the program, and the quantitative analyses were only possible because of the great care with which staff collected and organized data. We are also most grateful to the students who participated in the focus group and who, to a person, showed great enthusiasm for the program and gratitude for what it had enabled them to accomplish. CURL supported the research effort at every point with imagination and generosity.

Despite a number of challenges, the program significantly improved the English language capacity of participants both on the basis of a within group comparison, and in comparison with several relevant comparison groups. Students reported huge satisfaction with the program and its effects on their English language capacities.

Introduction

Instituto conceived of the Cyber-ESL program as a way of meeting the needs of a particular segment of its community: residents whose first language was Spanish, whose families communicated in Spanish at home and who were for a variety of reasons unable to attend regular classroom ESL sessions. These reasons included family responsibilities, work responsibilities, and

1 We are deeply indebted to the staff of Instituto del Progreso Latino without whose constant help and assistance this research report would not have been possible. We are also grateful to the Center for Urban Learning and Research at Loyola University of Chicago for hosting the research and to its then associate, now acting director, David van Zytfeld for assisting at every stage. Malcolm Bush, Ph.D., is visiting scholar at the Center for Urban Learning and Research at Loyola University of Chicago and senior advisor at the International Center for Research and Policy on Childhood at the Pontifical Catholic University of Rio de Janeiro. Jiffy Lansing is a senior researcher at Chapin Hall at the University of Chicago and a Ph.D. student at Northwestern University. Claudia Zapata-Gietl is a Ph.D. student at Northwestern University. Kathryn Thomas is a Ph.D. student at the University of Wisconsin at Madison and a law student at Loyola University of Chicago. Carolina Escobar is development and growth coordinator at One Hope United, Chicago and research assistant at Loyola University of Chicago. Both were assistant researchers at CURL for most of the study period.
constantly changing work shifts, a sense of failure at regular educational institutions, and lack of family support for classroom programs that met a number of times per week. Instituto, and the program funder, the John D. and Catherine T. MacArthur Foundation, were keenly aware of the importance for Spanish speaking immigrants of improving their facility in English for family, community and work reasons. The program took place during President Barak Obama’s administration during which time several efforts were made to improve the standing of undocumented immigrants. The first, a policy memorandum from the Department of Homeland Security in June 2012, allowed an estimated forty-five percent of undocumented person who entered the country as minors to receive a two-year renewable period deferment from deportation and eligibility for a work permit (DACA), withstood court challenges. The second one of November 2014, which extended DACA and included other undocumented residents in its provisions, did not withstand court challenge. These changes and attempted changes made even more urgent the need to provide English language instruction to people who could not or would not use traditional classroom programs. Adding to the urgency are the facts that there are 41 million native-language Spanish speakers in the United States and another 11.6 million who are bilingual many of whom are children of the native-speakers.

The Program

While certain aspects of the program changed during its course, the key elements remained the same. Instituto recruited students for five program cohorts with, on average, fifty students per cohort. These students were divided into two groups of roughly 25 students for teacher and classroom assignments. The number of students per cohort was determined by staff and laptop computer capacity. Students were admitted on the basis of English capacity being at an intermediate level. The program was not designed for either beginning or advanced students. The students received the following:

1. Initial screening of candidates attracted by flyers etc., was made on the TABE (Test of Adult Basic Education) Locator test which assigned them to a TABE native English speaker’s level. After the first several cohorts, Instituto admitted only intermediate level students to the program as beginning students struggled and advanced students did not benefit greatly.

2. Several Friday evening or Saturday morning sessions on alternate weeks concentrating on orientation issues and increasingly as the program developed on computer technical assistance.

3. Bi-weekly Friday or Saturday half-day sessions that concentrated on assigned homework and a variety of other activities.

4. Students’ at-home on-line study using the USA Learns software. From cohort 3 on teachers emphasized that the program required 12 hours work per week. Teachers did this to encourage students to spend more time online.

5. One teacher call per week which while it varied in length was scheduled for 30 minutes and one student advisor call per month.

6. One Skype session per week with two or three students in each session and which promoted English speaking through role-playing various situations.

7. Other advising sessions by appointment.
Changes to the program

It is inevitable that changes will be made to a new program in the light of experience. Staff made some of the following changes on their own and some happened after discussions with the research team. Such changes were anticipated in the initial decision for the research to include a process evaluation.

1. From cohort 3 on, staff more strongly emphasized the time commitment needed for success in the program, naming twelve hours a week as the target total time commitment for each student.
2. In cohort 3, the USA Learns online program was introduced sooner than in previous cohorts moving up to week 3 from week 4 or 5. Starting in cohort 3, Instituto teachers prepared computers before each cohort began. This included: creating login/passwords for students, downloading programs, and placing programs icon on the home desktop for easy access. For the first two cohorts, this process was attempted during orientation.
3. In cohort 4, two orientation sessions were employed at the start of the program. Orientation sessions provide general orientation to the Cyber ESL program components and its staff, as well to computer usage. Because of the technical challenges students in the early cohorts experienced, staff realized that students needed more help with computer usage and getting online.
4. In cohort 4, both the regular TABE and the TABE CLAS-E tests were used. This greatly increased the amount of time needed for pre- and post-testing and required training staff in administering CLAS-E. As discussed below, CLAS-E tests are the appropriate tests for non-English speaking students.
5. Starting in cohort 4, in approximately November 2015, Instituto suspended child-care for Cyber-ESL students for six weeks as a result of the state budget crisis. In consequence, some students brought their children to class. Child care was later restored.
6. Another result of the state budget crisis was that the program lost one of its two student advisors leaving one advisor per 50 students rather than one per 25 students for cohort 4.
7. In cohort 4, Instituto introduced new computers with higher processing speed of 2.0 gigahertz. Previous computers had limited processing speeds, and automatic downloads from a variety of software were causing serious slow-downs in online access speeds. The new computers were touch screen, which some students found easier than a key board or a mouse.
8. In cohort 4, staff added an exit interview as a requirement for course completion in which the post-test was administered. This change was instituted to increase the number of students taking the post-test. As a result, the percent of students taking the post-test increased from an average of 72% to 96%.
9. The update of USA Learns software in December 2015 to January 2016 caused about three weeks of difficulty for students and staff in cohort 4 to get online as the software experienced teething problems.
10. Program recruitment benefited strongly from a Telemundo TV show on Instituto which aired August 2015.
11. Since staff started to recruit at local libraries in cohort 3, the number of students holding library cards increased perhaps indicating a better prepared group of students.
12. Instituto staff reported overall positive reactions to using CLAS-E, although they expressed some concern that it might have produced testing fatigue for students since it is a long test.
13. With the updated USA Learns, the teachers were able to check when students last logged into USA Learns.
14. Because of changes to the introductory sessions to permit more computer technical instruction, the change over to the new USA Learns software, and scheduling issues, the
actual length of the teaching and online sections of the program varied among cohorts between 16 and 18 weeks.

Any changes to a program raise the question of whether, for the purpose of an outcome evaluation, the program remained the same. One way of dealing with this issue is to treat the first iterations of a program as a shake-down cruise and only employ later iterations for the purpose, for example, of quantitative outcome evaluations. The cyber-ESL program was designed and funded with this consideration in mind. In fact, such a strategy was forced on the final analyses by the change described in 4 above. After an initial period of research, and conversations between the staff and the team, it was decided that pre- and post-test should be the ESL CLAS-E test not the regular TABE test. The reason is simple. CLAS-E is normed for non-English speakers and regular TABE is normed for native English speakers. Instituto used regular TABE in classroom programs and initially in the Cyber ESL program because that is what the State of Illinois, the major funder of ESL programs in the state, requires. The research team decided in the light of this crucial change that it would include in the final quantitative analyses of changes in English language skills only scores on CLAS-E tests. While this decision reduced the final number of students included in these analyses, the choice was inevitable and the team was still able to use the qualitative data from every cohort. In addition, the regular TABE results for the initial cohorts provided useful information for program changes including the decision to limit student entry to students scoring at the intermediate level. We would argue that none of the other changes or variations invalidate the integrity of the program for the purposes of the outcome evaluation.

**The importance of using the appropriately normed test in outcome evaluations**

The appropriate test for non-native English speakers is the TABE CLAS-E test. Norming a test provides evidence that the test will produce roughly equivalent results from people with the same characteristics at different times. It compares students to their relevant peers rather than against a universal standard. In our study, the relevant peers were non-native English speakers learning to speak English. Since we wished to observe gain scores on this particular population, an appropriately normed test was important.

Norm-referenced scores are generally reported as a percentage or percentile ranking. For example, a student who scores in the seventieth percentile performed as well or better than seventy percent of other test takers of the same age or grade level, and thirty percent of students performed better (as determined by norming-group scores).

Norm-referenced tests often use a multiple-choice format, though some include open-ended, short-answer questions. They are usually based on some form of national standards, not locally determined standards or curricula. IQ tests are among the most well-known norm-referenced tests, as are developmental-screening tests, which are used to identify learning disabilities in young children or determine eligibility for special-education services. A few major norm-referenced tests include the California Achievement Test, Iowa Test of Basic Skills, Stanford Achievement Test, and TerraNova.²

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We should note that all the TABE tests used for the Cyber-ESL program were normed so the issue is not between normed and non-normed tests. What we call the regular TABE test, however, is normed for native-English speakers and is therefore not valid for the study population.

A norm-referenced test (NRT) is a type of test, assessment, or evaluation which yields an estimate of the position of the tested individual in a predefined population, with respect to the trait being measured. The estimate is derived from the analysis of test scores and possibly other relevant data from a sample drawn from the population. That is, this type of test identifies whether the test taker performed better or worse than other test takers, not whether the test taker knows either more or less material than is necessary for a given purpose.³

The primary advantage of norm-reference tests is that they can provide information on how an individual's performance on the test compares to others in the reference group. The purpose of this project was to assess the program for non-native English speakers especially people whose first language is Spanish and hence the appropriateness of a test normed for that population.

The switch to the CLAS-E test had testing consequence. This test took more time and more staff, and had to be spread over two rather than one testing day for both pre and post-tests.

In cohorts 4 and 5, in the second week (the second orientation), students took the CLAS-E test at the level determined by the TABE indicator from level 1 to level 4. The speaking portion of the CLAS-E test is graded with an evaluation rubric as the student gives their verbal answers individually. The listening test involves the students listening to a CD and answering multiple-choice questions. For the writing test, students see pictures and answer questions about the pictures. Approximately 4-5 Instituto staff helped with the CLAS-E testing. The four components of the CLAS-E are: reading, speaking, writing, and listening. In this report, we analyze both the CLAS-E raw scores converted to standard scores to account for different starting levels of students and CLAS-E scores converted to grade level changes, a dramatic though crude measure.

**USA Learns**

Program staff chose USA Learns as the online ESL source after examining several such online sources. Members of the research team visited the software’s headquarters which is part of the county Department of Education in Sacramento California. This department, like all California county education departments, provides accounting and technical assistance to local school boards.⁴ With support from the State of California and from Google Analytics, this project supports a very sophisticated computer operation for the world-wide use of USA Learns.

During the course of the Instituto program, USA Learns revised the ESL program. The initial program had a number of shortcomings. A consultant to the research team and the Instituto program staff provided some ideas to USA Learns and the new program was reckoned by program staff to be a significant improvement to the initial software.

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³ See wikipedia.org/wiki/Norm-referenced_test  
⁴ We are grateful to John Fleischman and Melinda Holt of USA Learns, Department of Education, Sacramento County, California for hosting our visit, giving us a lot of information, and kindly giving us access to the Google Analytics for this program.  
⁵ We are grateful to the Brazilian software engineer Rudy Sedinger Jr. for his analysis of the program while he was learning English in London.
Changes in USA Learns started to be instituted in November 2015 with the changes noticeable online about December 18. In February 2016, after the Christmas and New Year break, Instituto staff and students noticed several key problems with the new program and the staff communicated this to Sacramento whose staff quickly fixed the bugs. The consequence, however, was that for about three weeks in February 2016 student’s use of the online program was made more difficult because of these bugs.

Key prior research findings about ESL and Cyber ESL programs

The field of English as a Second Language studies is comparatively well researched but the particular strategy of computer-assisted learning has not been so intensively studied.

There is a paucity of good research on what is collectively known as computer assisted language learning, (Doughty and Young, 2003 and Zhou, 2003). The same goes for a parallel field of research known as task-based language teaching. This latter relies on the principle that language instruction based on tasks the students encounter in their everyday life is likely superior to instruction based simply on un-contextualized grammar and vocabulary acquisition. The language software Instituto employed, USA Learns, incorporates a task-based approach by using videos featuring situations immigrants are likely to encounter in their life in the USA such as negotiating with a landlord or with a work supervisor. The reasons for the paucity of research findings include:

1. The comparative newness of the field;
2. The lack of methodological rigor in existing studies;
3. The broad range of activities encompassed by the term computer-enhanced learning: different studies have a different mix of activities, and the most studies are conducted by the program providers with outcome measures chosen to maximize positive results.
4. The impact of any technologically enhanced language instruction is heavily mediated by the learner, the instructional setting and the assessment tools. Hence, the evaluation of such programs is difficult.

The research, which on the whole supports the effectiveness of computer enhanced learning, is most useful for specifying the rationale for such an approach to ESL. Computer ESL programs are most suited to intermediate and advanced students because of the limited skills of beginners to access materials in the target language (Lambert, 1991). Moreover, most studies regard learner-instructor interaction as essential for maintaining motivation and interest as well as problem solving (Moore and Kearsley, 1996). This point argues for the mixed online in-person approach Instituto adopted.

The advantages of computer-enhanced learning include:

1. It allows learners to be constructors of their own knowledge through active participation in the learning process (Passerini and Granger, 2000).
2. When meaning is negotiated (through computer interaction) input comprehensibility is usually increased and learners tend to focus on salient language features (Blake, 2000).
3. Access and exposure to engaging, authentic and comprehensible yet demanding material in the target language is essential for successful language learning, and these characteristics can be captured more easily in an online lesson than a textbook-based lesson (Zhou, 2003).

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6 The research team found little relevant literature in the period following this article to the present.
7 Some of these studies are summarized in Eileen, Ariza and Sandra Hancock, Second Language Acquisition Theories as a Framework for Creating Distance Learning Courses, Home, Vol. 4, No 2 2003.
4. Multimedia (visual, audio and text) presentations can create stronger memory links than a single medium alone. Also, digital technology allows instant and accurate playbacks which helps the learner to access specific segments much more easily without spending time to locate them (Shea, 2000).

5. Video materials can bring natural and context-rich linguistic and cultural materials to the learner. The internet enables the learner to access authentic news and literature in the target language, which can reflect current cultural changes more effectively than printed sources (Weyers, 1999).


7. With the advancement of speech synthesis and recognition technologies, the learner can carry on near natural conversations with a computer program around preselected and programmed topics (Bernstein, Najami, and Ehsani, 1999).

8. Automatic speech recognition technology easily allows feedback. Pronunciation is a fundamental element of language learning, but providing feedback in a classroom setting is cumbersome (Mostow and Aist, 1999).

9. Tracking and analyzing students’ errors and behaviors is an important element of language instruction and computer programs can store student responses which can then be analyzed by a human instructor or the computer (Sinyor, 1977, and Nataga, 1993).

We should note one general finding from the world of ESL instruction. Not surprisingly, the more hours a student spends learning English, the more that student learns. However, at some point, extra hours produce diminishing returns. In a study of over 6,500 students, 53% of those receiving below 60 hours of classroom instruction gained at least one grade level while the corresponding percentage for those receiving 140 or more hours of instruction was 70% (Young, 2007). The same study showed that the percent of students in the low-beginning and high beginning ESL range (the range had six intervals from beginning to advanced) who advanced at least one grade level was in the high 70s. The proportion among beginning (the lowest ranking) and advanced (the highest ranking) ESL gaining at least one grade level were in the low 50 percent range regardless of the number of classroom hours. The advanced group probably hit a ceiling effect, i.e. a level unlikely to be affected by any similar program or a level above which it was impossible to score.

**Study Methodology**

Instituto required both a process and an outcome evaluation. The research team engaged in a number of different activities to produce these evaluations.

1. Review of the academic literature on ESL programs and on computer assisted ESL programs.
2. Construction of student focus group question guides and staff interview guides. These changed from cohort to cohort as our understanding of the program increased and fresh questions arose.
3. Design of data collection protocols with Instituto staff for quantitative data.
4. Focus groups of about ten students conducted in all the initial cohorts with two focus groups per cohort for the first several cohorts. Students were compensated with a $25 gift certificate for their participation. From cohort 3 on, focus groups were conducted at least partially in Spanish. No focus groups were conducted with the comparison group.
5. Several individual staff interviews at the beginning of the program and then one in the middle and end of each cohort.
6. Attendance at several weekend class sessions and cohort graduation ceremonies.
7. Collection of pre- and post-test ESL proficiency data. For the first three cohorts, the test was the regular TABE test and then for cohorts 4-6, TABE CLAS-E tests.
8. Written and in-person discussions with staff and the funder of three interim reports for regular feedback as part of the process evaluation.

Who were the Instituto program students?

The program aimed to recruit fifty students per cohort with two teachers to support those students. A goal of the program was to recruit students mainly from the zip codes around Instituto but not to turn away applicants who came from further away. During the initial stages of the project, it was decided to recruit a comparison group of students who would receive laptops, internet connections, and a minimum amount of technical assistance to learn how to connect to USA Learns. This group, therefore, received the online portion of the program but not the various educational and support systems built into the regular program. Staff decided it did not wish to construct randomly assigned program and comparison groups.

Students were recruited in a variety of ways. Some students were attracted by flyers and notices distributed at Instituto and so these students had a previous connection to the organization. As Instituto stepped up its recruitment efforts, staff distributed flyers in libraries, churches, and other local establishments. The August 2015, Telemundo TV news channel segment on the program resulted in more potential student interest.

As one cohort became full, remaining applicants were put on a waiting list, and then re-contacted when recruitment started for the next cohort. This waiting list process worked well except for the comparison group students. Some people still on the waiting list at the time of recruitment of that group had to be re-tested before entry because of rules about the time limits of the validity of English language tests. Some were naturally reluctant to undergo another round of testing. Moreover, some comparison group recruits were aware of the full program and disconcerted by the limited comparison group project. In the end, staff had to make many more telephone calls to potential comparison group recruits to secure their interest. This resulted in the comparison group being split into two segments between October 2016 and January 2017 due to the slowness of the recruitment effort.

General demographics of the student body.

The following figures are demographics on students in cohorts 3 through 5, a total of 143 students. A further 100 students attended cohorts 1 and 2. While we do not use these students’ demographic or test data we do use the information they gave us in student focus groups.

- The student body was largely lower-income. Fifty-nine percent reported household incomes of less than $20,000 per year.
- Seventy-six percent were women.
- There was a broad age distribution among the students. Ten percent were between the ages of 20 and 29, and 35 percent between 30 and 39. A further 42 percent were between 40 and 54 years of age. This distribution shows the program has been able to attract all working age groups. Almost 30 percent were fifty or older.
- Twenty-three percent had children of an age to require substantial care, namely 0-5 years old.
- Twenty-nine percent had children between the ages of 6 and 11.
- Twenty-two percent of the students were single mothers.

All these circumstances make attendance for a regular classroom course difficult.

While the majority of students came from zip codes close to Instituto, some came from further afield. Almost 60% of students came from the four closest zip codes and the rest from a variety of other zip codes including a few from suburban areas.

Figure 1: Age of Participants

![Age of Participants](image)

**Figure 1: Age of Participants**

**Being in the U.S.** Self-report data on students’ citizenship and legal residence status, as well as the length of time they report living in the U.S. at the time of registration in the program, suggest that there may be qualitatively different ‘types’ of Cyber ESL students. These differences may have implications for the kinds of support they might need to complete the program successfully.

Table 1 shows a cluster of older students (aged 45 and older) who lack U.S. citizenship or permanent resident status.
Table 1: Age by Immigration Status

<table>
<thead>
<tr>
<th>Age</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-24</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>25-29</td>
<td>3</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>30-34</td>
<td>11</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>35-39</td>
<td>18</td>
<td>12</td>
<td>30</td>
</tr>
<tr>
<td>40-44</td>
<td>10</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>45-49</td>
<td>2</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>50-54</td>
<td>5</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>55-59</td>
<td>3</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>60-64</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>65-70</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>53</td>
<td>75</td>
<td>128</td>
</tr>
</tbody>
</table>

Education. Figure 2 shows a broad distribution of highest educational level students reported having achieved. Almost one-fifth of the sample had finished their formal education by 9th grade. Forty percent had either high school graduation or a GED. Twelve percent had either a college or university degree. This is an enormous spread in educational experience raises the issue of how students with very different backgrounds manage in a single program. We do not know, however, in which country the various stages of education occurred although we do know from focus groups and from the question about students’ English language educational experience that much of this education occurred in their country of origin.
Another key variable, described in figure 3 below, is the number of years since students last attended school. Our 3 cohort sample has a group of students with 1-4 years since they last attended school, another group from 6 to 9 years and then another burst at the 11 year level. But almost 50% of student last attended school at least five years before the start of their cohort. These students might well have difficulty attending regular ESL courses which lack the support of Cyber-ESL.

![Years Since Last Schooling N= 137](image)

*Figure 3: Number of years since last schooling experience*

Another important educational variable was the nature of students’ prior English language educational experience.

Table 2: Prior English language educational experience*

<table>
<thead>
<tr>
<th>Name of organization providing English language educational experience</th>
<th>Number attending</th>
<th>% attending</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Instituto del Progreso Latino</strong></td>
<td>32</td>
<td>18.6</td>
</tr>
<tr>
<td><strong>Community college</strong></td>
<td>81</td>
<td>47.1</td>
</tr>
<tr>
<td><strong>Elementary or secondary school</strong></td>
<td>13</td>
<td>7.6</td>
</tr>
<tr>
<td><strong>Other community organization</strong></td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td><strong>Multiple organizations</strong></td>
<td>22</td>
<td>12.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>172</td>
<td>100.1</td>
</tr>
</tbody>
</table>

* Note the higher N indicates that some students chose more than one option.

Table 2 shows a group of students who came to the program through prior contact with Instituto. It also shows a large group of students who had some community college experience, an experience clearly not sufficient to push them beyond intermediate English. In focus groups, students
commented on how much more welcoming and supportive the Instituto program was than the community college they had attended. Staff pointed out that many of their students had seen themselves as failure in their previous educational institutions.

Work status. The 120 students in these cohorts who worked had various work schedules. More than half the students worked a regular work week. But what is also important is the students’ work schedules. Among students with a non-traditional schedule, there were issues such as split shifts and changing shifts that would make regular classroom ESL courses difficult to sustain.

Table 3: Hours worked per week by students in the workforce

<table>
<thead>
<tr>
<th>Hours worked per week</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approximately 15 hours per week</td>
<td>5</td>
<td>4.2</td>
</tr>
<tr>
<td>Approximately 20 hours per week</td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td>Approximately 30 hours per week</td>
<td>25</td>
<td>20.9</td>
</tr>
<tr>
<td>Approximately 40 hours per week</td>
<td>63</td>
<td>52.5</td>
</tr>
<tr>
<td>Over 40 hours per week</td>
<td>1</td>
<td>0.8</td>
</tr>
<tr>
<td>Hours vary</td>
<td>8</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>120</td>
<td>100.1</td>
</tr>
</tbody>
</table>

Table 4: Type of work schedule of working students

<table>
<thead>
<tr>
<th>Type of work schedule</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional work week</td>
<td>65</td>
<td>56.5</td>
</tr>
<tr>
<td>Nontraditional (e.g. weekend, night shifts)</td>
<td>50</td>
<td>43.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>115</td>
<td>100</td>
</tr>
</tbody>
</table>

Outcomes

Outcomes 1: Student views of program and challenges students face

The students’ views of the program are largely taken from focus groups conducted by two or three of the research staff at Instituto itself and conducted partly in Spanish. The participants for the groups were selected by staff with attention paid to age and gender distributions. Staff did not attend the focus groups. In general, the students were eager to talk and while the conversations were structured around pre-prepared topics, students were free to raise whatever topics they chose. As the research staff became comfortable with information on a particular topic, they changed some of the questions between focus groups to concentrate on new issues. The research team recorded the sessions, transcribed the results and then categorized the responses. Where noted, some responses are also from staff taken in individual staff interviews.
A critique of a program necessarily involves detailed comments about short-comings. We should balance these comments with the generally strong positive views about the program that students expressed. The following is a selection of some student and staff responses.

**Flexible Schedule.** Cyber ESL is an important program for people with non-traditional work schedules and for mothers with young/elementary age children:

*I heard about this new program ‘Cyber ESL’. I took it because I do not have another time to attend another class because I start working in the evening as a part time and in the mornings I have another job—another part time. And I do not have the time to attend another class, so this program was perfect for me because I could study from home and come to classes once in a while-every other week. I took it because I need to improve my English, my grammar, and just the language.*

*I believe that for mothers it is very difficult for them to go to a regular school with regular hours because the kids get sick, the school calls you, there are school meetings. If you want to be part of your child’s education, then going to school at regular school hours is difficult. It has been difficult. Despite that I have been trying to learn English as much as I can at home and this program has made it easier to learn at my own time. While I am waiting for my son, I can be learning English.*

A key program strength of Cyber ESL is that the students can customize their schedules, namely their online time, which is critical for students who hold a full-time job or multiple part-time jobs and cannot afford to stop working. This is in contrast, for example, with classroom courses at community colleges. The flexibility allows students to cope with changing job and domestic demands. One student said:

*In Daley [community college] I took three courses. They were not working for me because if you missed three classes then they would drop you from the class. Even if it is an emergency, they do not care.*

And another student commented:

*I think that’s why we ended up here because there are other programs at institutions but you have to attend every so often and our jobs don’t really allow us.*

**Personalized Program/Individualized Attention.** A major program strength of the Instituto’s Cyber ESL program is that students receive individualized attention from the teachers. Students perceive this attention to be very important. Many participants in the student focus groups mentioned that in previous non-Instituto ESL programs they had felt embarrassed speaking up in class or practicing their English in front of the class:

*I think this is good, because my English is bad. I was studying English but I don’t practice because I am afraid to speak English. I say ‘I don’t want the teacher to call me’. [brief laughs]*

The individual attention and encouragement is key to drawing a student out:
As to here, the attention is more direct with us, that at times I do not know and I say ‘I can’t’ or ‘I don’t know’ and she says ‘you can’ and she repeats the question slower then I try to understand and respond. Then she tells me ‘ok’, corrects me, and I become more comfortable.

It’s funny that this is a virtual program but yet there is a lot human interaction and personal attention to help you. I feel that is a very strong style of this program.

The individual meetings students have with their teachers on telephone calls and Skype calls allow them to practice their speaking/pronunciation and to build up confidence:

Question: Has that been a similar experience [the opportunity for individual practice] to most of you? Or how have you felt about the [teacher] meetings?

Yeah, especially the teacher is working with everyone on their own level, because we are all on different levels. We all have the same homework, but she gives us extra homework because she knows we need extra help.

There’s something else that I really liked about the last Friday class. They called us one by one to go with a teacher. And they were asking us questions. That seems great to me. I didn’t understand much of what he said but I just asked him to repeat it again and it helped. I answered somehow but it seemed like a great exercise. It was very personal and it was direct, [inaudible] it’s something like Skype but in person. And I’m like if I could do it more often it would be perfect.

This one-on-one attention students receive from staff can also help students feel more confident to converse and practice with their classmates, something that may not be achieved in a traditional classroom:

I really like the [phone] call. Ms. X makes you talk in English. She asks you questions and the whole conversation is in English. You have to focus and if you don’t understand then you ask her to repeat it. Then after responding she critiques your response and suggests a better way to respond. She corrects us while she listens to us. I speak it [English] when I need to but if I don’t need to then I don’t speak it. It [the phone calls] truly helps a lot.

Information technology issues. A key element of the program was the provision of both a computer and free internet access. The computers were on loan for the duration a cohort and the internet access ceased at the end of the course. Some of the students who had computers did not have access to the internet on a reliable basis and some did not have access to computers in the home. It turned out that the program’s first challenge with most students was teaching basic computer use. At intake, students were asked whether they could use a computer. But as one computer literate student put it in mild complaint about the length of time devoted to computer use in the first few sessions of the cohort that simple question left a lot of variation in initial skills with some students not knowing how to use a mouse, get on line, and remember and use their USA Learns password. This same student said a lot of time was taken up in weekend sessions on basic computer issues.
The program staff also had some learning to do about computers. Initially, the program used donated computers, a major mistake given the problem those computers caused. Program staff learned that despite the extra work, it was better to re-set the computers before each cohort began so that the computers were ready for immediate use. Instituto also realized it needed higher grade computers to deal with the fact that some of the programs on the computer had automatic upload of program revisions which quickly used up available memory. In the last several cohorts, Instituto assigned one of its IT personnel to assist students.

But students managed to get online and stay online with USA Learns despite the occasional hiccup. And they significantly upgraded their computer skills during the course of their cohort.

**The key advantage of the online program element.** The online program provides the critical advantage of the opportunity for countless repetition of any part of a lesson without the embarrassment of questioning a teacher, or of having someone else observe your struggles. A teacher in a classroom may try to correct an individual student’s grammar or pronunciation a few times. A computer program can do the same any number of times. A staff member commented:

> Even with my father, there are certain words that just like you can’t shake them. So I think that’s been a big help. Because where they can use a computer on USA Learns, they can hear, they can understand why it is used.

**Question:** So you do a part of the lesson and then you can just go back and do it again?

Yes. So you can repeat all of the lessons over and over again. It does tell us as teachers how many times they did it. Or the attempts that they made. There are certain ones where there are words that you say them. Or there are words that you spell them out which I think is a big deal because spelling can be very daunting. And once someone says, ‘oh okay, I can spell this. I’ve gotten it right 5 out of 10 times, the words that I spell’. I think that is very helpful.

**Question:** Because it’s repetition?

Yeah. It’s a lot of repetition whereas in a classroom you can spend an entire repetition on past tense and get nowhere. So you need something to build that base, so that you can keep going with it.

One key advantage students noted for the Cyber ESL program was that they did not feel unwelcome and uncomfortable competition in the classroom. Indeed, some of the weekend sessions were structured to force student collaboration rather than individual competition. Most students reported that the face-to-face sessions were such as to encourage participation. Some working students proudly reported that they felt more comfortable using English in the workplace as the course progressed and that their colleagues and supervisors noticed and commented on the improvement in their English. Others reported much more comfort than before in such English language situations as doing bank transactions in person and in negotiating medical appointments. As one staff member put it, students went from ‘hardly speaking English’ to giving ten-minute speeches in English in front of the class.
Staff was discerning about the kinds of challenges their students faced. While the program was designed for students who had family and/or work responsibilities, finding time for the various program activities was still a challenge.

*I think here in Instituto, what makes it hard is really time. They’re not just juggling a one-person lifestyle with a job. They are juggling kids, grandkids, spouse, job, and it’s just a lot. Our lives are very busy and we have to make the time to do these things. So I think for them who work odd hours, it’s very difficult to say, ‘Okay, at this time I’m not busy’. Because when I come home from work, I’m cooking dinner and I’m feeding my kids, and I’m putting them to bed, and then I have maybe an hour for myself.*

Staff recognize that students have a difficult time creating a new schedule to incorporate their new Cyber ESL class:

*Some of them said, ‘I just thought it was going to be easier and focus’. And I go, ‘Yes.’ Some of them think that because it’s a computer and they’re going to have the teacher on back of me they think, ‘Oh this is going to be a piece of cake’. But you have to put in a lot time; you need to do your own schedule, really. Then they say, ‘You are right. I am having a hard time to establish my own schedule’.*

Family issues did not go away as one mother pointed out.

*Well, I have two young adults in the house and that makes things difficult. I worry as a mother especially with one daughter. What is going to happen to her and how I can help her, because of that I forget to do the homework and thinking about her takes away my focus to pay attention on the lessons. So through the resources, I have been able to find resources to help me deal with helping her.*

Staff were also cognizant of the particular status of their students as students. One staff member remarked that the role of a student can be overwhelming, especially if the student has not been a student for some time or if students had never received any formal education. Staff and students also recognized the status incongruity that can accompany moving to a new country.

*I’m somebody in my country but when I got here I’m nobody. So I need to be able to go back to school, to be able to teach or to work in my field. Like these two ladies, they are social workers and here they are getting paid 10 cents for each newspaper that they deliver.*

*She’s a registered nurse down in Mexico, and she said, ‘I’m a registered nurse. And I’m nobody here. I’m just another number.*

A staff member summarized the range of challenges as follows:

*One of the things we have in our packages is how to do the goals settings and steps to making them have a better experience in Cyber and more complete in what they get to learn. It’s been hard because (1) they don’t know how to set goals or how to follow them (2) it’s always something. It’s their work getting in the way. It’s the family getting in the way. So it’s been kind of hard, because... for example sometimes they want to go to college but they don’t have all the information and they have obstacles: money, legal status; and those goals that they set are hard to*
obtain. Job setting goals: Getting a better job. Yes, they do get the English which helps them understand and have better job but other components come in fill the goal again. Such as time, opportunity and legal status barriers.”

Then there are the challenges associated with the actual program tasks. Students in all the cohorts talked about the items that challenge them the most in USA Learns and in class:

For me it is when I have write out paragraphs. I really don’t like that part because that’s when you find out if you really understand it. Because I understand English when I have to listen to it but when I have to write it sometimes I don’t capture the words. I just don’t capture all the sounds. That’s what I find the most hard but that’s the part I need the most.

I have a hard time identifying words in the dialogues. That’s my major problem. I’ve always had that problem. I speak English in at the doctor’s office, the store and other places, but there are certain words that I have a hard time comprehending. So when the program dictates the sentence and we have to write it out that’s when I start to have problems. Many times, I have to follow along with reading the text because when I’m reading along with text I don’t have a problem, but listening is my biggest problem.

Part of the initial design of the program was to provide resources for students running into other problems that impinged on their work in the program. For this reason, the program originally included two student advisors later reduced to one because of state budget cuts. Interviews with those advisors showed that a few students had very serious domestic problems, some of which were beyond the scope of the advisors’ capacities. In consequence, Instituto developed and signed contracts with several social service organizations to provide help to those students. Until cohort 5, there were about two to four such referrals per cohort. In cohort 5, a larger number of students, all of them male, were referred to such services. These personal problems included domestic abuse, extreme financial difficulties, loss of a loved one, and very serious health problems of a family member or of the students themselves.

While only a small number of students needed special referrals for these problems, a larger number of women students reported difficulties stemming from the active discouragement of husbands and partners and, in some cases, from children mocking their efforts.

The students’ overall satisfaction with the program, however, is demonstrated in the large number of students who said that the program were longer or that there was a similar program for them to graduate to. In fact, Instituto’s vocational ESL program provides that opportunity for some students.

**Outcomes 2: Gain scores**

For clarity’s sake, we report here the results for cohorts 4 and 5 on the TABE CLAS-E test, the national test normed for non-native English speakers. Students in prior cohorts did not take this test.

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8 There has been some debate about the title of these staff. By state law, they cannot be called counselors unless they have the appropriate qualifications. From our observations, they were also not academic counselors so we use the term student advisor.
The analysis below includes one student dropping two or more grade levels, but this student can be considered a statistical outlier and, therefore, disregarded. 58% percent of students advanced at least one grade level and 31% advanced two grade levels. On the face of it, this is a startlingly good result. We should add at this point that the use of grade advances though common has some problems. Officially, CLAS-E scale scores do not have a direct grade equivalent. Grade equivalents are intended to correspond to average chronological age, mental age, test score, or other characteristic of an elementary or secondary student. Therefore, a GE may not have the same meaning when transferred to the learning of adults.9 For comparison purposes with other programs, however, TABE GE to Scale Score conversation tables were used here.

<table>
<thead>
<tr>
<th>Grade change</th>
<th>Took test(s) and passed at indicated level %</th>
<th>Took test(s) and passed at indicated level N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stayed the same</td>
<td>39</td>
<td>28</td>
</tr>
<tr>
<td>Advanced one grade level</td>
<td>27</td>
<td>19</td>
</tr>
<tr>
<td>Advanced two grade levels</td>
<td>31</td>
<td>22</td>
</tr>
<tr>
<td>Scored one grade level lower</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Scored two grade levels lower</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>71</td>
</tr>
</tbody>
</table>

Note: Stayed the same includes people who scored less than 1 grade higher or less than 1 grade lower on the TABE or CLAS-E. Three students enrolled in either cohort 4 or cohort 5 and did not take the tests. The total percent equaling 98 is due to rounding errors.

**Comparison groups:**

**Introduction:** As stated earlier, the Instituto staff declined the use of a formal control group. Given current discussions about the efficacy of program and control groups remaining intact and uncontaminated in a lengthy study, that decision was probably methodologically reasonable. The decision was, however, made on admirable ethical grounds. This being the case, the research team looked around for suitable comparison groups.

Understanding the effect of a program requires a comparison mechanism to establish what would have happened or not happened without the program, a process known as the counterfactual. A program group may have appeared to have made advances on key goals but without comparisons it is hard to be sure whether the program or something else produced the advances. There is a substantial literature, sometimes known as threats to validity, that spells out what kind of circumstance could produce a false positive, the appearance that a program worked but when, in fact, the change was due to something other than the program.

For some researchers, the only secure comparison is a randomized trial where people are randomly assigned to a program group and a non-program group and the change scores of both groups compared after the program ends. Randomization is the gold standard in certain kinds of medical research. But randomization as a gold standard for all program research has eminent critics who point out inter-alia that after a certain time period the randomization process in social research has

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9 See Miami-Dade County TABE Policies and Guidelines, 2011.
often become corrupted, or ineffective. This can be due to a number of issues such as differential drop-out rates from the two groups, and contagion (folk in one group or other informing other folk about what they think the treatment is, and those other folk trying to copy the treatment on themselves).

The managers of the Cyber-ESL program rejected a randomized comparison group as unethical and instead agreed to the creation of a group who signed up just for the computer access to USA Learns part of the program. In addition, staff and the research team came up with other sources of comparison.

It is arguable in a program such as Cyber ESL that substantial program gains are probably the result of the program because it is hard to think of any plausible other factors affecting the entire program group that would produce substantial gains. (This is not to deny that some researchers delight in thinking up implausible factors.)

The other comparisons we were able to make very much buttress this conclusion. For some of the comparison groups we use grade score gains and for others the standardized CLAS-E gain scores.

**Google Analytics data.** Google Analytics provides an overview of the patterns of use of USA Learns which in turn provides some comparison data for cyber-ESL. The following are extracts from current Google Analytics on the program which were kindly provided to us by USA Learns. While IP addresses are problematic in determining unique users, passwords can be used for that purpose and or URLs (uniform resource locators) and then linked to point in time IP addresses to give demographic data.

We include Table 6 below to show the international usage of USA Learns and its heavy use in the U.S. While many users used the site for a few seconds, the average user in the U.S. stayed on the site for 28.5 minutes, a reasonable length of time.
Table 6: Summary of USA Learns user data by country (2009-2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Acquisition</th>
<th>Behavior</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sessions</td>
<td>% New Sessions</td>
<td>New Users</td>
</tr>
<tr>
<td></td>
<td>% of Total: 100%</td>
<td>Avg. For View</td>
<td>% of Total: 100.35%</td>
</tr>
<tr>
<td></td>
<td>(20,347,289)</td>
<td>22.61%</td>
<td>(6,839,451)</td>
</tr>
</tbody>
</table>
| United States       | 20,347,287  | 33.73%          | 6,863,722 | 22.50%     | 59.08       | 00:26:08
|                     | 13,179,823  | (64.77%)        | 3,948,213 (57.52%) | 20.45%     | 64.92       | 00:28:29             |
| Mexico              | 902,793 (4.44%) | 35.29% | 318,580 (4.64%) | 25.30%     | 62.98       | 00:26:12     |
| Saudi Arabia        | 761,115 (3.74%) | 46.07% | 350,633 (5.11%) | 32.28%     | 30.34       | 00:15:56     |
| Colombia            | 738,481 (3.63%) | 34.19% | 252,513 (3.68%) | 19.66%     | 82.51       | 00:31:16     |
| Brazil              | 597,326 (2.94%) | 47.05% | 281,065 (4.09%) | 27.40%     | 41.03       | 00:19:51     |
| South Korea         | 472,595 (2.32%) | 51.17% | 241,837 (3.52%) | 26.58%     | 35.28       | 00:14:10     |
| China               | 388,086 (1.91%) | 35.32% | 137,063 (2.00%) | 22.98%     | 37.00       | 00:20:38     |
| Canada              | 249,353 (1.23%) | 34.30% | 85,520 (1.25%) | 23.58%     | 54.56       | 00:25:00     |
| Dominican Republic  | 220,300 (1.08%) | 33.61% | 74,043 (1.08%) | 23.22%     | 51.19       | 00:25:43     |
| Spain               | 172,275 (0.85%) | 42.74% | 73,628 (1.07%) | 29.09%     | 43.66       | 00:20:12     |

Source: Google Analytics

Table 7 shows the number of sessions each unique user actually commenced on the program. Note that the description unique user does not stop the problem of double counting users because a few users might enter with a different URL on different occasions. While the largest group of users used the site only once, another large number used the site 15 or more times.
Table 7: Number of sessions on USA Learns by unique user

Table 8 shows that again a large number of users are on and off the site in seconds, and many more use the site for a very short number of seconds. But a large number of users were online with the program for 30 or more minutes.

Table 8: Duration of sessions per unique user in seconds

We do not know who the USA Learns users were and so it is hard to make comparisons of user persistence with Instituto’s Cyber-ESL program. But Instituto’s drop-out rate of just several users per cohort shows its capacity to retain people who signed up for the program compared with the very high drop-out rate for the online program as a whole. While Table 8’s longest use category is
30 or more minutes we know that a high portion of Instituto students stayed online for an hour or more per session.

**Grade level comparisons.** As we have noted, the translation of CLAS-E scores into grade level changes has problems. But grade level changes are accepted as an important yardstick in the ESL world. In cohorts 4 and 5 combined, 58% of students advanced one or more grade levels. The Illinois Community College Board (ICCB), the major funder of ESL programs in Illinois, informed us that in Illinois, approximately 30% of students achieve what is known as a federal level one advance, which is one or more grade levels.10 This comparison is made difficult by the fact that ICCB does not use TABE CLAS-E as its required test but Best Plus 2.0 and Best Literacy. These tests can only be administered if the students have completed 60 in-class hours of instruction. The comparison is also imperfect because of different tests and hence different translation protocols into grade levels, but the differences between the ICCB average and the Cyber-ESL grade level gains are still dramatic. For another comparison, faculty at Oakton Community College in suburban Chicago told us that the state goal was 40% achieving gains of one or more grade levels and that in the 2015 academic year, Oakton had achieved 43%.11 Twenty-five percent of their ESL students were Hispanic. Their students were likely to come from families with higher income levels than Instituto’s students. We should note that community colleges are beginning to use cyber learning in their regular ESL classrooms but at present only to a quite limited extent and the state as has yet not figure out whether or how to compensate programs which have a heavy cyber component.

**The formal comparison group.** In lieu of a control group, Instituto agreed to add to their program a comparison group of students. These students were recruited after the regular program concluded. After discussions between program staff and the research team, it was agreed that the comparison group would receive a lap-top computer, an internet connection and technical assistance at the beginning to learn how to connect to USA Learns. They were also given the same expectations as regular students for how long per week they should be online. They had to agree to two days of pre-tests, two days of post-tests, and to returning the computers after the post-tests were concluded. They would, however, receive no further assistance and certainly no classroom, phone call, or Skype instruction. In consequence, they would essentially become an online USA Learns only group.

While recruitment of the comparison group was similar in process to the recruitment of the regular cohorts, there were some differences. Recruitment turned out to be more difficult because some people on the waiting list would have to re-take the CLAS-E tests because those tests are only valid for six months. Moreover, some of the target students were aware that their cohort was not getting the teaching supports and were, therefore, less interested in participating. In consequence, staff had to make many more follow-up phone calls to fill the places and took out an advertisement in the Spanish language newspaper *Hoy*. Because of the slower recruitment, the comparison group was divided into sub-cohorts with the first one starting several weeks before the second one.

The next key question is the relationship between pre-and post-test score gains and student demographics. A significantly higher percentage of students in the comparison group were married, but marital status was not a significant predictor of gain scores for learning-speaking (LS) advances or reading and writing advances (RW). The average length of time since the last schooling a participant had received was significantly longer for regular program group but years since last schooling was not a significant predictor of gain scores for LS or RW. A larger proportion of students indicated that they wanted to improve their English as a reason for enrolling an ESL.

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10 We are grateful to Jamil Steele and Nelson Aguiar, of the Illinois Community College Board for answering all our questions with speed and deliberation.

11 We are grateful to Linda Davis and Amy Blumenthal for giving us the different perspective of classroom ESL in a community college.
program in the comparison group but this motivation was not a significant predictor of gains in LS or RW scores. More comparison group students indicated that their motivation for the ESL program was to obtain a job, but this was also not a significant predictor of gains in LS or RW scores.

There were also several demographic differences between the regular cohorts and the comparison cohort although on most such variables the two groups were quite similar. Forty-eight percent of the comparison group were married compared with 63% of cohorts 4 and 5. Sixty-one percent of the comparison group were either citizens or legal permanent residents compared with 43% of cohorts 4 and 5.

A final concern is the nature of the comparison group experience. If members of the comparison group took the pre- and post-tests, and duly returned the computers but did not use the opportunity to log onto USA Learns in a significant fashion, what the comparison shows is that the program massively outperforms the comparison group in actually using the online program. If the comparison group on the other hand used USA Learns at a reasonable level of persistence, the study shows that the combination of support and tutorial services with the online program outperforms for similar populations the online program alone. In the revised version of USA Learns it becomes possible to track the number of times students go online. We only have sketchy data for regular program students on this variable because the data were collected by one teacher for a short period of time. Our best guess is that regular program students logged in three or more times a week. We have actual data use data for the comparison group from USA Learns. (There were large variations between the two halves of cohort 6.) Comparison group students depending on their cohort, logged in about eleven time per fortnight in cohort 6.1 and five times per fortnight in 6.2. That is about five times a week and 2.5 times a week. So their log-in rate is not too dissimilar from what we know about the regular program group log-in rate.

Table 9: Logins for comparison group

USA Learns Bi-Weekly Number of Logins Descriptive Data for Cohort 6.1 and 6.2:

<table>
<thead>
<tr>
<th>Cohort Number</th>
<th>Mean:</th>
<th>Standard Deviation:</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cohort 6.1</td>
<td>11.54</td>
<td>8.91</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>Cohort 6.2</td>
<td>4.85</td>
<td>6.08</td>
<td>0</td>
<td>23</td>
</tr>
</tbody>
</table>

Listening and speaking pre-test scores for the comparison group were significantly higher than the regular group. Being in the regular program group was associated with significantly bigger gain scores when controlling for pre-test score, age, children, gender, income, zip code, previous education, legal status, marital status and previous internet access, work schedule, and motivation for ESL enrollment. These are legitimate controls and hence on these tests the regular group with the combined on-line and support program did in fact outperform the comparison group.

There was no statistically significant difference in reading and writing pre-test scores between the regular group and the comparison group. However, the regular group had significantly larger gains in scores between pre-test and post-test. When controlling for age, children, gender, income, zip code, previous education, legal status, marital status, previous internet access, work schedule, motivation for ESL enrollment, and pre-test score this difference remains statistically significant. This result is again a major achievement for the program.
Being enrolled in the regular program group was associated with significant increases in gain scores for both reading and writing and listening and speaking. Enrollment in the regular group was associated with an increase of 34.35 points for reading-writing and 21.6 points for listening-speaking. Given the range of possible scores detailed in the table below, these are large gains. Having a child ages 6-11 was also linked with an increase of 30.70 points in gain scores. We are not sure of the reasons for this. There may have been a measure of motivation in having a child of that age who was presumably learning English at school. Age was linked with a decrease of 1 point in LS. Finally, each point higher in pre-test scores in were associated with .31 decrease in RW gain scores for and .46 decrease in LS gain score. The higher your initial performance on the CLAS-E the smaller the gains made on the post-test score. This is an important finding in terms of targeting potential students for such a program. The result may well be due to what is known as a ceiling effect. Students scoring high on a pre-test can only score up to the highest score on the post-test thus reducing their capacity to make large gain scores.

Table 10: CLAS-E gain score differences between cohorts 4 and 5 and the comparison group

<table>
<thead>
<tr>
<th>Test</th>
<th>4 and 5 N</th>
<th>4 and 5 mean</th>
<th>4 and 5 standard deviation</th>
<th>Comparison group N</th>
<th>Comparison group mean</th>
<th>Comparison group standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening and speaking</td>
<td>71</td>
<td>26.42</td>
<td>32.34</td>
<td>42</td>
<td>5.93</td>
<td>50.13</td>
</tr>
<tr>
<td>Reading and writing</td>
<td>71</td>
<td>23.89</td>
<td>37.85</td>
<td>42</td>
<td>-7.38</td>
<td>51.03</td>
</tr>
</tbody>
</table>

CLAS-E combined listening and speaking scores for low and high intermediate students range from 408 to 485, and for reading and writing, from 486-558.\(^\text{12}\) So the program group advances were considerable in total and considerable in contrast with the comparison group. The regression analysis in Table 11 below show that these differences were significantly different.

Table 11: Regression of gain scores for cohorts 4 and 5

<table>
<thead>
<tr>
<th>Regressions predicting Gain Scores</th>
<th>Reading and writing</th>
<th>Speaking and listening</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participation in full Instituto program</td>
<td>0.34** (3.06)</td>
<td>0.25* (2.40)</td>
</tr>
<tr>
<td>Pre-Test Scale Score</td>
<td>-0.33** (-3.40)</td>
<td>-0.65*** (-7.55)</td>
</tr>
<tr>
<td>Has Children Ages 0-5</td>
<td>-0.21 (-1.63)</td>
<td>0.15 (1.31)</td>
</tr>
<tr>
<td>Has Children Ages 6-11</td>
<td>0.32** (2.93)</td>
<td>-0.11 (-1.15)</td>
</tr>
<tr>
<td>Has Children Ages 12-18</td>
<td>-0.01 (-0.15)</td>
<td>-0.09 (-1.02)</td>
</tr>
<tr>
<td>Has Children Ages 18+</td>
<td>-0.03 (-0.27)</td>
<td>-0.05 (-0.49)</td>
</tr>
<tr>
<td>Age</td>
<td>0.11 (0.85)</td>
<td>-0.26* (-2.32)</td>
</tr>
<tr>
<td>Observations</td>
<td>97</td>
<td>97</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.362</td>
<td>0.475</td>
</tr>
</tbody>
</table>

Regression controls for gender, income, zip code, previous education, legal status, marital status and previous internet access, work schedule, and motivation for ESL enrollment. See Appendix for full model results. Standardized beta coefficients; t statistics in parentheses *p<0.05 **p<0.01 ***p<0.001

Summary

Instituto del Progreso Latino saw an urgent need to provide English language instruction for a group of residents who could not or would not attend normal ESL classrooms. The Institute came up with an imaginative solution. As the program progressed, Institute staff made creative changes to the program in response to inevitable teething problems and to a massive state fiscal crisis that cut organizational funds. But the heart of the program remained the same. Students responded to the program with a high degree of enthusiasm. They cited the care, respect and support of a very skillful staff, the technical assistance with coping with an online learning program, the value of the weekend classes and the phone and Skype sessions, and the enormous advantages of working with the online program, USA Learns.

The quantitative outcome results are impressive. Program students made great gains in their English capacity when measured against state-wide averages and persisted with the program to a degree far exceeding average users of USA Learns. The comparison group was similar enough to the program group to provide a fair test of the program group. Program group students massively outperformed
comparison group students on reading and writing, and listening and speaking tests and to a high level of statistical significance.

The importance of the topic, helping native Spanish speaking immigrants improve their English and thus access the mainstream, and the impressive results of the program suggest next steps. A policy-practice study should be made of how the use of similar programs could be promoted by the state-level funders of ESL programs. A multi-state study should examine other best practices in ESL training especially in the area of student retention (a major problem) so that all states could benefit from these discoveries. The large number of native Spanish speakers in the US population makes such studies, and the policy changes they could promote, of vital importance.

Bibliography


Hancock, Elien N. et al., (2003), Second language acquisition theories as a framework for creating distance learning courses, *Home, 4*, (2).


*For more information on this research, please contact the principal investigator, Malcolm Bush, at mbushciespi@gmail.com*