Real World Research: Combining Qualitative and Quantitative Research for Adult ESL

Larry Condelli
American Institutes for Research, Washington, DC, USA
Heide Spruck Wrigley
Literacywork International, Las Cruces, NM, USA

As in other fields of education, adult education and literacy faces great pressure to conduct more scientifically based research to identify effective instructional practices to guide teaching and inform policy. Educational research, especially in adult literacy, has been criticized for employing weak methodologies that do not allow for valid and reliable conclusions. To address this issue in the U.S., the Department of Education began an ambitious agenda to improve the quality of research, in part by establishing strict methodology guidelines for educational research that accepts only studies with experimental or quasi-experimental designs.

At the same time, adult educational researchers face increasing demands to be more responsive to the field by designing studies and presenting findings that are more accessible to teachers and other practitioners, who need to know research-based practices that will improve the literacy and language skills of adult learners. To this end, several research to practice initiatives have arisen, including those led by the NRDC in England and NCSALL in the U.S, the major adult literacy research organizations in their respective countries.

False Dichotomies

Due to the nature of the research process, it has been difficult for researchers and practitioners to communicate. Researchers are expected to stay aloof from practice, to ask pre-specified questions, collect information, analyze test scores, and then write up results in formats specified by the funding source. Typically, outside researchers do not give opinions or offer advice, since such involvement could result in a lack of objectivity. It could also pollute the data because some programs might make changes based on the researchers’ input. Practitioner input into research is generally not welcome or sought only in the initial phases, most often as part of an advisory panel.

It is not surprising then that, for many literacy programs, the news that they have been selected for a national research study, while flattering, is not entirely welcome. Programs are expected to cooperate fully by providing data about their students and answering researcher questions and by offering researchers access to their classrooms and to their students. Programs often do not hear about the results of a study that they have been part of until much later, when data collection and analysis are completed, a process that might take years. When the results are finally published, often the reports do not

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speak to practitioners. Methods and findings tend to be discussed in dense academic prose; statistical information is written by and for other researchers and thus is not accessible to most lay people. Implications for practice may be entirely missing or not grounded in the realities of the everyday work of literacy practitioners.

The discussion of findings in quantitative and statistical terms, is not only difficult to for non-researchers to understand, but the reduction of teaching and learning to numbers and probability tests feels too removed from reality to many practitioners. Qualitative data, which often speaks more persuasively to teachers, is often devalued as too subjective for research. As a result, false dichotomies have arisen between research and practice, and between qualitative and quantitative research. Rigorous research is quantitative, objective, removed from practice, while qualitative research is weak and subjective.

**Combining the Qualitative and Quantitative**

The value of, and need for, objective, methodologically sound research is undeniable. Only through sound research designs can we eliminate threats to validity and draw scientifically valid conclusions to inform practice. While we recognize the value of the more traditional research, we also believe a more interactive, reciprocal research and development model that combines evidence from previous research studies with the professional wisdom of those doing literacy work in the field has a critical role to play in conducting research. Indeed, scientific research combined with professional wisdom is the definition of “evidence-based research” put forth by the research branch of the U.S. Department of Education.\(^2\)

In our view, the best research design is a mixed method design that integrates qualitative and quantitative research. This type of design begins with a strong research methodology with quantitative methods that are enhanced with qualitative measures of key processes and outcomes. Qualitative methods, such as interviews and case studies, improve the design by providing data that can give insights into how findings work and how findings can be translated to practice. By itself, a quantitative method can identify what works, but has limited explanatory power: there is little information about how students learned and how instruction worked, for example. With qualitative designs there is rich information about learners and teaching, but the information about what worked is more subjective and cannot be generalized. By combining the two methods, we can obtain a much richer understanding. In other words, using a rigorous design the quantitative methods can tell us *what* works, while the qualitative methods can tell us *how* it works.

**Implementing a Mixed Design: The What Works Study**

Over the last several years, we had the opportunity to implement a mixed method approach to research in a major study for the U.S. Department of Education, the *What Works Study For Adult ESL Literacy Students* (Condelli & Wrigley, *et al*., 2003). The

goal of this study was to identify effective instructional practices for adult ESL literacy students. We used a longitudinal research design where we followed two cohorts of learners for nine months from the time they entered class. We assessed them with a comprehensive assessment battery upon entry into class and three months and nine months later, regardless of how long they remained in class. We measured instruction through classroom observations to develop quantitative measures of instructional practices.

To conduct observations, we developed an observation guide that allowed us to see how teachers approached language and literacy learning and capture the learning opportunities afforded to students in each class. In designing the observation guide we combined theoretical models of how language and literacy are developed with knowledge gained from visiting classes and talking with teachers. In the end, we developed a taxonomy of instructional practices related to second language acquisition that allowed us to categorize and code teaching activities. These codes were supplemented with a running record of activities in the classroom, providing both data on what teachers did (and for long and how often) and a means for double-checking codes.

The analyses of instructional inputs and learning outcomes employed latent growth modeling, a complex statistical method for analyzing longitudinal data, to relate the instructional measures to student literacy growth measured by the student assessments. The modeling, which included measures of student attendance and student and teacher variables, found the following instructional methods were related to increases in literacy and language development:

- **“Connection to the outside”** — students in classes where teachers made connections to the “outside” or real world, had more growth in reading basic skills development.

- **Use of the students’ native language for clarification** — students in classes where teachers used students’ native language for clarification during instruction (e.g., to explain concepts and provide instructions on class work) had faster growth in reading comprehension and oral communication skills.

- **Varied practice and interaction strategy** — use of this strategy, where the teacher taught concepts in a variety of modalities and allowed for language practice, resulted in faster growth in oral communication skills.

- **Emphasis on oral communication** — students in classes where the teacher explicitly emphasized oral English communication skills in instruction showed more growth in this area.

This quantitative approach met one of the major goals of the study, to identify “what works” for instructing adult ESL literacy learners. However, we wanted to obtain a richer, more complete understanding both of the classes we were studying and how the
students in our study were acquiring literacy skills. To do this, we added qualitative measures of instructional content and student literacy practices and abilities.

**Measures of Instruction**

By collecting qualitative measures of instruction, we hoped to get an understanding of what instruction that affects literacy development looked like. We used a detailed classroom observation guide, where an observer wrote a detailed narrative and rated teaching on five dimensions as the main source of data on instructional activities. Supplementing these data were bi-weekly logs of representative lessons provided by teachers, as well as periodic formal and *ad hoc* discussions with teachers about their instructional approaches and goals.

These data provided us with some surprises—mainly that even though the classes were supposed to be literacy-focused, most of the instructional time was being spent on language acquisition activities, rather than literacy development. On average 60 percent of instructional time in the 38 classes we observed was spent on language acquisition activities. Of the 40 percent of instructional time spent on literacy development, about 25 percent was spent on developing basic literacy skills and 15 percent of the time was devoted to teaching reading comprehension strategies. Only 11 classes in the study spent more than 60 percent of instructional time on literacy development. In addition, we found that the teachers in our study we not trained in teaching literacy. They were mostly using the materials and methods that they would normally use in regular ESL classes aimed at more literate students.

The qualitative data we collected also allowed us to identify and describe more fully the instructional strategies we observed. Table 1 shows the four main teaching strategies, in terms of both what was characteristic of the strategy for teachers and students. We also were able to measure how often teachers used each strategy (shown as the mean observation score in the table).

Supplementing these qualitative data with the findings from the growth modeling allowed us to understand and describe our findings more fully than would have been possible otherwise. These qualitative data also made it easier for us to translate these instructional findings to practice. We can tell teachers what the findings mean to them because teachers helped us interpret and understand what they were doing throughout the research process.

**Student Measures**

We also sought to supplement the quantitative data with qualitative data from students. We included a literacy practices interview where we discussed with students their reading and writing habits, as well as other qualitative measures of their goals and background. A second data source was an alternative reading assessment where we observed students reading common, everyday materials. The students self-selected the materials they wanted to read from a set we offered, which ranged in difficulty from easy
(soda cans and food labels), to moderately difficult (flyers, utility bills and newspaper advertisements) and more difficult items (simple stories and magazine articles). We rated students on their ability to read the item and their comprehension of what they read. Table 2 shows that more students were able to read more difficult items over time. The literacy practices interview also confirmed these finding and identified other materials beginning literacy students read.

Table 1
Observation-Based Instructional Strategies

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Mean Observation Score</th>
<th>Characteristic Practices Associated with Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Varied Practice and Interaction</td>
<td>2.09</td>
<td>Teachers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• engage in direct teaching</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• keep students involved and engaged</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• provide feedback on student progress</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• allow ample opportunities for practice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students have the opportunity to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• work together to solve problems</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• spend the time it takes on a task to ‘get it’</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• engage in different types of literacy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• use multiple modes of learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• learn from each other</td>
</tr>
<tr>
<td>Open Communications</td>
<td>1.73</td>
<td>Teachers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• are flexible and respond to student needs as they arise</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ask open-ended questions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• supports open and authentic communication</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students have the opportunity to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• contribute ideas based on their experience</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• express themselves without immediate correction</td>
</tr>
<tr>
<td>Connection to “Outside” World</td>
<td>1.25</td>
<td>Teachers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• share overall lesson goals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• links lesson to real life</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• bring ‘outside’ into the classroom</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students have the opportunity to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• apply class lessons to challenges outside the classroom</td>
</tr>
<tr>
<td>Choices and Thinking</td>
<td>.53</td>
<td>Teachers:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• provide students with choices</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Students have the opportunity to:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• make choices about the way they learn</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• think about tasks and decide how to approach it</td>
</tr>
</tbody>
</table>

*Means are the average rating of each of the strategies comprising that scale. The rating scale ranged from 0 to 3, where “0” indicated that strategy was not observed at all, and “3” indicated that the strategy was characteristic of the class to a large extent.

These qualitative data provide a greater richness to the test score data we collected, which told us that students were gaining in literacy and language skills. However, we had wanted to include an ethnographic component to the study to get a deeper understanding of students’ literacy development. This information would have
provided us with greater insight into student learning, since we found that relatively little
time was spent in class on literacy. Students were clearly learning outside of class but due
to resource limitations, we were unable to implement a component that would shed light
on such learning.

<table>
<thead>
<tr>
<th>Comprehension</th>
<th>Time 1 (n=435)</th>
<th>Time 2 (n=310)</th>
<th>Time 3 (n=215)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempted to read, but could understand none of the items</td>
<td>25</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Showed comprehension of only the easy items (Soda can, food label, or French fry bag)</td>
<td>24</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Showed comprehension of moderately difficult items (e.g., ad, flyer, bill, both stories)</td>
<td>40</td>
<td>49</td>
<td>55</td>
</tr>
<tr>
<td>Showed comprehension of most difficult items (magazine or newspaper)</td>
<td>12</td>
<td>20</td>
<td>19</td>
</tr>
</tbody>
</table>

In the *What Work Study*, we succeeded in using a mixed research design that
included qualitative and quantitative elements. The quantitative methodology allowed us
to identify instructional factors that worked to promote literacy and language
development among adult ESL learners. Through the qualitative measures, we also can
describe the content and frequency of instructional activities that were effective and
readily translate these findings to practice. We found that literacy development was not a
main focus in most classes, but that the instructional model more closely resembled a
standard ESL model of oral language development, where literacy is presumed to
develop naturally as a by-product of language learning.

At the same time, the study design allowed us to understand what we failed to
learn. We obtained only a brief glimpse into how ESL literacy learners engage in and
acquire literacy in and out of class. In other words, we need to learn more about what
types of literacy interventions it takes for struggling adult ESL readers who face turbulent
lives to engage in learning, literacy and language.

**Designing A Literacy Intervention for Adult ESL Literacy Learners**

We plan to continue our research in adult ESL literacy by designing a new study
that explicitly examines literacy interventions for adult ESL learners. Our ideal design
would be based on scientific research and practitioner experience and use a rigorous
methodology that includes a mix of quantitative and qualitative measures. As part of
designing such a study, we first reviewed the research literature to identify promising
literacy interventions for adult ESL students and then developed hypotheses to serve as
the basis for a study of selected interventions that would provide insights into policy and
practice.
Since adult ESL literacy is a relatively new field it has received scant research attention. Indeed, the *What Works Study* is the only major study ever conducted on this population of students. However, existing at the nexus of adult literacy, second language acquisition, first language literacy development, and second language reading, adult ESL literacy can benefit from studies conducted in these fields. To identify research that would inform the development of promising literacy interventions we reviewed studies in adult basic education (ABE) and adult ESL, and research in second language acquisition (SLA) of both children and adults, English as a foreign language, ESL pedagogy and reading acquisition in both the native language and second language. We present the findings of our review below and illustrate how an intervention would work for each hypothesis using our mixed design approach.3

**Research in ABE and Adult ESL**

To conduct the review of ABE and adult ESL, we first identified the universe of research studies through a comprehensive search of all published and unpublished studies examining literacy interventions using a sample of adults that were eligible to attend adult literacy programs (aged 16 or older, who were not enrolled in a secondary or post-secondary education) and that used literacy-related outcome measures (e.g., that measured reading, writing, speaking and/or listening skills). We included studies in the U.S. and other English speaking countries (Australia, England, Canada, New Zealand). Our intention was to cast a wide net to catch all possible studies, conducted in the years 1983-2003. Through these procedures, we identified 111 studies.

After reviewing summaries and abstracts of these studies we excluded:

- Studies with simple one-group pretest-posttest designs and simple zero-order correlations, since they resulted in findings where the connection between the intervention and outcomes was unclear or inconclusive;
- Studies employing sample size smaller than 15 for either the treatment or the comparison groups; and
- Studies with no measures of literacy (reading, writing or English fluency for ESOL students).

Following these procedures we identified 17 studies of literacy interventions to review.4

The 17 studies examined the literacy impacts of a very narrow range of topics in adult education: instructional models, computer assisted instruction (CAI) and general impacts of participation in adult literacy programs. However, nine of the studies examined CAI. Only two studies examined an adult ESL population, while five were

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4 A similar review by Torgerson, C. & Brooks, G., *et al.* (2003), of the NRDC, *Adult Literacy and Numeracy Interventions: An Exploratory Study and Review of Controlled Trials*, was helpful in corroborating the identification of studies and conclusions of this review.
conducted in prison settings. Nine studies employed random assignment of students to treatment and control groups (although not always successfully).

In our review we gave consideration to three studies with the strongest research designs. Rich and Shepherd (1993) and Roberts, Cheek and Mumm (1994) looked at the effect of a specific instructional method on reading in ABE learners. Rich and Shepherd showed that the reciprocal teaching strategies of summarizing and questioning could improve reading comprehension. These findings suggest the importance of using higher order reading strategies in low-level readers. By demonstrating that a community building process could affect reading skills, Roberts, Cheek and Mumm showed the efficacy of group interaction and cooperative learning in ABE. Gretes and Green (1994), the other study with a rigorous methodology design, found that the multi-media READY software program was effective in improving reading skills. This software used a content-based, sequential reading approach that allowed individualized, self-directed learning. Taken together, these three high quality studies demonstrated the effects of:

- Teaching higher order reading strategies to improve reading comprehension;
- Group, cooperative learning;
- Learner engagement through individualized, multi-media, and
- The use of content-based materials.

The information we draw from the other studies, suffering from methodological problems, is more tentative, although is supportive of these findings. For example, Cheek and Lindsay (1994) studied the diagnostic prescriptive instructional approach, which used individualized instruction with language experience approaches and real-life materials. Students taught with the approach scored higher than controls on reading measures.

The other CAI studies also support the ability of the use of technology in instruction to improve reading skills. Supporting Gretes and Green (1994), Johnston (1996) found that READY and other software improved reading test scores among students in her study, while Maclay and Askov (1988) found that software that used a whole word approach to vocabulary building improved reading scores. In a rather dated study, Meyers, Ory and Hinckley (1983) found reading improvements over controls among male prison inmates using the PLATO software. However, five studies of CAI found no differences for their interventions over controls, and often had substantial methodological or study implementation problems. Overall, it is difficult to make conclusions from these studies.

The four studies examining general effects of ABE instruction are not very helpful to us in identifying effective literacy interventions. Since they were focused on identifying broad programmatic effects, they did not describe in detail the nature of the literacy interventions employed. In three of them – Martinson and Friedlander (1994) and both Even Start studies (St, Pierre, et al., 1993; St, Pierre, et al., 2003) – the adult students were enrolled in several different instructional programs where the researchers had no control over, or monitoring of, the intervention. In any case, the Even Start
studies found no significant difference between Even Start adults and controls on the literacy measures and Friedlander and Martinson found only a site-specific effect for literacy outcomes in their study of GAIN participants. Tewksbury and Vito (1994) did find significant differences in reading and math scores for male inmates in a prison literacy program that used a functional skills approach, although the research design was weak.

It is worth noting that we found only two studies that used adult ESL students. One of these studies (St. Pierre, et al., 2003) showed no treatment-control differences for adult literacy instruction and the other (Diones, et al., 1999) had methodological flaws. Thus, the effects of literacy interventions on literacy and language development among adult ESL learners lacks a research base and we must use these ABE reading studies if we want research-based guidance from this field to identify promising literacy interventions for adult ESL literacy learners. This approach is problematic, since not only are there differences between second language reading development and reading in the native language, but the ABE studies do not address the language issues inherent in ESL.

The teaching of higher order reading strategies to improve reading comprehension, such as used by Rich and Shepherd (1993), require interaction among learners and teachers – and this interaction requires a common language. Consequently, teaching these strategies is impossible in an ESL class unless the teachers and learners all speak the same language. The ABE studies also do not inform us about the role of oral language proficiency in literacy development, nor do they provide guidance on literacy interventions that might foster oral proficiency in English.

Yet another shortcoming to using the ABE studies to inform us about ESL literacy interventions is that none of the ABE studies examined literacy-level learners. Many studies used readers as low as third grade level, but even this literacy level is higher than many of the learners that would be the target of the proposed research study. Adult ESL literacy learners must learn language and literacy simultaneously, and the ABE research reviewed offers little guidance on instructional interventions that might help them meet this challenge.

The 17 studies identified reflect an unorganized approach toward studying adult literacy and were not guided by any theory, approach or school of thought about good pedagogy. They do not provide a comprehensive body of knowledge on the impacts or literacy interventions in ABE. Furthermore, seven of the studies found no significant differences between treatment and comparison groups. Consequently, the ABE studies are very limited in the information they provide for identifying promising literacy interventions for adult ESL literacy students. To obtain further information and insights into the key elements of an effective intervention, we turned to the research in SLA, ESL pedagogy and second language reading.
Research in Adult SLA, ESL Pedagogy and Second Language Reading

The literature on second language acquisition (SLA), ESL pedagogy and second language reading is extensive. We focused our review on studies that used adults or that addressed key issues in adult ESL literacy. To help organize our findings and focus the review, we started with studies conducted with ESL literacy students, including smaller studies that speak to language and literacy issues of adult immigrants and refugees. We broadened our review to include studies in English as a Foreign language but focused primarily on those conducted with adult learners (mostly college students learning either English or another language). We also included some of the seminal studies in second language acquisition with children and adults, focusing on those where results have been duplicated and are now generally accepted (e.g., support for the threshold hypothesis and the linguistic interdependence hypothesis).

We clustered the research around themes that were common to a several studies and highlighted those studies that involved adults learning another language. We excluded studies that only addressed sub-components of language learning, such as morphological or phonological aspects of SLA, the acquisition of tense and sentence structure and isolated vocabulary learning, since the goals of adult ESL literacy are much broader than the acquisition of structural skills.

We clustered research findings into these themes:

1. The relationship between oral communication skills and literacy;
2. Connecting literacy learning to real-world tasks;
3. Integrating computers and multimedia into literacy instruction;
4. Using the native language as support for second language development and literacy learning; and
5. Improving ESL literacy through a focus on reading.

The enormous size of the literature makes it impossible for us to describe all of the significant studies cited in each area. Instead, we begin discuss the overall findings, and provide greater information on representative studies and their implications for designing a literacy intervention study.

Oral Communication Skills and Literacy

Several studies have examined the interrelationship between orality and reading on the one hand and oral communication and school achievement on the other. A seminal work by Alderson (1984) suggests that a greater knowledge of the target language in general facilitates L2 reading comprehension. He cites evidence that reading skills and strategies from the native language do not easily transfer to reading in the
second language unless a threshold level of general language competence has been achieved, at least at the beginning levels of L2 learning. Correlational research confirms this relationship (Carrell 1991; Bernhard and Kamil, 1995) and strongly supports the view that language proficiency is a significant factor in second language reading. In other words, language ability trumps reading ability. English learners who, for example, have good higher order reading strategies in their own language cannot call on those strategies to help them understand English texts until their understanding of English vocabulary and syntax are good enough to understand basic sentences and expressions. The interrelationship between language proficiency and literacy skills, known as the linguistic interdependence hypotheses, has now been widely accepted in the SLA field.

The *What Works Study* also supports the relationship between oral proficiency and reading ability (Condelli & Wrigley, *et al.*, 2003). Adult ESL literacy students whose proficiency levels of English were higher at pre-testing showed greater gains in reading than students with lower levels of oral English proficiency.

Studies of young children, particularly Snow (1977; 1983; 1997; 1998), also provide evidence of the positive relationship between oral language and literacy, as evidenced by school achievement. She notes “although print materials may be used to support the development of English phonology, vocabulary and syntax, the postponement of formal reading instruction is appropriate until an adequate level of oral English proficiency has been achieved” (Snow, 1998, p.325). Snow has shown that children in families where parents discussed abstract ideas had greater success in school than did children from families where such oral interactions did not take place. The findings held true for both language minority students where a language other than English was spoken in the home and for native-born children.

These findings suggest that adult ESL literacy students might be well served by programs that put a strong emphasis on building the overall English competence of students, including the development of face-to-face communication skills before or while basic literacy is introduced.

**Connecting Literacy Learning to Real-World Tasks**

There is evidence from research in learning that points toward the benefits of contextualized or situated learning, compared to the learning of decontextualized skills (Bransford, *et al.*, 2000; Brown, *el al.*, 1996; Greeno and Resnick *et al*., 1996; Gabel, 1994). Studies in second language acquisition and in adult literacy also provide some evidence of the positive impact of teaching language in context, focusing on communicative interactions and task-based learning. For example, the *What Works Study* already cited found that students in classes where teachers connected instruction to real world materials and contexts showed greater gains on basic skills reading test scores that students in classes where teachers made fewer such connections.

In second language acquisition, studies in contextualized learning often appear under the rubric of “communicative competence.” These studies examine the relative merits of instruction focused on oral communication, as well as reading and writing tasks.
that reflect real-world challenges. This approach is compared to learning through a “structural syllabus,” one that focuses primarily on the syntax, vocabulary, and morphology of language.

Despite its age, a study by Savignon (1972) continues to be cited in influential research reviews such as Lightbown and Spada (2003), a key text in TESL graduate programs. This study examined the possible benefits of a communicative approach with 48 college students enrolled in French language courses at an American university. Savignon divided students into three groups, and all groups received the same number of hours per week of audio-lingual instruction where the focus was on grammar practice.

The “communicative group” had an extra hour per week focused on using the target language (French) in meaningful and creative ways. The “cultural group” had an additional hour devoted to the appreciation of French culture in workshops conducted in the native language (in this case English) to lessen the psychological distance between the home culture and the target culture. The control group received additional work devoted to skill and drill practice in a language laboratory.

All approaches included a focus on language structure. Results showed that students who spent part of their study day dealing with communicative tasks scored significantly higher on communicative tests and did as well on grammatical accuracy measures as students in classes that focused primarily on grammar and form.

A second study, conducted 10 years later with adult learners from different countries, showed similar positive results for a communication-focused model. Montgomery and Eisenstein studied 28 ESL students speaking different languages who participated either in a traditional ESL class or in a course that combined traditional grammar-focused ESL with communication activities focused around weekly field trips. The study used a quasi-experimental design, using pre-post tests and matched pairs (matched on English proficiency, native language, length of time in the United States and SES). Progress was measured using a scale adapted from the Foreign Service Oral Interview.

Results showed that beginning learners who engaged in communicative activities around field trips in addition to their regular, required grammar course made greater improvement in accent, vocabulary, grammar, and comprehension than others who received only the standard course.

These studies (Savignon and Montgomery and Eisenstein), now widely cited, offer support for the following hypothesis: communicative approaches that include a balance between structured grammar practice on the one hand and open-ended conversation and communication tasks on the other are likely to result in greater gains in communication skills for adult learners than approaches that focus primarily on the structure and form of English. It is important to remember that studies focused primarily on the development of oral communication skills, rather than literacy skills, either basic or functional.
**Real-World Tasks in Functional Context**

Another way to bring real-world activities into the classroom is through instruction that ties literacy to tasks frequently conducted in the workplace or everyday life. This type of instruction focuses on the real world literacy activities that reflect the challenges that adult learners face in their daily lives and goes beyond teaching language basics and structure. Sticht’s (1997) work with literacy students in the U.S. Army showed that learners who were taught through a functional approach where learning was tied to job tasks outperformed those who participated in a program where learning was focused on basic skills unrelated to the work. This approach, termed the functional context approach, has received wide spread acceptance in workplace literacy training (Mikulecky and Lloyd, 1996).

Sticht studied over 714 recruits in a six-week Army and Air Force reading program to determine the effect of a functional approach to reading. The design used a quasi-experimental, pre-and posttest comparison model. The study included a treatment group, which used a contextual instructional model tied to work tasks, and two control groups, one with Army recruits and another with Navy recruits, both using a basic skills curriculum not contextualized to work tasks. All three groups consisted of recruits with similar demographic profiles. Assessment measures included a general reading test and a test of job related reading tasks. The treatment group participating in the functional reading program showed significantly higher gains in job related reading tasks in comparison to both control groups and similar gains on the general reading test.

Studies with ABE learners also point toward the benefits of an approach that links classroom instruction to the use of functional literacy outside of the classroom. In a study conducted for the National Center for the Study of Adult Learning and Literacy (NCSALL), Purcell-Gates et al., (2002) examined the relationship between use of real life materials in the classroom and changes in literacy practices by learners outside of the classroom. The study involved 159 students and used descriptive and correlational methods. Teacher surveys and classroom observations were used to determine the degree of real life materials and activities in the classroom and students were interviewed to see to what degree learners increased their range of literacy practices as a result of instruction. Students who participated in classes where authentic materials and activities were used showed greater change in their daily literacy practices in terms of both the range of texts and the amount of reading and writing being done outside of class than students who used materials and activities focused on school-based reading and writing.

Project-based learning and cooperative learning models represent a similar approach to working with authentic, real-world materials in adult learning. These approaches add another feature, namely that of working as part of a group to deal with language and literacy tasks. Reports from the field on cooperative learning show positive benefits in studies with language minority youth and with kids where students work in teams (Slavin, 1990; Johnson and Johnson, 1989, 1990). Slavin reviewed a total of 90 studies. Some of the studies compared multiple cooperative learning methods to control groups and he counts these as separate comparisons for a total of 99 comparisons of cooperative learning with control groups. 63 were significantly positive,
31 showed no difference and 5 were significantly negative. Results showed cooperative learning to be most effective when there are group awards and individual accountability within the group.

Not surprisingly, the opportunities to use English inside and outside of the classroom tend to accelerate language learning, particularly for adults. An early comparative study conducted in the Netherlands by Snow and Hoefnagel-Hoehle (1978) compared adults, children, and adolescents learning Dutch as a second language to see how rates of acquisition differed among the three groups. The study showed that adults and adolescents make rapid progress in proficiency in cases where they can make use of the target language on a daily basis in social, personal, professional, and academic interactions.

Given that adult immigrants and refugees come to classes to learn the skills needed in the community and at work, and given that only a few hours of classes are offered in a week, an approach that connects classroom learning with the community and encourages language and literacy use outside of school shows a great deal of promise.

**Integrating Computers And Multimedia into Literacy Instruction**

Video, or multimedia containing video, shows particular promise for language instruction, since language and content are presented in a variety of modalities (visual, auditory, text based) that reinforce each other. As such, they offer an immediate context for language learning that is not print dependent and allows for varied inputs in terms of language variation (regional accents and foreign dialects), as well as variation in the speed of discourse, thus allowing for increases in listening comprehension and understanding of the pronunciation of American English. In addition, skill and drill software allows students to work independently and at their individual levels of readiness. Computer-based learning of this type can provide practice in structure and vocabulary, especially at the very beginning levels of language learning where creation and construction of knowledge are still very difficult. The automatic immediate feedback offered by software can have positive results as well.

There is now some evidence of the effectiveness of the use of these approaches in literacy education in general (Kamil, Intrator and Kim, 2000; Kamil and Lane, 1998). Some of these studies focus on the various uses of technology as part of language instruction, notably Canning (1998); Beauvois, (1998); Belz (2002) and Chapelle (2001). Various studies have shown effects in the nature and quality of communication via electronic networks and collaborative conversations (McGuire, Kiesler and Siegel 1987; Little and Brammerts, 1996; Kitade, 2000). Others have pointed toward the benefits of using video as part of language teaching (e.g., Baltova, 1994). Although these studies are too numerous to review in detail here, the findings are worth considering.

A typical study by Herron, Hanley and Cole (1995) indicates that the visual support in the form of descriptive pictures significantly improved comprehension scores with language videos for English speaking students learning French. Using two classes
of college students enrolled in introductory, the researchers studied the effect of using video with pictorial support on comprehension. In one class, the teacher read aloud six sentences from cue cards that summarized the major scenes in an upcoming video segment. In the second class, the teacher read the same six sentences aloud, but following each sentence also showed a picture related in context to the sentence, but not a direct pictorial translation of it. In this way, the picture acted as contextual support rather than a direct representation of the scene from the video. Both classes of students then watched the video. Comprehension was tested immediately after the students watched the video when they had to answer questions about the video in English. Two judges blindly scored student’s written responses. Students with the pictorial support performed significantly better than students without the visual support.

The use of multimedia in the form of video combined with text-based language learning (in print or online) is also showing some promise for ABE students. Project READY, a computer-based multimedia literacy program for adults, showed positive results for adult literacy learners, although ESL students were not included in the study (Gretes and Green, 1994). An experimental study that looked at Crossroads Café reviewed above, found positive outcomes for adult ESL students (Diones and Spiegel, et al., 1999), although it had methodological flaws.

Anecdotal evidence from the field consistently stresses the draw that technology presents for adult literacy learners (Benbunan-Fich, et al., 1999; Parke and Tracy-Mumford, 2000). Cromley (2000) suggests that access to technology results in greater learner engagement and retention. Since distance learning is often problematic for non-traditional learners with low levels of skills and little experience with technology, a model that integrates multimedia with classroom teaching might have greater success than distance learning models, at least for students at the very beginning levels of English proficiency. Such a model could also include language learning tasks designed to help students learn on their own from TV, video, and film, thereby possibly increasing both language skills and language awareness. We find this an option worth considering.

**Using the Native Language (L1) to Support Learning the Second Language (L2)**

There is evidence to posit a relationship between reading in the native language and the ability to process print in the target language. However, this transfer of literacy skills may only come into play when higher levels of language proficiency have been achieved (Carell, 1991). Language transfer is likely to occur on the level of basic text processing and comprehension, particularly around texts that reflect the reader’s background knowledge. Various studies provide evidence that a threshold level of literacy in the native language may need to be achieved before underlying skills related to text processing will transfer to the target language. However, the question of how much literacy is enough before such transfer can occur has not been answered, and the exact nature of the threshold level has not been established (Bernhard and Kamil, 1995). In

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5 Cummins posits a “common underlying proficiency” that manifests itself in both the native language and the target language.
some cases the language transfer may be negative, as when students try to apply a rule from their first language to the second language (Grabe, 2000).

When threshold in the target language is sufficiently high for transfer in reading skills to occur, such transfer may not be automatic (Grabe and Stoller, 2002; Carrell, 1991; Koda, 1999) and second language learners may benefit from direct instruction on how to transfer reading strategies used in the first language to the second language. Given the possibility of such a transfer, and given that literacy in English is difficult to attain, developing the native language literacy skills of students whose languages have a fairly transparent orthographic system might be an option to study. For ESL literacy, this would mean native language literacy instruction in Spanish, Haitian Creole and Hmong.6

Numerous K-12 studies in bilingual education and meta-analyses of these studies have shown that the use of the native language in the elementary grades has a positive effect on both English proficiency and academic achievement, particularly if native language use is part of a coherent program reflecting principles of quality education7 (Ramirez, Yuen and Ramey, 1991; Slavin, 2003; Thomas and Collier, 1997; 1992; Lindholm, et al., 1991; Garcia, 1991). The review by the National Research Council also supported these findings (August and Hakuta, 1997).

Dual immersion programs, where language minority children learning English study side-by-side with native-born children who are learning the minority language as a foreign language (most often Spanish, but also Chinese or Korean), have also been successful. In contrast, some earlier studies show that structured ESL immersion programs where only ESL is used, is successful in terms of teaching English language and literacy skills (Gersten, 1985). Meta-analyses and reviews of these studies consistently stress that whatever approach is used, it needs to be embedded in a quality program in order to make a difference.

While there are a great many studies exploring the role of native language instruction for children learning a second language, only two studies that attempted an experimental or quasi-experimental design exist that examine the role of first language literacy among low-literate groups trying to acquire English, Burtoff (1985) and Robson (1982). Burtoff found that Haitian Creole speakers who were taught literacy skills in their native language acquired English literacy skills faster than students who did not receive literacy instruction in Haitian Creole. In a Thai refugee camp with Hmong learners trying to acquire English literacy, Robson showed similar results.

Teaching non-literate students to read and write in their native language has a great deal of appeal. The approach is thoroughly grounded in reading theory showing the relationship between oral language and reading and in second language acquisition,

6 The Haitian Creole and Hmong writing systems are particularly regular since they were created fairly recently to match the sounds of the language.
7 English immersion programs showed similar positive effects for language learning, but not for academic achievement.
particularly the Linguistic Interdependence Theory, suggesting positive transfer between first and second language literacy skills. Studies confirming these theories strongly suggest that it is easier to become literate for the first time in a language one knows than in a language one is trying to acquire and background knowledge is more easily accessible when oral language and literacy match. In addition, learning to decode in a home language that is orthographically regular poses fewer cognitive challenges than learning a fairly irregular system like English, which, for non-native speakers struggling with English pronunciation, poses significant challenges.

Besides teaching literacy in the native language, there may be other options for taking advantage of the students home language in adult ESL learning contexts, particularly in areas where one language group predominates (e.g., Los Angeles, El Paso, Chicago for Spanish speakers; St. Paul for the Hmong; southern Florida for Haitian Creole). The What Works Study (Condelli and Wrigley, et al., 2003) provides some evidence as to the benefits of native language use with low literate ESL learners. While the strategic use of the native language in instruction in bilingual classrooms has been explored in the K-12 literature (particularly through methods such as preview and review in the native language), this study is the only study that examined use of L1 in an adult ESL context. The study found positive gains in reading and oral English communication skills for students whose teachers used the native language for purposes such as to clarify concepts, introduce new ideas, or provide explanations.

Why students in classrooms where the native language was used showed higher gains is open to interpretation, of course, but it seems possible that use of the native language by teachers aided students in understanding directions and key concepts, thus freeing up cognitive resources for dealing with the learning tasks at hand. Given these results, investigating the difference that the judicious use of the native language within the ESL classroom might make it worth considering, particularly in bilingual communities where immigrants live and work in two languages.

**Improving ESL Literacy Through a Focus on Reading**

Learning to read in a second language, particularly a language one is trying to master, is an immensely complex undertaking. Success depends on many factors including proficiency in the target language, literacy abilities in the native language, as well as factors related to disposition (motivation, interest, attitudes), personal goals, and purposes for wanting to learn the language and wanting to learn to read, both in general and in relationship to different types of texts. Cultural attitudes toward reading play a role as well, and help to determine what is to be read (types of texts) and for what purpose (Grabe, 2000).

Unfortunately, the research base on what it takes to read in L2 is much smaller than the research base for reading in L1. The L2 reading studies that do exist for the most part use correlational or quasi-experimental designs and examine topics common to general reading research: how to help learners achieve fluency and automaticity, how to increase vocabulary knowledge and how to improve comprehension. Some of these studies also speak to issues particular to L2 reading, such as the relationship between L2
language proficiency and L2 reading; the possibilities of transfer between reading in the native language and reading in the second language; the role of similarities in orthography (spelling and writing systems); or the effect that knowledge of vocabulary, syntax (grammar and sentence structure) and morphology (word endings) has on comprehension.

A great many of the studies in L2 reading examine the process by which different types of learners with various backgrounds and proficiency levels manage reading tasks in a new language. A few of these reading studies have implications for instructional practice although none of them have been conducted with our target group: adults who are beginning learners of English and have low levels of literacy in the native language. Through our review of this research we have identified the following two areas as worth considering, since they provide indications of positive effects found in both L1 and L2 reading research.

Extensive exposure to print increases both vocabulary knowledge and comprehension skills (Stanovich, 2000; Cipielewski and Stanovich, 1992, studying young children learning to read in L1). Similar results were found in several studies for ESL learners in K-12 (Krashen, 1993). Elley (1991), in a meta-analysis of 8 empirical studies with elementary level ESL students, also showed that a program of extensive reading can have a positive impact on reading comprehension for L2 learners in elementary school. A study with adult ESL learners is underway at the NCSALL National ESL Lab School at Portland State University. This study, using random assignment, is exploring the effects of sustained silent reading compared to more conventional reading instruction. Results are not yet available.

According to the National Reading Panel, research in reading in L1 shows positive effects for the direct teaching of reading strategies, including those related to vocabulary acquisition and to reading comprehension (e.g., question generating and answering, summarizing information). Strategy instruction can be effective in increasing awareness of strategies, strategy use, and reading comprehension (Brown, Pressley, Van Meter, and Schuder, 1996 using an experimental design to show the effectiveness of Transactional Strategy Instruction - TSI). The reciprocal teaching strategy has also been shown to be effective with ABE learners as discussed earlier, using a randomized design (Rich and Shepherd, 1993).

This approach shows promise for L2 reading as well (Brown and Pressley, et al., 1996; Chen and Graves, 1995; Carell, 1985). An experimental study in Taiwan has shown how an instructional strategy of previewing key information and key vocabulary can positively affect comprehension of texts for L2 learners (Chen and Graves, 1995).

Other, non-experimental studies with L2 university students also point toward the positive effects of strategy-based teaching. For example, in a correlational study comparing the use of strategies associated with semantic mapping, Carrell showed positive results for students who used those strategies in reading and recall (Carrell, 1992). She had found positive results for the direct teaching of text structures in an earlier study...
using a quasi-experimental design that used treatment and control groups with pre-and post testing (Carell 1985). The sample size was fairly small (25 students).

The results of studies that look at the relationship between strategy-based teaching and reading comprehension look promising, as do the studies that have examined the effects of extended reading on general reading skills and vocabulary acquisition in particular. This latter approach has been successful with both L1 and L2 readers (Day and Bamford, 1998; Pilgreen and Krashen, 1993). However, both approaches assume at least an intermediate level of English proficiency. For those who are still struggling with English at the beginning levels, one option might be to provide strategy instruction in the native language and then guide students in using these strategies with English texts. Similarly, if extensive reading is likely to build both concept knowledge and higher-level text processing skills, and if reading in L1 is positively related to literacy in L2, extensive reading in the native language should have beneficial effect on reading in English, particularly if the subjects explored have a familiar theme.

**Identifying Effective Literacy Interventions: Some Hypotheses For Real World Research**

In our review of the literature, we had hoped to find a definitive set of studies or body of research that would provide clear direction for developing effective literacy interventions for adult ESL literacy learners. Based on our review, we now know that there are no such studies. Nonetheless, both the adult ABE/ESL studies and the SLA research reviewed here suggest several directions for an intervention that can help increase our understanding of what it takes to improve the language and literacy skills of adults who are new to English and new to literacy.

**Teaching Literacy in Context: Bringing in the Outside**

Offering adult learners the opportunity to engage in real life tasks and to use language and literacy outside of the classroom is supported by both the ABE and SLA studies we reviewed. A literacy intervention based on this research could test the following hypothesis:

> Providing a contextualized model of instruction that includes language and literacy tasks reflective of real life language use will promote both reading comprehension and greater language proficiency in the target language (English).

**Implications for Policy and Practice.** Adult immigrants in ESL classes should benefit from an approach that links classroom work with every day life and promotes language and literacy use outside of the classroom through an instructional model that integrates language tasks outside of the classroom with the work done in school.

One of the key findings of the *What Works Study* was that connecting literacy teaching to every day life made a significant difference in reading basic skills.
development. To implement this strategy, teachers often use materials from daily life that contain information that students want to know about or with which they have some experience. For example, a teacher might bring in grocery flyers from different stores and ask students to compare prices. Since such flyers generally use a combination of pictures, printed language and numbers, students can use their background knowledge to gain meaning from print and use supporting visuals and numbers to solve a problem, such as figuring out who may offer the best buys in a given week. Inserts from automotive stores or catalogues from department stores or cosmetic companies offer similar opportunities.

In some classes we observed, teachers used phone and electricity bills, letters from schools or immigration authorities, and other items that appear in students’ mailboxes to highlight literacy for adult contexts. They asked students to focus on the information contained in a bill and where key information appeared on the page, and asked them to consider the meaning of individual phrases such as “total amount due” or “late payment charges.”

Another popular way to connect to the outside is to have students use literacy in real situations that call for reading and writing, such as through field trips outside of class. For example, teachers often create opportunities for their students to study menus in class and then go to a restaurant to order in English. Sometimes teachers demonstrate how to look up children’s books about their home country on the Internet using an online bookstore and then check with the local library to see if these books are available to borrow, thus linking reading and writing with technology. Since looking for books in the library often involves both using the computer and perusing the stacks, real life literacy is once again linked to the acquisition of basic reading and writing. As the classroom is linked to the world outside, cultural knowledge of how libraries work and the selection of books of interest can be linked to the development of sub-skills such as spelling and key boarding and using the alphabet to find a book.

Investigating contextualized approaches can help us see if adults are able to acquire language and literacy skills through natural interactions with print and through communication encounters with English speakers. This model could be compared to or combined with a basic skills model of ESL that focuses primarily on teaching the sub-skills or mechanics of reading, such as those related to phonemic awareness and word knowledge. Examining the relative contributions of each model: (1) a highly contextual, experiential approach to teaching literacy and (2) an approach that asks learners to spend a significant amount of time focusing on sub skills in isolation can go a long way in avoiding the “reading wars” in adult ESL that have plagued K-12 reading. Similar models can be used to investigate the contribution that an overt focus on grammar has on language acquisition, particularly for adults who have had little experience with formal schooling.

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8 The reading wars pit those who advocate a phonics approach to teaching reading against those supporting more holistic models that start with real world texts and address sound/symbol relationships through “just-in-time” teaching of these concepts.
Integrating Multimedia into Instruction

We found research from both ABE/ESL and SLA to indicate that the use of CAI, video and other multimedia approaches to instruction might be effective for ESL literacy learners (e.g., Gretes and Green, 1994; Johnston, 1996; Diones, et al., 1999; Maclay and Askov, 1988; Kamil, Intrator and Kim, 2000; Herron, Hanley and Cole, 1995; Chapelle, 2001). This research suggests the following topic could be tested:

A language learning model that includes the use of visual media through pictures and computer, allows for communication via electronic means, and encourages students to learn from video and TV on their own is likely to increase the language and literacy skills of ESL literacy students.

Implications for Policy and Practice. An intervention designed to use multimedia approaches need not be limited to CAI or video, but could also exploit the possibilities of CD-ROM or on-line technology. These approaches offer opportunities for on-going self-access learning, along with the advantages of having visual materials on hand to illustrate concepts and bring language and literacy to life. Other possibilities include collaborative projects such as “virtual visits” or key-pal relationships (e-mail version of pen-pals) with native speakers or language learners in other locations, which would provide opportunities for authentic communication and negotiation of meaning.

Case studies of individual programs that use technology creatively and show high rates of success in terms of student outcomes can help provide explanations as to why technology might be worth considering in research and practice. The Socorro Family Literacy Program near El Paso on the U.S.-Mexico border, for example, has adopted a model that asks learners to work in teams and create projects with technologies such as PowerPoint or video. Case studies of individual programs that use technology creatively and show high rates of success in terms of student outcomes can help provide explanations as to why technology might be worth considering in research and practice. The Socorro Family Literacy Program near El Paso on the U.S.-Mexico border, for example, has adopted a model that asks learners to work in teams and create projects with technologies such as PowerPoint or video.9 Each year the students are part of a showcase where they present their finished projects to an English speaking audience consisting of other students, parents, school administrators and community members such as social workers and officials from the Workforce Board. Investigations into the effect of innovative approaches to technology integration can offer insights into what it takes to engage learners and help us see the difference in learning that occurs when adult literacy is used for real world purposes beyond the classroom.

Teachers know from experience that access to high-end technology (computers, video, presentation software) can act as a tremendous draw for students. An investigation into what differences hands-on work with technology can make in language and literacy learning can help programs make informed decisions about technology purchases and technology use. Providing learners access to computer labs where they can work on their skills beyond scheduled class times can extend the learning day and may improve learning through increased time on task. Research into distance learning models that combine video-based language learning with group discussions and literacy practice through textbooks that match students’ reading level show promise as well.

9 For a fuller description see Wrigley, H. S. (forthcoming). Research in Action: Teachers, Projects and High End Technologies, Texas Center for the Advancement of Adult Literacy and Learning.
Direct Teaching of Literacy and Language Strategies

Many of the reading studies reviewed here suggested the effectiveness of explicitly teaching strategies related to language and literacy learning in developing reading comprehension and communication skills (Brown & Pressley, et al., 1996; Chen and Graves, 1995; Carell, 1985). Furthermore, the few well-designed ABE studies found teaching such strategies effective (Rich and Shepherd, 1993; Roberts, Cheek and Mumm, 1994; Cheek and Lindsay, 1994). These approaches clearly appear promising, suggesting the following hypothesis:

A rich ESL literacy program that focuses explicitly and systematically on both lower and higher level processing skills associated with reading, while at the same time creating opportunities for the exploration of a wide variety of texts, is likely to result in higher gains in English reading skills than a conventional ESL program focused on life skills.

The use of this approach is complicated with adult ESL literacy learners. Teaching these strategies requires a common language among teacher and students and use of the strategies assumes some minimal basic skill level in reading, which literacy learners may lack. While skills related to an understanding of how English works, vocabulary development or understanding the organization of different types of functional texts can be taught in English, meta-cognitive skills may have to be taught in the native language. These could include strategies for acquiring basic literacy, particularly those related to phonemic awareness as well. Extensive teacher training would be necessary for this type of intervention since most ESL teachers are not trained in how to teach initial literacy.

Implications for Policy and Practice. Unlike children in the K-12 context who might benefit from a sequential approach to literacy that starts with decoding and slowly moves to application of these skills, adult ESL learners must deal with multiple challenges related to literacy all at the same time. While adults many times are able to bring background knowledge to bear on these tasks or use compensatory skills to make meaning, these strategies may not help them to develop the underlying skills needed to process print effectively. A direct literacy teaching intervention we envision would target skills and strategies found to be effective in the teaching of reading and writing, such as creating phonemic awareness, developing fluency or automaticity, modeling comprehension strategies, increasing vocabulary, and fostering writing skills.

The point of such an intervention would not be to change teaching to a phonics based approach (and make ESL teachers “phonicators”) but to find ways to integrate the teaching of basic literacy skills into an ESL curriculum so that non-literate or low literate students get a chance to develop the skills that they have not had the chance to attain in their first language. An intervention study of this sort would then allow us to see whether an overt focus on underlying skills associated with reading and writing will facilitate the literacy acquisition process.
Wrigley and Guth (1992) showed that teachers who were considered “effective” used examples from students’ lives as starting points for highlighting patterns and helping students see the relationship between oral language and print. They might ask students which places they would like to visit and then draw their attention to common sound patterns in words such as Africa, America, Canada, California, and Alaska. They might use simple phrases to show print and sound analogies (oh, honey, give me money) and blends can be taught through fun words reflecting onomatopoeia such as “splish-splash” or “burp/slurp”). Simple poems may be used to help non-literate students focus on rhythm and rhymes (“candy is dandy, but liquor is quicker”), irregular spelling notwithstanding.

Teaching the alphabet to non-literate students can also be accomplished in the context of words that are meaningful to adult learners. Some teachers suggest that students line up by the first or last letter of their names (using a ruler that lists the alphabet as a guide) or to create a grocery list that names items in alphabetical order. Asking students to predict what a news story might be all about by just looking at headlines and a picture in the paper can promote comprehension as can drawing a story board of a process that is described in print. Dictations and language experience stories can help make connections between oral language and print transparent. Finally, teaching simple pre-fixes and roots can help develop word attack skills (uni-verse/uni-cycle/uni-form; homi-cide/sui-cide/sperm-icide, with the latter depending on the focus of the class, of course).

Native Language Literacy

Given the strong evidence of the importance of literacy in the native language to L2 learning, an intensive program of native language literacy (in combination with training in English communication skills) might advance the literacy skills of non-readers sufficiently to allow them to engage a wide variety of texts, thus developing the underlying skills necessary to access print in English. A research study with this type of intervention could test the following hypothesis:

An instructional program that combines native language literacy and the teaching of oral communication skills in English will increase both the literacy and language skills of adults who are not literate in their native language. Use of the native language as part of ESL instruction is likely to aid students in the cognitive processing of new information and might result in greater gains in literacy as well.

Implications for Policy and Practice. Clearly, learning to read in a language one speaks is much easier than it is to acquire text-processing skills in a language one is trying to learn. In addition, acquiring basic decoding skills in a language where sound/symbol relationships are more transparent (e.g., Spanish) is likely to be more easily accomplished than trying to decode many of the high frequency words in English

10 We do not make a distinction between acquisition and learning in this discussion.
(e.g., meat, early, breakfast, schedule). Given these challenges, introducing literacy in the native language might provide a solid foundation in basic reading skills (decoding, fluency, and automaticity) that can facilitate English literacy development.

In the ESL literacy field, the native language is used in a variety of ways. Bilingual teachers who share the language of their students often use the native language to clarify a concept or provide an explanation when students appear confused. They may also use a “preview/preview” model to introduce a lesson or task in the first language and to summarize the points made after the lesson, particularly if the discussion involved the acquisition of content knowledge related to how things work, referring to policies such as returning things to the store, or providing information related to systems such as health care, education, or schooling.

The native language is often part of the ESL classroom even when the teacher is not bilingual, since students who speak the same language invariably use the native language to ask questions of each other or to help each other out. Increasingly, we find teachers who integrate this process in a strategic way into their ESL classes. They may invite students to discuss a problem in the native language for example, but then ask that the gist of the discussion be reported in English to the rest of the class and to the teacher.

Some ESL programs set up native language literacy classes so that non-literate, non-English speaking students can acquire basic literacy skills in a language they already speak. Designed as a transition to English literacy, these classes are offered in Spanish and to a lesser degree in Haitian Creole, Hmong or Chinese. Spanish literacy is often taught using the teaching materials developed and used in Mexico as part of popular education efforts and distributed through the Mexican consulate as part of a bi-national agreement in adult education. The Community College in San Francisco, for example, offers two levels of native language literacy to non-literate students, many of whom are Mayan students who speak Spanish as a second language. The class combines the development of basic literacy skills with strategies for dealing with functional print (both in Spanish) before transitioning students to English literacy.

In areas along the U.S.-Mexico border, where many employers require a high school diploma or a General Education Development (GED) certificate, programs may offer the GED in Spanish to allow students to complete their academic work in the home language. This model is particularly popular in Texas, which is officially supporting bilingualism\textsuperscript{11} in education, including bilingual vocational training for adults transitioning to work (see also Wrigley, et al. 2003).

A study on the use of the native language in the ESL classroom or an intervention that examines the effect of teaching native language literacy on the acquisition of English literacy can shed light on dual language use in English language learning settings and point toward successful ways of increasing the skills of adults who have had few years of schooling in their home country. In addition, research in this area can help develop more

\textsuperscript{11} Federal adult education funds, however, may not be used in the United States to teach the GED in a language other than English.
nuanced approaches to literacy development and help establish policies that go beyond the use of “English Only” in adult education.

**Oral Language Skills and Literacy**

The SLA research shows that higher levels of language skills in L2 facilitate literacy development in that language. This research suggests that ongoing instruction in language through face-to-face communication (in the classroom and beyond) and through various multimedia channels is likely to improve overall proficiency in English and facilitate the comprehension of different kinds of texts as students learn to transfer language knowledge to literacy tasks. A literacy intervention designed to test this language-literacy connection is embodied in the following hypothesis.

*A strong emphasis on oral language development matched with the reading of texts that are accessible to low-literate students will result in significant increases in reading comprehension for adult non-readers who have low levels of English proficiency.*

**Implications for Policy and Practice:** The intervention would include building competence in using English, particularly face-to-face communication skills, focused on listening comprehension and oral expression, along with literacy development. The teaching of oral communication skills could either precede the introduction of reading and writing or could occur simultaneously.

The oral language first model has been used successfully by agencies such as the U.S. Peace Corps, which seeks to establish a sound foundation in face-to-face communication skills in its volunteers. In adult ESL, students often complain that they do not get enough “conversation” in their classes and spend too much time listening to the teacher or filling out worksheets. We have seen many successful teachers reverse that trend by providing students with a heavy dose of listening and speaking and face-to-face peer exchanges before asking them to focus on print.

In an effort to build language skills, these teachers may offer comprehensible input through activities that involve Total Physical Response, such as demonstrating the use of an electric coffee maker in the classroom or drawing a diagram with directions for making a paper airplane. Others may share family photographs and talk about important events and people in their lives and ask students to do the same. They may also bring in various objects, such as fruits and vegetables, tools, and household items as a basis for teaching language functions such as making offers and requests, or they may use evocative photographs and invite students to explain what they see. In this approach, only key words are introduced in print initially in order to keep students’ attention on language use. After students have a foundation in conversational skills and a store of vocabulary that they know, they work with dialogues or language experience stories that

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12 We particularly like the photographs that appear in *Material World* by Peter Manzel (Sierra Club Books, 1995), a global family album that shows people from all over the world displaying all the things they own in a space outside of their home.
offer print versions of what has been learned orally. While literate students often find it frustrating when lessons are not written down, non-literate students can be keen language learners who are used to negotiating face-to-face communication without relying on print. This model takes advantage of their ability to take in and process language without having to deal with the complexities of acquiring print knowledge.

Since we know very little about the different ways in which non-literate adults acquire language and literacy, a study that focuses on the role of oral language as an essential part of literacy learning can provide important insights into the interaction between the two key domains of ESL literacy. Such a study could compare the conventional model of language teaching (where language is presented in both oral and written form from the start), with a “language first” model that focuses initially on face-to-face communication skills and introduces literacy slowly along the way.

**Conclusion: Mixed Designs as Part of an Overall Research Strategy**

Although there are few studies in adult ESL that meet the stringent requirements for rigorous scientific research, there is, nevertheless, a rich body of research that can inform future studies and provide guidance to the field. The intervention studies discussed above can form the core of a research strategy that combines large-scale experimental research into what works in instruction with qualitative research into students’ lives and community contexts. Such a strategy might include research with learners inside and outside of programs, research that can provide invaluable insights into how language and literacy are used to negotiate environments and systems. Practitioner knowledge can serve to both inform research and to test research findings on the local level. It can also serve to highlight successes and challenges in teaching and offer insights into learning outcomes that are not easily captured by conventional assessments.

Investigations into community needs and concerns can offer important information about the social contexts that mediate language and literacy learning and can move us toward linking social service agencies with educational institutions. In the end, multiple studies focusing on different domains can provide a rich picture of how immigrants develop their language and literacy skills and highlight the contributions that formal language education can make to that process.
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