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# he role of literacy in the development of L2 morpho-syntax from an Organic Grammar perspective

Anne Marjatta Vainikka

# Low-Educated Second Language and Literacy Acquisition

# Research, Policy, and Practice

## Proceedings of the Second Annual Forum

The Literacy Institute at
Virginia Commonwealth University, 2006

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# Contents

**PRACTICE**

# FOREWORD

The second annual Low-Educated Second Language and Literacy Acquisition (LESLLA) Forum was held in November 2006 at Virginia Commonwealth University in Richmond, Virginia, co-hosted by The Literacy Institute at VCU and the American Institutes for Research. LESLLA was founded in 2005 by Martha Young-Scholten (Newcastle University, UK), Jeanne Kurvers (Tilburg University, Netherlands) and Ineke Van de Craats (Radboud University, Netherlands) in order to fill the investigative gap on the increasingly topical subject of language acquisition by adult immigrants who have little or no schooling in their native language. The inaugural workshop was held at Tilburg University. The forum in Richmond, which focused on the three areas of Research, Practice, and Public Policy, brought together researchers and practitioners from various countries with the ultimate aim of using research to improve instructional practice and inform second language education policy in the countries where the adult immigrants most needing educational support settle.

This volume collects contributions from many of the presenters at the 2006 Forum. Mr. Jeff Chenowith, Division Director of National Programs at the Catholic Legal Immigration Network, Inc. (CLINIC), opened the plenary session with a presentation on his *A More Perfect Union: A National Citizenship Plan,* which provided a crucial analysis of the implications surrounding immigration issues and language acquisition. Also, in plenary session, Joy Kreeft Peyton, Vice President of the Center for Applied Linguistics (CAL) and Director of the Center for Adult English Language Acquisition (CAELA), described the challenges that states and local adult education programs face in developing a professional staff to support the needs of immigrant adults with limited literacy.

Following the plenary sessions were a variety of presentations, panel discussions, and the U.S. premiere of Noureddine Erradi's award-winning film "Newcomers in Morocco," all of which succeeded in furthering the body of knowledge surrounding the acquisition of literacy and language for our target population. On the final day, working groups developed critical lists of research and action recommendations for helping low-educated L2 adults throughout the world to acquire the necessary literacy and language skills for successful integration in their new communities.

In order to follow the original intent of the forum, we have sequenced the contributions according to one of the three areas of interest: research, practice, and policy. A few of the articles could fall into two of the categories. The decision to include them in one or another of the categories was based on their relevance or importance to furthering the discussion in that particular area.

In addition to the materials collected in this volume, there were several enlightening presentations from experts in the field who were unable to contribute. These presenters were: Edwidge Crevecoeur-Bryant, Mary Ann Florez, Deborah Jones, Alan Juffs, David Red, Robin Schwarz, Heide Spruck Wrigley, Lynda Terrill, and Anne Whiteside.

Hopefully, this collection of scholarly works will contribute to the very critical but neglected field of second language and literacy acquisition for those adults that lack the necessary skills and knowledge to fully participate in their new countries and will provide a firm foundation upon which further informative research can be carried out.


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# SOCIAL AND CULTURAL CAPITAL AT SCHOOL: THE CASE OF A SOMALI TEENAGE GIRL

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## 1 Introduction

High quality schooling experiences are essential for adolescents who come to the US as immigrants or refugees. This is particularly true if they arrive with little prior formal schooling and low print literacy.[1] The important role of quality schooling for future employment and academic goals is documented in a number of ethnographies of high schools (e.g., Lopez, 2003; e.g., Olsen, 1997; Valenzuela, 1999). However, in the world of public education, immigrant and refugee adolescents are often characterized by what they lack at school. Students' gaps in English language proficiency or background knowledge are often the focus of discussion around their educational needs. While it is essential to acknowledge what these students' need to know and learn, it is also important to counterbalance a very powerful discourse of deficiency with a more well-rounded image of their strengths and assets. One way to do this is to examine immigrant students' and families' strengths by learning about the home- and community-based social and cultural capital students bring to their schooling experiences (Gibson, 1988; Portes & Rumbaut, 1996; Zhou & Bankston, 1994). By uncovering immigrant students' home and community assets, educators will be better able to make home-school connections productive. This endeavor may also reveal clear ways schools may facilitate the development of capital, both social and cultural.

The purpose of this paper is to contribute to the growing body of scholarly literature on the role of social and cultural capital in schooling by telling the story of a Somali teenage girl, Fadumo (a pseudonym), whose first formal schooling experiences were in a US urban high school as a ninth grader. Findings show that Fadumo's family and ethnic community are rich sources of social capital. However, while much of her success can be attributed to the social capital she brings to school, findings also show that she lacks key cultural capital that would give her easier access to post-secondary educational opportunities. Finally, this research shows that it is important to recognize that there is a strong connection between having strong co-ethnic social capital and the development of the cultural capital of the dominant White middle class.

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[1] Limited formal schooling implies the likelihood of little exposure to academic content, but it is not necessarily paired with illiteracy because it is possible to learn to read outside of a school setting. The focus of this paper is on the challenges of having both limited formal schooling *and* low alphabetic print literacy.

## 2 The Social Capital of Immigrant Adolescents

Social capital is defined as "intangible social resources based on social relationships that one can draw upon to facilitate action and to achieve goals" (Coleman, 1990, p. 302). Cultural capital, on the other hand, consists of investment in a set of symbols and meanings reproduced by the dominant class of a society (Bourdieu & Passeron, 1977) and passed down, or reproduced, through generations. The investment and reproduction of cultural capital serve to include or marginalize individuals in society, which in turn leads to unequal social and economic rewards. Discussions of what cultural capital consists of will be strategically restricted to what Fadumo does that seems *to reproduce behaviors of the dominant class* because these are behaviors that are likely to gain her access to higher status social and economic opportunities in a hierarchical society like the United States. Maintaining this definition of cultural capital will allow an analysis of what schools do "to help marginalized students gain access to cultural capital and … to critique the inequitable system that distributes advantages on the basis of arbitrary cultural practices" (Lubienski, 2003, p. 34).

For immigrants, family and co-ethnic networks are key sources of most social capital (Portes, 1998) and social capital is often maximized when an immigrant group is welcomed by the host community as well as their own co-ethnic community. This argument speaks to the structural supports or obstacles present in the host society. Portes and Zhou's (1993) Modes of Incorporation Typology (p. 84) is helpful in thinking about how Somalis may feel received in Minnesota, the setting for the present study. This typology considers factors, such as governmental policies, societal factors and qualities of the existing co-ethnic community, that affect newcomers. First, Somalis in the U.S. and in Minnesota experience a receptive *government policy* in that they receive resettlement assistance, albeit short term, and come as refugees or asylum seekers. This means that, in comparison to undocumented immigrants, Somalis may be seen by the larger population as having a legitimate right to be in Minnesota. Following Portes and Zhou's typology, Somali immigrants' *societal reception* is likely to be prejudiced in U.S. society because they are not phenotypically white. Their societal reception may also be compromised by the overwhelming climate of Islamophobia in the U.S. However, the challenges of living in an unwelcoming society may be mitigated by the fact that Somali newcomers have a strong and large *co-ethnic community* in Minnesota, the last criteria used in the typology. A strong Somali community offers the potential for newcomers to develop social capital which can translate into positive effects for them and their children (Portes & MacLeod, 1996). Additionally, a strong co-ethnic community consisting of large numbers of Somali families and religious

and societal organizations can offer newcomers logistical support while they resettle (Zhou & Bankston, 1994). Nevertheless, co-ethnic social capital is not always used by all immigrant or refugee families even if it is available. Stanton-Salazar (2001) offers the following set of fundamental characteristics of social capital that help to clarify what qualifies as social capital: (a) it is based on reciprocal investments in a relationship where two or more parties make reciprocal investments and commitments; (b) it depends on the presence of trust in the relationship; and (c) it has the potential to generate resources.

The literature in the area of social capital has found native language proficiency to be important. Bankston and Zhou (1995) argue that native language proficiency "can facilitate access to the social resources of ethnic communities" (p. 6). One large scale study done by Dinovitzer, Hagan and Parker (2003) that included immigrant youth found that relational ties to parents predict higher educational attainment. The authors link students' close relational ties to their parents their maintenance of the native language. In other words, the ability to speak their parents' and, therefore, the co-ethnic community's language gives youth access to many sources of social capital. Studies done by White and Glick (2000) and White and Kaufman (1997) mirror these findings. It would be assumed that the relationships immigrant youth have with their parents would possess all three characteristics put forth by Stanton-Salazar (2001).

It is also possible that maintenance of the native language, in this case Somali, could not only be leveraged for social capital but may also lead to the growth of cultural capital. In a study of Cantonese-speaking high school students in Canada, Goldstein (2003) makes the point, using Bourdieu (1999), that one type of capital can be converted into another. For example, in her study, native language linguistic capital may be used to obtain cultural capital such as good grades, college admission and a good job through friendships with peers who can help them with their studies. Zhou and Kim (2006) found that community-based weekend schools for Chinese and Korean children facilitated a strong ethnic identity, peer networks, and ultimately academic achievement. The authors argue that the structural support of the weekend schools "sustain[s] community forces that value education and facilitate the formation of social capital conducive to education" (p. 25). The Chinese and Korean families in this study do not rely on public schools to meet all of the needs of their children but rather take educational success into their own hands, with the help of their communities.

While this review illustrates only a small number of the studies on the social and cultural capital of immigrant adolescents, the area is fairly well established. Nevertheless, there has been no research that specifically focuses on how newer immigrant groups or adolescents that have had limited formal schooling and low print literacy use social capital to

succeed at school. Refugee groups such as the Somalis may not have well-established weekend schools and a well-anchored community of many generations like the Chinese and Korean communities in North America. Furthermore, unlike the stereotypes of Asian youth and their families as "model minorities" and high achieving (Lee, 1996), it is often assumed that the families of refugee adolescents may even be barriers to education rather than an asset. For example, some people may assume that older adolescents are expected to help the family financially by working or take charge of domestic duties so that others may work. Perhaps the assumption is that because refugee adolescents have never been to school, their families do not value education. The fact is that while there are many structural obstacles for an adolescent newcomer with limited formal schooling to graduate from high school (e.g., they become too old to attend high school, they do not complete graduation requirements), many do graduate and move into the workforce or on to higher education. Therefore, it is essential to provide them with the best education possible in order for them to be productive members of society in the long term. One important way to achieve this goal is to understand more about their out-of-school lives and what their families and communities do to promote educational success.

## 3    The Study

In light of this overview of the literature on social capital and immigrant youth, there is a need for particularizing the experience of attending high school as a recently resettled adolescent immigrant with no prior schooling experiences and the low levels of literacy that often accompany this kind of background. Equally important is to situate those experiences in a way that underscores the fact that youth are members of a family and a community. To further an understanding about how home and school connect around issues of social and cultural capital for adolescent immigrant and refugee youth, the following question focusing on one individual will be explored:

-    What is the role of social and cultural capital in the academic life of a Somali refugee teen as she strives to graduate from a US high school and pursue higher education goals?

This investigation tells the story of one teenage girl and her family and reveals to educators information that has the potential to inform curriculum and instruction as well as point to crucial ways schools must be charged with developing cultural capital.

## 3.1  The Participant

Fadumo, the single participant in this analysis, is a member of the largest Somali community in the US.  Minnesota has an estimated 40,000 Somalis, with most living in Minneapolis or St. Paul.  Fadumo is also a member of a very large family.  She is the oldest of 10 children and these data were gathered when she was 18 years old and a senior in high school.  At the time, Fadumo's mother worked second shift as a janitor and had very limited English language skills.

At age 6, Fadumo fled Somalia with her mother and siblings due to the civil war in the late 90s and lived in a refugee camp in Kenya for eight years. She is not alone in having her life interrupted by civil war. Somalis are among many refugees who have spent many years in refugee camps in Kenya or Ethiopia waiting to be processed to resettle in third countries. Refugee camps are characterized by violence, exploitation, lack of schooling opportunities, scarcity of food, inadequate housing, and unsanitary living conditions. Due to these stark facts, Fadumo's first formal schooling experience was in the US.  She was enrolled as a freshman (9th grader) in a large urban high school, which had two main student populations at the time: Somalis and African Americans. She attended this school for two years.  In her junior year, she transferred to an Afrocentric charter school[2] and then returned to the first school she attended to complete her senior year and graduate.  Because Fadumo was part of a large wave of Somali refugees that settled in Minnesota, she was afforded high school content classes in Somali her first year.  As she progressed through school and learned English, her grades steadily improved.  She met all of her graduation requirements and graduated in 4 years with a 3.85 (out of 4.0) grade point average.  This diploma was the typical diploma received by all graduating students in the state.  The extraordinarily high grade point average and fact that Fadumo graduated in a mere 4 years will be problematized in the discussion.

## 3.2  Methodology

This research is interpretive and qualitative in nature.  The data from this paper came from a larger qualitative and ethnographic case study carried

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[2] An Afrocentric curriculum typically provides a learning environment that includes content, role models, images and discussions that reflect the African-American communities.  The world-view presented and encouraged links students to their African and African-American history, arts, literature, philosophy, etc.

out with Somali teens.[3] The data from one participant, Fadumo, is showcased because her stories illustrate numerous instances of how she uses her social capital at school. As a case, she challenges those who see Somali youth mainly through the deficit lens. The context of the data collection was a Saturday tutoring group with four Somali high school girls. For over two years, I met with the girls and we worked on homework, did reading and writing activities together, and talked about school and their lives.[4] The specific data sources used to understand the experience of struggling to meet the expectations of classes in a US high school with limited literacy included copies of homework assignments, creative writing exemplars and written personal narratives. This paper draws from five semi-structured, hour long interviews. This methodology and range of data sources were used to understand and recognize the complexity of one girl's life and the power of her non-school associations. The focus for this paper is on "practice" – it is, modestly, what one girl and her family do and what she says they do (González, 2005).

Because of Fadumo's low to intermediate levels of English, Somali was used often in the group, although the researcher did not speak Somali. Interviews in English were carried out individually and in groups of two or four. Somali was used for discussion and clarification during the interviews.[5]

The data sources were all coded and categorized inductively and deductively (Coffey & Atkinson, 1996). The process was deductive because the coding was informed by the literature review and the research questions (e.g., social capital, cultural capital). It was inductive because emerging themes and patterns from the data dealt with the participants' schooling experiences (e.g., challenges at school, resources for school, homework, native language literacy). The analysis strategy was explanation building, which presumed set of causal links about the phenomenon (Yin, 2003) of being young, black, Somali, Muslim, female, refugee, and an English language learner, attending a large U.S. public

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[3] This study examined the U.S. schooling experiences of Somali youth with limited formal schooling, including, for example, their home and school uses of Somali and English oral and literacy skills, their perceptions of their classes, their school-related tasks, interpersonal relationships at school and out of school, and the cultural adaptation processes they experience and watch others experience.

[4] Others have gathered data this way (e.g., Rymes, 2001). It is convenient because it does not interfere with the school day and allows for interaction with participants that is not hinged to evaluation.

[5] Early in the research I considered involving an interpreter who was Somali and female; however, as the groups' rapport and trust developed, it seemed that bringing in an outsider would change the group dynamics and thus the quality of data gathered. Furthermore, the presence of an older Somali adult woman would likely influence how the girls chose to present themselves to me (and her) and limit conversations about such things as dating and marriage.

school.  Triangulation of codes and themes was applied among the various data sources.  Member checks (Lincoln & Guba, 1985) with the focal student were done by presenting, in English, simplified sections of the syntheses, orally and in writing, for verification, and with the option of removing anything she wished, as per her informed consent.

## 4    Results and Discussion

This section of the paper will answer the research question in two parts: (a) the role of Fadumo's social capital in her education; and (b) the role of Fadumo's cultural capital in her education.

### 4.1   Sources of Social Capital

### 4.1.1     Family

Fadumo's family is large and they work as a unit to support each other. Fadumo's family is clearly the most important source of social capital Fadumo has and this is the support that she often leverages to do well in school.  The data in this section will show Fadumo's family, particularly her mother, is a valuable source of cultural capital.

Fadumo sees her mother as a strong role model and the expectation in the family is that Fadumo and all her siblings will study and one day obtain good jobs.  Fadumo and her sister both talked about how difficult it was to be in the refugee camp but that the family stayed together despite the hardship.  When they resettled in Minnesota, the family continued to work together. Examples of this are working together to understand the daily mail and to manage in their interactions with English-speaking Minnesotans.  One key finding is that Fadumo stressed that her mother never allowed the children to make decisions or assume adult responsibilities due to her own lack of skill in English, something often reported in immigrant families (Gonzales, May 14, 2003).  In the quote below Fadumo explains that her mother uses her friends as translators instead of the children.

MB *(researcher)*: So your mother is not afraid to go to school? Does she speak English?

F *(Fadumo)*:     No.

MB:              How does she talk to the teachers … does she bring someone to translate?

F:               Yeah. She don't bring us cause she think like…she  don't rust us.

MB:              Who does she bring?

F:          Like you know she calls the people she knows and "can you
            come tomorrow for help me, like that." They say, "Ok."
MB:         You know I've heard a lot of people say parents are afraid
            to go to school because they don't speak English.
F:          My mom, she do whatever she do. She go to school by
            herself. She do everything.

This quote both reflects Fadumo's admiration and respect for her mother and tells how her mother leverages her own social capital among her Somali friends.

The interviews revealed that Fadumo's mother has strong opinions about schooling and has her own way of interacting with her children's teachers and schools. For example, Fadumo said that her mother is likely to go to her children's school at any time, not only when called for parent-teacher conferences. While this may not be a common or even a sanctioned way of interacting with teachers in the US, the message to the children is clear: their mother is going to find out how things are going in school.

In the following quote, Fadumo explains her mother's opinion about the fact that her sons sit in the back of the class and her strategy for getting them to move forward:

F:          You know they [Fadumo's brothers] sit in the class in the
            back. She don't like when the people sit in the back.
MB:         So she finds out where they sit and everything.
F:          If they do something, she repeat it like joke. She make like a
            joke.
MB:         She teases them about sitting in the back or whatever?

Another strategy that Fadumo's mother uses to guarantee her children's educational success is to closely monitor who their friends are. If they are not associating with "good" kids, the child may be transferred to another school. Fadumo's mother believes that it is better not to have friends in school if those friends are not "good." This issue has applied only to the boys in Fadumo's family thus far, but the assumption is that the same thing would occur if a girl in the family began associating with "bad" friends. The following conversation began because Fadumo told me about an incident at her school where a gun was found in a student's locker.

MB:         Do your brothers get in fights?
F:          Never.
MB:         How do they stay out of fights?
F:          It's the parents.

MB:          Because they are afraid of the parents.  So what does your
             mother do to make them afraid?
F:           She knows, "Why you to fight, what are doing in the house,
             xxx, I cook for you for food, I clean everything.  Just go to
             school and learn."
MB:          School is their only job.
F:           Yeah. Same for me. They get like that cause they scared for
             my mom because of that.  For the boys, she go to school
             and talk to other teachers and she says to them now, "Why
             this happen and who was the side of the problem."

This excerpt illustrates the respect Fadumo's mother has from all of her children and the control she is able to exert in terms of their behavior outside of the home.   These data contribute to the literature cited previously (e.g., Dinovitzer, Hagan, & Parker, 2003) indicating that parental involvement and close monitoring are important for academic success.

Knowing that Fadumo is the oldest of 10 children, one would expect her family responsibilities to have a powerful impact on her ability to get her homework done.  These responsibilities, however, did not seem to hinder her ability to meet her teachers' expectations.  Fadumo explained to me how she would go to a nearby library if she needed a quiet place to study and her sister would take over her tasks.  On a separate occasion, Fadumo told me about how when she needed help with her homework, she would take a bus to a neighborhood where she could get help at a homework help program and that it was often possible to get bilingual help at this program.  She also told about how some of the younger children who are somewhat more fluent in English often helped her with her homework.  The description Fadumo depicts of her home with respect to education is that they all work together to help each other succeed.  It is also evident that Fadumo is not the only one succeeding. Her younger sister Sufia (also a pseudonym) is also a successful student and self-proclaimed story teller.  Fadumo told me that she has a younger brother who wrote a book.

So, while she is the oldest girl in a large family that moves frequently and struggles financially, it is clear that this is a highly-functioning family unit with a strong mother.  They pool their skills and resources and show that they value success at school in tangible ways.  It is also relevant to note that a child does not necessarily require a parent to sit with them to complete homework assignments, as is often assumed.  This task can often be managed among peers or siblings.  Fadumo's mother clearly shows interest in her children's education and communicates her expectation that they do well in school and challenges commonly held assumptions that immigrant parents are not involved in their children's

schooling (Lopez, 2001). Fadumo's family is clearly a main source of social capital that is being converted into educational achievement, a valuable piece of cultural capital.

### 4.1.2    *Community*

Fadumo identifies as Somali and Muslim and, for her, these descriptors are almost completely interchangeable. These identity markers are meaningful in this context because of the large Somali community present that identifies similarly. Fadumo, her mother, and her teenage sister all wear a full length, traditional hijab which further identifies them as Somali and Muslim. Unlike many girls her age, Fadumo has never felt confused about who she is. She has never modified[6] or taken off her hijab and does not seem to struggle with this, as some girls do. The following is what Fadumo said when I asked her about taking off her hijab:

F:          If you don't like the hijab, you have to throw it away.
            Sometimes you wear it. If you don't like it destroy it.  You
            are big enough. You're not a kid.
MB:    I   f you decided that you didn't want to wear the hijab
            anymore would your mother be mad?
F:          She say ok.  You're not like a little kid.

One possible reason for this absence of struggle is Fadumo's strong family unit. They regularly go to the mosque on weekends and observe Islamic prayer and eating requirements together. Fadumo studies the Qur'an and meets with a tutor (*duksi*) to do so. She is not experiencing a rapid assimilation process and has a great deal of cultural continuity in her life. Portes and Zhou (1993) argue that immigrant youths who remain firmly ensconced in their respective ethnic communities may, by virtue of this fact, have a better chance for educational and economic mobility through use of the material and social capital that their communities make available (p. 82).

    Fadumo's community, given its size, is another source of social capital for her. The community grounds her as Muslim female in an overwhelmingly Judeo-Christian society and, in conjunction with her family, seems to give her strength to maintain her religious practices and rewards her with a respectable place in her society. Beyond using a bilingual homework help there are few examples of Fadumo using the Somali community as social capital. Nevertheless, her mother uses her

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[6] Some Somali girls modify their head covering by wearing hats, hooded sweatshirts, tight scarves that cover their hair and tie into a low bun, or loose scarves that drape without full hair coverage.

community network to recruit translators to accompany her to the children's schools. It is her powerful social network that gives her the opportunity to speak. The way in which Fadumo and her family operate as a unit and part of a larger social network of Somali families allows them to access a number of networks that call for Somali and English language skills. Their Somali language networks are tapped through Somali television, commerce, and a large network of family friends. Fadumo's family benefits greatly from the size of the Somali community in this metropolitan area. They are able to shop, worship, hear news, and socialize in Somali.

For Fadumo and her family, social capital among community and family members is accessed mainly through the Somali language and culture, two assets that are not typically seen as advantages in the mainstream US society and even among Somalis themselves. Nevertheless, the data presented above illustrate that Somali language and culture yield a high cultural capital return when they are converted to educational access and achievement.

### 4.1.3    *Notable Gaps in Social Capital*

Fadumo makes no mention of peers at school being helpful in her learning. In fact, she said that she often spent the entire day at school alone, talking with no one. She resisted making friends because she thought that they could distract her from her one purpose of being in school, which was to graduate, or that they could put her in physical danger if they offended another group of students and caused a fight. It is also notable that Fadumo had few acquaintances who were not Somali. She said that the only White people she knew were her teachers and me, the researcher. This finding is quite different from those in other studies that found that peer relationships were key to academic success (e.g., Zhou & Kim, 2006). Perhaps Fadumo's siblings occupied the place of peers in her life.

### 4.2  *Sources of Cultural Capital*

### 4.2.1    *Language*

The ability to master English and any other language should be seen as cultural capital (Trueba, 2002) in today's interdependent global economy. Fadumo's family is retaining Somali and at the same time learning English quickly. English skills are needed to navigate numerous institutions and systems and for this reason are termed cultural capital. Fadumo's family hears about social services and homework help programs through their social network (social capital) and often call upon their friends to help

them navigate those services. One clear example is their enrollment in a program which pays Fadumo a stipend for the care of her younger siblings. Enrolling in this extremely helpful program required knowing that it existed, knowing that they would qualify, and then getting on the waiting list. Managing bureaucracy such as this, as well as the workings of schooling and immigration institutions, is a skill that taps into social capital and displays cultural knowledge that can turn into concrete financial gains.

Perhaps more fundamental in terms of cultural capital is the family's unwavering belief that education is paramount and the one sure path to success in the United States. This belief informs the family's decisions about how to allocate their time and resources on a daily basis and override all obstacles. For instance, because Fadumo graduated so quickly from high school, given her limited formal schooling, she needed to take many English as a second languages (ESL) classes at the community college before being permitted to move into the nursing classes that interested her. However, rather than becoming discouraged, Fadumo persisted, working hard in all of her ESL classes, while noting that she had a lot to learn about writing. Again, her grades were high.

### 4.2.2    Good Student Behaviors

How does an adolescent refugee newcomer with no prior formal schooling enroll in a US high school and know what to do? Fadumo had to make for herself a student identity without many references. Nobody in her family had done what she was doing, and she did not have the years of experience with formal schooling that adolescents her age typically have. Nevertheless, Fadumo was strategic in high school and this, I argue, is an example of her demonstrating cultural capital. She knew how to show teachers that she cared about her studies. For example, she had a flawless attendance record, always did her homework, showed teachers drafts of projects and papers, and asked for help when she needed it. Obtaining this level of strategic competence in school was not a small accomplishment and it seems that Fadumo created/fashioned her own strategies, on her own terms. Fadumo has forged a self-created student identity along with behaviors that endeared her to her teachers. She remained immune to peer pressure and focused on her educational goals.[7] Fadumo's flawless reputation and "good student" behaviors at school likely advantaged her in terms of grades.

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[7] It is possible that being Muslim will help girls like Fadumo survive high school. One study about adolescent alcohol abstainers in Oslo found that Muslim immigrant girls are the biggest group of abstainers (Pedersen & Kolstad, 2000). Could being Muslim be a form of cultural capital because following Islamic law keeps Muslim girls from beings exposed to the risks involved with, for example, drinking alcohol or dating?

### 4.2.3    Notable Gaps in Cultural Capital

Fadumo said that her biggest challenge in her junior year was passing the state-mandated graduation tests. After taking them 3 times, she passed them the summer before her senior year. Fadumo said that the biggest challenges presented to her in her senior year were knowing how to apply for college, take the standardized tests required to apply to college, and fill out financial aid forms. Her academic literacy skills were not well developed. I observed that Fadumo's good grades may have made her overestimate her post-secondary options. Her "good student" behaviors may have earned her better grades than her skills warranted. In fact, her reading and writing skills upon graduation from high school were still quite low, which Fadumo seemed only vaguely aware of. Her hopes to become a nurse were severely undermined by her lack of skills upon graduating from high school.

### 5    Conclusion

It is important to theorize about Fadumo's experiences carefully. There is always a risk that we present her, and others like her, solely as victims – victims of poverty, war, displacement, etc. The reality is that Fadumo is a person with agency (Willis, 1977) and power. The data presented should challenge the deficit discourse so often associated with refugee adolescents with limited formal schooling. The information that was uncovered in this study shows that while Fadumo had many responsibilities at home, this did not mean that she was unsupported in her education. She brings motivation and much social and cultural capital to her schooling experiences.

Anyone would acknowledge that Fadumo accomplished a great deal in her four years of education. Nevertheless, she graduated with English language and literacy skills that were still markedly low. In turn, this has severely limited her post-secondary opportunities and delayed progress toward her goal of being admitted to a nursing program. Unfortunately, Fadumo had far to go after high school before she had the skills needed to do the level of academic work required by a nursing program. Luckily, her family facilitated her success, in numerous tangible ways. Nevertheless, one still needs to ask, Could Fadumo's high school have prepared her better? Should she have done all of her schooling in alternative or charter schools geared toward immigrants? Should her high school experience have been extended beyond four years, given the fact that this was her *first and only* formal schooling experience? These questions should cause educators to revise what should be defined as "success" in high school for Fadumo and other adolescents like her. It

seems that it is entirely reasonable to envision secondary programs for students like Fadumo that are better tailored to their needs and take longer to complete. This would give them time to develop better academic literacy skills needed to pursue the goals Fadumo, and students like Fadumo, envision for themselves. Fadumo has the desire and support to persevere, but it would have been much easier with a stronger high school background that developed strong literacy skills.

Fadumo needed different kinds of support as she moved through high school. Her most urgent need toward the end of her high school years was guidance in choosing and taking her next steps after high school. Schools need to take on the role of helping students like Fadumo do such things as find out about jobs students can do, apply for scholarships, fill out college applications and financial aid forms, meet deadlines for registering for the required standardized tests, get recommendation letters, write personal statements, and visit campuses. If this does not occur, students like Fadumo may discover that while they have much social capital, they cannot exchange it for educational aims because of lack of this crucial body of cultural capital. While it is important to recognize the powerful assets of Fadumo's life, particularly her family, it is essential to see where her family leaves off and where the school must continue. Educators and policy makes must problematize this issue. As Lubienski (2003) argues, "Because our current ideologies cannot help but define what we consider a "problem," the restrictions against discussing "problems" that diverse groups can have can bias research conducted on diverse students' experiences in classrooms" (p. 35). It is essential that we all engage in recognizing "problems" as well as strengths in order to raise expectations of all marginalized youth and equitably educate all students. One conclusion may be to invest more in Somali after-school and weekend schools, using the rationale offered by Zhou and Kim (2006) that these settings share in the responsibility of educating immigrant youth while fostering a sense of ethnic identity and peer networks, something Fadumo seemed to lack.

Any adolescent would be lucky to have a family like Fadumo's. They function cooperatively in ways that promote the educational success of every member. In doing so, they challenge media representations of, for example, Muslim girls as uneducated and poor families as not valuing education. At the center of this family is a mother that is clear about her need to maintain authority and her crucial role in her children's academic success. Fadumo and her family reveal no deficits, only strengths. The educational system, however, did fail to offer Fadumo enough opportunities to acquire the literacy necessary to proceed to a two- or four-year college as well as the logistical help to make these dreams a reality. A final challenge facing teachers is how to learn more about the

home and community lives of their students. The relationships students have outside of school could be the ones that make all the difference.

*References*

Bankston, C. L., & Zhou, M. (1995). Effects of minority-language literacy on the academic achievement of Vietnamese youths in New Orleans. *Sociology of Education, 68*, 1-17

Bourdieu, P. (1999). *Language and symbolic power*. Cambridge, MA: Harvard University Press.

Bourdieu, P., & Passeron, J.-C. (1977). *Reproduction in education, society, culture*. Beverly Hills: Sage.

Coleman, J. S. (1990). *Foundations of social theory*. Cambridge: The Belknap Press of Harvard University Press.

Coffey, A., & Atkinson, P. (1996). *Making sense of qualitative data: Complementary strategies*. Thousand Oaks: Sage Publications.

Dinovitzer, R., Hagan, J., & Parker, P. (2003). Choice and circumstance: Social capital and planful competence in the attainments of immigrant youth. *Canadian Journal of Sociology/Caiers canadiens de sociologie, 28*(4), 463-488.

Gibson, M. A. (1988). *Accommodation without assimilation: Punjabi Sikh immigrants in American high schools and community*. Ithaca, NY: Cornell University Press.

Goldstein, T. (2003). Contemporary bilingual life at a Canadian high school: Choices, risks, tensions, and dilemmas. *Sociology of Education, 76*(3), 247-264.

Gonzales, R. (May 14, 2003). Kid translators. *Morning Edition, National Public Radio, available at http://www.npr.org/templates/story/story.php?storyId=1262985*.

González, N. (2005). Beyond culture: The hybridity of funds of knowledge. In N. González & L. Moll & C. Amanti (Eds.), *Fund of knowledge* (pp. 29-46). Mahwah, New Jersey: Lawrence Erlbaum Associates, Publishers.

Lee, S. J. (1996). *Unraveling the model minority stereotype: Listening to Asian American youth*. New York: Teachers College Press.

Lincoln, Y., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage.

Lopez, G. R. (2001). The value of hard work: Lessons on parent involvement from an (im)migrant household. *Harvard Educational Review, 71*(3), 416-437.

Lopez, N. (2003). *Hopeful girls, troubled boys: Race and gender disparity in urban education*. New York: Routledge.

Lubienski, S. T. (2003). Celebrating diversity and denying disparities: A critical assessment. *Educational Researcher, 32*(8), 30-38.

Olsen, L. (1997). *Made in America: Immigrant students in our public schools*. New York: The New Press.

Pedersen, W., & Kolstad, A. (2000). Adolescent alcohol abstainers: Traditional patterns in new groups. *ACTA Sociologica, 43*, 219-233.

Portes, A. (1998). Social capital: Its origins and applications in modern society. *Annual Review of Sociology, 24*, 1-24.

Portes, A., & MacLeod, D. (1996). Educational progress of children of immigrants: The roles of class, ethnicity, and school context. *Sociology of Education, 69*, 255-275.

Portes, A., & Rumbaut, R. G. (1996). *Immigrant America: A portrait*. Berkeley: University of California Press.

Portes, A., & Zhou, M. (1993). The new second generation: Segmented assimilation and its variants. *Annals of the American Academy of Political and Social Science, 530*, 74-96.

Rymes, B. (2001). *Conversational borderlands: Language and identity in an alternative urban high school*. New York: Teachers College Press.

Stanton-Salazar, R. D. (2001). *Manufacturing hope and despair: The school and kin support networks of U.S.-Mexican youth*. New York: Teachers College Press.

Trueba, H. T. (2002). Multiple ethnic, racial and cultural identities in action: From marginality to a new cultural capital in modern society. *Journal of Latinos and Education, 1*(1), 7-28.

Valenzuela, A. (1999). *Subtractive schooling: U.S.-Mexican youth and the politics of caring*. Albany: State University of New York Press, Albany.

White, M. J., & Glick, J. E. (2000). Generation status, social capital, and the routes out of high school. *Sociological Forum, 15*(4), 671-691.

White, M. J., & Kaufman, G. (1997). Language usage, social capital, and school completion among immigrants and native-born ethnic groups. *Social Science Quarterly, 78*(2), 385-398.

Willis, P. (1977). *Learning to labour: How working class kids get working class jobs*. London: Saxon House.

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed. Vol. 5). Thousand Oaks, London, New Delhi: Sage Publishers.

Zhou, M., & Kim, S. S. (2006). Community forces, social capital, and educational achievement: The case of supplementary education in the Chinese and Korean immigrant communities. *Harvard Educational Review, 76*(1), 1-29.

Zhou, M., & Bankston, C. L., III. (1994). Social capital and the adaptation of Vietnamese youth in New Orleans. *International Migration Review, 28*, 821-845.

# DEVELOPMENT OF WORD RECOGNITION SKILLS OF ADULT L2 BEGINNING READERS

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## 1    Introduction

While there exists an enormous number of studies on how children learn to read and write, both in their mother tongue and in a second language, studies on how adults who never attended school as children, get access to the meaning of written language are remarkable scarce (Van de Craats, Kurvers & Young-Scholten, 2006). Studies that focus on word recognition skills of adults are mostly about adults who take a second chance in adult literacy classes, not on truly illiterate adults who learn to read and write for the first time in their life. Moreover, studies on second language literacy acquisition of unschooled adults are even scarcer (Wagner, Venezky & Street, 1999; Wagner, 2004). This is the more remarkable, since for some decades Western countries have been dealing with many migrants who start their educational "career" and their application for citizenship in second language literacy classes.

Word recognition can be defined as determining the identification of a written word, i.e., the pronunciation (and meaning) of a word encountered in print or writing. Or, to put it in the words that teachers often use, word recognition is about getting to know the answer to the question, "What does it say here?" Word recognition is assumed to be one of the basic skills to be developed by beginning readers (Barron, 1986; Adams, 1990; Kurvers & Van der Zouw, 1990; Byrne, 1998; Ziegler & Goswami, 2006). Although the majority of researchers would agree with this definition of word recognition, they differ in their view on the learning processes behind this skill. Roughly speaking, two models are more or less defended: on the one side there are the stage models of beginning reading, on the other the non-stage models (Juel, 1991; Chall, 1999).

Many models of beginning reading development have argued strongly in favor of a sequence of rather uniform stages in reading development (Chall, 1983; Ehri, 1975, 1979, 1987; Gough & Hillinger, 1980; Mason, 1980; Frith, 1985; Ehri & Wilce, 1985; for reviews, see Juel, 1991; Chall, 1999). Although these models differ in details of description and in the use of labels and the precise identification of sub-stages, they all propose more or less a first stage of direct-word recognition on the basis of either visual or context-bound cues, a second stage of indirect mediated word-

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[1] This research project was carried out together with Kim van der Zouw.

recognition through the use of graphic instead of visual cues (grapheme-phoneme correspondences), and a third stage of direct word-recognition again, now based on automatisation of the indirect way of word-recognition. Typical for this paradigm is the notion that, although both the first and the third stage demonstrate direct word recognition, there is a qualitative difference between both types of word reading, the third being alphabetical in root, while the first is not (Ehri, 1991).

Thus far, most of these stage-models of beginning reading are based on research with young children during the first year of formal reading instruction. Since the first studies on stages in reading appeared, subsequent studies revealed that the occurrence of the different stages and the speed in moving into a next stage is dependent on the shallowness of the specific orthography at hand and the consistency of the orthography (Seymour, Aro & Erskine, 2003; Wimmer & Goswami, 1994; Ziegler & Goswami, 2006).

An alternative approach, in general more debated in English speaking countries than in countries with a less opaque orthography than English, argues for a route directly from the visual symbol to meaning, instead of the indirect route through mediation of the spoken language, as proposed in the stage models (Juel, 1991; Chall, 1999). This model in fact was (and in some countries is) rather popular in adult education, probably because until recent decades most adults in adult literacy classes already went through a (problematic) history of phonics instruction, which did not bring them much success in learning to read fluently.

How do adult first time readers come to recognize written words? Does their learning process resemble that of children, both in terms of success and tempo? Do they make the same steps? Does it take them longer compared to children to learn to read? In short, what routes do illiterate adults take who learn to read an alphabetic script? The most appropriate group to answer those questions would be native speakers who learn to read and write for the first time in their life. But most native speakers who attend adult literacy classes in the industrialized countries differ in another important way from young children: most of them did attend school and had a long history of (sometimes bad) experiences with learning to read and reading (Greenberg, Ehri & Perin, 2002; Viise, 1996; Worthy & Viise, 1996). For some decades now, however, there has been one other group of adult attendants of literacy classes: unschooled adult migrants learning to read and write in a second language (Kurvers, 2002, Kurvers, Van Hout & Vallen, 2006).

With regard to the development of word recognition skills in a second language, the theoretical question of which model best fits the actual development of adult beginning readers becomes even more challenging, since all stage models are crucially based on the mediation of

spoken language, more specifically the sounds of the spoken language, in the route from written word to meaning. The graphic information is first turned into spoken words - for example by means of letter-phoneme correspondences - that call on for meaning. This, however, might create a serious problem for first time beginning readers in a second language, because neither the sounds (the inventory of phonemes) nor the meanings of the spoken words might be easily accessible or even known, nor do these learners possess the linguistic intuitions native speakers normally have about which sounds might go together in spoken words and which might not.

This paper is about illiterate adults who never went to school as children and who enter a literacy class in a second language when they are grown-up. Although they differ in many ways from young children (age, first language, time available to spend on learning, life experience), in one respect they are like young children: they never attended formal reading instruction before, neither in their mother tongue nor in any other language.

The main research question was: How do adults who learn to read and write in a second language develop word recognition skills and what model of beginning reading developments explains the findings best?
A secondary research question was related to specific educational features: Does it matter if phonics instruction is used, and do intensive courses reveal better results than non-intensive courses, instruction time held equal?

In two different multiple case studies, we followed adults during their first year in adult second language literacy classes in Dutch as a second language (DL2). The first case-study (referred to from now on as Study 1) was carried out in five different community centers in which small groups of adults followed a literacy course for about four hours a week. The second case study (Study 2) was carried out in a large adult education center, in which several level groups were followed.

In the next section, we first present study 1; in section 3 we present the outcomes of study 2 comparatively. In section 4 we adress the question of development of word recognition strategies.

## 2    Study 1: Learning to Read in Non-intensive Courses

### 2.1    Participants and Data Collection
In the first study, we started with 24 illiterate women who went to literacy classes in five different community centers. Ten of them left the literacy course during the first two to five months, and two had already been in adult literacy classes before. These participants are not included in this study. Twelve persisted for the whole year (although not all were present

at moments of data collection). Table 1 presents some background data of the students in Study 1.

*Table 1    Background data of participants in Study 1*

| Community center | Name | Age | Country of origin | L1 | Residence in years | Earlier education |
|---|---|---|---|---|---|---|
| Center A | Alma | 35 | Morocco | MA | 12 | None |
| | Khadizja | 22 | Morocco | Berber | 7 | None |
| | Tamara | 51 | Surinam | Javanese | 5 | None |
| Center B | Djamila | 35 | Morocco | Berber | 2 | None |
| | Fouzia | 39 | Morocco | Berber | 8 | None |
| | Zina | 50 | Morocco | MA | 5 | None |
| Center C | Houria | 15 | Morocco | Berber/ MA | 0 | None |
| | Rachida | 39 | Morocco | Berber/ MA | 5 | None |
| Center D | Aicha | 18 | Morocco | Berber | 4 | 0.5 year |
| Center E | Karima | 44 | Morocco | Berber | 4 | None |
| Center F | Ayten | 17 | Turkey | Turkish | 2 | None |
| Center G | Halide | 24 | Turkey | Turkish | 2 | 2 years |

As can be seen from Table 1, there is a broad age range; the youngest is 15 years old, the oldest 51. Residence in the Netherlands varies from a few months to 12 years. Nine of the participants came from Morocco, two from Turkey and one from a Javanese-speaking community in Surinam, a formerly Dutch colony. Most of the participants did not have any experience with education in their home-country: Aicha went to a Koran school for some months and Halide went to primary school in Turkey for about two years with several interruptions. Seven of the Moroccan women were Berber-speaking.

These twelve women went to five different literacy courses in five different centers, which differed in many ways: hours a week, qualification of teachers, materials used, and circumstances under which the teacher had to teach. Center A, for example, was a women's center with good accommodations, qualified teachers and a child-care center, while Center B was a community center with changing teachers, changing group sizes and no special child-care supplies. Center D was a small community center in which the literacy course took place in the same large room in which other activities went on at the same time. The courses were comparable in the sense that they all were non-intensive (varying from three to five hours a week) and that they all used the same method, *Zeggen en Schrijven* (Van der Erve & Jansen, 1981). *Zeggen en Schrijven* (Say and Write) is a very simple phonics-based method that starts with about 30

sight words and some phonics training and after that switches to simple texts with short sentences.

Since this contribution will focus on the development of word recognition skills, we globally present all data we collected, and go into a more detailed description of the collection of word recognition skills and strategies.

We started the research in the first month of attendance with an interview in the women's mother tongue to gather data about their background, migration history, earlier experience with education, motivation and expectations about what learning to read and write would be like and about the reason they had for choosing literacy education in Dutch as a second language. At the time of data collection, DL2 courses were not compulsory yet and both the Moroccan and the Turkish women could have chosen literacy education in Standard Arabic or Turkish as well.

After that, we gathered some data about their second language abilities (vocabulary, basic instruction language, and auditory discrimination) and about what we would call now emergent literacy skills: environmental print recognition, grapheme knowledge, rhyme ability, and writing patterns (Sulzby & Teale, 1991).

During one year (ten months of lessons), we regularly observed lessons in which we joined the group at least once every two weeks and made notes of all that went on in the literacy classes, especially on reading and writing events by individual women.

Apart from the regular observations, we gathered information about reading strategies, word recognition skills, spelling, and reading extended discourse at regular intervals during the courses. In this contribution, we only discuss word recognition skills and strategies.

To investigate word recognition skills, we used a word reading (or decoding) test that consisted of 58 monosyllabic words, half of which were introduced in the lessons as sight-words, the other half of which were new words, comparable in word structure and mostly known from the lessons in spoken Dutch. *Jas* (coat) was an example of a written word that was introduced in the lessons, *gas* (gas) a word comparable in phonemic make-up, not intensively used in the lessons, but assumed to be known by most of the participants. The students were asked to read the words in the list, and the time they needed to read was registered.

As a spelling test, a random sample of twenty words from the word reading test was used. The researcher or the teacher read the words in the context of a sentence and then asked the students to write down the target word.

*2.2      Results*

All participants in Study 1 were, for different reasons, eager to learn to read and write and to learn Dutch as a second language. The most important reason they mentioned during the interview was being independent from others in using written information and speaking Dutch. Their ambitions were rather moderate, reserving high ambitions for their children. Or, in Ayten's words: "My son must not become like me, like a blind. I can look at the newspaper, but still do not know what it says." The results at the start of the course revealed a clear distinction between Alma, Khadizja and Ayten on the one hand and the other participants on the other hand. The first three already knew several letters, knew more Dutch words and were better at visual discrimination of letters, while the others, especially Djamila, Fouzia and Zina had low scores on all entrance tests.

      The participants were asked to take the word-reading test after six months of lessons and again at the end of the year (roughly comparable to 25 weeks and 40 weeks of instruction). Figure 1 shows the scores on the word reading test after roughly 25 and 40 weeks of instruction. Tamara is not included, because she was ill during the last period of data collection. At the first moment, her reading score was 0.



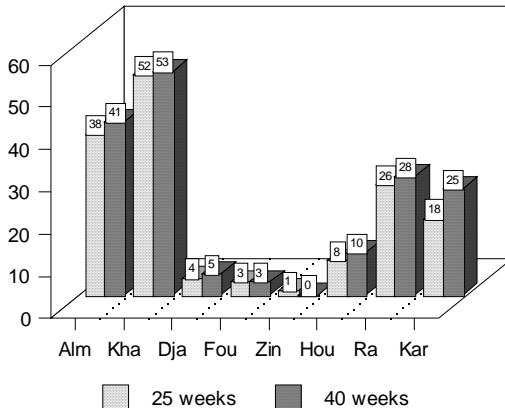*Figure 1:   Number of correctly read words after 25 and 40 weeks*

Figure 1 nicely summarizes the most striking outcomes. First, the outcomes reveal large differences in reading skills between individual students, both after six and ten months of lessons. These outcomes partly reflect individual differences of students who attended the same course. Compare, for example, on the one hand Alma, Khadizja, and Tamara

(scores after 25 weeks 38, 52, and 0, respectively) who all attended the same course at Center A or, on the other hand, Houria and Rachida who both attended the same class at Center D. Secondly, Figure 1 also demonstrates salient differences between courses. Alma and Khadizja, for example, were in the same course, while Djamila, Fouzia and Zina together attended another course.

Even more strikingly, these outcomes show remarkably small differences between the scores after six and ten months for nearly all students, only Karima showing some substantial growth in reading score in the last 4 months.[2] That seems very disappointing, as if the women did not learn anything at all between the sixth and tenth month of attendance. This, however, is not true. In the meantime, they learned something else. To get more insight into these learning processes, we took a closer look at the word recognition strategies these women used at different moments (See section 4).

## 3    Study 2:  Intensive Courses

After we finished our observations in the non-intensive courses, some of which took place in not very optimal learning conditions, we investigated the development of beginning reading in DL2 in an intensive course in a more school-like context with professional teachers. It formed part of a wide range of adult second language courses offered to migrants in one of the big cities in the Netherlands. The literacy course lasted forty weeks and was divided into four level groups of ten weeks each with fifteen lessons a week; after every tenth week, a proficiency test was administered. Students that passed the test went to the next level group; students that failed had to repeat the level group or were, depending on the outcomes, sent to a lower level group. Teachers were experienced in literacy education; the method used was the same as in the non-intensive courses. This literacy course in Dutch as a second language (as most others are) was attended by illiterate adults who never went to school before and by adults who could read and write in their mother tongue in a different script (for example Tamil, Arabic or Farsi), but who did not know the Latin alphabet.

## 3.1     Participants and Data Collection

We started our data collection in November with 22 participants who attended one of the four level groups and added the new students that entered one of the level groups in February or April. In total, 37 adults

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[2] Alma had been attending for some more time and Aicha had been in a previous course for half a year some years earlier.

from ten different countries, 22 men and 15 women, attended at least for one period. Most of them were between 20 and 35 years old; the youngest was 18, the oldest 51. The period of residence in the Netherlands varied from some months to 21 years, the majority of the students being in the Netherlands between one and five years. Twenty of the students had attended school in their home country (range 1-9 years), most of whom could read and write in their mother tongue (Chinese, Arabic, Tigrinya or Tamil), while seventeen had no previous education and could not read or write at all.

Table 2 presents background information of the participants who attended one of the four literacy level courses in September and of the groups that started ten or twenty weeks later.

*Table 2: Background data of participants: literacy level group, ethnicity, age, length of residence in the Netherlands, years of education and result literacy test\**

| | | |
|---|---|---|
| Number of students in literacy level groups | Level 1 | 15 |
| | Level 2 | 9 |
| | Level 3 | 9 |
| | Level 4 | 4 |
| Countries of origin | Morocco | 25 |
| | China | 3 |
| | Eritrea | 2 |
| | Other countries | 7 |
| Age-range | 18-25 | 20 |
| | 26-35 | 8 |
| | 36-51 | 9 |
| Sexes | Female | 15 |
| | Male | 22 |
| Length of residence | < 1 year | 9 |
| | 1-5 years | 17 |
| | 6-10 years | 3 |
| | > 10 years | 8 |
| Previous education in years | 0 | 17 |
| | 1-5 | 10 |
| | 7-9 | 9 |
| | Unknown | 1 |
| L1-literate | Illiterate | 19* |
| | L1 literate | 17 |
| | Unknown | 1 |

* Two participants with some schooling could not read; therefore, they were assigned illiterate.

Originally, this study was designed to combine a longitudinal case study in which the students that started at level one were going to be followed through three level groups, with cross-sectional comparisons of the several level-groups that could add to the knowledge on the development of literacy skills. Data collection, however, became more complicated because students did not move smoothly from one level group to the next, disappeared from the course or could not be placed in the intended higher level group. Table 3 presents an overview of the placement of the students (by student number) in the different level groups in the three periods of ten weeks of teaching.

Table 3: *Subjects in the different level groups during the three periods of data-collection, Study 2*

|  | November-January Participant | February-April Informant | April-July Participant |
|---|---|---|---|
| Level 1 | 1,2,3,4,5 | 23,24,25,26,8,12 | 24,32,33,34,35,36,37 |
| Level 2 | 6,7,8,9,10,11,12 | 1,2,3,4,27,28 | 23,25,8,9,12 |
| Level 3 | 13,14,15,16,17,18 | 7,10,29,30,31 | 1,2,3,13,27,28 |
| Level 4 | 19,20,21,22 | 13,14,15,16,18 | 6,7,10,30,31 |

As Table 3 shows, not all students went nicely from the first level group to the next in the research period. From the students that started at level 1, only three could be followed for three subsequent periods of three weeks (Students 1, 2, and 3) and three other students (Students 4, 23, and 25) for two subsequent periods. Some students left the course (for example, Students 5 and 17), some were sent back to a lower level group (Students 8 and 12), some disappeared for some time (Students 6 and 9), and a few were promoted to regular DL2 classes for literates, because they were fast in learning the Latin alphabet (Student 11). In the presentation of results, therefore, we only present group means for the word reading and spelling skills in comparison with the non-intensive course. For an analysis of the word recognition strategies, we only use those participants that could be followed for more than ten subsequent weeks.

The instruments we used for word reading, spelling and reading comprehension were the same as in Study 1; this allowed us to compare the development of word recognition skills in this study with what we found in the non-intensive courses. In addition, we also could compare the reading development in a second language of illiterates with those who could read and write but only had to learn either alphabetic writing or the Latin alphabet. To prevent reduplication, we present the outcomes of study 2 in direct comparison with study 1.

Table 4 presents the word recognition and spelling abilities of two groups of illiterates (eight from study 1 and six from study 2) after their first year of attending a literacy course. The table includes only those illiterate students that attended the course for most of the time without interruptions.

*Table 4:  Means and standard deviation of decoding, spelling and reading time after ten months of instruction*

|  |  | Non-intensive | Intensive | T |
|---|---|---|---|---|
| Word-reading | Mean | 20.6 | 50.0 | 3.59** |
|  | Sd | 19.4 | 4.9 |  |
| Spelling | Mean | 5.9 | 21.3 | 4.42** |
|  | Sd | 7.3 | 5.2 |  |
| Reading time (minutes) | Mean | 10.28 | 2.26 | -3.94** |
|  | Sd | 4.49 | 1.23 |  |

** $p < .05$

It will not come as a surprise that on all measures the differences between these two groups are large and significant, because the students in the intensive course received many more hours of instruction. The reason, however, to present these data as well is that they clearly show that on average the first group (the students in the non-intensive course) did not learn to read, while the second did. Since the six illiterate adults who attended the intensive course had received many more hours of reading instruction, we compared ten months of non-intensive courses (about 130 to 170 hours of instruction) to ten weeks of the intensive course (150 hours of instruction). These results are presented in Table 5.[3]

Time of instruction held the same, the intensive course group achieves remarkably better results on all scores: the average word reading score is 30, compared to 20 in the non-intensive course; the average spelling

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[3]  In the first comparison, six illiterate students of the intensive course were involved of whom we had level four data (Students 13, 14, 15, 18, 21, and 22), in the second comparison, six illiterate students of whom we had reading scores at the end of level 1 (Students 3, 24, 25, 26, 36, and 37).

Table 5: *Means and standard deviation of decoding task, spelling task and reading time after ten months of non-intensive and ten weeks of intensive courses*

| Task | | Non-intensive | Intensive | T | Cohen's D |
|---|---|---|---|---|---|
| Word-reading | Mean | 20.6 | 30.0 | 0.89 | 0.48 |
| | Sd | 19.4 | 19.6 | | |
| Spelling | Mean | 5.9 | 13.5 | 1.88* | 0.96 |
| | Sd | 7.3 | 8.5 | | |
| Time (minutes) | Mean | | | | 1.95 |
| | | 10.28 | 4.03 | -2.57** | |
| | Sd | 4.49 | 1.07 | | |

** p<.05 * p<.10

is 13 (6 in the non-intensive course), and word reading is much faster and more fluent (4 minutes compared to 10 in the non-intensive course). These results are significant for spelling and mean reading time, not for word reading (the effect sizes are medium for word reading and large for spelling and reading time). The conclusion seems to be that learning to read and write in a second language will be more effective if instruction time is not spread out over a too long period. Beginning readers seem to learn more if they attend an intensive course for about ten weeks than if they attend a whole year course for some hours a week. But it is fair to add to that conclusion that there were more differences between the two courses than frequency of lessons a week, such as level of teacher experience.

## 4    Development of Word Recognition Strategies

To return to the question of stages in reading development, we also analyzed every reaction on the word-reading tasks on the basis of reading strategy used by the beginning readers.

For the analysis of word recognition strategies, we only used the words in the test that were not introduced as sight words during the lessons and we categorized and analyzed the reading miscues. Variations in pronunciation that could be attributed to the mother tongues of the participants (i.e. saying *vi:s* instead of *vis* or *bus* instead of *bɔs*) were not registered as reading mistakes. We categorized the reactions as followed:

- Visual recognition: word recognition is based on visual or context cues, such as responding with an already known sight word that visually is similar to the word that has to be read;

- **-** Letter naming: responding with the names of the sounds of individual letters, without any blending;
- **-** Decoding: sounding out letters (either by name or by sound) and blending (s-i-t, sit);
- **-** Partial decoding: a word recognition strategy in which words are not decoded letter by letter, but by groups of letters, for example onset and rhyme (str-eet, street);
- **-** Direct word-recognition: a word is read without any spelling out, mistakes show orthographic instead of visual confusion, and many reactions now are no real words (f.e. saying *\*breif* instead of *brief*).

Although the first (visual recognition) and the last strategy both illustrate direct word recognition, they are different in nature, the first being visually based, the latter orthographic. Figure 2 presents an overview of the frequencies of word-reading strategies of the three different groups (illiterates in the non-intensive courses, illiterates in the intensive course and L1-literates in the intensive course) after about 150 hours of instruction time.
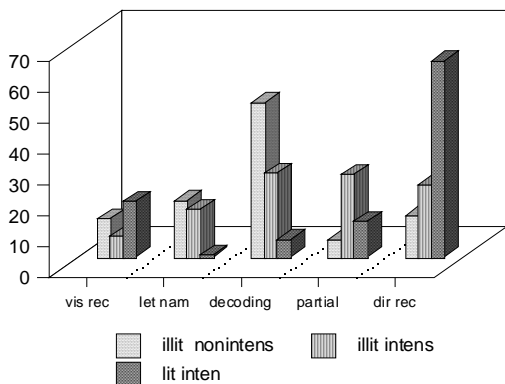


*Figure 2:  Percentages of word-recognition strategies after 10 months of the non-intensive and 10 weeks of the intensive literacy course*

Figure 2 clearly illustrates the three different stages in development (remember that Zina, Fouzia and Djamila from the non-intensive course who read hardly any words at all would have been in the first bar of visual recognition): the illiterate students from the non-intensive course are mostly sounding out simple words, the literates from the intensive course are mostly directly recognizing written words (with a few exceptions) and the illiterates from the intensive course are somewhere in between: some

are still sounding out, others are partially analyzing written words and still others are directly recognizing words. Or, to explain it slightly differently: they recognize the simplest words directly and sound out the most difficult ones. Thus far, this is a nice illustration of stages, but not a clear prove, because strategies are aggregated over groups. Therefore, the changes in word-recognition strategies of those individuals of both courses of whom we could collect longitudinal data are presented in Tables 6 and 7 (graphically presented in Figures 3 and 4).

*Table 6: Percentages of word recognition strategies and reading scores after 25 and 40 weeks in the non-intensive course*

| Participant | Instruction time | Visual recognition | Letter-naming | Decoding | Partial decoding | Direct recognition | Reading score |
|---|---|---|---|---|---|---|---|
| Houria | 25 | 39 | 40 | 20 | 0 | 0 | 8 |
| | 40 | 25 | 36 | 39 | 0 | 0 | 10 |
| Rachida | 25 | 22 | 20 | 44 | 8 | 6 | 26 |
| | 40 | 32 | 11 | 37 | 14 | 7 | 28 |
| Khadizja | 25 | 0 | 0 | 100 | 0 | 0 | 52 |
| | 40 | 0 | 0 | 39 | 2 | 59 | 53 |
| Alma | 25 | 3 | 6 | 83 | 8 | 0 | 38 |
| | 40 | 2 | 2 | 82 | 14 | 0 | 41 |
| Karima | 25 | 18 | 63 | 20 | 0 | 0 | 18 |
| | 40 | 0 | 39 | 55 | 2 | 5 | 25 |

Do adult illiterates who learn to read and write an alphabetic writing system in a second language go through the same stages as children do who learn to read and write in their mother tongue? Table 6 and 7 (see also Figure 3 and 4) seem to illustrate they do: the frequencies of the left-sided columns decrease from the first moment of measurement to the second and third, while the strategies in the right half of the table become more frequent. This holds true for each individual student, whether they "move" from the left to the middle or from the middle to the right.

One could argue that that is self-evident, since these stages are partly dependent on instruction. But it is less self-evident than it might seem. Firstly, nearly all research on beginning reading was done with children who learn to read and write in their mother tongue, not with adults. Secondly, the cognitive abilities of adults, also of illiterate adults, might be ahead of those of young children and therefore they do not necessarily demonstrate the cognitive confusion that many children demonstrate in the first stage of learning to read and write (Downing, 1984). Illiterate

*Table 7:  Percentages of word recognition strategies after 10, 20 and 30 weeks in the intensive course (\* = L1-illiterates)*

| Participant | Instruction time (weeks) | Visual recognition | Letter naming | Decoding | Partial decoding | Direct recognition | Reading score |
|---|---|---|---|---|---|---|---|
| Nam K (1) | 10 | 32 | 5 | 18 | 7 | 39 | 33 |
|  | 20 | 12 | 0 | 2 | 30 | 57 | 43 |
|  | 30 | 14 | 2 | 2 | 32 | 50 | 42 |
| Senna (2) | 10 | 45 | 0 | 16 | 7 | 32 | 22 |
|  | 20 | 7 | 0 | 18 | 25 | 50 | 52 |
|  | 30 | 2 | 0 | 0 | 7 | 91 | 49 |
| Fatima (3)* |  |  |  |  |  |  |  |
|  | 10 | 0 | 7 | 93 | 0 | 0 | 19 |
|  | 20 | 5 | 0 | 45 | 37 | 14 | 53 |
|  | 30 | 5 | 0 | 0 | 48 | 48 | 50 |
| Amina (4) | 10 | 16 | 0 | 0 | 14 | 70 | 40 |
|  | 20 | 2 | 0 | 0 | 23 | 75 | 54 |
| Wa Lin (23) | 10 | 5 | 0 | 0 | 14 | 82 | 46 |
|  | 20 | 9 | 0 | 0 | 14 | 77 | 46 |
| Mohammed (25)* | 10 | 2 | 0 | 2 | 41 | 55 | 58 |
|  | 20 | 0 | 0 | 2 | 23 | 75 | 62 |



Khadizja
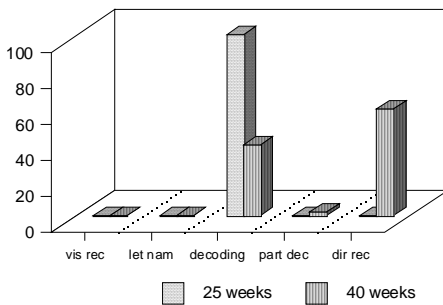
## Alma
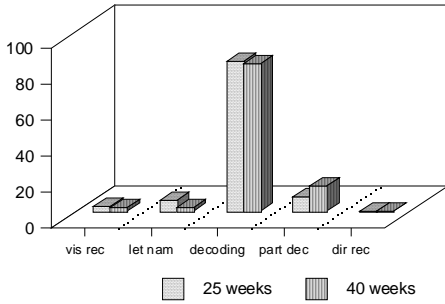


## Houria
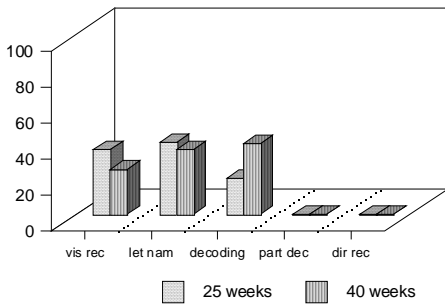


## Rachida
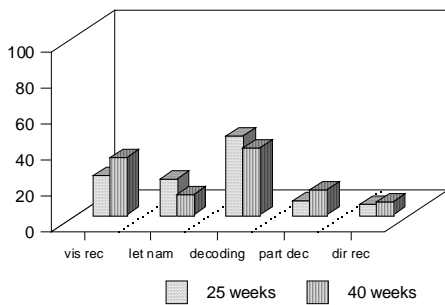
## Karima
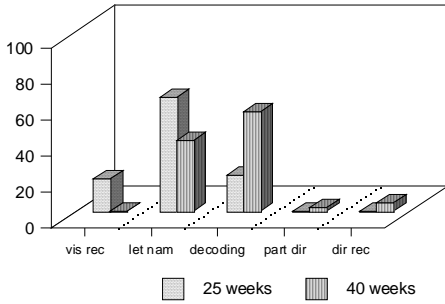


*Figure 3: Frequencies of word-recognition strategies after 25 and 40 weeks of instruction in the non-intensive course*

## Fatima (no 3)
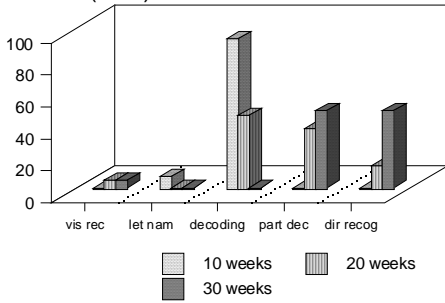


## Mohamed (no 25)
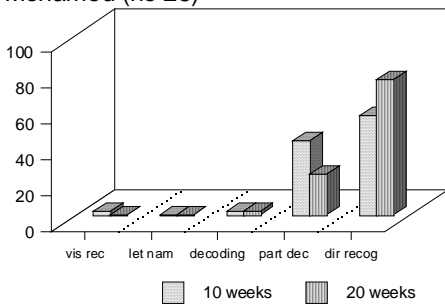


*Figure 4: Percentages of word-recognition strategies in intensive course after 10, 20 and 30 weeks (Illiterates)*

adults, for example, might have developed other strong visual and aural strategies in gathering and storing information. And finally, adults who start learning to read and write in a second language with quite another phonological system than their mother tongue might not be able to use the phoneme-grapheme correspondences easily.

The results that were presented here demonstrate that adult beginning readers (like young children) start their learning process with a non-systematic visual strategy in which they try to seek correspondences directly between visual or contextual clues and meaning and gradually learn to use the strategy of sequential decoding. Only those students that used this latter strategy of relying on graphical instead of visual resources demonstrated substantial progress and they also were the only ones (those data are not presented here) who were able to give some reliable interpretation of and reaction to written discourse. Put in another way, all illiterates start with a kind of logographic way of recognizing written words, looking for either visual or contextual clues in answering the question, "What does it say?" After that, they start paying attention to graphic cues in the alphabetic stage in which they learn to use letter-sound correspondences, first extensively and gradually shortening this process by directly recognizing frequently used letter clusters. Those beginning readers that showed the most progress succeeded in reaching what is called the orthographic stage in which they recognize written words directly. During the first hundred of lessons in non-intensive courses, we could observe a change from logographic to alphabetic word-recognition skills, from guessing to sequential decoding. The only students who did not demonstrate that change were the three students who did not receive any phonics instruction at all. The illiterates in the intensive course demonstrated a much faster change from logographic to alphabetic word recognition skills - within ten weeks of instruction - and later on a change from alphabetic to orthographic strategies in word recognition.

Phonics instruction seems to be one of the major determinants of reading development in Dutch as a second language, as in Dutch L1. But just as important seems to be vocabulary in a second language, referring to what Share (1995) has called the self-teaching strategy of beginning reading and what we have called the importance of the feedback of the student's own lexicon. Many times we observed how important this feedback is (b-a-l oh, yes, bal) to move from the alphabetic stage to the orthographic stage. This is important because the necessary, but not very inspiring and motivating sounding out of words is slowed down very much if the words are unfamiliar to the learners. From the very beginning, learning to read is using language. Learning the code is only part of it.

## 5    Discussion

Some questions have been raised about the stages in beginning word recognition, including questions about the very existence of qualitative changes, about how critical the spelling-to-sound stage is, and about how important early word recognition skill is (Juel, 1991; Ziegler & Goswami, 2006).

The outcomes of this study seem to confirm the claim of qualitatively different stages in the development of word recognition skills in learning to read as well as write in Dutch as a second language. In the first stage, the illiterates learned to recognize words by selecting visual or contextual cues that are not used systematically. The mistakes adults make in reading are very different from the mistakes they make in the later alphabetic stage: reactions are only complete words, only existing words (not pseudo-words), and, in most of the cases, they are selected from the words they have formerly learned as sight words. In the alphabetic stage, these reactions disappear and are replaced by mistakes that have letters in common with the target word, and many of the mistakes are not real words. Once the students have learned to see a written word as internally structured, they cannot see it any more - as they did before - as only a visual configuration. The observations revealed that it was very difficult for students in the alphabetic stage, who needed all their energy for sounding out and blending, to pay attention to the meaning of connected discourse; only the students in the orthographic stage could.

Paying explicit attention to spelling-sound relationships seems to be critical, at least for everyone who learns to read and write an alphabetic writing system for the first time, whether adult or child, whether learning to read in a first or in a second language (Juel, 1991; Byrne, 1998; Ziegler & Goswami, 2006). This, however, does not mean that the alphabetical code is the only thing that needs attention in literacy courses for L2 learners. Quite the contrary, learning spelling-sound correspondences is a necessary but not at all sufficient part of learning to read and write well. Preferably, it is a short, but systematically worked out and intensively exercised part of the literacy course, deliberately related to a familiar vocabulary (good software could take over a great deal of this in an even more efficient way), while the student should spend most of the time getting a grip on all other aspects that make written language different from spoken language and that are needed to participate in a literacy-rich environment. Early word recognition skills seem to be very important because they are a major predictor of later reading comprehension. All data we gathered about reading comprehension of the participants in both non-intensive and intensive courses did suggest that only those learners who got into the orthographic stage of reading were able to attend to the meanings and implications of written discourse. Using the context only

helps, as we found out, if their word recognition skills were rather well developed, not if they had to count on context alone (Goodman, 1986; Smith, 1992, 1996). But for word recognition skills to develop in a second language, a learner needs at least two things: the first is exercising and automatisizing the alphabetic way of word recognition, the other is vocabulary development in the second language. Otherwise, reading is like sounding out nonsense words. And it doesn't bring you much in your second language environment if you are very good at sounding out nonsense words.

*References*

Adams, M. (1990). *Beginning to read. Thinking and learning about print*. Cambridge MA: MIT Press.
Barron, R.W. (1986). Word recognition in early reading: A review of the direct and indirect access hypotheses. *Cognition*, 24, 93-119.
Byrne, B. (1998). *The foundation of literacy. The child's acquisition of the alphabetic principle*. Hove East Sussex: Psychology Press.
Chall, J.S. (1983). *Stages of reading development*. New York: McGraw-Hill.
Chall, J.S. (1999). Models of reading. In D. A. Wagner, R. L. Venezky, & B. Street (Eds.), *Literacy: An international handbook*. (pp. 163-166). New York: Garland Publishing.
Downing, J. 91984). A source of cognitive confusion for beginning readers: Learning in a second language. *The Reading Teacher*, 37, 4, 366-370.
Craats, I. van de, Kurvers, J., & Young-Scholten, M. (2006). Research on low-educated second language and literacy acquisition. In I. van de Craats, J. Kurvers, & M. Young-Scholten (Eds.). *Low-Educated Second Language and Literacy Acquisition: Proceedings of the Inaugural Symposium Tilburg 2005* (pp. 7-23). Utrecht: LOT.
Ehri, L.C. (1975). Word consciousness in readers and pre-readers. *Journal of Educational Psychology*, 67, 204-212.
Ehri, L.C. (1979). Linguistic insight: Threshold of reading acquisition. In T. Waller & G. McKinnon (Eds.). *Reading Research: Advances in Theory and Practice. Vol. 1*. New York: Academic Press.
Ehri, L.C. and Wilce, L.S. (1985) Movement into Reading: Is the first stage of printed word learning visual or phonetic? *Reading Research Quarterly*, 20, 2, 163-192.
Ehri, L.C. (1987) Learning to read and spell words. *Journal of Reading Behavior*, 19, 5-31.
Ehri, L.C. (1991). Development in the ability to read words. In R. Barr, M.L. Kamil, P. Mosenthal, P.D. Pearson (Eds.), *Handbook of Reading Rresearch*, *Vol. II*, (pp. 383-417). New York: Longman.

Erve, E. van der & Jansen, P. (1981). Zeggen en Schrijven (Saying and Writing). Utrecht: NCB..

Frith, U. (1985). Beneath the surface of developmental dyslexia. In K.E. Patterson, J.C. Marshall & M. Coltheart (Eds.) *Surface dyslexia*. Hillsdale N.J.: Erlbaum Ass.

Goodman, K.S. (1986). *What's whole in whole language?* Richmond Hill, Ontario: Scholastic.

Gough, P.B., & Hillinger, M.L. (1980). Learning to read: An unnatural act. *Bulletin of the Orton Society*, 20, 179-196.

Greenberg, D., Ehri, L. Perin, D (2002). Do Adult Literacy Students Make the Same Word-Reading and Spelling Errors as Children Matched for Word-Reading Age? *Scientific Studies of Reading*, 6, 3, 221.

Juel, C. (1991). Beginning reading. In Rebecca Barr et al. (Eds.), *Handbook of Reading Research*, vol. II (pp.759-787). New York / London, Longman.

Kurvers, J. & Van der Zouw, K. (1990) *In de ban van het schrift. Over analfabetisme en alfabetisering in een tweede taal.* (Charmed by writing. About illiteracy and literacy acquisition in a second language). Amsterdam/Lisse, Swets & Zeitlinger.

Kurvers, J. (2002). Met ongeletterde ogen. Kennis van taal en schrift van analfabeten. (With illiterate eyes. Knowledge of language and writing of illiterates). Amsterdam: Aksant.

Kurvers, J., Hout, R. van, & Vallen, T. (2006). Discovering Features of Language: Metalinguistic Awareness of Adult Illiterates. In I. van de Craats, J. Kurvers, & M. Young-Scholten (Eds.), *Low-Educated Second Language and Literacy Acquisition: Proceedings of the Inaugural Symposium Tilburg 2005* (pp. 69-88). Utrecht: LOT.

Mason, J. (1980). When do children begin to read: An exploration of four-year-old children's letter and word-reading competencies. *Reading Research Quarterly*, 15, 203-227.

Seymour, P. H. K., Aro, M., & Erskine, J. M. (2003). Foundation literacy acquisition in European orthographies. *British Journal of Psychology*, 94, 143–174.

Share, D.L. (1995). Phonological recoding and self-teaching: sine qua non of reading acquisition. *Cognition*, 55, 151-218.

Smith, F. *(1992).* Learning to read: The never-ending debate. *Phi Delta Kappan, 74, 432-441.*

Smith, F *(1996).* Understanding Reading: A Psycholinguistic Analysis of Reading and Learning to Read. *Hillsdale, NJ: Erlbaum.*

Sulzby, E. & W. Teale (1991). Emergent literacy. In R. Barr et al. (Eds.). *Handbook of Reading Research, Vol. II.* (pp. 727-758). New York: Longman.

Viise, N. (1996). A study of the spelling development of adult literacy learners compared with that of classroom children. *Journal of Literacy Research*, 28, 561-587.

Worthy, M.J. & Viise, N. (1996). Morphological, phonological, and orthographic differences between the spelling of normally achieving children and basic literacy adults. *Reading and Writing: An Interdisciplinary Journal*, 138-159.

Wagner, D., Venezky, R & Street, B. (1999). *Literacy: An International Handbook*. Boulder, CO: Westview Press.

Wagner, D.A. (2004). Literacy(ies), Culture(s), and Development(s): The Ethnographic Challenge. *Reading Research Quarterly*, 39(2), 234–241.

Wimmer, H. & Goswami, U. (1994). The influence of orthographic consistency on reading development: word recognition in English and German children. *Cognition*, 51, 91-103.

Ziegler, J., & Goswami, U. (2006). Becoming literate in different languages: similar problems, different solutions, *Developmental Science*, 9, 5, 429-436.

# LITERACY AND WORD BOUNDARIES

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## 1    Introduction

Unless they listen to an unknown language, adults are supposed to be able to mark word boundaries in spoken language. Fromkin & Rodman (1983), for example, contrast the difficulty in counting words in an unknown language with the ease of the same task in the mother tongue. Edwards & Kirkpatrick (1999, p. 318), investigating the word concept of young children, used the performance of adults as a point of reference and concluded that the latter "as would be expected, performed nearly 100% accuracy on the task." Davis (1997, p. 33) also mentions the general opinion that marking word boundaries is relatively easy for all adults, even if they are unschooled: "There is also a certain amount of evidence [...] that non-literate speakers of unwritten languages know where words begin and end in their languages." Two main sources of evidence are present in the literature for the competence of adult speakers to mark word boundaries, irrespective of their schooling or the language they speak (Scribner & Cole, 1981; Bowey & Tunmer, 1984; Davis, 1997). The first source comes from linguistic-anthropological research on unknown languages. Sapir wrote in 1921 that the illiterate Nootka-Indians, who assisted him in coding their language, were explicitly aware of words as linguistic units: "No more convincing test could be desired than this, that the naive Indian, quite unaccustomed to the concept of the written word, has nevertheless no serious difficulty in dictating a text to a linguistic student word by word." (Sapir, 1970, p. 33). The second source of evidence comes from research on the origins of writing systems. Gelb (1963) concluded that already in the oldest writing systems words were used as linguistic units, which entails that the "designers" were aware of wound boundaries.

In the last decade, different researchers have suggested nevertheless that literacy might play a prominent role in the ability to mark word boundaries (Roberts, 1992; Olson, 1994; Homer & Olson, 1999), although the direction of causality in this relationship is debated. Some suggested that literacy comes first (Gombert, 1992; Olson, 1994, 1996), while others claimed that the ability of marking word boundaries develops before children learn to read and write (Chaney, 1989; Karmiloff-Smith et al., 1996; Sharpe & Zelazo, 2002).

In this contribution, we discuss the results of two different studies, which investigated the role of literacy in bringing word boundaries into

consciousness. The first study was a cross-linguistic comparison in the Netherlands and Norway in which the ability to mark word boundaries of pre-reading children was investigated (see Kurvers & Uri, 2006, for more details). In the second study, the word awareness of adult illiterates is compared both to achievements of young pre-reading children and low-educated adult readers. Before we discuss our research findings, we summarize the relevant research done on this topic.

### 1.1.1    Research on Children

Awareness of words as linguistic units (or metalexical awareness) can be defined as the ability to isolate words in spoken discourse and to judge words as linguistic units separate from their referential value. Several procedures were popular to measure metalexical awareness: children were asked to count words in an utterance, to segment sentences and clap for each word, to distinguish between words and referents, to change word order, to define words, or to give examples of long or difficult words. Research on this topic started with Karpova (1966), who observed that young children until the age of seven do not segment sentences along word boundaries but preferably into a subject and a predicate part. Around the age of seven, children start marking word boundaries. Many studies from the last thirty years came to the same conclusion, also after correcting for some seriously criticized methodological shortcomings of previous research, such as memory load or expecting the children to know the linguistic term "word" (Valtin, 1984; Bowey & Tunmer, 1984; Yaden, 1986; Adams, 1990; Gombert, 1992; Roberts, 1992; Tunmer, 1997; Edwards & Kirkpatrick, 1999). Adams (1990, p. 298) concluded that the outcomes of research on metalexical development are consistent: "Surprising as it may seem, the evidence concurs that children are not naturally prepared either to conceive of spoken language as a string of individual words or to treat words as individual units of meaning." Nevertheless, the studies of Chaney (1989) and Karmiloff-Smith et al. (1996), who used different kinds of tasks, produced important counter-evidence. Chaney asked children to retell well-known stories word by word, "so that I can write them down", and concluded that four and five-year-olds performed very well. Karmiloff-Smith et al. (1996) criticized the off-line methodology used in most studies and introduced an on-line methodology. They read a short story to young children, paused 32 times, both after content words and function words with different linguistic properties, and asked children between four and six years old to repeat the last word mentioned. As they expected, even the four- and five-year-olds had no problem coming up with the last single word. The percentages correct for the four-year-olds were 78%, for the five-year-olds 95%.

In addition, there are different views on where metalinguistic abilities come from. Some researchers, like Karmiloff-Smith et al. (1996), assign a crucial role to the general language development, some others claim a major role for the cognitive development (for an overview see Yaden, 1986; Gombert, 1992; Tunmer, 1997), while again some others claim that learning reading and written language (becoming literate) makes speakers aware of the existence of word boundaries (Ehri 1979; 1984; Olson, 1994; 1996). In research with young children, it is difficult to differentiate between these three different views because learning to read and write coincides with linguistic and cognitive development. That is different for adult illiterates.

### 1.1.2    *Research on Low-educated Adults*

Not much research has been carried out on adults' awareness of words and word boundaries. Scribner & Cole (1981) compared adult illiterates in Liberia with three different groups of readers (in Vai, in Arabic, and in English) on some metalexical tasks. They found effects of schooling but hardly any effect of literacy as such: Vai readers, who learned to read and write informally, did not differ much from illiterates in, for example, mentioning long words or defining words. Hamilton & Barton (1983) and Barton (1985) examined the word concept of 60 English-speaking adults of different reading levels. In one of their tasks they asked the subjects to repeat different sentences word by word. Most of their subjects were capable of isolating the different words and made hardly any mistakes. No significant differences were found between the three groups of readers, but the adults' responses were clearly different from what was known about young children. As a matter of fact, the adults only made mistakes when confronted with phrasal units like *more or less*. Barton (1985, p. 192) concluded: "Adults, literate and not literate, can utilize the distributional criteria and the grammatical information of the language correctly to isolate words and thereby demonstrate sophisticated awareness of the segmental structure of language."

Gombert (1994) carried out a training experiment with three different metalinguistic tasks, one being a sentence segmentation task. Subjects were 21 adult Moroccans in France, seven of whom never went to school before (the illiterates), seven who had been in a literacy course for about one year (the partial literates), and seven who had completed primary education and could read and write French (the literates). A training experiment turned out to have been effective for the literates, but not for the other two groups, that could at best repeat one of the simple sentences word by word. In most cases the sentences were divided into phrases (about 80% of the mistakes), in some cases into syllables (about 15% of the mistakes). Gombert assumed the bad results to be caused by

the fact that the subjects had to segment sentences in French, their second language, instead of their mother tongue.

Davis (1997) did not ask illiterates, but "ordinary" people from different professional backgrounds to count words in sentences or to judge if an item was a word. He concluded "ordinary" language users still have problems in marking word boundaries. Not every participant came up with the expected answer. The word *I,* for example, did not count for some of the participants in the sentence *No I don't* because that was a letter, and some counted three words in the sentence *Let's play hide and seek.*

Mithun (1998), who did research on the polysynthetic language Mohawk, asked her informants if utterances like *wathiaterane* ("those two meet each other") had to be counted as one word. The fact that the informants "knew" it was one word, irrespective of having received grammar training, was in her opinion the ultimate prove that it really was one word. It means, implicitly, that Mithun came, about seventy years later, to the same conclusion as Sapir did in 1921: every speaker of every language knows where one word ends and the next begins in his own language.

Because Karmiloff-Smith et al. (1996) stressed that the often-mentioned late emergence of word awareness in children was mainly the consequence of the off-line methodology used in most of the studies and because they did find quite different outcomes using an on-line methodology, we carried out a replication of that study in two more languages, Norwegian and Dutch. A summary of that study is presented in section 2.

As said before, with young children it is difficult to disentangle literacy acquisition from language and cognitive development and therefore to determine the decisive factor in the emergence of word awareness. Adult illiterates form a stricter test. For, unlike young children, they are experienced language users, while, just like young children, they are not introduced into systematic writing. If language development is the main factor in the breakthrough of word awareness, one would expect major differences between children and adults, irrespective of their reading ability. If, on the other hand, literacy is the decisive factor, one would expect substantial differences between readers and non-readers, irrespective of their age. In section 3 we present results of a study in which we compared adult illiterates with young pre-reading children and low-educated adult readers.

## 2    Study 1

In order to test the assumption that children much younger than six will display a clear knowledge of word boundaries, Karmiloff-Smith et al.

(1996) argue for a methodology in which children's metalinguistic awareness is tested within the bounds of normal syntactic/semantic processing (on-line processing). After a pre-experimental training session with open class words, Karmiloff-Smith et al. read a short story to the children, stopping 32 times midway a sentence and asking the children to repeat the last word. They used a motivating on-line task (an interesting story) in which the children only momentarily had to go off-line when answering the question (i.e. "What was the last word I said?"). The four-year-olds (mean age 58 months) in Karmiloff-Smith et al.'s study succeeded in about 75% of the cases when asked to repeat the last word and the five-year-olds in 96% of the cases. Nearly 60% of the younger children and nearly 80% of the older children had a success rate of more than 80%. In a follow-up experiment, half of the children were asked to repeat not the last word, but the last *thing*, whereas the rest of the children were asked to repeat the last *word* (as in the first experiment). In the *thing* condition, 96% of the responses were not single words. The fact that children reacted very differently in the *thing* condition than in the *word* condition is, according to the authors, an extra indication that the children really handled the notion *word* in a metalinguistic way. Because we wondered why the outcomes of Karmiloff-Smith et al. differed so much from what many other studies found, we (see Kurvers & Uri, 2006) carried out a cross-linguistic replication of this experiment in Norway and the Netherlands.

## 2.1    *Participants*

The subjects in the Dutch study were 32 children (18 boys and 14 girls), tested in the first term of their second pre-school year, around November. The children were divided into two age groups on the basis of the same breaking point that Karmiloff-Smith et al. used in their study (i.e., 64 months). About half of the children were 64 months or younger (mean age 58.7 months, range 51-64); about half were 65 months or older (mean age 69.6 months, range 65-76). The mean age in both groups was comparable to that in the original study. As in Karmiloff-Smith et al.'s study, the children were recruited from two monolingual schools and from (lower) middle-class homes.

In the Norwegian study, 24 subjects participated: 12 girls, 12 boys. 11 Subjects were 64 months old or younger (mean age 54.3 months, range 47-64) and 13 were older than 64 months (mean age 69.6 months, range 65-76). They all attended the same middle-class pre-school. They were tested during the second term of the school year.

*2.2      Material*

As in the original study, a story was designed in which pauses were inserted following selected words from open and closed class categories. All pauses were mid-sentence. There were no target words in the first two sentences of the story, and the first word of a sentence was never a target.

The story was selected from a Dutch storybook for youngsters (Wille, 1992). The selected story had about 500 words, the same length as the story used in the Karmiloff-Smith et al. study. The story is about a little girl, Hanne, who is looking forward to the next day's trip with her parents to the seaside. Unfortunately, when she wakes up the next morning, it is raining cats and dogs and her dad has to find a creative alternative to please the very disappointed child. The story was, with some minor adaptations, due to language-specific selection of target words, translated into Norwegian.

The selection of target words followed exactly the criteria Karmiloff-Smith et al. used. There were 32 target words, 16 from the open class category (nouns, verbs and adjectives, such as *ice*, *want* or *honest*) and 16 from the closed class category (determiners, conjunctions, pronouns, and prepositions such as *the*, *and*, *they* or *behind*). Half of the words in each class were monosyllabic, and half were bisyllabic. Within each subset there were equal numbers of consonant initial and vowel initial words. When the words were vowel-initial, the pre-target word always ended with a consonant to create the possibility of elision.

All responses of the children were classified using the following categories defined by Karmiloff-Smith et al. (examples are in Dutch):

| | |
|---|---|
| Correct answer: | e.g., *emmer* (bucket) |
| Multiword answer: | e.g., *een emmer* (a bucket) instead of *emmer, that is not honest,* instead of *honest* |
| Anticipation: | adding a possible next-to-come word, e.g., *zoen* or *dikke zoen* (big kiss) instead of *dikke* (big) |
| Non-target single word: | e.g., *rugzak* (rucksack) instead of *met* (with) in the context "a rucksack with..." |
| No response: | *I don't know* |
| Elision (resyllabification): | adding the last consonant of the word before to the target word, e.g., *nemmer* instead of *emmer* |
| Monosyllable: | e.g., *mer* instead of *emmer* |

## 2.3    Results

The internal consistency of the instrument was high (Cronbach's alpha 0.93 in the Dutch experiment, 0.81 in the Norwegian). Table 1 presents the outcomes of the studies in Norway and The Netherlands, compared to those of the original study.

Table 1:    *Median, ranges and percentages of correct answers, divided by word class and age group, separately for the Dutch and the Norwegian experiment plus the Karmiloff-Smith et al. (1996) outcomes.*

| Netherlands (n=32) | | | | |
|---|---|---|---|---|
| Word-class | Age-group | Median (range) | Mean (sd)* | % correct |
| Open class words | Younger | 3.0   (0-10) | 3.93 (3.09) | 24.6 |
| | Older | 2.0   (0-16) | 3.87 (4.61) | 24.2 |
| Closed class words | Younger | 2.0   (0-13) | 3.94 (4.21) | 24.6 |
| | Older | 3.0   (0-12) | 4.20 (4.06) | 26.3 |
| Norway (n=24) | | | | |
| Open class words | Younger | 5.0   (2-7) | 4.73 (1.56) | 29.5 |
| | Older | 5.0   (1-8) | 4.70 (1.89) | 29.3 |
| Closed class words | Younger | 3.0   (1-13) | 4.45 (3.42) | 27.8 |
| | Older | 3.0   (0-11) | 4.23 (3.14) | 26.4 |
| England (Karmiloff et al., 1996) (n=48) | | | | |
| Open class words | Younger | 14.5   (1-16) | | 76.8 |
| | Older | 16.0   (9-16) | | 97.1 |
| Closed class words | Younger | 13.0   (3-16) | | 73.7 |
| | Older | 16.0   (7-16) | | 95.3 |

* Means and standard deviations only available for the Dutch and Norwegian data

Table 2 presents the relative frequencies of the response types in the Dutch and Norwegian groups, again compared with the outcomes in the original English study.

Table 2:  *Response types in percentages of the total of answers in the Dutch,*
          *Norwegian and English experiment*

| | Age-group | Correct | Multi-word | Anti-cipa-tion | Non target word | No response | Elision | Single syllable |
|---|---|---|---|---|---|---|---|---|
| Dutch | Younger | 24.6 | 52.0 | 15.4 | 2.0 | 5.9 | 0.0 | 0.0 |
| | Older | 25.2 | 54.8 | 12.1 | 1.5 | 6.5 | 0.0 | 0.0 |
| Norw. | Younger | 29.0 | 46.3 | 15.1 | 3.7 | 6.0 | 0.0 | 0.0 |
| | Older | 28.8 | 50.9 | 12.5 | 3.1 | 4.6 | 0.0 | 0.0 |
| Engl. | Younger | 75.3 | 17.5 | 2.9 | 2.3 | 0.3 | 0.0 | 0.5* |
| | Older | 96.2 | 0.8 | 0.0 | 1.0 | 0.0 | 0.0 | 2.1* |

* single syllables as percentage of responses to bisyllabic words

As Table 2 shows, the percentages of the multiword reactions (repeating more than one word) and the anticipations (coming up with a guess of the next word in the story) are much higher than in the English experiment. Both in the Dutch and the Norwegian studies, about half of the responses are multiword reactions (ranging from two to six words). More than 10% of the reactions are anticipations, while in the original experiment only a few of the younger children responded with some kind of anticipation.

Syllabic errors and elisions (re-syllabification) were non-existent, despite the fact that the experiment was designed in such a way that they could have occurred.

While some outcomes are comparable to the original study, two outcomes were quite different from what Karmiloff-Smith et al. found. The young children in Karmiloff et al.'s study were very good at isolating words, both the four-year-olds and the five-year-olds (success rates of 75% and 96%, respectively). The children in our studies were not; in fact, for all groups multiword responses were far more frequent than correct responses. Karmiloff-Smith et al. also found a significant difference between the older and the younger children. We did not: the percentages correct are nearly the same for the two age groups in both countries.

As a matter of fact, our results are much closer to the outcomes of many older studies that used an off-line approach, criticized by Karmiloff-Smith et al. for being too far away from normal syntactic/semantic processing. In many older studies, the general conclusion was that most children before the age of six are not very good at isolating words, no matter whether they were based on qualitative interviews with young children, on segmentation tasks with or without additional tapping, or on word judgment tasks. We too found that the children of this age do not seem to be naturally prepared to conceive of spoken language as a string of individual words (Adams, 1990).

Because the differences with the original study were rather striking, we carefully looked at possible factors that might explain the differences in the outcomes such as typological differences among the languages or unforeseen differences in the test items such as word stress. The only reasonable explanation we could find was the difference in pre-school curriculum in England on the one hand, and the Netherlands and Norway on the other. The English national curriculum offers indications that formal reading instruction in England starts at an earlier age than in the Netherlands and Norway, i.e., before grade 1. It could be that, as in Homer & Olson (1999), the children in the English study outperformed the Dutch and Norwegian children because they had more experience with written forms. For an extra check on this explanation, we informally repeated the experiment with three Dutch children in grade 1, after about seven months of formal reading instruction. The percentages correct were much higher now (85%, 91%, and 94%, respectively) than those of the preschoolers. This suggests that literacy may play a crucial role in the major changes in children's metalinguistic development.

3    *Study 2*

In the second study, we looked at the awareness of words as a linguistic unit of adult illiterates, compared to two reference groups. The segmentation task that is presented here was one of the tasks in a larger research project that was carried out to compare the metalinguistic abilities of adult illiterates, young pre-reading children and low-educated adult readers.

*3.1    Participants*

Participants were 25 adult illiterates, 24 pre-school children and 23 adult readers in the Netherlands. The adult illiterates were not able to read simple words, neither in their mother tongue nor in their L2 Dutch. Most of them had never been to school as a child in their home country; a few had attended primary school for about one or two years (mean years of schooling 0.40, sd. 0.76). The years of schooling of the adult readers ranged from two to six years (mean 4.61, sd. 1.74). The children attended the last term of preschool and were up to attending first grade, in which formal reading instructions starts. Of all the groups, the majority of subjects consisted of Moroccans (14 children, 14 illiterates, and 11 readers) most of them having Tarifit, one of the Berber languages, as their first and dominant language. Smaller numbers in all groups were Turkish (5, 4, and 6 respectively) and Somali (4, 6, and 4 respectively). A few participants came from former Dutch colonies, speaking Dutch besides their home language. Two adult readers and two children were Dutch

from origin. Depending on the most preferred and dominant language of the subjects, the experiment was carried out either in the first language of the subjects, or in Dutch as a second language. For the majority of the adults, that turned out to be the mother tongue (31), while for the children the opposite was found (7).

### 3.2    The Segmentation Task

The task to be analyzed can be characterized as progressive segmentation. A sentence was presented orally and the subjects were asked to segment in pieces what was said, for example, *I come from the south of Morocco.* No example of how the segmentation could be done was presented, unless participants refused without getting an example (four illiterates did). In that case, one example was given with segmentation along word boundaries. The instruction was repeated with three sentences. Next, a word group out of those sentences was presented, for example, *the south of Morocco,* and the subjects were asked to segment it in even smaller pieces. Finally, one or two single words out of that word group, for example, *Morocco* or *south*, were again presented with the same question. The task consisted of three sentences, three word groups, four multisyllabic words and two monosyllabic words. All items were translated (by experienced bilinguals) into Somali, Turkish and Tarifit, taking care that structural features of the sentences were comparable.

     To decide what counts as a single word, the orthographic rules of the different languages were applied. All four languages use an alphabetic writing system (in Latin script) in which word boundaries are marked by spaces. Compounds that would lead to differences in the marking of word boundaries, like, for example, *wasmachine* (washing machine), one word in Dutch, and *machina noeseban*, two words in Tarifit, were left out from the task. An example of one of the sentences in the different languages, together with a literal translation in English, is given below. The example makes clear that the languages involved differ substantially in their morphology.

*Ik kom uit het zuiden van Somalië*
I come out-of the south of Somalia
*Waxaan ka imid dhanka koonfureed ee Soomaalyia.*
What   from I-came direction-of south of Somalia.
*Necc usird zi ljanub n lmagrib*
I I-come out-of south of Morocco
*Ben güney Türkiye'den geliyorum.*
I south Turkey-out-of I-come.

In the following sections, the analyses will be concentrated on the

segmentation of the sentences and the word groups only. First of all, some examples are presented of the way two adult illiterates carried out the segmentations. Then, analysis will focus on the differences among the three groups (children, illiterates, and low educated readers). Finally, within the group of adult readers, the speakers of a non-written language (Tarifit) are compared with those who also have a command of their mother tongue in a written form.

*3.3 Results*

To put the results in context, two examples are given of how the illiterate participants carried out the segmentation task. The first is Satma, an illiterate Moroccan woman, who carried out the task in Tarifit. The second case is Arkem, an illiterate Turkish woman, who carried out the task in Turkish. Satma is 43 years old, has never been to school in Morocco, has lived in the Netherlands for about 20 years, speaks Tarifit, and has receptive and some productive knowledge of oral Dutch and Moroccan-Arabic. She has attended an adult literacy class for about four months for five hours a week and has learned to read and write her first six words in Dutch. Arkem is a 50-year-old Turkish woman who has lived in the Netherlands for 16 years. She has never been to school as a child, speaks and prefers to speak Turkish, and has attended the adult literacy class irregularly for about nine months for three hours a week. Both Satma and Arkem have a good knowledge of what writing is and can be used for, and know at least half of the letters of the Latin alphabet. Neither of them can interpret or read "environmental words" like *uitgang* (way out), *postkantoor* (post office), or *centrum* (centre) or the logos of the shops they visit, like *C&A*, *Hema,* or *Blokker.* The interview with Satma is carried out in Tarifit; the interview with Arkem in Turkish. The sentences to be segmented are given in the original language and are in italics; the literal translation is given between square brackets. The rest of the interaction is translated into English. The fragment in example 1 starts after some misunderstanding of what Satma was expected to do. Since she did not understand, an example was given with a segmentation along word boundaries.

*Example 1: Interaction between S = Satma and I = Interviewer on the segmentation task.*

I  *Okay, yes, listen again.*
   *Aryaz awessar ad irah tiwecca rar seppitar.*
   [Man he-is-old Fut. he-goes tomorrow to hospital.]
   *Can you segment into pieces what I said?*

S    He goes to the hospital, but if he will not be hospitalised, he has to
     come back the next day.
I    Okay, something else.
     *Di thanut dinni attas n deffah d tumatic.*
     [In shop there many of apples and tomatoes.]
     Can you segment what I said into pieces?
S    Yes, that can be segmented.
     Tomatoes separately and apples separately.
I    *Okay, the next one.*
     *Necc usird zi ljanub n lmahrib.*
     [I I-come out-of south of Morocco].
     *Can you segment my "awar"?*
S    People come from different cities, from different regions.
     Some come from cities and some from villages.
I    Okay, the next one. You only have to take care about what I say,
     about my words.
     *Aryaz awessar.*
     [man he-is-old.]
     *Can you divide that into pieces furthermore?*
S    What do you mean?
     The awar of an older man is different from the awar of a younger
     man.
     How you call an older man is different from how you call a younger
     one.
     Is that what you meant?
I    *Di thanut.*
     [In shop.]
     *How about that?*
S    No, you cannot divide that. That is just "in the shop."

Satma is constantly looking for divisible entities in the content of the
sentences: tomatoes and apples can be separated, and the country of
origin in different sites. When there is just one place (in the shop) or one
person (the old man), the question about segmenting what is said seems
to be weird to her.
     The second interview proceeded in the same, way; here only some
examples of the segmentations of Arkem are presented:

I    *Şu yaşlı adam yarın/postaneye/gidecek? How many parts?*
A    Şu yaşlı adam  /  yarın  /  postaneye / gidecek. Four parts.
     This old man / tomorrow / postoffice-to / go-he-will.
I    *Şu dükkânda çok elma ve domates bulunuyor?*
A    Şu adam dükkânda / elma / ve domates /  bulunuyor. Four parts.
     In the shop of that man / apples / and tomatoes / are to be found

located. (*çok* is left out)
[…]
I   *elma ve domates?*
A   Elma / domates (leaves *ve* out)
I   *Şu yaşlı adam?*
A:  Şu yaşlı / adam. Two parts

Arkem responds quite differently from Satma, who divided the world and not the language into pieces. Arkem segments the sentences into meaningful clauses, which (in Turkish) often coincide with separate words. But she does not disconnect the words *ve* ('and') and *şu* (this) from the next content words ("ve domates" or "şu yaslı") or she leaves them out (like in "elma / domates"). In both cases, she seems not to interpret those words as separate structural elements of the sentence.

Together, Satma and Arkem are quite representative for most of the illiterate adults, as we will see.

For a first comparison of the groups, the reactions were dichotomized according to a segmentation of sentences and word groups into either conventional words or not. Further analysis is concentrated on the different ways in which subjects segment the sentences into units. Table 3 presents an overview of the means and standard deviations of segmentation into words, split out for mother tongue and Dutch as a second language.

*Table 3: Means and standard deviations of segmentation of sentences into words, by group and language*

| Task | Language | Children | | | Illiterates | | | Literates | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Sentence | | Mean | Sd | N | Mean | Sd | n | Mean | Sd | N |
| segment- | L1 | 0.14 | 0.38 | 7 | 0.11 | 0.32 | 19 | 1.67 | 1.23 | 12 |
| ation | L2 | 0.21 | 0.43 | 15 | 0.00 | 0.00 | 5 | 2.70 | 0.67 | 10 |
| | total | 0.19 | 0.40 | 22 | 0.09 | 0.28 | 24 | 2.14 | 1.13 | 22 |

The mean correct score of literate adults is 2.14 (sd 1.13), while the two groups of non-readers hardly segment any sentence into isolated words. There is a strong and significant main effect of group ($F_{2,61}=67.46**$) and no main effect of language ($F_{1,61}=3.64$). The interaction between group and language is also significant ($F_{2,61}=4.38*$) and mainly caused by the fact that the mean score of the literates is higher in Dutch as a second language than in the mother tongue (we will come back to that). That difference does not exist with the two other groups, because they do not segment sentences into isolated words at all, neither in their first language, nor in the second. Posthoc analysis shows that the differences between both groups of non-readers and the adult readers are significant ($p<0.01$), while there is no difference between the young children and the adult

illiterates.

In the same way, the segmentation of word groups is analyzed and presented. Table 4 presents the means and standard deviations of the segmentation of word groups into isolated words.

*Table 4: Means and standard deviations of segmentation of word groups into words, per group and language*

| Language | Child | | Illiterate | | Literate | |
|----------|-------|------|------------|------|----------|------|
|          | Mean  | Sd   | Mean       | Sd   | Mean     | Sd   |
| L1       | 1.0   | 0.58 | 1.00       | 1.00 | 1.42     | 0.77 |
| L2       | 0.29  | 0.61 | 0.25       | 0.50 | 2.30     | 0.82 |
| total    | 0.52  | 0.68 | 0.87       | 0.97 | 1.82     | 0.91 |

All in all, both groups of non-readers do segment word groups into isolated words more often than they do sentences, but even then the majority of children and illiterates prefer another kind of segmentation to segmentation in words (see below). Based on this dichotomisation, there is a significant main effect of group ($F_{2,61}$=15.46, p=0.00), no main effect of language ($F_{1,61}$=1.63, p=0.20) and a significant interaction between group and language ($F_{2, 61}$=6.77, p=0.00). Posthoc analysis shows a significant difference between both groups of non-readers and the adult literates (p<0.05), but not between children and adult illiterates.

For further analysis, all other reactions (except segmentation into words) were categorized along type of segmentation: segmentation into word groups; segmentation in which all content words were separated, but function words were not isolated; mixed reactions, for example starting with a segmentation into word groups and then switching to segmentation into syllables; segmentation into syllables; segmenting the content; or, no reaction (I do not know). Table 5 presents the relative frequencies of the types of reactions for the sentences given by the different groups.

As already mentioned, the majority of the literates segment sentences into isolated words, while most non-readers do not. The children prefer segmentation into syllables (about one third of all responses) or they start segmenting into a word group and successively turn over into segmentation into syllables (mixed reactions). The illiterates often separate word groups or they react on the content and try to divide the content into parts. A frequent response of all groups is segmentation in which unstressed functors as articles and prepositions or conjunctions "hitchhike" with the next content words, or are just left out from segmentation. For the non- readers, this holds true for all languages (see the next section for a closer look at the responses of the adult readers).

*Table 5: Relative frequencies of reactions on sentence segmentation, by group*

|                          | Child  | Illiterate | Literate |
|--------------------------|--------|------------|----------|
| Words                    | 6.3%   | 3.0%       | 66.7%    |
| Word groups              | 15.9%  | 30.3%      | 0%       |
| Functors not isolated    | 17.5%  | 25.8%      | 24.2%    |
| Mixed reactions          | 25.4%  | 10.6%      | 6.1%     |
| Syllables                | 30.2%  | 0%         | 3.0%     |
| No segmentation          | 0%     | 4.5%       | 0%       |
| Reactions on the content | 0%     | 21.2%      | 0%       |
| Other                    | 4.8%   | 4.5%       | 0%       |
| Total                    | 100%   | 100%       | 100%     |

In the same way, the frequencies of the different reactions on the segmentation of word groups were calculated. The majority of the adult readers do segment word groups into separate words. Although the percentage of segmentation into separate words is larger than with segmentation of sentences, nearly 70% of the illiterates and more than 80% of the children do something else. The most preferred responses of the illiterates are reactions on the content, no further segmentation, or not isolating unstressed words like in "apples / and tomatoes," while the children again prefer segmentation into syllables.

To summarize, when subjects are asked to divide sentences or word groups into "parts," it seems to be self-evident for most of the adult readers to segment into isolated words, while most of the non-readers prefer something else. The illiterates segment sentences into word groups or try to divide the content of the sentence. Young children prefer syllables. Unstressed functors are, in many cases, not interpreted as parts of a sentence to be isolated. This also holds for some of the literates.

### 3.4      *Differences Between Written and Unwritten Languages*

Tables 3 and 4 showed a substantial difference within the group of adult readers: unlike the two groups of non-readers, the adult readers much more frequently segmented sentences into separate words in DL2 than in the mother tongues (Somali, Turkish and Tarifit). Further analysis shows that this difference has nothing to do with either first or second language but with the fact that some of the mother tongue tasks were carried out in Tarifit, a language that for the literate Moroccan speakers of Tarifit is not available in written form. The mean score (number of segmentation into

isolated words) for the literate speakers of Tarifit is 1.17 (sd. 1.16), while the mean score in both Turkish and Somali are comparable with Dutch as a second language (Turkish: mean= 3.00, sd= 0.00; Somali: mean=2.50, sd= 0.71; Dutch L2: mean= 2.30). In Table 6, the mean scores of the literate adults are split into oral language (Tarifit) and written languages (Dutch, Somali and Turkish).

Table 6:   *Means and standard deviations of literates' segmentation of sentences into words, by type of language*

| Language | Mean | Sd | N |
|---|---|---|---|
| Oral | 1.17 | 1.16 | 6 |
| Written | 2.50 | 0.89 | 16 |
| total | 2.14 | 1.13 | 22 |

It turns out that speakers of Tarifit significantly less frequently segment sentences into isolated words than speakers of Turkish, Somali, or Dutch as a second language (t=-2.87, p<0.01).

What do literate speakers of Tarifit do when asked to segment a sentence, compared to the other literates? Table 7 presents the distribution of the response-categories of the speakers of Tarifit compared to the others. It might be relevant to notice once more that this analysis refers to adult readers, who, as was pointed out before, prefer in general segmentation into isolated words as a strategy.

Table 7:   *Relative frequencies of responses on sentence-segmentation, by group*

|  | Oral | | Written | |
|---|---|---|---|---|
| Words | 6 | 33.3% | 38 | 79.2% |
| Functors not isolated | 12 | 66.7% | 4 | 8.3% |
| Mixed | 0 | 0.0% | 4 | 8.3% |
| Syllables | 0 | 0.0% | 2 | 4.2% |
| Total | 18 | 100% | 48 | 100% |

The number of reactions is small of course; only six of the readers were Tarifit speakers and only three sentences were segmented. The first remarkable point is that literate subjects who are asked to segment a sentence in a language they also know as a written language, segment into isolated words much more often than speakers of Tarifit, who know their mother tongue only as an oral language (79.2% versus 33.3%). The second point is that the literate speakers of Tarifit differ from the

illiterates (compare Table 4) in that only one type of "error" response is used: not isolating unstressed functors (66.7%). All in all, speakers of Tarifit, including the literate ones, seem to have more difficulties in unambiguously marking word boundaries if they have to do that in a language they do not know as a written language, even if that is their first and most dominant language.

*4 Summary and Discussion*

The research results of the two studies presented in this contribution indicate that the ability to mark word boundaries in spoken language depends on knowledge of the written form of the language in question. This conclusion is based on the performance of Dutch and Norwegian pre-schoolers who had not entered formal reading instruction yet. They were not successful in reacting with a single word when asked to repeat the last word that was said in a sequence of words. Their default responses were multi-word units. This conclusion is further based on how different illiterate groups (both children and adults) segment utterances compared to a literate group (adults). The comparison of three groups, young children, illiterate adults and adult readers, showed a convincing and significant difference between, on the one hand, readers who prefered segmentation along word boundaries and, on the other hand, both groups of non-readers who had a clear preference for other ways of segmentation: semantic phrases, word groups, or syllables. A third source of evidence is the results that adult readers significantly more often marked word boundaries when they carried out the segmentation task in a language for which they knew the written form, too. The outcomes found for the children fit the outcomes of many other studies on the word-concept of young children (see section 1). All in all, the results seem to demonstrate that the linguistic entity *word* is not the "default" sentence unit of a sentence for young children (Kurvers & Uri, 2006).

Our conclusion contrasts with earlier findings of Hamilton & Barton (1983) who concluded that both literate and illiterate adults have a "sophisticated awareness" of the word as a linguistic unit. But in their study the "illiterate" group actually contained bad readers. The outcomes of most of the literates fit quite well with what Hamilton & Barton found for each of their three groups of adults: they have no difficulty at all in imagining the linguistic unit of the word. So, it is more interesting to see that in our study the literate speakers of Tarifit (who do not know their language as a written language) reacted like the literate Vai in Scribner & Cole's (1981) classic research project in Liberia. In fact, our results confirm what Gombert (1994) also found: adult illiterates are not very well accustomed to mark word boundaries in spoken language. Our conclusion seems to be contradicted by the often-cited observations of

Sapir that the illiterate Nootka Indians did not have any problem dictating sentences word by word. But, first of all, their output was interpreted by a skilled linguist who knew how to extract linguistic information and what to look for. Another suggestion is that Sapir's observations concerned a polysynthetic language and that means that grammatical functions (function words being the most difficult word category for the illiterates) do not exist as separate words.

Future research on this and related metalinguistic topics should include literacy as a determining factor in the development of metalinguistic abilities. Or, as stated by Bamberg (2002, p. 451): "This is where literacy comes in and is given the credit (as a developmental mechanism) for transforming an early form of 'language knowledge' (one that is more implicit, holistic and content-directed) into a more 'explicit and analytic awareness' that enables the speaker/writer to detach from content and situational context, generalize across them, and use linguistic forms in ways that signify 'rhetorical flexibility'."

*References*

Adams, M. (1990). *Beginning to read. Thinking and learning about print.* Cambridge MA: MIT Press.

Bamberg, M. (2002). Literacy and development as discourse, cognition or both? *Journal of Child Language*, 29, 449-453.

Barton, D. (1985). Awareness of language units in adults and children. In A.W. Ellis (Ed.), *Progress in the Psychology of Language,* vol.1 (pp.187-205). Hillsdale N.J.: Lawrence Erlbaum.

Bowey, J. & W. Tunmer (1984). Word Awareness in Children. In W. Tunmer, C. Pratt en J. Herriman (Eds.), *Metalinguistic Awareness in children* (pp.73-91). Berlin: Springer Verlag.

Chaney, C. (1989). I pledge a legiance to the flag: Three studies in word segmentation. *Applied Linguistics*, 10, 261-281.

Davis, H. (1997) Ordinary people's philosophy: comparing lay and professional metalinguistic knowledge. *Language Sciences*, 19, 1, 33-46.

Edwards, H. & A. Kirkpatrick (1999). Metalinguistic awareness in children. A developmental progression. *Journal of Psycholinguistic Research*, 28, 4, 313-329.

Ehri, L. (1979). Linguistic insight: Threshold of reading acquisition. In T. Waller & G. McKinnon (Eds.), *Reading Research: Advances in Theory and Practice*. Vol. 1. New York: Academic Press.

Ehri, L. (1984). How orthography alters spoken language competencies in children learning to read and spell. In J. Downing & R. Valtin (Eds.). *Language awareness and learning to read* (pp.119-148). New York: Springer Verlag.

Fromkin, V., Rodman, R. (1983), *An introduction to language*. New York:

Holt, Rinehart and Winston.

Gelb, I.J. (1983), A study of writing. Chicago: University of Chicago Press

Gombert, J. (1992). *Metalinguistic development*. New York: Wheatsheaf.

Gombert, J. (1994). How do illiterate adults react to metalinguistic training. *Annals of Dyslexia*, 44, 250-269.

Hamilton, M & Barton, D. (1983). Adults' definitions of `Word': The effects of literacy and development. *Journal of Pragmatics*, 7, 5, 581-594.

Homer, B. & D. Olson (1999). Literacy and children's conception of words. *Written Language and Literacy*, 2, 1, 113-140.

Karmiloff-Smith, A., J. Grant, K. Sims, M. Jones & P. Cuckle (1996). Rethinking metalinguistic awareness: representing and accessing knowledge about what counts as a word. *Cognition*, 58, 197-219.

Karpova, S. (1966). The preschooler's realisation of the lexical structure of speech. Synopsis. In D. Slobin, F. Smith & G. Miller. (Eds.), *The Genesis of Language: A psycholinguistic approach*. Cambridge MA.: MIT Press.

Kurvers, J. (2002). *Met ongeletterde ogen. Kennis van taal en schrift van analfabeten*. (With illiterate eyes. Knowledge of language and writing of illiterate adults). Amsterdam: Aksant.

Kurvers, J., & Uri, H. (2006). Metalexical Awareness: Development, methodology or written language? Journal of Psycholinguistic Research, 35, 4, 353-367.

Mithun, M. (1998). The significance of diversity in language endangerment and preservation. In A. Grenobel & J. Whaley (Eds.), *Endangered languages*. Cambridge: Cambridge University Press, 163-191.

Olson, D. (1994). *The world on paper. The conceptual and cognitive implications of writing and reading*. Cambridge: Cambridge University Press.

Olson, D. (1996). Towards a psychology of reading: on the relations between speech and writing. *Cognition*, 60, 83-104.

Roberts, B. (1992). The evolution of the young child's concept of word as a unit of spoken and written language. *Reading Research Quarterly*, 27, 2, 125-138.

Sapir, E. (1970, originally 1921). *Language. An introduction to the study of speech*. London: Rupert Hart-Davis.

Sharpe,D. & Zelazo, Ph. (2002). The foundations and development of metalinguistic knowledge. *Journal of Child Language*, 29 , 2,  449.

Scribner, S. & Cole, M. (1981). *The Psychology of Literacy*. Cambridge MA: Harvard University Press.

Tunmer, W. (1997). Metalinguistic skill in reading development. In V. Edwards & D. Corson (Eds.), *Encyclopaedia of Language and education. Volume 2. Literacy* (pp.27-36). Dordrecht/Boston: Kluwer: Academic Publishers,.

Valtin, R. (1984). The development of metalinguistic abilities in children

learning to read and write. In J. Downing & R. Valtin (Eds.). *Language awareness and learning to read* (pp. 207-226). New York/Berlin: Springer Verlag,.

Yaden, D. (1986). Reading research in metalinguistic awareness: a classification of findings according to focus and methodology. In Yaden, D. & S. Templeton (Eds.), *Metalinguistic awareness and beginning literacy* (pp. 41-62). Portsmouth NH: Heinemann.

# MEMORY, SECOND LANGUAGE READING, AND LEXICON: A COMPARISON BETWEEN SUCCESSFUL AND LESS SUCCESSFUL ADULTS AND CHILDREN

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## 1    Introduction

A body of research has been investigating the role of working memory (WM) both on first (L1) or second language (L2) acquisition of children and L2 acquisition of high-educated adults. The term working memory refers to the human capacity to temporarily store and manage new information. In this contribution, we want to address the question: What is the role of working memory in L2 acquisition of low-literate, low-educated adults? By low-literate or low-educated adults we refer to adult L2 learners in the range from no schooling at all to maximally two years of secondary education.

In this section, we present an overview of previous literature and research questions. Section 2 focuses on the design of the study we present and Section 3 on the results. In the final section, conclusions will be drawn and suggestions for further research given.

In his review of research on the role of working memory in adult second language learning, Juffs (2006a) pointed out that this role has long been of interest to researchers in L1 and L2 acquisition and that part of the explanation for individual differences among adults in success at learning a second language might be attributable to differences in working memory capacity. The main reason behind this view is that one component of the working memory, the phonological loop (that repeats and stores spoken language), can be considered an on-line capacity for processing and analyzing new verbal information (Baddeley, 1999, 2003; Baddeley, Gathercole & Papagno 1998; Baddeley & Hitch, 1974; Ellis, 2001). If there is a relationship between working memory and processing of verbal information, working memory will also play a role in learning to read (Baddeley & Gathercole, 1992; Carr Payne & Holzman, 1983; Goswami, Ziegler, Dalton, & Schneider; 2001).

However, according to Juffs (2006a: p. 89), "it still is an open question whether low-educated second language and literacy acquisition populations have short-term memory systems that are similar to literate, educated populations, and if so how their WM capacity can be measured." Looking at different measures that have been used, Juffs concludes that the role of the phonological loop has got many advocates and that three types of measures – digit span, word repetition and non-word repetition – have been used most, of which the non-word repetition span is supposed

the be by far the best predictor of L2 acquisition. Or, to cite Ellis (1996, p. 102): "To put it bluntly, learners' ability to repeat total gobbledygook is a remarkably good predictor of their ability to acquire sophisticated language skills in both the L1 and the L2."

The conclusions that can be drawn from Juffs' review is, first of all, that the results seem to be very inconsistent and, if significant correlations are found between phonological loop measures and first or second language proficiency measures, the correlations are rather modest. For example, Cheung (1996) found some effects of word span measures in lower proficiency learners but not in higher ones, and did not find any relationship with vocabulary knowledge. Papagno & Vallar (1995) found that non-word repetition accounted for variance in vocabulary, while Juffs (2004, 2005, 2006b) did not find any relationship between word span and vocabulary. Secondly, most of the studies that have been done looked at the predictive value of WM  measures of rather highly educated second language learners, not so much of specific LESLLA populations, unschooled illiterate and low-educated L2  learners.

As already noted, illiterates or low-literates are represented only in a few studies. We focus on three of them. The first is a brain-imaging study carried out by Petersson, Reis, Askelof, Castro-Caldas & Ingvar (2000), who found a poor performance on non-word tests of working memory but not on normal word repetition tasks, whereas the results of literates did not differ in word and non-word repetition tasks. Petersson *et al.* report that "learning to read and write during childhood alters the functional architecture of the brain (2000, p. 365)." This implies that knowing an alphabetic system permits literates to process phonological segments (sublexical elements) of unknown words, whereas this is not possible for illiterates.

In the second study, on Brazilian illiterate and semi-literate adults, Loureiro, Braga, Souza, Filho, Queiros & Dellatolas (2004: p.502) found that phonological memory (as measured by real word and non-word repetition tasks) was very low in the illiterate population. The scores for real words were much higher than for non-words. This memory ability was unrelated to letter knowledge. They therefore conclude that phonological memory, phonemic awareness and phonological sensitivity are not related in this population.

The third study, by Kosmiris, Tsapkini, Folia, Vlahou, & Kiosseoglou (2004), confirms Petersson *et al.*'s suggestions. Kosmiris *et al.* (2004, p. 825) compared semantic and phonological processing in three groups: high and low-educated literates and illiterates. They found that semantic processing was unaffected by literacy but positively affected by schooling. However, "explicit processing of the phonological characteristics of material appeared to be acquired with literacy or formal schooling, regardless of the level of education attained: those who had attended

school and had acquired symbolic representation could perform the task, but those who had not, did very poorly (2004, p. 825)."

As Juffs concluded, the above studies suggest that establishing a test of working memory for illiterates will be difficult, because illiterates are likely to perform at floor level with non-word repetition tests, and therefore non-word repetition (although advocated to be the best possible measure) might not be a useful instrument for illiterates. More research is needed to find out whether non-word repetition can be used with adult illiterates and whether it correlates with other span measures like digit span and word repetition.

To resume, there is not much research on working memory in which adult illiterates are involved, and no research at all when literacy in L2 is involved. Besides, there are indications that learning to read and write an alphabetic writing system changes phonological processing in adults (Petersson *et al.*, 2000). Lastly, there are several studies on the relationship between working memory and second language (L2) vocabulary for children and adults, respectively, but none in which both groups are compared. Therefore, we wanted to probe the relationship:

- between several working memory measures;
- between these measures and the size of L2 vocabulary, both of adult and child learners; and,
- between working memory measures and basic reading skills or decoding skills.

More particularly, we wanted to compare adults and children in two ways:

- with regard to the scores on working memory tasks, and
- with regard to the correlations between these measures and L2 vocabulary knowledge and reading.

As one of Baddeley's strong claims is that working memory predicts the ease with which a second language is learned, we also wanted to find out if working memory in a group that was defined by their teachers as fast (adult) literacy learners, differs in scores on WM measures from a group of slow or average learners (we will use the term 'average' throughout this paper).

## 2 Design of the Study

### 2.1 Participants

The group of participants in our study consisted of 211 children from two cities in the southern part of the Netherlands and 70 adults from several cites all over the country. Since all adults were L2 learners and only some of the children, the L1 children were left out from the analyses we will present in this paper. As it turned out later, 13 learners from the group of adults had received some schooling in their home-country (ranging from 1

to 10 years). We left them out as well. The age of the adults ranged from 18-61 years, the mean age being 38. Most learners were from Turkey and Morocco; in addition, there was a group with a variety of L1 backgrounds. The children were divided according to their grade in (pre-)school, the adults according to their literacy levels in combination with the general proficiency level as defined by the Common European Framework of Reference for Languages (CEF) (Council of Europe, 2001). Level 1 stands for a very basic level of literacy (A) and a general L2 proficiency level below A1 (the lowest level of CEF), Level 2 stands for a higher level of literacy (B) and a proficiency level below A1 as well; Level 3 corresponds to literacy level C and CEF level A1, and Level 4 to general proficiency (CEF) level A2.[1] The last two groups of learners were extremely hard to find. It required a lot of traveling from city to city to meet them. Table 1 presents the participants in the study, together with relevant background data.

*Table 1: Background data of the participants*

|          | N   | Gender |    | Age          | Ethnic group |    | Grade/Level |    |
|----------|-----|--------|----|--------------|--------------|----|-------------|----|
| Children | 116 | Male   | 54 | 4 - 11 years | Turkish      | 44 | Preschool   | 33 |
|          |     | Female | 62 |              | Moroccan     | 34 | Grade 1-5   | 83 |
|          |     |        |    |              | Other        | 38 |             |    |
| Adults   | 57  | Male   | 7  | 18 - 61 years| Turkish      | 4  | Level 1     | 25 |
|          |     | Female | 50 |              | Moroccan     | 36 | Level 2     | 13 |
|          |     |        |    |              | Other        | 17 | Level 3     | 11 |
|          |     |        |    |              |              |    | Level 4     |    |
| Total    | 173 |        |    |              |              |    |             |    |

## 2.2  Instruments

For this study, two types of span tests were used: a digit span task and a non-word repetition task because, given earlier results discussed above, we were not sure whether those span tasks would measure the same in illiterate learners. In order to gain evidence of a potential relationship between WM capacity and L2 vocabulary learning on the one hand and learning to read on the other, an L2 vocabulary test and a word reading task for decoding fluency were administered.

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[1] The Common European Framework describes three levels of language proficiency: that of Basic User (A), Independent (B) and Proficient User (C). Each level is subdivided into two sublevels, e.g., A1 (Breakthrough) and A2 (Waystage). For details see Janssen-van Dieten (2006) and Stockmann (2006).

### 2.2.1    *Digit Span*

The digit span task is a subtest of the Wechsler Intelligence Scale for Children (revised version: WISC-R, similar to WAIS-III). Subjects are presented a series of digits and are asked to repeat them in the order they were presented (forward digit span) or starting with the last digit (backward digit span). For the children, both the forward and the backward digit span were used. Since the backward span task turned out to be too difficult for the adults in a pilot study (the first six participants did not understand at all what was required), this part was left out. Digit series started with three digits (e.g., 6-2-9) and went up to eight digits (e.g., 3-8-2-9-5-1-7-4). For practical reasons, the task was carried out in Dutch; it had been checked before the test that participants knew numbers 1 to 10 in Dutch.

### 2.2.2    *Non-Word Repetition*

The non-word repetition task (NRT) that is used here was developed by Gerrits (De Bree, Wilsenach & Gerrits, 2004) based on Dollagahan & Campbell (1998). This task has commonly been employed as a diagnostic instrument for young L2 learners from Turkey, Morocco and Surinam to investigate phonological processing. The stimuli were 24 pseudo-words, ranging in syllable length from two (*keefuus*) to six (*peetaaneisookoonief*). No consonant clusters were used. The standard score of the NRT is the percent of correctly pronounced phonemes. As it is well known that adults have serious problems in acquiring native-like phonological skills (pronunciation), we doubted whether this measure would be adequate for assessing their WM capacity. Therefore, we calculated another score, the number of items that were repeated correctly (NRT span score); this score is comparable to the digit span score. For the NRT span sore, small deviations in the pronunciation of phonemes were not taken into account, e.g. *keefienuu* pronounced as *keefienoe* was accepted as a correct repetition of a three-syllable word.

### 2.2.3    *Vocabulary*

To assess receptive vocabulary, a subtest of the TAK ("Language Test for All Children," Verhoeven & Vermeer, 2002) was used. This subtest has the form of a picture selection task and consists of four pictures on each page. The child is asked to point to the right picture (e.g., where is the bike? where do you see someone reading?). This task was also used for the adult learners: the lexical items all relate to frequent Dutch words and belong to the domain of daily life and are of relevance to adults as well. Since for the older children in the sample a reading-based variant of the

vocabulary test was used, we could simply use the test score for comparison. Therefore, the estimation of vocabulary size, which can be calculated on the basis of the test scores, was used for group comparisons.

### 2.2.4    *Word Reading (Decoding Fluency)*

As a word reading task, the first card of the DMT (Three Minute Test) was used. Items on the first card are monosyllabic words without consonant clusters. Subjects were asked to read aloud for one minute. The reading score is the number of correctly read words within one minute. Small deviations in the pronunciation of typical Dutch vowels were not counted as mistakes.

### 3    *Results*

### 3.1    *Correlations between Working Memory Measures*

Table 2 presents the correlations between the three WM measures (forward digit span, percentage of correctly repeated phonemes in NRT, and number of correctly repeated syllables in NRT), for all subjects and separately for children and adults.

*Table 2:   Correlations between forward digit span (DST), percentage of correctly repeated phonemes of the NRT and NRT span score for all participants, and for children and adults separately*

|  | % of correct phonemes NRT | NRT span score |
|---|---|---|
| *All subjects (N=173)* | | |
| Forward DST | .563** | .460** |
| % of correct phonemes NRT | | .643** |
| *Children (N=116)* | | |
| Forward DST | .579** | .438** |
| % of correct phonemes NRT | | .619** |
| *Adults (N= 57)* | | |
| Forward DST | .527** | .490** |
| % of correct phonemes NRT | | .728** |

** p< .01

For all L2 participants, the correlations between the three measures of WM are high and significant (p<.01). The highest correlation is between the two NRT scores, the next highest is between the digit span score and the percentage of correct phonemes on the NRT and the lowest is between the digit span and the NRT span scores. This pattern is the same

for the children as for the adults. For the adults, the correlations between two of the three measures are higher than for children, but the pattern again is the same.[2]

These results are comparable to those reported in other studies, as Gathercole & Baddeley (1990) and Papagno & Vallar (1995:104), who suggest that both measures tap the same underlying construct, namely phonological working memory, but in contrast with the results of Snowling, Chiat & Hulme (1991), who claim that a non-word repetition task measures both WM capacity and phonological processing, and De Bree *et al.* (2004), who found that a low score on the NRT phoneme score did not predict a low score on the digit span task (in a population with a risk of dyslexia).

### 3.2    *Working Memory and Vocabulary Size*

First, the scores on the WM measures are compared to the estimated vocabulary size of both adults and children (Table 3). Next, the correlations are presented in Table 4.

*Table 3:   Means, Sd and t-value of WM scores and estimated vocabulary size for adults and children*

| | Age group | N | Mean | Std. deviation | t-value[3] |
|---|---|---|---|---|---|
| Forward DST | child | 116 | 4.29 | 1.50 | 2.71** |
| | adult | 58 | 3.66 | 1.37 | |
| % of correct phonemes NRT | child | 116 | 85.07 | 13.19 | .88 |
| | adult | 57 | 83.35 | 9.42 | |
| NRT span score | child | 116 | 11.90 | 5.02 | 1.18 |
| | adult | 57 | 10.95 | 4.85 | |
| Estimated vocabulary size | child | 116 | 5691.48 | 3552.29 | 9.07** |
| | adult | 57 | 2394.11 | 1149.27 | |

** p<.01

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[2] For Dutch L1 children the correlations are respectively .604 (digit span and phoneme score), .540 for digit span and NRT span score, and .590 for the two NRT scores. This pattern slightly deviates from that of the L2 learners.

[3] Both the t-value and the F-value are statistic  measures to compare the scores of two or more different groups (in this case children and adults). If, for instance, the t-value exceeds a certain value (1.96), the difference between the groups are considered to be significant, which means that there is only a small chance that the differences did show up accidentally (the p-value).

As Table 3 shows, all WM scores are higher for the children than for the adults. Some research refers to the fact that working memory deteriorates slightly when people are getting older (though with different outcomes). According to Zimmerman & Woo-Sam (1973), the digit span score of the WAIS (Wechsler Adult Intelligence Scale) gradually shows lower scores after the age of 35. On average, the children can repeat between 4 and 5 digits, adults between 3 and 4 digits. While all three WM scores are higher for the children, the difference between children and adults is significant only for the DST. This is probably due to the fact that children work with Dutch digits on a daily basis; illiterate adults do not.

The estimated vocabulary size of the children (mean age 7.6) is significantly higher than that of the adults in the sample, which is not surprising given the fact that children of that age attend school during the entire week, while most adult learners were women without a job who came to the literacy course three times a week on average.

*Table 4: Correlations between WM scores and estimated vocabulary size*

|  |  | Estimated vocabulary size |
| --- | --- | --- |
| *All subjects (N=173)* | Forward DST | .509** |
|  | % of correct phonemes NRT | 304** |
|  | NRT span score | .322** |
| *Children (N=116)* | Forward DST | .570** |
|  | % of correct phonemes NRT | 349** |
|  | NRT span score | 363** |
| *Adults (N=57)* | Forward DST | .085* |
|  | % of correct phonemes NRT | .041* |
|  | NRT span score | .195* |

** p< .01    * p<.05

As shown in Table 4, for the whole group, all working memory scores correlate significantly with vocabulary size (p<.01), but surprisingly enough, the correlation is much higher for the digit span score than for the score that is claimed to be a better predictor of L2 vocabulary, the non-word repetition task (Ellis, 1996; Service, 1992; Service & Kohonen, 1995). When we only consider the children, all working memory correlations with vocabulary are high and significant, and again the digit span provides the highest correlation. A similar finding is reported by Baddeley *et al.* (1998): for 3-year-olds, non-word repetition is more strongly correlated with vocabulary measures than digit span, for 8-year-olds neither span correlates, and for 13-year-olds, only simple digit span is related to vocabulary measures. The mean age of the children in our sample is 7.6 years, which might account for the more important role of the digit span. However, when we focus on the adult learners in our

sample, none of the working memory measures in Table 4 correlates significantly with L2 vocabulary size. On the contrary, two of the correlations are close to zero. However, we have to be cautious in drawing conclusions here, given the correlations with L2 proficiency levels that will be presented in subsection 3.4.

### 3.3 *Working Memory and Reading Ability*

This subsection on reading ability relates only to the results of the adult learners as we do not have comparable data from the elementary school pupils. In Table 5, the correlations between WM scores and reading scores are provided.

*Table 5: Correlations between WM scores and reading score for adults*

|  |  | Reading score (DMT) |
|---|---|---|
| *Adults (N=57)* | Forward DST | .157 |
|  | % of correct phonemes NRT | .229 |
|  | NRT span score | .395* |

\* p<.05

When the correlations of WM scores and word reading scores in Table 5 are compared with the correlations of WM scores and vocabulary size in Table 4, the former are slightly higher, and significant for the NRT span score (p<.05). A correlation, however, does not say anything about causality; it might well be that the better reading skills have a positive effect on the ability to repeat longer pseudo-words.

To conclude, for the children in our study we find positive and significant correlations between WM scores and L2 vocabulary, but not for the unschooled adults in our study. Working memory scores do not seem to explain variation in L2 vocabulary. The only significant correlation found in the adult sample is the correlation between non-word span and decoding. The most plausible explanation for that seems to be that literacy favorably affects the ability to remember and repeat longer pseudo-words.

### 3.4 *Other Variables: Duration of Lessons, Length of Residence and Age*

One of the variables that might be a good indicator of growth in vocabulary and increase in reading ability in the adults is the number of L2 lessons they attended. Since the WM tasks we used were either in L2 Dutch (digit span) or a non-word repetition task that only consisted of Dutch phonemes, we add the correlations with the WM scores as well. Table 6 presents an overview of these correlations.

*Table 6:    Correlations WM measures, vocabulary size and reading score with duration of L2 lessons, length of residence and age, for adults (N=57, for reading N=43)*

|                          | L2 lessons in months | Length of residence | Age     |
|--------------------------|---------------------|---------------------|---------|
| Forward DST              | .168                | -.393**             | -.265*  |
| % correct phonemes NRT   | .366**              | -.499**             | -.324*  |
| NRT span score           | .253                | -.521**             | -.386** |
| Estimated vocabulary size| .414**              | -.063               | -.202   |
| Reading score DMT        | .337*               | -.280               | -.344*  |

**p<.01     *p<.05

As might be expected, the correlations between number of months of L2 lessons, ranging from less than six months to more than five years, and vocabulary size and reading scores are significant, although not very high. One of the WM scores (i.e., the proportion of correctly pronounced phonemes) also correlates significantly with the number of L2 lessons. It should be noted that pronunciation will get ample attention in L2 lessons, especially in L2 literacy courses.

All correlations with age and length of residence are negative and significant for all three WM scores: the older the learner, the lower the working memory scores are. The negative correlations with length of residence in the Netherlands are probably caused by the fact that this measure is confounded with age. Since there is a negative correlation with age, and most older people have been in the Netherlands much longer than the young people, the correlation with length of residence is also negative.

### 3.5  L2 Proficiency Levels Compared for WM, Vocabulary Size and Reading Scores

We divided the adult learners according to the literacy level they reached or the level of the class they were attending. This is only a global indication; of course, within each group variation existed. The levels A, B, and C are literacy levels, A1 and A2 are CEF levels of general language proficiency. Table 7 gives an overview of the WM scores, the estimated vocabulary size and the reading scores for the four groups of learners.

Surprisingly, all WM scores in Table 7 (except for the digit span at the level B group) seem to increase with the literacy/L2 proficiency level the students have reached. On all WM measures, the average scores are highest in the highest level group and lowest in the lowest one. The difference between the level groups is significant for the NRT scores, not for the digit span. Pairwise comparisons (Tukey HSD) reveal that only the

*Table 7:  Working memory scores, estimated vocabulary size, reading scores and F-values for four proficiency levels of learner groups (A, B, C are literacy levels; A1,2 are general L2 proficiency levels)*

|  | Literacy – L2 prof. levels | N | Mean | SD | F-value |
|---|---|---|---|---|---|
| Forward DST | A – below A1 | 25 | 3.36 | 1.11 | 2.46 |
|  | B – below A1 | 13 | 3.31 | 1.38 | (p=.10) |
|  | C – A1 | 11 | 4.27 | 1.79 |  |
|  | A2 | 8 | 4.38 | 1.30 |  |
|  | Total | 57 | 3.67 | 1.39 |  |
| % correct phonemes NRT | A – below A1 | 25 | 79.25 | 9.30 | 4.54** |
|  | B – below A1 | 13 | 84.56 | 10.29 | (p=.007) |
|  | C – A1 | 11 | 86.03 | 6.73 |  |
|  | A2 | 8 | 91.28 | 5.95 |  |
|  | Total | 57 | 83.46 | 9.51 |  |
| NRT span score | A – below A1 | 25 | 8.24 | 3.80 | 10.28** |
|  | B – below A1 | 13 | 11.00 | 3.58 | (p=.000) |
|  | C – A1 | 11 | 13.09 | 4.95 |  |
|  | A2 | 8 | 16.00 | 3.82 |  |
|  | Total | 57 | 10.89 | 4.79 |  |
| Estimated vocabulary size (TAK) | A – below A1 | 25 | 1738.56 | 903.45 | 13.23** |
|  | B – below A1 | 13 | 2312.85 | 967.74 | (p=.000) |
|  | C – A1 | 11 | 2696.91 | 773.50 |  |
|  | A2 | 8 | 3983.38 | 920.78 |  |
|  | Total | 57 | 2369.54 | 1155.39 |  |
| Reading score (DMT) | A – below A1 | 11 | 12.18 | 12.16 | 14.76** |
|  | B – below A1 | 13 | 24.15 | 13.28 | (p=.000) |
|  | C – A1 | 11 | 28.00 | 10.02 |  |
|  | A2 | 8 | 46.88 | 7.51 |  |
|  | Total | 43 | 26.30 | 15.94 |  |

** p<.01

differences between level A2 and literacy level A are significant for the two NRT measures; for the NRT span score, the difference between level A2 and  level B and between level A and C was also significant. We have to be cautious here, as the mean age of the groups also differs (respectively 43, 35, 36, and 32 years). The difference between the age groups is also significant (F=2.21, p=0.03).

The same pattern can be observed for estimated vocabulary size and reading score (timed word reading, number of correctly read words per minute). The scores are lowest for the lowest level groups and highest for the highest level groups. For vocabulary size, all pairwise comparisons (Tukey HSD) are significant except for the difference between level A and B and between level B and C; the highest level group differs significantly

from all other groups (all p<.05). For reading, the highest level group differs significantly from all other groups, and pairwise comparisons are also significant for the differences between level A compared with C and level B and level A2.

For reasons of presentation, we have clustered the four level groups of adults in slow/average learners and above average learners (or successful learners), who attained proficiency level A1 and/or A2, which is normally not achieved by illiterates. In this way, the differences between the two groups become much more manifest, as can be seen in Table 8.

*Table 8: Groups WM scores for average and above average adult literacy learners*

|  | groups | N | Mean | SD | t-value |
|---|---|---|---|---|---|
| Forward DST | Average | 38 | 3.32 | 1.16 | -2.74** |
|  | Above average | 20 | 4.40 | 1.52 | p=.008 |
| % correct | Average | 38 | 80.71 | 9.73 | -3.080** |
| phonemes NRT | Above average | 20 | 88.22 | 6.60 | p=.003 |
| NRT span score | Average | 38 | 9.03 | 3.84 | -4.800** |
|  | Above average | 20 | 14.58 | 4.58 | p=.000 |

As can be inferred from Table 8, the two groups differ significantly on all working memory scores, with the above average students outperforming the average students. In fact, this information contradicts the absence of correlations with vocabulary size, since here the higher WM scores go together with higher proficiency levels in Dutch.


## 4    Conclusion and Discussion

The conclusions that can be drawn from this study are the following:
- The group of successful (above average) adult learners differs significantly from the average literacy learners on all three WM tests (Tables 7 and 8).
- For adults, no relationship was found between WM tests and vocabulary size (see Table 4).
- For adults, only one significant correlation was found between NRT span score and the word reading score (see Table 5).

The most striking result from the above comparisons is that significant correlations were found between WM scores and vocabulary knowledge for all subjects and for children, but not for adults. It is almost paradoxical that this absence of correlations between WM scores and vocabulary size among adults goes together with significant differences between average and above average learners. There are several potential accounts. First, it may be possible that the vocabulary test used in this study is not an

adequate measuring of adult vocabulary knowledge (compare the results of Cheung (1996) and Juffs (2004, 2005, 2006b) who did not find a correlation between word span and vocabulary size). Furthermore, how do we know that high WM scores predict a large vocabulary size and not the other way around, that a large vocabulary size predicts large WM scores? Second, WM scores may be not-so-good predictors of adult L2 vocabulary size, but they may be better predictors of general language proficiency (as good WM scores go together with proficiency level A1 and A2). Third, it may be that the lower mean age of the successful learners is the factor that accounts for the success of the above average group and the lack of success of the average group. Therefore, we should try match the two groups for age and other relevant background variables as well as possible.

The significant correlation we found between the non-word span and the reading score (see Table 5) does not indicate the direction of the relationship: does a higher non-word span cause a better reading score or is a better reader better at repeating non-words?

Further research is needed to disentangle the several potential predictors of L2 acquisition of LESLLA populations more thoroughly, for example by using L1 measures (i.e., in the native language of L2 learners), by designing experiments in which working memory measures are combined with a vocabulary learning intervention program, by looking for more adequate forms of assessment of vocabulary size or by investigating the impact of reading on both working memory and vocabulary growth.

One of the most important implications of this research for L2 acquisition of illiterate or low-educated L2 learners is that teaching matters: not only do vocabulary and reading scores grow with the amount of instruction received (as expected), but working memory also grows. Besides teaching, one of the most stable predictors of L2 acquisition seems to be the opportunities adults get or create to use the second language in contacts with L2-speaking relatives, friends, and colleagues.

*References*

Baddeley, A. D. (1999). *Essentials to Human Memory*. Hove: Psychology Press.

Baddeley, A.D. (2003). Working memory and language: an overview. *Journal of Communication Disorders*, 36, 189-208.

Baddeley, A.D., & Gathercole, S.E. (1992). Learning to read: The role of the phonological loop. In Alegria, J., Holender, D., Junça de Morais, J., & Radeau, M. (Eds.), *Analytic approaches to human cognition*. Amsterdam: Elsevier Science Publishers.

Baddeley, A. D., Gathercole, S. E., & Papagno, C. (1998). The phonological loop as a language learning device. *The Psychological Review*, 105, 158-173.

Baddeley, A. D., & Hitch, G. (1974). Working Memory. In G. H. Bower (Ed.), *The psychology of learning and motivation* (Vol.8, pp. 47-89). New York: Academic Press.

Carr Payne, M., & Holzman, T.G. (1983). Auditory short-term memory and digit span: Normal versus poor readers. *Journal of Educational Psychology*, 75, 424-430.

Cheung, H. (1996). Non-word span as a unique predictor of second language vocabulary learning. *Developmental Psychology*, 32, 867-873.

Council of Europe (2001). *A Common European Framework of Reference for Languages: Learning, teaching, assessment*. Cambridge: Cambridge University Press.

De Bree, E., Wilsenach, C., & Gerrits, E. (2004). Fonologische verwerking en fonologisch werkgeheugen van kinderen met taalproblemen. *Stem-, spraak- en taalpathologie,* 12, 172-186.

Dollaghan, C., & Campbell, T. F. (1998). On word repetition and child language impairment. *Journal of Speech, Language, and Hearing Research*, 41, 1136-1146.

Ellis, N. C. (1996). Phonological memory, chunking, and points or order. *Studies in Second Language Acquisition*, 18, 91-126.

Ellis, N. C. (2001). Memory for language. In P. Robinson (ed.), *Cognition and second language instruction* (pp. 33-68). New York: Cambridge University Press.

Gathercole, S.E., & Baddeley, A.D. (1990). The role of phonological memory in vocabulary acquisition: A study of young children learning new names. *British Journal of Psychology*, 81, 439-454.

Goswami, U, Ziegler, J.C., Dalton, L. & Schneider, W. (2001). Pseudohomophone effects and phonological recoding procedures in reading development in English and German. *Journal of Memory and Language*, 45, 648-664.

Janssen-van Dieten, A.M. (2006). The European Framework of Reference and L2 learners with a low level of education. In I. Van de Craats, J.

Kurvers & M. Young-Scholten (Eds.) *Low-educated adult second language and literacy learners.* Utrecht: LOT Occasional Series 6, 143-150.

Juffs, A. (2004). Representation, processing and working memory in a second language. *Transactions of the Philological Society*, 102, 199-226.

Juffs, A. (2005). Some effects of first language and working memory in the processing of long distance wh-questions. *Second Language Research*, 21, 121-151.

Juffs, A. (2006b). Working memory, second language acquisition and low-educated second language and literacy learners. In I. Van de Craats, J. Kurvers & M. Young-Scholten (Eds.) *Low-educated adult second language and literacy learners.* Utrecht: LOT Occasional Series 6, 89-105.

Juffs, A. (2006a). Processing reduced relative versus main verb ambiguity in English as a second language: A replication study with working memory. In R. Slabakova, S, Montrul & P. Prévost (Eds.), *Inquiries in Linguistic Development in Honor of Lydia White* (pp. 213-232). Amsterdam: John Benjamins.

Kosmiris, M. H., Tsapkini, K., Folia, V., Vlahou, C.H., & Kiosseoglou, G. (2004). Semantic and phonological processing in illiterates. *Journal of the International Neuropsychological Society*, 10, 818-827.

Loureiro, C. d. S., Braga, L.W., Souza, L. de N., Filho, G. N., Queiros, E., & Dellatolas, G. (2004). Degree of illiteracy and phonological and metaphonological skills in unschooled adults. *Brain and Language*, 89, 499-502.

Papagno, C., & Vallar, G. (1995). Verbal short-term memory and vocabulary in polyglots. *Quarterly Journal of Experimental Psychology*, 48A, 98-107.

Petersson, K. M., Reis, A., Askelof, S., Castro-Caldas, A., & Ingvar, M. (2000). Language processing modulated by literacy: a network analysis of verbal repetition in literate and illiterate subjects. *Journal of Cognitive Neuroscience*, 12, 364-382.

Service, E. (1992). Phonology, working memory, and foreign-language learning. *The Quarterly Journal of Experimental Psychology*, 45A, 1, 21-50.

Service, E., & Kohonen, V. (1995). Is the relation between phonological memory and foreign language learning accounted for by vocabulary acquisition? *Applied Linguistics*, 16, 155-172.

Snowling, M., Chiat, S., & Hulme, C. (1991). Words, nonwords, and phonological processes: Some comments on Gathercole, Willis, Emslie, and Baddeley. *Applied Psycholinguistics,* 12, 369-373.

Stockmann, W. (2006). Portfolio methodology for literacy learners: The Dutch case. In I. Van de Craats, J. Kurvers & M. Young-Scholten (Eds.) *Low-educated adult second language and literacy learners.* Utrecht: LOT Occasional Series 6, 151-163

Verhoeven, L.T.W. & Vermeer, A.R. (2002). *Taaltoets Alle Kinderen.* (Language Test for Children). Arnhem: CITO.

Wechsler, D. (1991). Wechsler Intelligence Scale for Children–Revised. San Antonio, TX: The Psychological Corporation.

Zimmerman, I. L. & Woo-Sam, J.M. (1973). Clinical interpretation of the Wechsler Adult Intelligence Scale. New York/London: Grune & Stratton.

# A READING COMPONENTS ASSESSMENT OF ENGLISH LANGUAGE LITERACY LEARNERS IN U.S. PRISONS

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## 1    Introduction

The United States is the world leader in incarceration. In 2004, over seven million adults were involved in the criminal justice system (BJS, 2006). A growing proportion of the U.S. prisoner population is comprised of non-citizens. In the Federal Prison System (FPS), 25 percent of adults entering the system are non-citizens (U.S. Sentencing Commission, 2000), most of whom are English language learners. Despite the high level of print literacy needs among this population, few studies have examined their literacy learning needs within an English-based adult basic education context.

This paper reports findings from a study of federal prisoners that included both native English speakers and English language learners who were enrolled in English-based literacy programs (Muth, 2004). Reading component skills of both groups of learners were assessed. This paper examines and compares the reading patterns that emerged and discusses implications for assessment protocols in prison classrooms. The aim of the study is to advance our understanding of reading assessment as it relates to the instructional needs of English language learners.

## 2    Some Context: Non-citizens in U.S. prisons

Although the focus of this paper is on *English language literacy learners (ELLLs)* – i.e., learners whose first language is not English, enrolled in literacy programs – data about English language learners in federal prisons were limited. Thus data about *non-citizens* – i.e., citizens of countries other than the U.S. – were sometimes used as proxy, as the great majority of these non-citizens were also English language learners (U.S. Bureau of Prisons, 2004). The author realizes that the match between non-citizens and English language learners is not exact. Readers should consider this when thinking about the contextual information in this section.

### 2.1    Rates of Incarceration Among Latino/a Populations

As of June 30, 2006, state and federal prisons in the U.S. held 88,776 non-citizens, a 1 percent increase from the 87,917 held a year earlier. Sixty-two percent were held in state prisons and 38 percent in federal institutions (BJS, 2006). Latinos/as make up the largest group of incarcerated non-

citizens. In nine states, 4-8 percent of adult Latino men are incarcerated. Further, in ten states, Latino men are incarcerated at rates between five and nine times greater than those of white men; in eight states, Latina women are incarcerated at rates that are between four and seven times greater than those of white women.

## 2.2    *Sentence Lengths and Educational Levels of Incarcerated Non-citizens*

In a three year study that controlled for crime, sex, race, SES and citizenship, Mustard (2001) found that, as a group, citizens received shorter federal sentences than non-citizens. He speculates that this may be due, at least in part, to citizens' greater knowledge of the U.S. criminal justice and legal support systems. In addition to these "social capital" factors (Rose & Clear, 2002), lower literacy levels may also contribute to lengthier sentences among non-citizens. Clark and Anderson (2000) noted that sentenced illegal aliens (a term used to describe deportable non-citizens) tended to be poorer, less educated, younger, more likely to be Hispanic, more likely to be male, and less likely to have dependents. As a group, non-citizens entering the FPS appeared to be considerably less educated than citizens. In 2000, over 18,000 citizens entered the FPS; approximately 68 percent had a High School Diploma or a General Equivalency Diploma (GED), the credential that is widely accepted in the U.S. as its equivalent. By comparison, approximately 4,500 non-citizens entered the FPS that year, and only 28 percent had completed a secondary education (U.S. Sentencing Commission, 2000).

## 2.3    *FPS Education Programs*

The Federal Prison System offers a Spanish-based GED program, and in 2004 12 percent of all GEDs awarded to federal prisoners were in Spanish (752 Spanish GEDs vs. 5,372 English GEDs). But most ELLLs are enrolled in English-based programs – often after completing, or concurrently enrolling in, an English as a Second Language (ESL) program. At any given point in 2004, over 25,000 incarcerated learners were enrolled in FPS English-based literacy programs. Approximately 17 percent (over 4,500) of these learners were non-citizens, and most of them were English-language learners (U.S. Bureau of Prisons, 2004).

    Despite this large presence of ELLLs, very little is known about how this group of low-literacy learners processes English text or how their instructional needs differ from those of low-literacy learners whose first language was English. In an effort to better understand these needs, an assessment protocol – modeled after Strucker and Davidson's (2003) Adult Reading Components Study – was adapted for use with federal prisoners.

## 3    Adult Reading Components Study

In an attempt to get below the surface of over-simplified reading assessments (such as the widespread use of silent reading comprehension tests to diagnose and place adult literacy learners with diverse life and learning experiences), Strucker and Davidson (2003) administered a battery of reading component tests to 955 randomly selected learners (676 ABE and 279 ESOL) from community-based learning centers in Texas, Tennessee, New York, Rhode Island, Connecticut, Massachusetts, and New Hampshire.

### 3.1      Reading Components

Although reading comprehension is widely considered to be the outcome of reading instruction, Strucker (1997) argued that effective reading instruction must be based on an understanding of the component skills that culminate in comprehension. These components can be organized into two primary groups – print and meaning – and fluency (Table 1). *Print skills* include such skills as phonemic awareness (proficiency in hearing small units of sound) and word recognition (including sight word recognition and decoding). *Meaning skills* include oral vocabulary (receptive and expressive), background knowledge (prior learning), and reading comprehension[1]. *Fluency* goes beyond the automatic recognition of words in print to include the use of intonation, inflection, rhythm, and other prosodic features of speech. In the ARCS study (as in the current study), a simple measure of reading rate (words per minute) was used.

Strucker and Davidson's (2003) work in reading components is an extension of the work of Bruck (1990, 1992), Chall (1991), Curtis (1980, 1987), Read (1987), Read and Ruyter (1985), and others. Based on her work at the Harvard Adult Literacy Initiative Laboratory, Chall (1991) hypothesized that most adult literacy learners would not possess equal abilities across reading component tests but rather achieve one of two uneven patterns (or profiles): (a) a pattern of stronger meaning scores (e.g., vocabulary) and weaker print scores (e.g., word recognition) like some children and adolescents that were diagnosed with learning disabilities; or (b) a pattern of strong print skills relative to meaning,

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[1] The term reading comprehension sometimes refers to broad reading outcomes, like the outcomes that silent reading comprehension tests purport to measure. In this use, reading comprehension may be seen as the culmination of print and meaning skills (Hoover & Gough, 1990). But the term also refers to a specific *meaning component* of reading—i.e, the comprehension strategies and skills (e.g., predicting, scanning for information, text look-backs) that one uses to set purposes for reading, monitor understanding, and reflect critically.

similar to the pattern often achieved by second language learners in ESL programs that were schooled in their first language.

   To a large degree, Strucker and Davidson's (2003) Adult Reading Components Study (ARCS) confirmed Chall's hypothesis, at least for those learners who participated in community-based programs. They carefully documented both even and uneven profiles among the learners in their study. (A free, interactive, on-line course describes their findings. It is available at: http://www.nifl.gov/readingprofiles/

*Table 1:     Reading Components Organized by Print/Meaning*

| Category | Component |
|---|---|
| Print | |
| | Phonemic Awareness |
| | Word Recognition |
| | Sight Words |
| | Decoding (Word Analysis) |
| | Spelling |
| Meaning | |
| | Word Meaning (Oral Vocabulary) |
| | Background Knowledge |
| | Reading Comprehension Skills and Strategies |
| Fluency | |
| | Reading Rate |

*3.2     Instructional Importance of Component-level Assessment*

Strucker (1997) noted that many adult literacy programs use a single silent reading comprehension score from a group-administered test to assess reading and place adult learners. Although these silent tests provide one way to measure reading outcomes, they fail to provide the diagnostic information needed to inform instruction. He warned that the high prevalence of uneven reading component profiles among adult learners makes this over-simplistic approach ineffective and could lead to inappropriate (and sometimes even harmful) instructional approaches.

   For example, researchers have argued that explicit phonics programs are both over-used (Moll, 1998) and under-used (Adams, 1990). The key to appropriate reading instruction appears to begin with adequate assessment at the component level. Literacy instruction needs to emphasize print skills and meaning skills in differing proportions

depending on the levels and profiles of the learners (McShane, 2005; Curtis & Longo, 1999).

Efforts to translate reading component assessment models to instructional models have increased in the past five years (Kruidenier, 2002; McShane, 2005). But the application of reading component assessment to adult ELLLs – particularly those who are incarcerated – remains almost non-existent at this time (National Center for ESL Literacy Education, 2003; Strucker, 2002). The current study of federal prisoners aims to address this gap. An overview of its methods follows.

## 4    Method

One hundred and twenty literacy learners from seven federal prisons in the U.S. participated in the study. Prisoners from one minimum-security female prison and two low, medium, and high security male facilities were administered an educational history questionnaire and a battery of 10 reading components tests. Cluster analyses were used to determine reading patterns and the extent to which these patterns conformed to earlier predictions (Chall, 1991) and studies of community-based adult literacy learners (Strucker & Davidson, 2003).

### 4.1    Sample

Detailed descriptions of assessment tools, sampling strategy, and validity controls are explained in detail elsewhere (Muth, 2004). Latino/a inmates – many of whom were enrolled in Spanish literacy programs at the time of this study – were under-represented. However, 29 percent of the participants (n = 35) were ELLLs, a sufficient number to observe some limited patterns among the group. (This number includes nine inmates from Jamaica and Guyana who identified Patois or Creole as their first language and English as their second language.) Table 2 provides demographic data about the sample.

### 4.2    Instruments

The following tests were used to derive eleven measures used in the cluster analysis: *The Diagnostic Assessment of Reading* (DAR) (Roswell & Chall, 1992) was used to obtain four measures used in the cluster analysis: word recognition, oral reading, and word meaning. The DAR Word Recognition Test consists of graded lists of phonetically regular and irregular words. The DAR Oral Reading Test assesses word recognition (in context) and fluency, but not comprehension. The DAR Word Meaning Test measures oral, expressive vocabulary. To obtain a measure of reading rate, the participants were asked to reread one of the two

*Table 2:   Selected Demographics of 120 Inmate Sample.*

| Demographic | Number | Percent |
|---|---|---|
| Sex | | |
| Male | 105 | 87.5 |
| Female | 15 | 12.5 |
| Security Level | | |
| Minimum (female) | 15 | 12.5 |
| Low | 30 | 25 |
| Medium | 40 | 33.3 |
| High | 35 | 29.2 |
| Race/Ethnicity | | |
| African American | 85 | 70.8 |
| Caucasian (non-Hispanic) | 20 | 16.7 |
| Hispanic/Latino/a | 9 | 7.5 |
| Asian/Pacific Islander | 4 | 3.3 |
| Native American | 1 | .8 |
| Mixed Race | 1 | .8 |
| Native Language | | |
| English | 85 | 70.8 |
| Patois/Creole (Jamaica, Guyana) | 9 | 7.5 |
| Spanish | 6 | 5 |
| Creole (Haiti, Bahamas) | 6 | 5 |
| Arabic | 5 | 4.2 |
| Other (Chinese, Swahili, Albanian, Mandingo, Vietnamese, Pushtu) | 9 | 7.5 |

highest passages from the DAR Oral Reading Test for which mastery was obtained. The *Rosner Test of Auditory Analysis Skills* (Rosner, 1975) is print-free. It was used to provide a measure of phonemic awareness; i.e., how well one can discern and manipulate sounds at increasingly subtle levels. The tasks progress in difficulty from the deletion of whole words (e.g., "say the word /cowboy/ without the /boy/") to blended phoneme-level deletions of a single consonant (e.g., "say /play/ without the /p/"). The *Woodcock-Johnson Psycho-Educational Battery of Achievement Tests-III, Word Attack Test,* (Woodcock, McGrew, & Mather, 2001) was used to measure decoding. This test requires participants to read a list of increasingly difficult, phonetically regular pseudowords. *Rapid automatized naming* (RAN) test for letters, adapted from Denckla and Ruddel (1974), was used to measure naming speed – an indicator of general processing speed that is associated with reading rate. Participants were asked to continuously

read, as quickly and accurately as possible, a page containing 50 items from an array of letters or numbers. *The Peabody Picture Vocabulary Test* (PPVT) (Dunn & Dunn, 1997) was used to measure receptive vocabulary. The test required the participants to listen to a verbal cue ("which picture tells best about ___") and then point to one of four pictures that best illustrated the word's meaning. The *Wechsler Adult Intelligence Scales (WAIS): Digit Span* (Wechsler, 1997) was used to measure how well subjects remembered a series of digits presented orally. WAIS Digits Forward, a measure of short-term memory, required participants to repeat digits in the same order as presented. WAIS Digits Backward, a measure of short term and working memory required learners to repeat digits in reverse order. *The Adult Basic Learning Examination* (ABLE), Reading Comprehension, a group-administered test, required participants to silently read passages of increasing difficulty and answer multiple-choice comprehension questions about the passages (Karlsen & Gardner, 1986).

An *educational history questionnaire*, adapted from Strucker and Davidson's (2003) instrument, was also administered. It had 64 items that addressed six general areas: general information (e.g., age, need for glasses, native language); employment/vocational history (e.g., most recent job before incarceration, how long on that job); family history (e.g., marital status, language spoken in home); school history (e.g., highest grade completed, need for special help with reading); current reading and writing practices (e.g., educational goals, reading interests); and medical and health history (e.g., medical conditions effecting ability to learn, history of drug abuse prior to incarceration).

### 4.3    Factor Analysis

Factor analysis can be used to determine how individual tests are related. In this study, the factor analysis aligned the test measures with one of four broad areas: *print skills* – phonemic awareness, word attack, word recognition and oral reading; *meaning skills*—oral expressive and receptive vocabulary; *reading rate* – rapid automatized naming and reading rate; and *memory* – verbal short-term and working memory. The four factors provided a helpful framework for organizing and describing reading patterns and clusters (see below and Figure 1).

### 4.4    Cluster Analysis

Cluster analysis is used to examine patterns in data sets when multiple variables are studied simultaneously (Lorr, 1983). This study employed iterative statistical processes that resulted in the hierarchical building of

clusters.[2] At the beginning, each of the 120 participants (or cases) was viewed as a separate cluster. Using a hierarchical algorithm, Wards Method, each case was combined with its closest neighbor – the case with the most closely matched reading pattern. At each iteration, mathematical measures of homogeneity were calculated. As each new member was added to a cluster, its diversity expanded and, conversely, its homogeneity lessened.

Two types of data were used to monitor the cluster-building process. The first was the statistical data noted above. The second was the educational history questionnaire data. At each iteration, new clusters were evaluated mathematically (in terms of homogeneity) and qualitatively (in terms of face value based on questionnaire data such as native language, highest grade completed, and history of special education). The analysis determined that eight clusters was optimal. Solutions with fewer clusters created groups that lacked homogeneity and face validity. Solutions with greater numbers of clusters created smaller and more homogenous groups, but some clusters were almost indistinguishable from others and created unnecessary redundancies. For an extensive description of the procedures and validity controls used in this study, see Muth (2004).

The eight profiles (Figure 1) are primarily distinguished by their aggregate *print* and *meaning* factor scores, but performances in areas of *reading rate* and *memory* also influenced the way the way participants were assigned to clusters. These findings, and their significance, are explained next.

## 5    Findings

The cluster analysis assigned 120 literacy learners to eight clusters (Figure 1). In addition to the relationship between print and meaning factors, which is the prevailing characteristic used to label the clusters, two other factors – reading rate and memory – had secondary importance in defining clusters. In Figure 1, the four factors represented along the X-axis are, from left to right: Print, Meaning, Reading Rate, and Memory. The Y-axis represents the clusters' aggregate Z-score values – i.e., the distance from the mean, in terms of standard deviations, for the entire 120 prisoner sample.

### 5.1      Print-versus-meaning Profiles

A close look at the eight profiles in Figure 1 reveals three patterns based on the clusters' aggregate print and meaning scores. For example, Cluster

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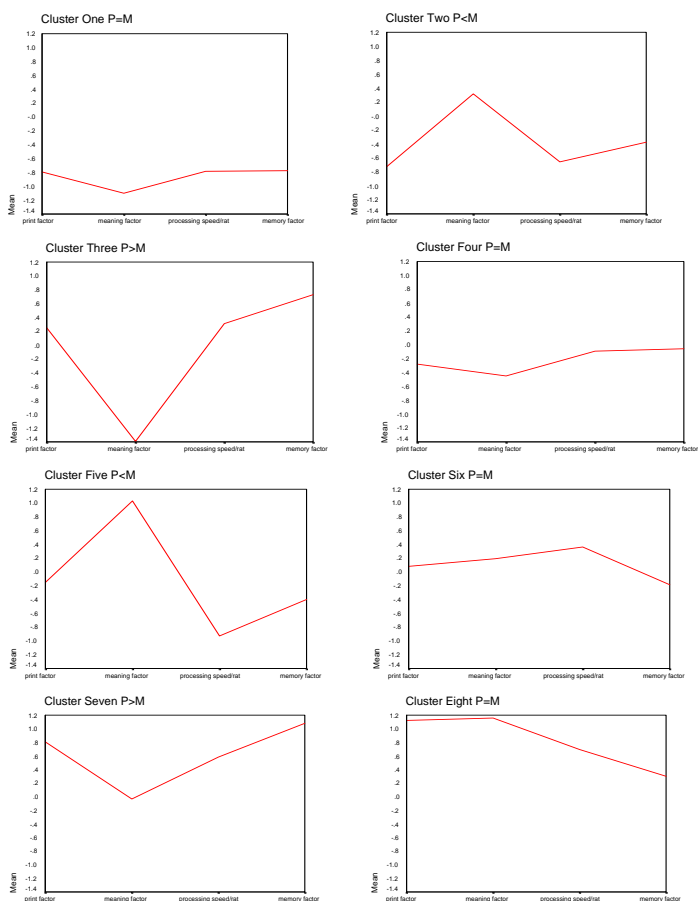[2] All calculations were done with SPSS (2000) software.

*Figure 1: Profiles of Eight Clusters.*

1 participants tended to have equally low scores across tests of print and meaning, and therefore represents a Print=Meaning (P=M) profile. Clusters 4, 6, and 8 also present P=M profiles at increasingly higher levels of proficiency. For example, Clusters 4 and 6 are both relatively flat, but, with the exception of the memory factor score, cluster 6 members, on average, achieved Z-scores as much as .5 standard deviations higher than cluster 4 members.

By way of contrast, the remaining clusters all represent literacy learners that have not developed reading proficiencies evenly across the component areas. Clusters 2 and 5 have pronounced Print<Meaning

(P<M) profiles while Clusters 3 and 7 demonstrate the opposite
Print>Meaning (P>M) pattern.

## 5.2    Confirming Chall's Hypothesis

As noted above, Chall (1991) predicted two types of uneven profiles
among adult literacy learners, based on the high prevalence of ELLLs and
adults with reading disabilities that participated in the Harvard Adult
Literacy Initiative. The P>M profile suggested an ELLL – particularly one
that was literate in L1, and particularly when that L1 employed a writing
system with a phonologically-based alphabet. Conversely, the P<M profile
suggested an adult with a reading disability (dyslexia) – particularly when
that adult struggled with print skills despite five or more years of formal
education.
      To some degree, the Federal Prison Study confirmed Chall's
hypothesis, in that numerous uneven profiles were found (Figure 1). As a
group, ELLs achieved lower scores on all reading component tests. And,
as Chall predicted, ELLs tended to perform better on print tests
(especially word recognition and oral reading) than on meaning tests
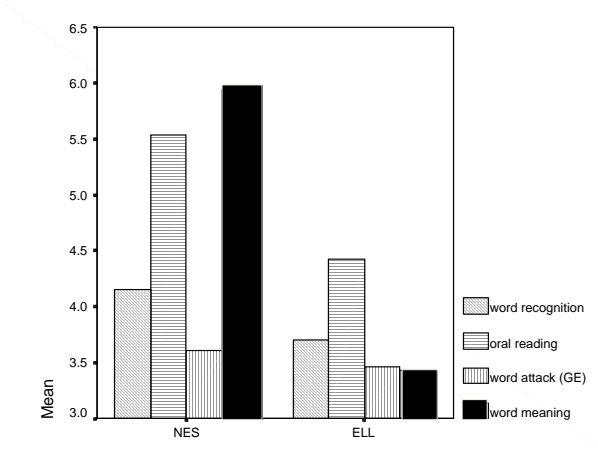(word meaning) (see Figure 2).



Figure 2:   Reading Patterns of Native English Speakers and English Language
            Literacy Learners Based on Aggregate Grade Equivalent Scores.

Further, many ELLs did cluster together in P>M groups. For example,
cluster 3 was comprised of six learners. Five of the six were ELLs. These
ELLs may have been similar to the ELLs that Chall worked with at
Harvard (J. Strucker, personal communication, October 30, 2006). They

all received eight or more years of formal education in $L_1$, and did not begin speaking English until age 12 or later. (Table 3.)

*Table 3: Members of Cluster Three — A Print > Meaning Cluster*

| Case ID | Native Language | Age Speak English | High Grade Completed | Word Recog GE | Oral Reading GE | Word Meaning GE |
|---|---|---|---|---|---|---|
| 7 | Chinese | 28 | 12 | 2.0 | 1.5 | .0 |
| 76 | Arabic | 12 | 14 | 4.0 | 4.0 | 2.0 |
| 77 | Arabic | 20 | 8 | 4.0 | 5.0 | 1.0 |
| 81 | Pushtu | 51 | 10 | 4.0 | 5.0 | 4.0 |
| 82 | Chinese | 16 | 8 | 3.0 | 5.0 | 2.0 |
| 118 | English | - | 6 | 5.0 | 5.0 | 4.0 |
| Mean | | 25.4 | 9.6 | 3.6 | 4.3 | 2.2 |

*Notes. Word Recognition and Oral Reading = print skills.*
*Word Meaning = meaning skill.*
*GE = grade equivalent.*

5.3     *Qualifying Chall's Hypothesis*

Despite this aggregate conformity to Chall's hypothesis, many individual ELLs did not achieve P>M profiles. In fact, only 18 of 35 ELLs were assigned to P>M clusters. A closer examination of those ELLs that were and were not assigned to P>M clusters revealed the following: (a) Those ELLs that conformed to Chall's hypothesis (assigned to P>M clusters) tended to have more formal education in L1 (eight or more years); they also tended to be more literate in L1 than in English and preferred speaking in L1. Interestingly, these ELLs also reported having fewer serious head injuries, drug addictions, and other health problems.[3] (b) Conversely, those ELLs that were not placed in P>M groups typically learned to speak English at a younger age (eleven or earlier) and preferred speaking in English rather than in L1. (See Table 4.)

In the next section, the implications of these findings for instruction and for the design of assessment protocols for ELLLs are discussed.

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[3] Especially health problems associated with learning difficulties and reading disabilities, such as head trauma, lead poising, depression, substance abuse, and attention deficit disorders (Muth, 2004).

*Table 4:   ELLs Who Were and Were Not Placed in P>M Groups*

| Learning and Health Issue | Placed In P>M Groups n=18 | Not Placed in P>M Groups n=17 |
|---|---|---|
| Average age learned English | 21 yrs | 11 yrs |
| Highest grade completed | 8th | 5th |
| Writes in L1 | 83 % | 37 % |
| L1 is stronger than English | 76 % | 31 % |
| Had trouble with reading in school | 25 % | 54 % |
| Had serious head injury in past | 22 % | 35 % |
| Had past problem with substance abuse | 6 % | 59 % |

## 6   Implications

As noted in section 3.2 above, component-level assessments are needed to guide literacy instruction. When silent reading comprehension test scores alone are used, certain reading components – in print or meaning areas – may be unwittingly overemphasized while areas of critical need are overlooked (Strucker, 1997). Components assessments help create instructionally-relevant frameworks among highly diverse populations of literacy learners. Such diversity is found in most prison classrooms where ELLLs and native English speakers sit side-by-side and where many learners report extensive heath problems. Although as a group ELLLs in the study reported fewer health and learning problems than their native English-speaking counterparts, health problems among ELLLs were nevertheless reported with considerable regularity. In fact, of those ELLLs that were not assigned to P>M groups, 59 percent had histories of substance abuse, 35 percent had experienced severe head injuries, and 54 percent reported struggling academically as children (Table 4).

Results from this study suggest that we cannot assume ELLLs in prison-based literacy programs have stronger print skills than vocabulary skills or that they lack reading disabilities or health problems that impede their ability to master print skills. In short, their cognitive, social and linguistic needs are complex.

## 6.1 Toward a Components-level Assessment Protocol for Adult ELLLs in Prison

Since Fitzgerald's (1995) call for component-level assessments for ELLLs, some progress has been made. Strucker (2002) provided an analysis of ARCS data for ELLLs in community-based adult literacy programs. The Center for Applied Linguistics (2007) is currently developing an assessment battery for elementary-age ELLLs that includes measures of print, meaning and fluency. But very little is known about the utility of reading component assessments for incarcerated adults with low proficiency in literacy and English language.

Correctional educators, like their adult literacy counterparts in the community, struggle continuously with instructional decisions: Would this student benefit from an intensive phonics program? How much time should I spend teaching vocabulary? When is the best time to address fluency? What role should L1 play in literacy learning? If Strucker's (1997) assertion is true – that instructional decisions must be based on more than silent reading comprehension scores alone – then the need to design and study a protocol for assessing adult ELLLs is great.

The findings presented in this paper are limited by, among other things, the small sample size. Nevertheless, these preliminary findings do seem to corroborate the assessment protocol developed for the ARCS study (Strucker & Davidson, 2003), although modifications for use among incarcerated learners will be warranted. Here are some considerations for those interested in adapting the ARCS protocol for prison-based use.

### 6.1.1 Reading Component Assessments

 Prison educators can be doubly challenged with limited resources and cultures that create borders between teachers and students (Wight, 2006). Formal individualized assessments are often beyond the reach of even the most determined teacher, so that even modest assessment strategies must be introduced carefully. Given these practicalities, a comprehensive assessment of all component areas is not warranted. (Davidson and Bruce, 2003, have identified an assessment protocol using only five assessments.) Any reading components assessment model would be incomplete, however, if it did not provide a comparison of print and meaning skill proficiency. Thus, a common metric (e.g., grade equivalence) is needed to compare scores across the print and meaning-related tests. Davidson and Bruce have created a reference tool for locating component level tests. It can be found at: http://www.nifl.gov/readingprofiles/MC_Test_Bank.htm.

### 6.1.2    *Educational Histories*

Knowledge of incarcerated learners' educational histories is also an essential part of the assessment protocol. Without this knowledge, the usefulness of the reading component assessment data will be limited. The author (Muth, 2004) developed an educational history questionnaire for use with incarcerated ELLLs based on one used in ARCS. The prison-based questionnaire included additional questions that were health and release-related, but less extensive surveys may be more practical for day-to-day prison use. An effective educational history questionnaire should, at the very least, provide information about the learner's (a) first language (is its written form based on a phonological alphabetic?); (b) highest grade completed (did the learner struggle in school? if so, in which subjects? what language[s] were spoken in school?); (c) age when (s)he first began learning English; (d) language taught at school (if not L1); and (e) preferred language for speaking, reading, writing. Reading assessments in L1 are invaluable resources, though rarely available to prison educators.

The learners' histories are used, in part, to corroborate or challenge reading components test data. For example, we would not be surprised to find that an ELLL with a strong P>M profile enjoyed school as a child, studied successfully in Mexico until completing an secondary education, and learned English later in life. We might hypothesize that this learner could draw on a rich range of academic background knowledge to build knowledge of English vocabulary; we might also expect this ELLL to have a strong set of print skills in L1 upon which to build knowledge of English orthography.

However, if that learner reported *struggling* through 10 years of schooling and achieved lower scores on print tests relative to meaning (P<M profile), we might form a different set of questions: When did (s)he begin to learn English? Does this ELLL have a reading and/or language disability? Are there any health issues that might bear on learning and retention? How can we help this learner take advantage of English vocabulary strengths while supporting the need to improve decoding and sight word recognition?

Educational history data is needed to help explain, challenge and extend reading components test data. Additional assessment strategies – such as access to reading records in L1, expressive language assessments and qualitative interviews – are also warranted, but go beyond the scope of this paper.

### 7    *Conclusion*

This study presented findings about the reading patterns of ELLLs in prison-based literacy programs. Based on both conforming and non-

conforming patterns among the ELLL group, consideration was given to creating a viable assessment protocol for correctional educators. Characteristics of this assessment protocol are presented tentatively, for a number of reasons. First, reading components tests are static measures of performance. Other, more dynamic measures based on alternative assessment strategies (e.g., miscue analysis) and approaches (e.g., portfolios) should be considered as well. Second, as mentioned earlier, the small sample size is insufficient to make generalizations to other incarcerated learners. Third, the study of component-level performance among adult literacy learners (and the instructional implications of this often *uneven* performance) is in its infancy. More research is needed before we can extend this new knowledge to proven instructional methods for adult literacy learners – both incarcerated and free.

Reading components profiles help practitioners and learners see reading as non-linear. By doing so, they make it harder to place all literacy learners on one continuum based on silent reading comprehension test scores. And they help learners – even at the lowest literacy levels – articulate their strengths and not merely their needs. Most importantly, reading components-based assessments may help practitioners and learners plan instruction more purposefully.

*References*

Adams, M. J. (1990). *Beginning to read. Thinking and learning about print.* Cambridge MA: MIT Press.

Bruck, M. (1990). Word recognition skills of adults with childhood diagnoses of dyslexia. *Developmental Psychology, 26,* 439-454.

Bruck, M. (1992). Persistence of dyslexics' phonological awareness deficits. *Developmental Psychology, 28,* 874-886.

Bureau of Justice Statistics. (2006). *Corrections statistics.* U.S. Department of Justice: Author. Retrieved April 29, 2006 from: http://www.ojp.usdoj.gov/bjs/correct.htm

Center for Applied Linguistics (2007). *Diagnostic Assessment of Reading Comprehension.* Washington, DC: Author. Funder: U. S. Department of Education, Institute of Education Sciences. Retrieved on February 19, 2007 from: http://www.cal.org/projects/diagnostic.html

Chall, J. S. (1991, October). *Patterns of adult reading.* Paper presented at the conference on Literacy and Adults with Learning Disabilities, Teacher's College, Columbia University.

Clark, R. L. & Anderson, S. A. (2000, June). *Illegal Aliens in Federal, State, and Local Criminal Justice Systems.* Washington DC: Urban Institute. Retrieved on October 10, 2006 from: http://www.urban.org/url.cfm?ID=410366

Curtis, M. E. (1980). Development of the components of reading. *Journal of Educational Psychology, 72,* 656-669.

Curtis, M. E., & Longo, A. M. (1999). *When adolescents can't read. Methods and materials that work.* Cambridge: Brookline.

Curtis, M. E. (1987). Vocabulary testing and vocabulary instruction. In M. G. McKeown & M. E. Curtis (Eds.), *The nature of vocabulary acquisition* (pp. 37-51). Hillsdale, NJ: Erlbaum.

Davidson, R. K., & Bruce, K. (2003). *Assessment strategies and reading profiles: Research-based assessment practices for the adult education classroom.* Washington DC: National Institute for Literacy. Retrieved May 17, 2003, from: www.nifl.gov/readingprofiles

Denckla, M. B., & Rudel, R. G. (1974). Rapid "automatized" naming of pictured objects, letters, and numbers by normal children. *Cortex, 10,* 196-202.

Dunn, L. M., & Dunn, L. M. (1997). *Examiner's manual for the Peabody Picture Vocabulary Test (3rd ed.).* Circle Pines, MN: American Guidance Service.

Fitzgerald, J. (1995). English-as-a second-language learners' cognitive reading processes: a review of research in the United States. *Review of Educational Research, 65,* pp. 145-146.

Haigler, K. O., Harlow, C., O'Connor, P., & Campbell, A. (1994). *Literacy behind walls: Profiles of the prison population from the National Adult Literacy Survey.* Washington DC: U.S. Department of Education, Office of Education Research and Improvement.

Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal, 2,* 127-160.

Karlsen, B., & Gardner, E. (1986). *Adult Basic Learning Examination: ABLE.* San Antonio, TX: The Psychological Corporation, Harcourt Brace Jovanovich.

Kruidenier, J. (2002). *Research-based principles for adult basic education reading instruction.* Washington, DC: National Institute for Literacy.

Lorr, M. (1983). *Cluster analysis for social scientists.* San Francisco: Jossey-Bass.

McShane, S. (2005). *Applying research in reading instruction for adults: First steps for teachers.* National Institute for Literacy. Retrieved on May 3, 2006, from: http://www.nifl.gov/partnershipforreading/publications/html/mcshane/index.html

Moll, L. C. (1998). Turning to the world: Bilingual schooling, literacy, and the cultural mediation of thinking. In T. Shanahan & F. V. Rodriguez-Brown (Eds.), *Forty-seventh yearbook of the National Reading Conference* (pp. 59-75). Chicago: National Reading Conference.

Mustard, D. (2001). Racial, Ethnic and Gender Disparities in Sentencing: Evidence from the US Federal Courts. *The Journal of Law and Economics, 44*, no. 1, pages 285-314

Muth, W. R. (2004). *Performance and perspective: Two assessments of federal prisoners in literacy programs.* Doctoral dissertation, George Mason University, 2004. Dissertation Abstracts International, 65, 06A. (UMI No. AAT 3136247)

Muth, W. R. (2005). Two ways to assess literacy learners in prison. *Focus on Basics, 7,* 35-39.

Muth, W. R. (2006). Literacy learners in prison: Finding purpose in the 'second space'. In P. E. Linder, M. B. Sampson, J. R. Dugan & B. A. Brancato (Eds.), *2005 College Reading Association yearbook: Vol. 27. Building bridges to literacy* (pp. 19-34). Commerce: Texas A&M University.

National Center for ESL Literacy Education. (2003). *Adult English language instruction in the 21st century.* Washington, DC: Center for Applied Linguistics.

Read, C. (1988). *Adults who read like children. The psycholinguistic bases.* Report to the US Department of Education. Madison: Wisconsin Center for Educational Research, University of Wisconsin-Madison.

Read, C., & Ruyter, L. (1985). Reading and spelling skills in adults of low literacy. *Remedial and Special Education, 6,* 43-52.

Rose, D. R., & Clear, T. R. (2002, January). *Incarceration, reentry, and social capital: Social networks in the balance.* Paper presented at the From Prison to Home Conference hosted by the U.S. Department of Health and Human Services and The Urban Institute, Bethesda, MD. Retrieved April 29, 2006, from:
http://aspe.hhs.gov/hsp/prison2home02/Rose.htm

Rosner, J. (1975). Test of Auditory Analysis Skills. In J. Rosner (Ed.), *Helping children overcome learning difficulties.* New York: Walker, p. 77-80.

Roswell, F., & Chall, J. S. (1992). *Roswell-Chall Diagnostic Assessment of Reading and Trial Teaching Strategies.* Chicago: Riverside.

Strucker, J. (1997). What silent reading tests alone can't tell you: Two case studies in adult reading differences. *Focus on Basics, 1*, 13-17.

Strucker, J. (2002, June). *NCSALL's adult reading components study (ARCS).* Paper presented at the conference of the International Dyslexia Association, Washington, DC.

Strucker, J., & Davidson, R. (2003, November). *Adult Reading Components Study (ARCS). A NCSALL Research Brief.* Cambridge, MA: National Center for the Study of Adult Learning and Literacy. Retrieved July 24, 2006, from:
http://www.ncsall.net/fileadmin/resources/research/brief_strucker2.pdf

Travis, J., Solomon, A., & Waul, M. (2001). *From prison to home: The dimensions and consequences of prisoner reentry.* Urban Institute. Retrieved July 12, 2004, from:
http://www.urban.org/UploadedPDF/from_prison_to_home.pdf

United States Bureau of Prisons. (2004, April). *SENTRY.* Internal Inmate Information System. Retrieved April 5, 2004.

United States Sentencing Commission. (n.d.). *2000 sourcebook of federal sentencing statistics.* Retreived March 17, 2002, from
http://www.ussc.gov/ANNRPT/2000/SBTOC00.htm

Wechsler, D. (1997). *Wechsler Adult Intelligence Scale®—Third Edition.* San Antonio, TX: Harcourt Assessment.

Woodcock, R., W., McGrew, K. S., & Mather, N. (2001). *Woodcock-Johnson-III.* Itasca, IL: Riverside.

Wright, R. (2006). *In the borderlands: Learning to Teach in Prisons and Alternative Settings.* Fredericksburg, Virginia: Digital Impressions.

# THE IMPACT OF ALPHABETIC PRINT LITERACY LEVEL ON ORAL SECOND LANGUAGE ACQUISITION[1]

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## 1  Introduction

The complex relationship between literacy in one's first and second languages (L1 and L2 respectively) and oral skills in one's L1 and L2 has been only partially examined.  Table 1 shows that until recently there have been two primary research emphases: (1) the impact of L1 oral forms (C) on the acquisition of L2 oral forms (D), and (2) the impact of L1 literacy (A) on the acquisition of L2 literacy (B) (e.g., Cummins, 1981).

*Table 1:  Primary Emphases in Second-Language Acquisition Research*

|          | L1               |      | L2               |
|----------|------------------|------|------------------|
| Literacy | A. L1 Literacy   | ←→   | B. L2 Literacy   |
| Oracy    | C. L1 Oral Forms | ←→   | D. L2 Oral Forms |

Second language acquisition (SLA) research has seldom crossed modalities to explore the impact of L1 and L2 literacy (A and B above) on the acquisition of L2 oral forms (D above). Particularly in recent years, SLA researchers have typically focused on the L2 speech production of school and university learners who were assumed to be literate in both L1 and L2.  Although Europe has a long tradition of research projects focused on L2 learners with low levels of education, North American research has not for the most part focused on the SLA of low-educated learners. And even when low-educated L2 learners have been the object of study, their literacy levels have almost never been measured, nor has research focused

on the impact of literacy on oral L2 skill development[2]) (Bigelow & Tarone, 2004). This is a problem. There are increasing numbers of low literate and illiterate L2 learners world-wide. Their teachers tell us that there is something very different about the way they learn oral L2. But we have almost no research to tell us what these individuals are doing when they acquire oral L2 skills. To our knowledge, the study reported in this paper is the first to examine the impact of L1 and L2 literacy on the processing and acquisition of L2 oral forms.

## 2    *Literature Review*

### 2.1    *Oral Language Processing by Illiterate Adults*

One group of scholars has crossed this boundary between literacy research and oracy research, exploring the impact of L1 alphabetic print literacy[3] (A) on L1 oral language processing (C) (see Tarone and Bigelow, 2005, for a detailed summary of their findings). In order to develop tests that might be able to identify brain damage[4] in an illiterate population, cognitive psychologists needed to find out how normally functioning illiterate adults did on a set of oral language tasks when compared to normally functioning literate adults. What they found was that normally

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[2] Beginning in the 1970s, European researchers carried out large studies of L2 learners who had low levels of education, but these studies did not specifically measure literacy levels in this population. Research on the SLA of low educated adults certainly has been done, but our point is that none of this research, to our knowledge, has specifically measured and targeted the impact of LITERACY level on oral SLA. Educational level and literacy level are not the same thing (see Table 3 of this paper for evidence of this). The Heidelberger Pidgin Projekt began in the 1970s; the European Science Foundation Project (ESF) (Perdue, 1993) looked at impact of educational level on SLA, but didn't measure literacy separately. The ZISA project also tracked level of education but not literacy per se; it distinguished 2 types of learners, those who used "variational" features of L2 (semantically redundant grammatical morphemes like 3ps S or past tense -ED) and those who did not, but did not relate these 2 types of learner to educational level or literacy level.

[3] We focus in this paper only on literacy in an alphabetic script, where a written letter corresponds more or less to a phoneme, and words are represented as collections of these letters representing phonemes. This research does not focus on other forms of literacy, such as the ability to read ideographic or logographic scripts. This is because de Gelder et al., 1993, and Read et al., 1986, have shown that Chinese adults who are educated using logographic script, but who do not read an alphabetic script, also get low scores on oral tasks exploring segmental representation of oral language (e.g., deleting the initial consonant of a spoken pseudoword).

[4] Dellatolas, et al. (2003, p. 772) cite a "need for specific norms in the normal illiterate population for assessing neuropsychological functions in brain-damaged illiterates," referring to research and assessments developed by Ardila, 2000, Ostrosky-Solis et al., 1999, and Roselli et al., 1990.

functioning literate and illiterate adults performed the same on some oral tasks but very differently on others.

Illiterate and literate adults (closely matched in social background) did equally well on oral tasks focused on rhyme and phonetic discrimination; for example, "Do these words rhyme? Bird/word." Or, "Do these words begin with the same sound?   Pen/Ken." Literate and illiterate adults also did equally well on oral tasks focused on meaning, such as repeating lists of words they knew the meaning of, or in fluency tasks focused on meaning (e.g., "Name all the animals you can think of in a minute"). But the illiterate adults in study after study did significantly worse than literate participants on oral tasks that required an awareness of language forms, such as individual phonemes, syllables, or words. They had substantial trouble repeating lists of "pseudowords" (phonologically similar to real words but meaningless); doing phonological fluency tasks (e.g., "Say all the words you can think of that begin with /p/."); doing phoneme deletions (e.g., "If you take the 't' off of 'tres', what do you have?"), phoneme reversals (e.g., "What is 'sol' backwards?"); and syllable reversals (e.g., "What is 'kade' backwards?") (Reis & Castro-Caldas, 1997; Adrian, Alegria & Morais, 1995).

More recently, PET brain scans have shown that oral repetition of pseudowords involves neural structures that differ between literates and illiterates[5] (Castro-Caldas, et al., 1998, p. 1057). In other words, learning to read and write an alphabetic script alters the language network in the human brain (Petersson, et al., 2000).

Alphabetic literacy seems to provide us with tools and strategies for processing language forms that are separated from their meanings:

> Literate individuals develop a strategy where visual-graphic meaning is given to units that are smaller than words, units with no semantic meaning. These segments are introduced sequentially in a working memory system with a new content of visual experience. Then we can play with those written symbols, each coded to a sound, for example, to form pseudowords with no semantic meaning. This involves conscious phonological processing, visual formal lexical representations, and their associations – all of which are strategies available to literates and not illiterates.                   (Reis & Castro-Caldas, 1997, p. 445)

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[5] PET scans show that the brains of literate and illiterate adults repeating meaningful words are similarly activated. Since their performance in repeating meaningful words is similar, this should not be surprising.

*Figure 1:  PET Scans of Literate and Illiterate Brain Activity During Word and*
*           Pseudo-Word Repetition Tasks (Petersson et al., 2000).*

| | | |
|---|---|---|
| **A** | | **Compiled PET scans of brain activity during word repetition task.** Literate participants (scan A) show more brain activation than do illiterate participants (scan B). |
| **B** | | |
| **C** | | **Compiled PET scans of brain activity during pseudo-word repetition task.** Literate participants (scan C) show far more brain activation than do illiterate participants (scan D). |
| **D** | | |
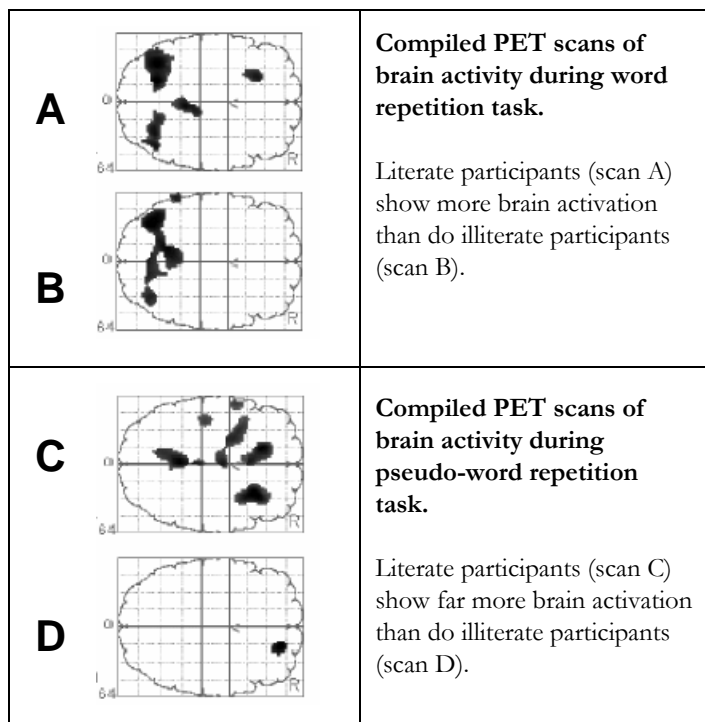
## 2. 2      *Oral L2 Processing by Low Literate Adolescents*

If literacy affects performance on native language oral tasks, then it must surely have a similar impact on second language oracy.  In 2003 we initiated what we believe to be the first SLA project to focus on the oral L2 skills of low literate learners. We worked with a large group of recent immigrants from Somalia, many of whom had spent a decade in refugee camps with little to no opportunity to become literate in any language; they had had little schooling since arriving in the U.S. (see Table 3 below for specifics). There was therefore a range of alphabetic print literacy levels to be found in this group. We chose to replicate research designs in three areas of oral SLA research where we could compare our findings with findings for literate learners; we refer to these three sub-studies as Study 1, Study 2 and Study 3, respectively:

Study 1: Corrective feedback: What do L2 learners notice when they are given oral corrections? Accurately repeating an oral correction focused on a grammar error one has made requires awareness of and ability to manipulate meaning-less language forms. This kind of SLA study can be replicated entirely orally with illiterate or low literate L2 learners.

Study 2: Elicited imitation: Does literacy level affect a L2 learner's ability to repeat a fairly long oral L2 utterance? Elicited imitation is a standard technique in SLA studies that is understood to assess short-term memory and indicate what grammar forms have been internalized by the L2 learner. This established methodology can be used with illiterate and low literate learners, and can be done entirely orally.

Study 3: Oral narrative: Does literacy level affect the grammatical forms used when second language learners produce oral narratives? Again, this is an established methodology, and can be done completely orally, without requiring a reading ability on the part of the learner.

*3    The Research Project*

*3.1      Target Grammatical Form*

In Study 1 and Study 2, we chose to focus on our learners' production of English questions. There is now clear evidence that L2 learners (literate ones, anyway) acquire questions in English L2 in an established developmental order consisting of of 6 stages of acquisition. Those stages are claimed to be the same for all learners, being based on changes in word order, and are represented in Table 2. Note there are 6 stages, beginning with one-word questions like "Why?", moving through questions with SVO word order "This is picture?" to questions with subject-verb inversion and do-support, like "What does she hold in her hand?"

*3. 2     Participants*

We gathered data from 35 participants, all adolescent or adult Somali immigrants living in Minnesota. They reported having had varying levels of schooling before coming to the U.S., but because this reported "schooling" often took place in refugee camps, where attendance,

*Table 2:  Stages of Question Formation in English (Pienemann, Johnston &*
*Brindley, 1988)*

| Stage | Examples |
|---|---|
| 1a:  Single words | Why? This? Scissors? Red? |
| 1b:  Single units | A boy? To who? What else? What color? |
| 2:   SVO word order | This is picture? *They stay oceans? |
| 3a:  Fronting wh- | What he is doing? *Why he is stopped the car? |
| 3b:  Fronting do | Do you have flowers? *Does he going home? |
| 3c:  Fronting other followed by uninverted sentence | Is he is mad? *Is he have neighbor? |
| 4a:  Inversion: yes/no questions with auxiliary or copula | Is she mad about that? So is he going to drive the car? *Has he answering the phone? |
| 4b:  Inversion: yes/no questions with modal | Can he see because of the snow? Can you repeat that? |
| 4c:  Inversion: wh- questions with copula (not aux) | What is this lady? *Where are this place? Why is he surprised? Which color is yours? |
| 5a:  Inversion: Auxiliary (e.g., *is*) in 2nd position | *Who is the woman who talk to the girl? Who's buying it? What's he doing? What's she going outside for? |
| 5b:  Inversion: Do operator (e.g., *does/do*) in 2nd position | What does she hold in her hand? *What does she asking for, this girl? How do you call it? *Why did he crying? |
| 5c:  Inversion: Modal (e.g., *may*) in 2nd position | Who may be calling? Where will she take this? |
| 6b:  Negative question with do operator | Doesn't she want to come in? |

methodology, & content are unknown, reported years of schooling in our
population can't be assumed to relate reliably to ability to read.   Because

we needed to demonstrate the impact of alphabetic literacy level[6] on SLA, we developed and administered an independent objective measure of alphabetic literacy level. We used the Native Language Literacy Screening Device (NLLSD) shown in the references and devised the rating scale in Appendix A to rate the performance of our participants on the NLLSD on a scale from 0 (no literacy) to 9 (moderate literacy).

### 3.2.1    Participant Group Assignment for Study 1 and Study 3

Eight of the 35 original participants were selected based on both their L1 and L2 literacy scores on this rating scale. The low literacy group had mean[7] scores on the literacy measure ranging from 3.5 to 6, while the moderate literacy group had mean scores ranging from 8 to 9. The 8 participants who took part in Study 1 and Study 3 are shown in Table 3.

*Table 3:    Participant Profile for Study 1 and Study 3*

| ID | Age | Gen-der | Literacy level | | | Develop-mental stage | Years schooling | | Years in U.S. |
|---|---|---|---|---|---|---|---|---|---|
| | | | Mean | L1 | L2 | | L1 | L2 | |
| Abukar | 15 | M | 5 | 4 | 6 | 5 | 0 | 4.5 | 4.5 |
| Najma | 27 | F | 5.5 | 5 | 6 | 5 | 7 | 1.5 | 3 |
| Ubax | 17 | F | 3.5 | 0 | 7 | 5 | 0 | 3 | 3 |
| Fawzia | 20 | F | 6 | 6 | 6 | 5 | 0 | 3 | 3 |
| | | | | | | | | | |
| Khalid | 16 | M | 8.5 | 8.5 | 8.5 | 5 | 0 | 7 | 7 |
| Faadumo | 18 | F | 9 | 9 | 9 | 5 | 0 | 3 | 3 |
| Moxammed | 17 | M | 9 | 9 | 9 | 5 | 0 | 7 | 7 |
| Sufia | 15 | F | 8 | 9 | 7 | 5 | 0 | 3 | 3 |

Notice that, as predicted above, reported years of schooling and literacy level do not coincide for these individuals. For example, four participants reported having had 3 years of schooling but their literacy levels were very different: 3.5, 6, 9 and 9. Notice also that their stage of acquisition of

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[6] As Tables 2 and 3 show, we cannot trust "years of schooling" to be a reliable measure of literacy level.

[7] The mean literacy scores were the average of the L1 literacy score and the L2 literacy score. Alphabetic print literacy in either or both languages can be assumed to affect oral L2 processing.

English questions, based on the criterion that they could produce at least two non-formulaic interrogatives of any given stage, was the same: all had reached stage 5.[8]

### 3.2.2      *Participant Group Assignment for Study 2*

The participants in Study 2 on elicited imitation were slightly different. This occurred because, after analysis for Studies 1 and 3 had been completed, we learned that 2 of those participants (one in each literacy group) had not completed their elicited imitation tasks. For this report, we replaced those 2 with participants who had completed EI tasks and were as similar to the originals as possible in all other regards. Table 4 provides detailed information on the participants in Study 2 on elicited imitation.

*Table 4:   Participant Profile for Study 2*

| ID | Age | Gen-der | Literacy level Mean | L1 | L2 | Develop-mental stage | Years schooling L1 | L2 | Years in U.S. |
|---|---|---|---|---|---|---|---|---|---|
| Abukar | 15 | M | 5 | 4 | 6 | 5 | 0 | 4.5 | 4.5 |
| Najma | 27 | F | 5.5 | 5 | 6 | 5 | 7 | 1.5 | 3 |
| *Ghedi | 16 | M | 2.5 | 0 | 5 | 5 | 0 | 3 | 3 |
| Fawzia | 20 | F | 6 | 6 | 6 | 5 | 0 | 3 | 3 |
| | | | | | | | | | |
| *Zeinab | 33 | F | 7.5 | 8 | 7 | 5 | 4 | 1 | 1 |
| Faadumo | 18 | F | 9 | 9 | 9 | 5 | 0 | 3 | 3 |
| Moxammed | 17 | M | 9 | 9 | 9 | 5 | 0 | 7 | 7 |
| Sufia | 15 | F | 8 | 9 | 7 | 5 | 0 | 3 | 3 |

*\*asterisk indicates different participant from those in Table 3*

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[8] Not shown on Table 2 are the participants' SPEAK test scores: we asked trained raters of the Test of Spoken English to listen to tapes of their speech and assign SPEAK test scores. SPEAK test scores of the two literacy groups in Table 2 were exactly the same; within each literacy group, the first participant had a SPEAK test score of 50, the next two had scores of 40, and the last had a score of 30.

### 3.3 Data Collection

Data were collected for Studies 1, 2, and 3 in the course of one or two individual sessions carried out individually, always with the same researcher. All the data collection was carried out in non-school settings. Each session followed the same data elicitation procedures:

- Introductory conversation
- Two spot the difference tasks
- Three story completion tasks
- Three story retell in narration
- Two elicited imitation[9] tasks
- Literacy measure (L1 then L2)

### 3.4 Study 1: Literacy, Recasts and Oral L2 Language

Study 1 on learner processing of corrective feedback (fully reported in Bigelow, delMas, Hansen & Tarone, 2006), was a partial replication of Philp (2003)'s exploration of the impact of proficiency level, sentence length and complexity on the ability of L2 learners to recall recasts (described below). As with most SLA studies on corrective feedback, all of Philp's participants were university educated and highly literate L2 learners. Learners in her study asked questions about a series of pictures; when they made grammatical errors with question formation, the interviewer provided a recast (a correct version of the erroneous question), alerting them to the recast by knocking on the table. Upon hearing a knock, the learners were supposed to repeat the recast (correct) question.

| | |
|---|---|
| Participant <u>Trigger</u>: | What she doing? |
| Researcher <u>Recast</u>: | What is she doing? [2 knocks] |
| Participant <u>Recall</u>: | What is she doing? (correct) |

Philp (2003) asked what affected L2 learners' ability to accurately recall the recast, and found that, for her participants, proficiency level, number

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9  The Elicited Imitation task required participants to produce 28 English questions, each one eight syllables long, of the following types:
- Stage 4 copula in wh-Q: What is the name of the teacher?
- Stage 5 inversion wh-Q (no do support): What is the new drug store selling?
- Stage 4 aux in yes/no Q: Is she nice to the young children?
- Stage 6 embedded Q: Would you ask if I can attend?

of changes the recast made to the trigger utterance, and length of the recast all made recall more difficult.

In replicating this study by Philp, we added literacy level as a grouping variable, and proportion of correct or modified responses (combined) in the recall as a dependent variable.

### 3. 4.1    *Research Questions*

We asked the following research questions in Study 1 on recasts:

- Is the ability to recall[10] a recast related to the literacy level of the learner?
- Is the ability to recall a recast related to the length of the recast?[11]
- Is the ability to recall a recast related to the number of changes[12] made by the recast?

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[10] *Accuracy of recall* was operationally categorized as correct, modified, or no recall. Nn example of "no recall" is:

       Trigger: What color it is?
       Recast:  What color is it?
       Recall:   What colorrrrr  (no recall)

[11] In measuring *length* of recast, we considered long recasts to consist of 6 or more morphemes, and short recasts to consist of 1-5 morphemes.  An example of a short recast is:

       *Trigger:*   Why he's so happy?
       *Recast:*    Why is he so happy? [2 knocks]

An example of a long recast is:

       *Trigger:*   What he doing, the man in the sitting chair?
       *Recast:*    What is the man sitting in the chair doing?

[12] The *number of corrections in the recast* focused on whether there were fewer or more than 2 changes made to the original question. Below is an example of more than 2 changes:

       *Trigger:*   What he doing, the man in the sitting chair?
       *Recast:*    What is the man sitting in the chair doing?

### 3.4.2 Results:[13] Literacy and Recall of Recasts

Research Question 1:

The ability to recall a recast in correct or modified form was significantly related to the literacy level of the participants. The higher literacy level group performed better overall (p=.043), and even better specifically on recasts with 2+ changes (p=.014).

Research Question 2:

The ability to recall a recast was <u>not related to the length of the recasts</u> for either group, nor were there any statistically significant differences in length of recast recalled between the two literacy level groups.

Research Question 3:

Increasing the number of changes made by the recast significantly affected the recall of the low literacy level group; the more literate group recalled recasts with 2+ changes significantly more accurately ($p = .014$).

### 3.4.3 Discussion: Study 1 on Recasts

Literacy level significantly affects L2 learners' ability to accurately recall corrective feedback they are given in oral interaction. The more literate they were, the better able our participants were to produce correct or modified recall of recasts of their erroneous English L2 questions. Literacy level was also positively related with the ability to recall, in correct or modified form, more complex recasts, those with 2+ changes from the original trigger question. It is interesting, though, that their accuracy of recall was not significantly related to the length of the recast, particularly in light of the fact that this was a highly significant factor for Philp's (2003) more literate L2 learners.

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[13] We also tracked the developmental stage of the questions in each trigger and the recast. Overall interrater reliability in the data analysis was 99.5%. Due to the small size of our two groups, we used the exact permutation test (Effron & Tibshirani, 1993, p. 210) as a statistical measure to compare the performance of our two literacy groups in answering each of the three research questions. (A full discussion of this statistical measure is provided in Bigelow, delMas, Hansen & Tarone, 2006.) We set the level of significance at .05, but because of the exploratory nature of this study, we also commented on findings where probability levels fell between .05 and .10.

The findings of Study 1 are highly consistent with Reis and Castro-Caldas' (1997) assertion that literate individuals have strategies for "conscious phonological processing, visual formal lexical representations, and their associations – all of which are strategies available to literates and not illiterates" (p. 445). The findings are important for SLA research in that they show that an individual L2 learner's level of alphabetic print literacy may influence the way L2 oral skills are acquired in interaction with others. And, as our results, do not accord with those of Philp (2003), they raise questions about the degree to which any findings on the way literate L2 learners process oral feedback apply to less literate or illiterate populations. Many questions remain, and the results of Study 1 need to be replicated with other low literate and illiterate L2 learners.

3.5      *Study 2: L2 Learner Recall of Elicited Imitation vs. Recasts*

Study 2, on learners' ability to perform elicited imitation (fully reported in Hansen, 2005), explores the impact of literacy level on accuracy of recall of L2 utterances in two distinct tasks: elicited imitation (EI) and recast. The elicited imitation task may require more phonological processing in short term memory than the recast task, which provides a more meaningful context and more support for semantic processing.

In EI, learners must recall decontextualized, sentence-level L2 questions that the researcher reads to them. Each learner hears the same 28 questions,[14] each one 8 syllables long; each question is semantically unrelated to the preceding question. While the questions have meaning, there is less meaningful context to assist the learners in retaining these questions in short term memory; in EI, learners do not know what question to expect, from one to the next, and so may need to rely more on phonological processing in recalling them. In contrast, in the recast task, learners are recalling corrected forms of L2 questions they themselves initiated in contextualized, meaningful interaction. This increase in context may enable them to rely less on phonological processing, and more on meaning-based strategies in recalling recast questions. Thus, based on the assertions by Reis & Castro-Caldas (1997) cited earlier, we might predict that less literate learners would have more difficulty than more literate learners in recalling questions in the EI

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[14] Examples of these questions used in elicited imitation include:
     How do you get to the market?
     What do they learn at the movies?
     Has he done the driving road test?
     Why haven't your friends come to class?
     Have you been to school since Monday?

condition (where they may need more phonological processing strategies) than in the recast condition (where less literate learners, like more literate counterparts,  may be able to rely more on semantic processing strategies). In Study 2, as in Study 1, exact permutation tests were used to measure the significance of the relationships among literacy level, accuracy of recall, and task.

### 3.5.1    Research Questions

We asked the following research questions in Study 2 on elicited imitation:
- Is the ability to recall target questions in an elicited imitation task related to the literacy level of the learner?
- Is there a difference in accuracy of recall of target questions in the elicited imitation task and the recast recall task?

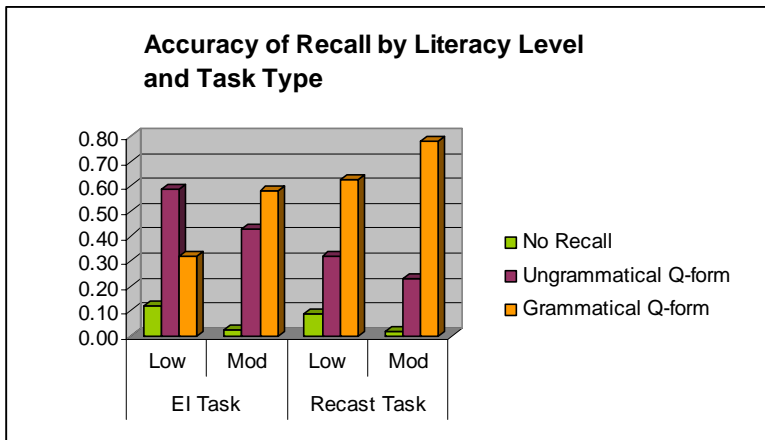### 3.5.2    Results: Literacy and Recall of Elicited Imitation



*Figure 2:  Accuracy of Recall by Literacy Level and Task Type*

The data in Figure 2 are reported by task; each task shows percentage of recalls by the low literacy group and the moderate literacy group, separated out in terms of correct recalls (right column), incorrect recalls (middle column), and no recalls (left column).  Figure 2 shows that higher literacy levels improved recall of target questions on both the EI and the recast tasks: the higher literacy level group had more correct recalls, fewer incorrect recalls, and fewer "no recalls" than the low literacy level group. Furthermore, the elicited imitation task was clearly more difficult for both

literacy groups than the recast task; for both groups, there was a lower accuracy of recall of questions in the elicited imitation task than in the recast recall task.  Even so, the more literate group did better than the less literate group on the more difficult elicited imitation task. Exact permutation analysis showed that both groups found the EI task significantly more difficult than the recast task, at p=.008.  The difference in performance of the higher and lower level literacy groups approached significance on the EI task at p=.057, but was highly significant on the recast task at p=.014.

### 3.5.3    *Discussion: Study 2 on Elicited Imitation*

To sum up, we found that recast tasks were easier than elicited imitation tasks regardless of the literacy level of the learner. This may be because the context-rich recast task environment facilitates comprehension by reducing the load on short term memory. The high redundancy inherent in the recast task may also serve to strengthen the short-term memory trace, and facilitate rehearsal, hypothesis testing and recall.

We also found that alphabetic print literacy[15] appears to promote better L2 oral recall of oral L2 prompts in both recast and EI tasks. The higher literacy group recalled questions better than the lower literacy group no matter what the task; this difference was most pronounced on the recast task. Possible explanations point to an interaction among literacy skills, short term memory, the impact of literacy on brain activity, and contextual factors.

### 3.6    *Study 3: Grammar Forms in Oral Narratives*

Study 3, on grammatical forms in oral narratives (fully reported in Tarone, Swierzbin & Bigelow, 2007), turns to an examination of the nature of the grammatical forms which are used by our two groups of learners. Does literacy level correspond to the grammatical forms they use in telling the same stories? This final analysis focuses on the two literacy groups' use of semantically redundant grammatical morphemes and sentence complexity in story retells. Specifically, we wondered if the low literate learners would use fewer "variational features": the semantically redundant grammatical

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[15] We specify alphabetic literacy here because this is the type of literacy we studied. We do not want to use the term "literacy" without specifying the type of writing system our learners are literate in, because of the research findings of Read et al., 1986, and de Gelder et al., 1993, cited above, that it is alphabetic literacy that affects performance on oral language segmentation tasks.

morphemes identified in the ZISA study (e.g. plural *-s*, third person singular *-s*, past tense *-ed*). And we also wondered if their sentence complexity would suffer from their difficulties in processing grammatical forms in the oral input. Because this third analysis focuses on small numbers of grammatical forms produced in meaningful communication, we did not conduct a quantitative analysis, but rather carried out a qualitative linguistic analysis whose findings will be suggestive of patterns we will have to test out more rigorously in future studies.

### 3.6.1    Research Question

The research question addressed in Study 3 was:

- Are the interlanguage grammatical forms used in oral narratives related to the literacy level of the learner?

### 3.6.2    Data Analysis

Data analysis focused on verb marking, noun marking, and sentence complexity in the oral narratives. In considering the learners' use of semantically redundant grammatical morphemes, we explore whether the groups used "bare verbs" – that is, verbs with no morphological marking at all – as compared to verbs with morphology, whether accurate or not. In addition, we examine whether they marked plural *-s* on regular nouns or not. With regard to sentence complexity, we compared the two groups with regard to number of relative clauses, noun clauses, and clauses expressing causality with *because, so,* or *since*.

### 3.6.3    Results: Grammatical Forms used in Oral Narrative

### 3.6.3.1    Verb Marking

The low literacy group seemed to produce more bare verbs than the higher literacy group in their oral narratives, though the performance of both groups was variable. Representative utterances for third person singular marking are:

Faadumo (moderate literacy):    Her mom *says*, "Come in now, in a car."
Najma (low literacy):    Her mother they *say*, "We going right now…"

Examples for past tense marking are:

Khalid (moderate literacy):        So, she *called* him.
Fawzia (low literacy):             Somebody *call* him.

Table 5 shows the number of verbs produced by both groups in their oral narratives, and how many of these were bare verbs.

*Table 5:   Bare Verbs vs. Verbs with Morphemes*

| Participant | Lit. Group | Bare Verbs | Verb + Morpheme | Total Verbs (100%) |
|---|---|---|---|---|
| Abukar | Low | 61 (64%) | 34 (36%) | 95 |
| Najma | Low | 50 (54%) | 43 (46%) | 93 |
| Ubax | Low | 53 (66%) | 27 (34%) | 80 |
| Fawzia | Low | 41 (77%) | 12 (23%) | 53 |
| | | | | |
| **TOTAL** | | **205 (64%)** | **116 (36%)** | **321 (100%)** |
| | | | | |
| Khalid | Mod. | 45 (38%) | 74 (62%) | 119 |
| Faadumo | Mod. | 64 (56%) | 51 (44%) | 115 |
| Moxammed | Mod. | 60 (51%) | 58 (49%) | 118 |
| Sufia | Mod. | 61 (58%) | 45 (42%) | 106 |
| | | | | |
| **TOTAL** | | **230 (50%)** | **228 (50%)** | **458 (100%)** |

Both groups produced a good number of verbs in their narratives, though the higher literacy group produced more (458 as opposed to the low literacy group's 321). Table 5 shows that bare verbs made up 64% of those produced by the low literacy group; the moderate literacy group left fewer of their verbs unmarked: 50%.

### 3.6.3.2   Noun Plural Marking

There are far fewer obligatory contexts for plural nouns than for verbs. And here again, there was considerable variability in the performance of the two groups on this measure. That said, there did seem to be a trend for the low literacy group to leave off the plural *-s* on plural nouns,

sometimes substituting quantifiers to convey the notion of plurality. Representative examples of noun plural marking are:

Khalid (moderate literacy):      *The monkeys* took all his hat<u>s</u>.
Ubax (low literacy):             <u>*A lot of monkey*</u>_ they take his hat_.

*Table 6:   Noun Plural Marking*

| Participant | Lit. Group | Plural -0 | Plural -s | Total Nouns (100%) |
|---|---|---|---|---|
| Abukar | Low | 2 (11%) | 16 (89%) | 18 |
| Najma | Low | 3 (25%) | 9 (75%) | 12 |
| Ubax | Low | 19 (83%) | 4 (17%) | 23 |
| Fawzia | Low | 12 (75%) | 4 (25%) | 16 |
| | | | | |
| **TOTAL** | | **36 (52%)** | **33 (48%)** | **69 (100%)** |
| | | | | |
| Khalid | Mod. | 2 (12%) | 14 (88%) | 16 |
| Faadumo | Mod. | 0 | 10 (100%) | 10 |
| Moxammed | Mod. | 3 (25%) | 9 (75%) | 12 |
| Sufia | Mod. | 8 (42%) | 11 (58%) | 19 |
| | | | | |
| **TOTAL** | | **13 (23%)** | **44 (77%)** | **57 (100%)** |

Table 6 shows that more literate learners supplied more noun plural marking. The moderate literacy group's average supply of plural *-s* is 77% of their plural nouns, as compared to an average of only 48% for the low literacy group. But we must be cautious in drawing any strong conclusion on this point: the raw numbers here are very low, and also there is a lot of individual variation on this measure. One low literacy individual did better than 3 of the moderate literacy individuals in marking noun plurals.

### 3.6.3.3   *Sentence Complexity*

The more literate group seemed to produce more complex sentences in their oral narratives than the less literate group, as we see in Table 7.
     On average, the moderate literacy group used more dependent and "so" clauses overall than the low literacy group (131 vs. 72). Just

considering their use of dependent clauses, we see that the low literacy group used fewer dependent clauses (54), while the higher literacy group used more (87). Literacy also seemed to be related to use of certain types of clauses more than others. There was a markedly lower use of relative clauses by the low literacy group (8 as opposed to the higher literacy group's 28 relative clauses). But there was also individual variation in sentence complexity in expressing causality; regardless of literacy group, individual participants seemed to have clear preferences on this point. For example, within each literacy group, there were individuals who preferred "so" clauses while other individuals in the same group preferred dependent clauses with "because" and "when."

*Table 7:   Dependent and "So" Clauses*

| Participant | Lit. Group | "so" | Dep.: "because" "when," etc. | Dep.: Relat. clauses | Dep.: Noun clauses | Other Dep. clauses | Total Dep. & "so" clauses |
|---|---|---|---|---|---|---|---|
| Abukar | Low | 0 | 14 | 3 | 1 | 2 | 20 |
| Najma | Low | 11 | 3 | 2 | 2 | 1 | 19 |
| Ubax | Low | 6 | 10 | 3 | 4 | 0 | 23 |
| Fawzia | Low | 1 | 8 | 0 | 1 | 0 | 10 |
| **TOTAL** | | **18** | **35** | **8** | **8** | **3** | **72** |
| | | | | | | | |
| Khalid | Mod. | 21 | 2 | 5 | 5 | 1 | 34 |
| Faadumo | Mod. | 15 | 9 | 3 | 4 | 2 | 33 |
| Moxammed | Mod. | 8 | 13 | 18 | 6 | 6 | 51 |
| Sufia | Mod. | 0 | 6 | 2 | 2 | 3 | 13 |
| **TOTAL** | | **44** | **30** | **28** | **17** | **12** | **131** |

### 3.6.4      Discussion: Study 3 on Oral Narrative

Literacy level seems to be related to the grammatical forms used by L2 learners in their oral narratives, but we have insufficient data on this point to be sure. We need more data from replication studies on this point. The data so far suggest that the higher literacy group marked verbs and nouns with redundant morphemes more than the low literacy group. In addition, on average, the moderate literacy group used more dependent clauses, including more relative clauses, than the low literacy group.

Alphabetic print literacy may be related, then, to the grammatical forms that the learner acquires in an L2 and is able to use in tasks such as the oral narrative task. The oral language of less literate L2 learners may contain fewer dependent clauses, and fewer redundant grammatical morphemes. These findings would be consistent with the claims of Ravid & Tolchinsky (2002) who synthesize research on child language acquisition and argue that the more complex syntactic forms of the native language, those needed for what they call "linguistic literacy," a kind of metalinguistic awareness, are not acquired until after children have become (alphabetically) literate. We do not know whether this is simply because literate learners have more exposure to complex constructions that occur most frequently in written discourse. Future research can determine this. If linguistic literacy develops simply because of frequency in the input of written discourse, then we would expect to find that literacy always results in increased complexity of oral language regardless of the writing system the learners are literate in. It is also possible, as Reis et al. (1997) claim, that it is literacy specifically in an alphabetic script which encourages this increased oral syntactic complexity by improving verbal memory. We need large-scale studies to examine the impact of literacy in alphabetic and non-alphabetic writing systems on the grammatical forms that learners acquire in an L2, and quantitative evaluation of the significance of the effect conveyed by levels of literacy in these different writing systems. The findings of the present small scale study are interesting, however, as they fall in the predicted direction, are consistent with studies in related fields, and set out a clear agenda for next steps of research.

## 4    Summary

We have presented evidence that alphabetic print literacy affects oral L2 processing and use: it affects the recall of oral recasts of grammatical errors, and it affects accuracy in decontextualized elicited imitation tasks. Our data are less conclusive in suggesting that alphabetic literacy may even affect the grammatical forms used in oral narratives. If it turns out that low literate L2 learners do consistently have more difficulty noticing and acquiring certain grammatical forms in their oral use of a L2, there will be a number of implications.

First, these findings increase the urgency of the need to teach alphabetic literacy skills. Lack of native language literacy does not only impede L2 *literacy*. Low literacy overall may also impede the acquisition of oral skills in an L2. This finding obviously makes instruction in alphabetic

print literacy, and particularly those decoding skills linked to sound-symbol correspondence, even more important than previously thought.

Second, it is possible that a lack of literacy may make the acquisition of certain grammatical forms of the L2 more difficult. This could be because learners who are not literate have less exposure to these forms, which occur more frequently in written discourse. It could also be because, as Reis et al. (1997) claim, alphabetic print literacy improves verbal memory. We must carry out research studies to determine whether lack of literacy does affect the acquisition of specific grammatical forms, and if so, whether writing system makes a difference. If such studies are able to identify specific oral grammatical forms whose acquisition is linked to literacy level, then teachers of low literate L2 learners may be able to find alternative means of helping them notice and acquire those grammatical forms orally.

Third, our study suggests that, because previous SLA research has not systematically studied the impact of the individual variable of literacy on oral SLA processes and outcomes, current conclusions about SLA sequences, processes and outcomes may simply not apply to less literate populations such as those we studied, much less to illiterate populations elsewhere in the world. Future SLA research studies documenting oral L2 learning must focus on non-traditional language learners and social contexts, particularly on low literate and illiterate learners in social contexts beyond university and school settings. We clearly need to replicate the studies reported in this paper. Replication studies should explicitly document the impact of low alphabetic literacy level, precisely measured, on L2 learners' processing of oral L2 input and their acquisition of oral skills and grammar in the L2. Until we have that information, we must actively work with second-language teachers to design pedagogical solutions while we seek a more accurate research base. Many questions remain for us in this line of research.

*References*

Adrian, J. A., Alegría, J. & Morais, J. (1995). Metaphonological abilities of Spanish illiterate adults. *International Journal of Psychology* 30: 329-353.

Ardila, A. (2000). Evaluacion cogniscitiva en analfabetos [Cognitive evaluation in illiterates]. *Revista de Neurologia, 30:* 465-468.

Bigelow, M. & Tarone, E. (2004). The role of literacy level in SLA: Doesn't *who* we study determine *what* we know? *TESOL Quarterly* 38: 689-700.

Bigelow, M., delMas, B., Hansen, K. & Tarone, E. (2006). Literacy and the processing of oral recasts in SLA. *TESOL Quarterly 40*, 4: 1-25.

Castro-Caldas, A., Petersson, K.M., Reis, A., Stone-Elander, S. & Ingvar, M. (1998). The illiterate brain: learning to read and write during childhood influences the functional organization of the adult brain. *Brain* 121: 1053-1063.

Clahsen, H., Meisel, J. M. & Pienemann, M. (1983). *Deutsch als Zweitsprache. Der Spracherwerb auslandischer Arbeiter.* Tubingen: Narr.

Cummins, J. (1981). *Bilingualism and minority children.* Ontario: Ontario Institute for Studies in Education.

De Gelder, B., Vroomen, J., & Bertelson, P. (1993). The effects of alphabetic-reading competence on language representation in bilingual Chinese subjects. *Psychological Research, 55*: 315-321.

Dellatolas, G., Braga, L. W., Souza, L. N., Filho, G. N., Queiroz, E. & Deloche, G. (2003). Cognitive consequences of early phase of literacy. *Journal of the International Neuropsychological Society* 9: 771-782.

Effron, B., & Tibshirani, R. J. (1993). *An introduction to the bootstrap (Monographs on statistics and applied probability, #57).* New York: Chapman & Hall.

Hansen, K. (2005). Impact of literacy level and task type on oral L2 recall accuracy, M.A. Thesis, University of Minnesota.

Loureiro, C., Willadino-Braga, L., Souza, L, Filho, G., Queiroz, E. & Dellatolas, G. (2004). Degree of illiteracy and phonological and metaphonological skills in unschooled adults. *Brain and Language, 89*, 499-502.

*Native Language Literacy Screening Device.* N.D. Glenmont, NY: Hudson River Center for Program Development. (102 Mosher Road, Glenmont, NY 12077-4202)

Ostrosky-Solis, F., Ardila, A., & Rosselli, M. (1999). NEUROPSI: A brief neuropsychological test battery in Spanish with norms by age and educational level. *Journal of the International Neuropsychological Society, 5*: 413-433.

Perdue, C. (1993). *Adult language acquisition: Cross-linguistic perspectives.* Cambridge: Cambridge University Press.

Petersson, K.M., Reis. A., Askelof, S., Castro-Caldas, A., & Ingvar, M. (2000). Language processing modulated by literacy: A network analysis of verbal repetition in literate and illiterate subjects. *Journal of Cognitive Neuroscience, 12*: k364-382.

Philp, J. (2003). Constraints on "noticing the gap" nonnative speakers' noticing of recasts in NS-NNS interaction. *Studies in Second Language Acquisition, 25*(1), 99-126.

Pienemann, M., Johnston, M., & Brindley, G. (1988). Constructing an acquisition-based procedure for second language assessment. *Studies in Second Language Acquisition, 10*, 217-243.

Ravid, D. & Tolchinsky, L. (2002). Developing linguistic literacy: A comprehensive model. *Journal of Child Language* 29: 417-447.

Read, C., Zhang Y.-F., Nie, H-Y., & Ding, B.-Q. (1986). The ability to manipulate speech sounds depends on knowing alphabetic writing. *Cognition,* 24: 31-44.

Reis, A. & Castro-Caldas, A. (1997). Illiteracy: A cause for biased cognitive development. *Journal of the International Neuropsychological Society* 3: 444-450.

Rosselli, M., Ardila, A., & Rosas, P. (1990). Neuropsychological assessment in illiterates II. Language and praxic abilities. *Brain and Cognition, 12*: 281-296.

Speaking Proficiency English Assessment Kit. 1982. Educational Testing Service. Princeton, NY, 08541.

Tarone, E. & Bigelow, M. (2005). Impact of literacy on oral language processing: Implications for SLA research. *Annual Review of Applied Linguistics* 25: 77-97.

Tarone, E. & Bigelow, M. Forthcoming. Alphabetic print literacy and oral language processing in SLA. In A. Mackey (Ed.), *Conversational interaction in second- language acquisition: A series of empirical studies.* Oxford University Press.

Tarone, E., Swierzbin, B. & Bigelow, M. (2007). Impact of literacy level on features of interlanguage in oral narratives. (Thomas Baldwin & Larry Selinker, guest eds.) *Rivista di Psicolinguistica Applicata, Special Issue on Interlanguage.*

*Appendix A:   Rubric for Scoring of Native Language Literacy Screening Device*
*(used in Bigelow, delMas, Hansen, & Tarone, 2006)*

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**Rating Scales for Native and Second Language Literacy Tests**
*Literacy Rating Scale (Native Language)*

*Reading Fluency*

1    Follows with pen; much subvocalization; slow speed; retraces/backtracks; much comprehension difficulty*; asks researcher for help

2    Starts out slowly and then speeds up, still showing some difficulty in decoding; may follow with pen or finder and/or subvocalize; often reads twice, much faster the second time

3    Very comfortable. Little subvocalization; speed relatively quick; little comprehension difficulty*; may comment on perceived orthographic errors in the Somali text

*Writing*

1    Writes in another language, can/will not write in native language

2    Writes laboriously in native language; may complain about not knowing how to spell; subvocalizes; may ask for help

3    Writes in native language without any hesitation

*Confidence*

1    Expresses reluctance to read or write in native language; may say cannot do it

2    Will try, but not very sure of skills; asks questions along the way

3    Approaches task without hesitation

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* evidenced by responses to researcher questions

**Rating Scales for Native and Second Language Literacy Tests**
*Literacy Rating Scale (Second Language)*

*Reading Fluency*

1    Follows with pen; much subvocalization; slow speed; retraces/backtracks; much comprehension difficulty*

2    Starts out slowly and then speeds up, still showing some difficulty in decoding; may follow with pen or finder and/or subvocalize; often reads twice, much faster the second time

3    Very comfortable. Little subvocalization; speed relatively quick; little comprehension difficulty*

*Writing*

1    Writes in native language, can/will not write in second language

2    Writes laboriously in second language

3    Writes in second language without any hesitation and few orthographic errors

*Confidence*

1    Cannot tackle a single word

2    Will try but not very sure of skills; asks questions along the way

3    Approaches task without hesitation

* evidenced by responses to researcher questions

# THE ROLE OF LITERACY IN THE DEVELOPMENT OF L2 MORPHO-SYNTAX FROM AN ORGANIC GRAMMAR PERSPECTIVE

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## 1    Introduction

When it comes to the acquisition of linguistic competence, generative linguistics allows for no involvement of literacy – or indeed anything relating to general cognitive mechanisms rather than to language-specific mechanisms (see Chomsky in Piatelli-Palmirini, 1979). This is the standard view of children's acquisition of linguistic competence in their first language (L1) and also the position taken by those second language (L2) researchers who argue that language-specific mechanisms drive second language acquisition (L2A) for both children and adults. A basic assumption in this framework is that the human mind is modular (Fodor 1983). The child's acquisition of linguistic competence – most clearly syntactic competence – is thus achieved without influence of general cognition. Support for this position comes from a number of sources, including from normal children's acquisition of an elaborate system whose complexity cannot be accounted for by the input alone; this is known as the Logical Problem of Language Acquisition (Hornstein and Lightfoot 1981). Moreover, researchers have not only confirmed that normally developing children under the age of four possess complex syntax that far outstrips their level of cognitive maturity (e.g. Crain 1993), but they have also documented the asymmetric cognitive and linguistic development of children who despite severe cognitive deficits acquire complex syntax and children who despite no cognitive deficits exhibit selective linguistic impairment (see, e.g., Curtiss, 1982; Leonard, 2000; Levy, 2002; Smith and Tsimpli, 1995). These sorts of cases point to a double dissociation of general cognition and language-specific mechanisms which is expected under a modular view of the mind.

    Using Fodor's (1983) criteria for a mental module, Schwartz (1993) describes how the modularity of mind assumption works in adult L2A where language-specific mechanisms continue to operate, where the learner has access to Universal Grammar (UG) throughout the lifespan (see e.g., White, 1989). Schwartz points out that – as with vision (another module assumed to involve specific rather than general mechanisms) – the input relevant to computation of knowledge in a given module is restricted. For the language module, the only relevant input are utterances in the learner's environment – primary linguistic data (PLD). Instructed second language learners typically develop an additional type of

knowledge. Not located in the language module, this learned linguistic knowledge (LLK; similar to Krashen's 1985 "learning") develops through the use of general cognitive mechanisms in response to the sort of explicit explanation and error correction found in classroom contexts. However, it is notoriously difficult to determine the source of a given L2 learner's utterances. For young children, LLK as a source can be excluded because they have next to none (the meta-linguistic awareness present is basic and not subject to volitional control; see Gombert 1992). For instructed adult learners, the majority of their linguistic behavior – the language they produce – could well be derived from LLK. But as Jordens (1996) observes, just because older learners *can* use general cognitive mechanisms to develop the meta-linguistic skills for production of utterances in an L2, this does not mean this is how adults acquire linguistic competence in a second language.

One body of empirical support for modularity of mind and for Jordens' observation is reviewed by Ellis (1990), who concludes that instruction does not influence learners' route of development. It must therefore be the case that language-specific mechanisms are somehow employed regardless of context. Ellis further concludes that instruction can influence rate and degree of progress on the basis of studies suggesting that classroom learners progress faster and go further than uninstructed learners. Although we do not know why or how instruction influences rate and ultimate attainment but not route, its function is normally assumed to be connected to the effect of meta-linguistic cogitation on language acquisition. Yet it can be argued that the wealth of studies probing the effects of instructional features do not seriously challenge modularity, where the classroom is construed as simply providing more primary linguistic data. Despite a plethora of studies, evidence pointing to the direct influence of learned linguistic knowledge on linguistic competence is hard to come by because studies of instructed L2 learners too rarely consider what Chaudron refers to as "the nature of learners' variable and systematic acquisition" (2001, p. 66) in his review of 80 years of classroom studies in *The Modern Language Journal*.

So let us now consider two (near) facts in second language acquistion. The first is the idea that the learner's L1 has at least some influence on L2 development. We will not pursue this to any extent here, as we do so elsewhere (e.g. Vainikka and Young-Scholten, 1994; 2005). The second is that L2 acquisition involves inter- and intra-learner variation. Both the modularity/UG access in adult L2A position and Ellis' (1990) conclusions on the effect of instruction allow scope for variation with respect to rate and ultimate attainment or end state but *not* with respect to route. Which explanation one entertains here depends on whether one believes that adult L2 learners have continued access to UG or whether one holds the opposing view, that only general cognitive mechanisms are involved

(Bley-Vroman, 1990; Clahsen and Muysken, 1986;  DeKeyser, 2000).

Much of the on-going debate between those who see second language acquisition as driven by language-specific mechanisms and those who see it as driven by general cognitive mechanisms revolves around morphology. Morphology is also central in the on-going debate among those who believe all L2  acquisition – regardless of age of initial exposure – is driven by language-specific mechanisms. When it comes to the acquisition of verbal inflectional morphology, for example, we find considerable variation across learners, and it is this variation that fuels the fires of debate. If one holds that general cognitive mechanisms guide post-puberty second language acquisition then there is no reason to exclude involvement of extra-linguistic factors such as literacy in morpho-syntactic development. For those who argue that adult L2 learners have access to UG, as Schwartz' (1993) observation on the provenance of interlanguage oral production hints at, things are less clear.

As suggested above, inter-learner variation can – in theory – exist on three dimensions: route, rate and end state. Where *route* of acquisition varies, we would observe individual learners mastering a given set of grammatical functors in different orders. Early research by Brown (1973) and by de Villiers and de Villiers (1973) on first language acquisition, then by Dulay and Burt (1974) on child second language acquisition and Bailey, Madden and Krashen (1974) on adult second language acquisition suggested common developmental orders for all L1 and all L2 learners of a given language with respect to a set of functional morphemes (including copula *be* and the suffixes *-ed* and third person singular *-s*). While differences seem to exist between L1 and L2 learners, those involved in these studies concluded that no differences exist among individuals within these groups. In second language acquisition, the idea of a common route of development translates into both involvement of the language module and non-involvement of L1 transfer because learners following this common route come from an array of native language backgrounds. Since the mid-1990s, however, the conclusion that the learner's native language is inert during L2 acquisition has been hotly contested. Researchers in one camp claim that second language learners follow a common route of development regardless of age, exposure type, education, background and, to a great extent, native language (Hawkins, 2001; Vainikka and Young-Scholten, e.g., 1994; 2005). Those in the full transfer/full access camp (e.g., Schwartz and Sprouse, 1996) maintain that the learner's native language and language-specific mechanisms exert an influence throughout acquisition regardless of the learner's age, etc. There are additional cross-camp differences pertaining to the status of morphology, as we will shortly see.

As concluded by Ellis (1990), adult L2 inter-learner variation exists for *rate* of development; this is most apparent with respect to inflectional

morphology. Because much of the data considered come from cross-sectional rather than longitudinal studies, rate of development may be expressed as accuracy (of suppliance in obligatory contexts), where developmental order is extrapolated. This is an area in which second language acquisition researchers since the 1970s have been and continue to be extremely vocal. The variation across learners observed for level of attainment at the *end state* of second language acquisition is particularly evident for those whose first exposure to the second language occurred after the onset of puberty. In first language acquisition, variation in rate as well as route could in theory occur, but on the end state dimension, variation in ultimate attainment is by definition a sign of impairment.[1]

While a generative linguistic perspective would predict the contrary, the route, the rate and the end state of the acquisition of inflectional morphology by L2 learners might all be subject to influence by factors external to the language module. So let us now ask how we might investigate whether variation in development of inflectional morphology can be accounted for by one particular cognitive factor: literacy.

*2    Background*

We have so far been referring to variation with respect to inflectional morphology, but we shall expand our focus to include syntax, in keeping with previous research findings, which intimately connect the two. Since the early 1990s we have been involved in a research programme that involves looking at the acquisition of morpho-syntax by adult L2 learners who receive little or no instruction. Reasons for looking at so-called naturalistic learners address the point made by Schwartz (1993) regarding the difficulty in determining the knowledge source of adult L2 learners' production. With a prime objective the delineation of child-adult differences, our focus has been on the development of learners' underlying linguistic competence – or, using Krashen's well-known dichotomy, on their acquisition rather than their learning. In working with adult L2 learners whose opportunities for developing LLK are limited, the learners researchers have typically studied have been immigrants who often arrive in the target language country with little education in their native language.[2] Data from studies of such second language learners

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[1] Of course this is an overstatement when viewed from a diachronic perspective; languages change over time. But synchronically speaking – apart from lexical differences, patterns of use and the influence of peers' vs. parents' dialect – it would be an unusual parent who would remark that his or her child didn't succeed in first language acquisition

[2] A dearth of workers in post-WWII northern Europe led to large-scale recruitment of adults from southern Europe, Turkey and Morocco, and when researchers realised workers were learning the L2 on the job, they were targeted for inclusion in studies such as the cross-sectional Heidelberger Pidgin Projekt, the cross-sectional and longitudinal "ZISA" project,

could illuminate the operation of literacy on language acquisition, and indeed the possibility of a relationship between level of native language education and ultimate attainment is mentioned both by those involved in these studies (Klein and Perdue 1997) and by those commenting on the results of these studies (e.g. VanPatten 1988). However, because the focus was on language acquisition, details of learners' education and information about their reading skills sufficient to enable us to pursue this issue are unavailable.

One might hypothesize that L2 instruction or education or literacy accounts for morphological variation. Because there is no single study that manipulates these variables, we are bound to piece together evidence from separate studies. The data we discuss below come from several of our own studies (where we know the details of the learners) of low-educated adult immigrants learning German, French and English, from educated secondary school exchange students learning German, and from school children learning English. What emerges is a picture of the acquisition of inflectional morphology whose variability as yet defies explanation. Our conclusion will be that literacy indeed plays a key – but likely very complex – role.

### 3    The Organic Grammar theory of L2 acquisition

In the spirit of Brown's and Bailey et al.'s ideas on a common path of first and second language development as demonstrated by learners' oral production of verbal morphology, and based on further ideas from the study of L1 acquisition (e.g., Clahsen, 1991; Clahsen, Eisenbeiss & Vainikka, 1994; Radford, 1990; 1995), we posited that the L2 learner's initial state of development solely involves the basic syntactic relations that obtain between the non-finite verb and its complement as in *drink milk*. This is the syntactic verb phrase, i.e. the VP. Under our theory of Organic Grammar, as the learner develops, s/he "builds up" syntactic structure based on the interaction between the ambient, linguistic input – the primary linguistic data – and language-specific mechanisms (Universal Grammar; Chomsky, 1981). The characteristics of each stage in Table 1 relate to a specific functional projection in the syntactic tree, and each projection includes all lower projections, in hierarchical tree fashion. Thus each successive projection is in a sense more complex than the preceding one. The first functional projection, "FP", is best thought of as a transition from a grammar without any functional syntax. The learner next

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the longitudinal 'ESF' project and the cross-sectional Lexlern project. These projects looked at the acquisition of Dutch, English, French, German and Swedish by adult Arabic, Italian, Korean, Punjabi, Portuguese, Spanish and Turkish speakers (see e.g. Kurvers, van der Craats & Young-Scholten 2006 for further details).

projects an inflectional phrase, IP, where tense and agreement are obligatory. Finally, a complementizer phrase, CP, is projected, which allows the possibility of embedded clauses. Thus under Organic Grammar, inflectional morphology emerges in connection with syntax.

*Table 1: Organic Grammar: Criteria for stages (exemplified for L2 English)*

| Stage | word order in declaratives | types of verbs | tense and agreement | pronouns | complex syntax |
|---|---|---|---|---|---|
| **1a VP** | resembles the NL | thematic verbs | none | none | none |
| **1b VP** | resembles the TL | thematic verbs; copula "is" appears | none | pronoun forms emerge; not obligatory | formulaic or intonation-based Qs |
| **2 FP** | | thematic verbs, modals; copula forms beyond "is" | no agreement; tense and aspect, but not productive | new forms, but pronouns may still be missing | Qs formulaic or w/o inversion; conjoined clauses |
| **3 IP** | | auxiliary "be" and "have" | productive tense, aspect; agreement only with suppletive forms agreement on thematic verbs | pronouns obligatory along with "there" and "it" | productive Qs, but may still lack inversion; simple subordina-tion |
| **4 CP** | | | | | all Qs with inversion; complex subordina-tion |

One also observes beginning naturalistic and instructed L2 learners who produce verb-less or single word utterances.[3] Such utterances could be said to reveal an initial stage of development – Stage 0 – much like the child's one-word stage, but about which little can be said regarding syntax. Stage 1 is characterized by the production of multiword utterances, along the lines of the young child's two-word and "telegraphic" stages, where grammatical morphemes are still largely absent. Under Organic Grammar, this stage entails a "minimal" syntactic tree, with a sub-stage occurring if

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[3]At this stage learners may produce longer memorized unanalyzed chunks such as *My name is X.* Such forms can lead the researcher to draw erroneous conclusions regarding the learner's stage of development (see Myles, 2004), making it imperative to look at whether the learner uses different forms of a given morpheme and a particular bound morpheme with different lexical items.

the learner's native language word order within the VP (object-verb vs. verb-object) does not match that of the target language VP. Data from a Japanese boy acquiring English (Yamada-Yamamoto, 1993) show the influence of Japanese at his earliest stage of syntactic development. In Japanese, the object precedes the verb, while in English it follows the verb. Hence this boy's first minimal tree displays Japanese word order; Haznedar (1997) and Mobaraki (2007) illustrate similar early head-final, object-verb bare VP stages in Turkish-English and Farsi-English, respectively. After several months of additional English input, the boy reaches a second sub-stage where his minimal tree switches to English verb-object word order. At both sub-stages, the boy produces non-finite forms, either bare forms like "eat" or participles like "eating" (without auxiliary forms).

(1)  <u>Stage 1a:</u>   Japanese object-verb (OV) order
              bread eat
              bananas eating


   <u>Stage 1b:</u>   English verb-object (VO) order
              eating banana
              wash your hand

Under Organic Grammar, after the learner's initial reliance on his/her native language, the inflectional morphology and syntax of the target language begin to develop and follow a common order for all learners of a given language. Here the development of inflectional morphology is closely connected with the development of the syntax associated with that morphology. The examples in (2) come from a cross-sectional study of primarily low-literate Somali-speaking learners of English (Young-Scholten and Strom 2004) and illustrate post-VP development in English, where inflectional morphology begins to emerge with the development of syntactic complexity.  Importantly, the mere production of a new morphological form does not equate with its productivity (see footnote 3). The examples above reveal a further characteristic of development hinted at above: it is not linear. As new forms and structures emerge, they may destabilize the learner's current interlanguage grammar, resulting in new errors. Every set of utterances in (2) reveals destabilization, where the learner omits an obligatory verb or complementizer or produces non-target non-finite forms.

(2) a.   <u>The initial functional syntax stage</u> (Stage 2)
         *The woman is cry.*          auxiliary without –*ing*
         *Because too bad.*           subordinating conjunction, no
                                verb

    b.    <u>Elaborated functional syntax</u> (Stage 3)

| | |
|---|---|
| *Someone's die because* | present perfect, *-ed* missing |
| *he have accident.* | productive simple subordination |
| *Car hit the kid that's lie* | progressive, *-ing* missing |
| *down on the street.* | subject relative clause |

    c.    <u>Target-like functional syntax</u> (Stage 4)

| | |
|---|---|
| *The young boy was having* | past progressive |
| *fun with his bike.* | |
| *When you reverse, you have to* | complex subordination |
| *see anybody behind.* | |

For some adult L2 learners, the end state appears to be Stage 1 (see Vainikka and Young-Scholten, 2005), which may be typical of the low socio-economic stratum/low educated immigrant adults studied, for example, in the various projects referred to above. This can be attributed to low levels of exposure to the L2, where optimal exposure would include aural as well as written input from a range of sources. Alternatively, slow progress could be attributable to lack of education where aural input is processed differently by the non-literate mind (Bigelow et al., 2006; Tarone and Bigelow, 2005). Under this account, the linguistic development of educated L2 learners differs fundamentally from that of unschooled, non-literate L2 learners due to changes in the brain that occur in response to learning to read and write.

## 4 *Perspectives on the Acquisition of Morphology*

### 4.1 *Literacy Level and its Relation to Morpho-syntactic Development by Adults*

While literacy could be connected with rate of progress in morpho-syntactic development, without further exploration along the lines of Bigelow, Tarone and colleagues, it is impossible to know whether this is the result of literacy per se or the result of low quantity and quality of input. In Young-Scholten and Strom's (2006) small-scale cross-sectional study of 17 Somali and Vietnamese adults with little or no primary schooling we indeed see a significant overall positive correlation between stage of morpho-syntactic development (see Table 1) and reading level, as represented by single word decoding.

    The data in Table 2 also indicate that neither reading level nor morpho-syntactic stage seems related to amount of English instruction or duration of US residence. Six of the eight unschooled adults were non-

*Table 2:   Morphosyntax level and reading level of L2 adults with little or no schooling*

| Learner/sex/age | | | NL school | ESL | in USA | reading level | syntax stage |
|---|---|---|---|---|---|---|---|
| V6 | f | 70 | 0  yrs | 1 yr | 2 ½  yrs | 1 | 1a |
| S2 | f | 47 | 0 | 2 yrs | 5 yrs | 1 | 1a |
| S10 | f | 66 | 0 | 1 ½ yrs | 3 yrs | 1 | 1b |
| V1 | f | 51 | 0 | 1 yr | 20 yrs | 1 | 1b |
| S9 | f | 54 | 0 | 1 yr | 4 yrs | 1 | 1b |
| S8 | f | 31 | 0 | 4 mns | 9 yrs | 1 | 1b |
| S4 | f | 38 | 0 | 3 yrs | 9 yrs | 2 | 1b |
| V2 | f | 64 | 2 yrs | 2 yrs | 8 yrs | 3 | 1a |
| V5 | m | 34 | 1; 4 yrs | ½ yr | ¾ yr | 3 | 1a |
| V7 | m | 53 | 5 yrs | ½ yr | 3 yrs | 3 | 1a |
| V4 | f | 43 | 3 yrs | ½ yr | 13 yrs | 3 | 1b |
| V3 | f | 31 | 3 yrs | 4 yrs | 12 yrs | 4 | 4 |
| S6 | f | 24 | 2 yrs | 1 yr | 2 yrs | 2 | 1b |
| S5 | f | 32 | 2 yrs | 1 yr | 2 yrs | 3 | 1a |
| S7 | f | 30 | 5 yrs | 1 ½ yrs | 9 yrs | 3 | 2 |
| S3 | m | 30 | 0 | 2 wks | 2 yrs | 4 | 4 |
| S1 | m | 26 | 4 yrs | 0 | 1 yr | 5 | 4 |

readers and all were at Organic Grammar Stage 1 (1a or 1b) despite ESL instruction ranging from 4 months to 2 years and residence of ¾ of a year to 20 years. That all non-L1 readers who placed at OG Stage 1 were also non-L2 readers suggests some sort of connection between literacy and linguistic development. However, the causal relationship cannot be in the direction that Bigelow and Tarone suggest, given Somali speaker S3's data. He managed during his two years of US residence to reach level 4 in English reading and OG Stage 4 without the ability to read Roman-alphabet-based Somali upon arrival or when tested and with only two weeks of ESL classes. Of course without further research, particularly data from longitudinal studies, we cannot confirm the direction of the relationship. Nor can we exclude various other possibilities – such as some sort of exceptional ability/aptitude – that might account for S3's high level of linguistic competence and ability to read.

## 4.2   The Status of Morphology in Child and Adult Second Language Acquisition

A recent challenge to the close coupling of morphology and syntax assumed under Organic Grammar is Prévost and White's (2000a/b/c), who claim that child L2 learners – but not adult L2 learners – pattern like L1 children for whom morphology and syntax are developmentally

related. They argue that L1 and L2 children's early non-finite verb utterances are indications of "truncated" syntactic structure (as in (1a) and (1b) above), where just a VP can be projected, but that adult L2 learners' relatively more variable morphological production rules out such a stage. This child L2-adult L2 difference is age driven and amounts to the proposal that children and adults do not make use of the same language-specific mechanisms in L2 acquisition, at least with respect to morphology. Logically speaking, it means that general cognitive mechanisms are instead recruited. If that is indeed the case, the acquisition of morphology could indeed by influenced by L2 instruction or level of education or literacy. But if we pick apart this syllogism, it is possible that the differences Prévost & White found are due to the latter – that morphological production does relate to the operation of general cognitive mechanisms – without entailing the former – that this completely rules out the operation of the same linguistic mechanisms as children use – to be true. To repeat Jordens' (1996) and Schwartz' (1993) points, respectively, just because second language learners can make use of general cognitive mechanisms, and just because their production reflects use of such mechanisms, does not mean these mechanisms directly drive the development of second language morpho-syntax.

Vainikka and Young-Scholten (2007) point out that Organic Grammar accounts for both the child L2 French and the adult L2 German learners' utterances discussed by Prévost and White if only a VP structure is available at the earliest stages of development. Examples from the L2 adults in Prévost and White (2000c) indicate that these learners' use of non-finite verb forms in non-finite contexts as in (3) resembles the L2 children's truncations, while the adults' use of non-finite and otherwise non-target verb forms in finite contexts and finite in verbs in non-finite contexts as in (4) is not dissimilar to children's distribution of such forms, involving "missing surface inflection" (where syntax is present, but inflection is not produced; see, e.g., Haznedar and Schwartz, 1997; Lardiere, 1998).

(3) a.  für nehmen                (Ana month 4)
          for take-INF

     b.  ich weiss nich machen     (Zita month 11.7)
          I  know  not make-INF

     c.  je veux partir            (Zahra month 21.7)
          I want leave-INF

(4) a.  il faut marche            (Abdelmalek month 36.7)
          it must walk-1/2/3S

b.   du willst nich arbeite hier   (Zita month 24.4)
     you want not work-1S here

c.   monsieur il arriver          (Zahra month 18.5)
     mister he arrives-INF

Ana's ZISA study data (L1 Spanish/L2 German) resemble the child L2 data in terms of an overall low proportion of non-finite verbs, and her input likely also most resembled that received by children. Her data were collected starting at three months' exposure to German, and during the 25 months of collection, she received plentiful input from her German boyfriend. Before 10 months' exposure, Ana produced non-finite forms 13% of the time, while thereafter, the proportion of non-finite forms dropped to 5%. Like the L2 children, she almost never produced non-finite auxiliaries (only 2 out of 62). But it does appear that both truncation and missing surface inflection are operative in her data, with the 5% rate (after month 10) representing the latter. We propose that the allegedly weaker link between syntax and morphology for L2 adults vs. L2 children is connected to individual variation resulting from adults' greater use of meta-cognitive mechanisms, which in turn may be connected to literacy. But, as noted above, we have insufficient information on these learners' levels of native language education, on their L1 or L2 literacy levels or practices or on their input (apart from what is mentioned here for Ana).

Mobaraki's (2007) UK study of two eight- and nine-year old Farsi-speaking siblings learning English reveals morphological variability among L2 children. In his 20-month longitudinal study of Bernard's and Melissa's development of morpho-syntax, Mobaraki found that Bernard's significantly higher scores on a battery of working memory and processing tasks correlated with his overall rate of acquisition of particularly the two typically late-acquired English morphemes regular past -*ed* and third person singular -*s*. Compared to Melissa, Bernard was an avid reader in both Farsi (which both could read upon arrival in the UK) and English, so we therefore do not know whether the variation in rate of morphological development observed was due to underlying cognitive differences (working memory/processing) or to a greater amount of input. The effect of exposure to written input is unclear. Does reading simply provide additional primary linguistic data or is the effect a visual one, in terms of exposure to print?  The effect of literacy on working memory and processing is equally unclear. These are all factors that require much closer examination before drawing any conclusions about the effect of literacy on morpho-syntactic development. These results from two educated, literate children suggest a gradient rather than categorical effect of literacy on an individual's processing of input.

We now turn to a study of naturalistic but educated adults which

reveals an unexpected effect of meta-linguistic processing on the development of morpho-syntax.

### 4.3      *Meta-linguistic Awareness and the Second Language Acquisition of Morpho-syntax in German*

Do educated adults differ from each other in how they handle morphology during second language development? If so, perhaps literacy *per se* is not the (only) critical variable. To answer this question, we consider data from a longitudinal study of three American secondary school students who spent a year in Germany learning that language ab initio. While the three were normal US students (i.e. literate), data from one of them provide evidence that use of cognitive mechanisms can indeed affect linguistic development.

There is overwhelming evidence that when adult L2 learners receive input that is not in the form of primary linguistic data, this alters their linguistic behavior in some way; see Ellis' (1990) overview of earlier research. Studies of instructed learners typically assume that meta-linguistic processing promotes L2 development or has at worst a neutral effect due, for example, to the timing of instruction (Pienemann 1987). Felix (1985), however, has proposed that post-puberty learners' use of general cognitive mechanisms blocks their access to Universal Grammar. Perhaps because it is so difficult to measure how the language module and primary linguistic data interact with input that activates general cognitive mechanisms, Felix's ideas have received scant empirical attention. This is certainly the case with respect to non-classroom learners where their use of meta-linguistic mechanisms is largely ignored. We will see below that the idea of LLK is misleading. "*Learned* linguistic knowledge" implies instruction, but general cognitive mechanisms can be recruited and LLK accumulated without the assistance of a teacher or a grammar book.

To better interpret the information in Table 3 below, we briefly present some facts about German. As in English, agreement with the subject is marked on either the main verb, modal verb, copula or auxiliary (forms of *be* or *have*, similar to English), and tense marking involves an auxiliary verb plus a past participle:

(5)a. Claudia trinkt immer Kaffee aber ich trinke normalerweise Tee.
      Claudia drinks always coffee but I drink normally tea.
      "Claudia always drinks coffee but I normally drink tea."

   b. Hast du gestern Tee getrunken? Trinkst du heute Kaffee?
       have  you yesterday tea drunk     drink  you today coffee
       "Did you drink tea yesterday? Are you drinking coffee today?'

   c. Kräutertee habe ich gestern getrunken, weil ich heute viel Kaffee
      I   have  yesterday herbal tea drunk   because I today much coffee
      trinken muss.
      drink must
    "I drank herbal tea yesterday because I have to drink a lot of
    coffee today."

These examples illustrate three further facts about German. In both (a) and (c), the finite verb in declarative clauses is in "second position" (i.e., it has been "raised" from the VP). The verb can be preceded by only a single constituent, which in (a) is the subject, and in (c) the object. The first clause in (c) illustrates the position of the non-finite verb in German, where a participle or any other non-finite verb form follows all other material. In the second clause, the finite verb follows the non-finite verb due in this case to the complementizer *weil* ("because") filling the position that the finite verb otherwise occupies. (b) shows that like English German forms questions through subject-verb inversion, but the thematic verb and subject invert where in English the dummy auxiliary "do" is required.

The analysis of data from adult speakers of English, Italian, Korean, Spanish and Turkish learning German (see Vainikka and Young-Scholten, 1994; 1996; 1998) yields the stages of Organic Grammar for L2 German shown in Table 3; these are identical to those shown in Table 2, apart from the column for verb raising.

The data under discussion here come from the VYSA[4] study of Joan, Paul and George, whose first exposure to German was when they arrived in a large city in a standard-dialect-speaking area in July 1996. Starting three weeks after their arrival, data were regularly collected from each learner for a year. None had substantial experience in formal foreign language learning, and their development of German proceeded generally without instruction during the year they spent living with host families and attending German secondary schools. They were essentially naturalistic learners and we expected them to exclusively use language-specific mechanisms to acquire German.

All three learners participated in a four-week language and culture course in July when they first arrived. Together with other monolingual ab initio American exchange students, they spent mornings on the rudiments of German grammar with a teacher who spoke to the group in English. The course textbook combined the notions and functions of the European Communicative Approach with grammar explanations and translation. Grammar points – including various verbal paradigms – were

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[4]VYSA = Vainikka and Young-Scholten's Americans

*Table 3:   Stages in the L2 acquisition of German*

| **Stage** | word order in declaratives | types of verbs | tense and agreement | pronouns | verb raising | complex syntax |
|---|---|---|---|---|---|---|
| **1a VP** | resembles the NL | thematic verbs | none (non-finite –*n* forms) | none | no | none |
| **1b VP** | resembles the TL | copula *ist* appears | none | pronoun forms emerge; | no | formulaic/ intonation-based Qs |
| **2 FP** | | new copula forms modals | none (apart from suppletive forms) | not obligatory | some | Qs formulaic/ uninverted; conjoined clauses |
| **3 IP** | | | productive tense and agreement on thematic verbs | obligatory | frequent | productive Qs, may be uninverted; simple subordina-tion |
| **4 CP** | | | | | obligatory | all Qs with inversion; complex subordina-tion |

*Table 4:   The VYSA learners*

| Learner | Previous exposure to foreign languages | Age at arrival in Germany |
|---|---|---|
| Joan | 1 month of Spanish; no German | 16 |
| Paul | 1 semester of French; no German | 17 |
| George | 1 year of French; no German | 15 |

presented in visually salient pink-shaded boxes in the text. Thus while the vast majority of input these learners received in German during the year they spent in Germany constituted primary linguistic data, their language course made available to them the basic tools for meta-cognitively processing, i.e. learning, German. Observation by the second author of the students during one of the course sessions and subsequent negative comments indicated that the three learners were not motivated to seek benefits from the language classes. Low motivation was doubtless compounded by the absence of any testing and by the students' initial host families' ability to communicate in English. The amount of naturalistic exposure learners got during their first four weeks in Germany was negligible; the group spent their free time outside the class together. At the end of the four-week course, the group dispersed to new host

families across non-dialect-speaking Germany and began attending local secondary schools as fully matriculated students. Data come from monthly sessions where Joan, Paul and George engaged in animated conversation with the second author about their unfolding and challenging exchange experience as well as from the administration of a battery of broad and narrow tasks, including grammaticality judgment tasks where sentences were read but the resulting data were oral.

Adopting the position that there is a critical period for language acquisition that closes around puberty (Lenneberg, 1970) entails assuming fundamental differences exist between children and adults, where the latter rely on general rather than cognitive domain-specific mechanisms. This is a view held by a number of researchers, some of whom maintain that children's acquisition is driven by language-specific mechanisms but adult acquisiton is not (Bley-Vroman, 1990; Clahsen & Muysken, 1986) and others of whom maintain that adults differ from children, but who (following child language development researchers such as MacWhinney, e.g., 2004) do not assume modularity of mind for learners of any age but rather a decrease in ability to learn implicitly (e.g., DeKeyser, 2000). For these researchers, the operation of general cognitive mechanisms involves the conscious attention to features of the input, and since Schmidt (1990), there has been considerable research effort expended on determining whether a learner *notices* those forms in the input that signify grammatical functions. Schmidt and others (e.g., Robinson, 1995) propose the Noticing Hypothesis, which predicts that input only becomes intake when elements are noticed. How can we determine when a naturalistic, non-classroom learner notices something? Used as a measure of meta-linguistic awareness by young children learning their first language (Gombert, 1992), we interpreted the frequent self-correction the three learners engaged in during data collection sessions as one sign of noticing. What learners self-corrected was case and gender, subject-verb agreement and word order (though not always leading to the correct target form or construction). As an additional measure, we considered meta-linguistic comments made during sessions as evidence that forms had been noticed, and further attempted to determine whether they understood what they had noticed. Remarks shown here are representative of what the learners said during interviews (note there is a one-month lag in the data collection sessions relative to initial exposure, i.e. session IX occurred ten months after arrival in Germany). Where some of the tasks encouraged conscious focus on grammar, comments were most often made then, and sometimes elicited, as in (6) (M=interviewer), where elicitation of such comments was the aim of the grammaticality judgment task. For this task, learners read a set of declarative clauses which involved the finite verb in second position preceded by a non-subject constituent (as in 5b above) or in (ungrammatical) third position.

(6)   <u>Joan Session IX (during Grammaticality Judgment Task)</u>
> **M**:   Weiβt du was 'den Mann' ist?
>       know you what the (acc.) man is?
>
> **J**:   *Etwas mit Grammatik.*      *Oder ich weiβ nicht.*
>       something with grammar or I know not
>       *Ich kenne überhaupt nichts mit Grammatik.*
>       I know absolutely nothing with grammar

The next example comes from a task where, while there was essentially no meta-linguistic focus, Paul nonetheless expresses the deep concern with his progress in German that is typical of him.

(7)   <u>Paul V (during Picture Description Task)</u>
> **P**:   *Ein Mann wills, willst jetzt mein Stuhl um sit, sitzen.*
>       a man wants wants now my chair uh sit sit
>
> **P**:   *Can you say this? Like to sit? Set. Sitz. I don't know. I've never heard it. I never heard it used that way.*
>
> **M**:   How've you heard it used?
>
> **P**:   *Sitzt. Like to sit. But I don't know if you can add an -en to make it…*
>
> **M**:   To make it what?
>
> **P**:   *Whatever. To make it whatever they do. I don't know.*

Joan's and Paul's comments reveal little understanding of what they had noticed; however, George demonstrates in example (8a) and (8b) what was typical of his approach to his interlanguage German. He not only notices, but understands the function of what he is noticing, accurately using such terms as 'accusative' and recounting details of the content of the German grammar book and the language lessons. It is possible this is due to his relatively longer exposure to classroom foreign language instruction and strengthened by his self-reported positive attitudes related to the experience of learning French.

(8)a.   <u>George II (during Word Combining Task)</u>
> **G**:   *Was hast du getrinken? Ooh, I'm doing these wrong.*
>
> **M**:   Why?
>
> **G**:   *I could use different forms and they'd be easier. I don't' remember all the forms with rammar. I just put them all in the past tense.*
>
> **M**:   Oh, ok. Is that easier?
>
> **G**:   *For me it is, yeah.*
>
> **M**:   Why?
>
> **G**:   *I don't know. That's the only thing I really got was the perfect.*

b. George XI  (During Grammaticality Judgment Task)

**G**: *Four verbs in a sentence. What do I do?*

**M**: *Yeah...*

**G**: *Then I think for about a minute and I don't know. And then that's it.*

**M**: *So, do you ever, like, listen?*

**G**: *I played around with the verbs when I'd look at people, when they scowl their eyes or something like they don't understand. Then I think that's wrong.*

**G**: *Writing helped a little, too. I had to write a few reports. And seeing them on paper. Just seeing patterns on paper where verbs ougta go. I still haven't figured out with three or four verbs but I think if I write another three or four reports I'll probably figure it out.*

George seems to be an ideal second language learner and the morphological data relating to his development bear this out. Early on he uses various forms of *haben* ("have') correctly 37/43 times (86%), more often than the other two, and he also produces more forms of *haben.* Paul is at the other end of the spectrum, with a few over-generalized forms (1/6 = 16% accuracy) and Joan is in the middle, producing correct forms 50% of the time (9/18). George also makes more rapid progress in his use of agreement suffixes on thematic verbs.

Table 5:    *Accurate use of haben 'have' in Samples I & II*

|  | *habe* (1sg) |  | *hast* (2sg) |  | *hat* (3sg) |  |
|---|---|---|---|---|---|---|
|  | **correct** | **wrong** | **correct** | **wrong** | **correct** | **wrong** |
| **Paul** | 0 | 5 | 1 | 0 | - | - |
| **Joan** | 3 | 3 | 4 | 5 | 1 | 0 |
| **George** | 5 | 0 | 9 | 4 | 10 | 0 |

|  | *haben* (1; 3 pl) |  | *habt* (2pl) |  |
|---|---|---|---|---|
|  | **correct** | **wrong** | **correct** | **wrong** |
| **Paul** | - | - | - | **-** |
| **Joan** | 1 | 1 | - | - |
| **George** | 8 | 2 | 5 | - |

Table 6 shows that all three learners are typical at the start: at Stage 1a, the basic VP projection is transferred from their L1 English (verb-object order) and then at Stage 1b its headedness is switched to German (object-verb order). All three learners next add a functional projection to their syntactic tree, as predicted under Organic Grammar (see Table 3).

*Table 6:   The syntactic stages for Joan, Paul, and George for various samples
          (I – XI)*

| Stage | Description | Joan | Paul | George |
|-------|-------------|------|------|--------|
| 1a | head-inital VP, as in English | I-II | I-II | I-III |
| 1b | VP switches to German head-final | III | III | IV |
| 2 | head-initial FP | III-IV | IV | III |
| 3 | head-initial CP added | VII | VII | VIII |
| 4-i | IP switches to final | IX | Xi | [never] |
| 4-ii | IP final throughout | XI | [never] | [never] |

George is more advanced in terms of morphology than the other two speakers; however, studies of naturalistic child and adult L2 learners of German (Vainikka and Young-Scholten, 1994; 1996) and L2 English (Hawkins, 2001; Mobaraki, 2007) show that functional morphology does not rapidly emerge even where the potential for L1 transfer of such categories exists. George's early use of agreement with respect to *haben* and of production of additional inflectional morphology seems to represent atypical development that points to his application of general cognitive strategies. On the other hand, given the tight coupling under Organic Grammar of inflectional morphology and syntactic structure, we might expect his morphological prowess to confer a syntactic advantage. But the further syntactic development of these three learners paints a surprising picture. George consistently lags behind the other two in his syntax where  unlike they do (see Vainikka and Young-Scholten, 2002), he never reaches the stage of development where the IP switches headedness, where the finite verb appears in final position in embedded clauses, as in example (5c). George's mis-development may well be due to the "meta-linguistic baggage" that he carries which interferes with UG-based unconscious acquisition mechanisms. In Felix's (1985) terms, "competition" between general cognitive mechanisms and linguistic ones results in the latter losing out. Relevant to Prévost and White's (2000a/b/c) claims regarding the relationship of morphology and syntax and adult L2 acquisition is George's low use of the suffix –*n* on thematic verbs. These forms figure prominently in truncations in early stage German, and unlike Joan and Paul, George instead produces correctly inflected thematic verbs. The result is indeed a disconnection between morphology and syntax such that syntactic development is impeded.

These results revive Felix's (1985) competing cognitive structures idea and in turn relate to the triggering role proposed for inflectional morphology in the course of the development of syntax (Vainikka and Young-Scholten, 1998; Hawkins, 2001). The results also present a

challenge to Ellis's (1990) conclusions on the effect of instruction in that meta-cognitive processing can alter the route of L2 development. This of course begs the question of positive influence. If there is an interface between general cognitive mechanisms and language-specific mechanisms with respect to the influence of morphology on the development of syntax, why should the influence be only negative?

George's case shows that adult L2 learners can develop meta-cognitive/meta-linguistic strategies and amass LLK without much reliance on instruction; Joan's and Paul's cases demonstrate lack of a 1:1 relationship between LLK and instruction. Such variation is expected; unlike linguistic competence distribution of general cognitive abilities exhibits considerable varition across individuals. What meta-cognitive mechanisms constitute and how they are applied will vary considerably where consciousness and control are also factors; e.g. Gombert distinguishes pre-school children's ***epi***linguistic knowledge from their later (subjet to control, volition/intention) ***meta-linguistic*** knowledge. Our study of George vs. Joan and Paul shows that use of meta-linguistic processing varies even for older learners in naturalistic situations. This could well be true for older learners with little native language education.

### 4.4    *Triggering Data and the L2 Acquisition of Morpho-syntax*

The studies reviewed here thus far show that (1) morphological variation during L2 development does not appear to qualitatively differ for children and adults; (2) rate of development of inflectional morphology can be influenced by language-module external factors for *both* adults and children; (3) there appears to be some sort of link between ability to read and progress in morpho-syntax acquisition; (4) morpho-syntactic development is influenced by meta-cognitive processing. (1) and (4) contradict each other. So let us consider how the language-specific mechanisms that are involved from moving the learner from one developmental stage can be influenced by what falls under general cognitive processing.

The notion of *parameter* (Chomsky, 1981) continues to form the basis of a principled account of cross-linguistic variation and of acquisition. What is commonly assumed is the desirability to limit such variation in the lexicon, i.e. in that portion of the language that has to be learned. For the purposes of syntactic variation between grammars, the *closed-class* portion of the lexicon is crucial, e.g. elements such as tense and agreement marking. Inextricably tied to the notion of parameters is the idea that specific parameter settings are triggered during language acquisition (see e.g., Gibson & Wexler, 1994, and, more recently, Sakus and Fodor, 2001). One assumption is that triggers have to be robust in the input data. In George's case, he is not waiting to subconsciously extract the inflectional

morphology from the primary linguistic data surrounding him; rather, he is trying to give himself a head-start by focusing on memorized paradigms. Thus while he is indeed *acquiring* syntactic structure, he appears to be *learning* some of the crucial morphology. This is a mismatch which prevents the language-specific mechanisms from operating naturally.

Zobl & Liceras' (1994) review of the morpheme order studies carried out in the 1970s on L1 children and L2 children and adults prompted Vainikka and Young-Scholten's (1998) consideration of variable triggering data. L1 children tend to acquire bound morphemes first while all L2 learners acquire free morphemes, and then the related bound morphemes, as shown in Table 7.

*Table 7: Relative morpheme order in English acquisition (V & Y-S 1998, based on Zobl & Liceras 1994)*

| Related functional projection | Morpheme order in L1A | Morpheme order in L2A |
| --- | --- | --- |
| Nominal (DP) | 1. possessive | 1. article |
|  | 1./2. article | 2. possessive |
| Verbal (IP) | 1. past & 3SG | 1. auxiliary |
|  | 2. auxiliary | 2. past & 3SG |

Under the theory of Organic Grammar, where the language learner posits as few positions and projections as needed to account for the relevant input data at any given stage of development, triggering input is highly relevant. Given the full operation of language-specific mechanisms and little first language influence, Organic Grammar predicts that learners will be completely successful in the acquisition of morpho-syntax in the second language. Adult L2 learners appear to be less successful in the long run than child L1 learners. Why? Vainikka and Young-Scholten (1998) ask whether triggers for first language learners also act as triggers for second language learners, and based on existing L1 and L2 acquisition data, the proposal was that *bound morphemes* such as inflectional affixes typically function as triggers in L1 acquisition but *free morphemes* do so in L2 acquisition. While there is some flexibility here, if a particular parameter can only be triggered by a bound morpheme, this parameter will be difficult or impossible to set in L2 acquisition, resulting in a fossilized non-target grammar. The German equivalent of Table 7 is Table 8, with the morphemes translated into triggers.

We suspect that the distinction between bound and free morphemes as triggers may be derivable from phonology: Free morphemes such as auxiliaries typically constitute at least a phonological foot, while bound morphemes typically involve units smaller than a foot. Lack of

phonological attainment may in turn result in incomplete analysis of sub-foot constituents in the learner's L2.

*Table 8:   Triggers for positing functional projections in the acquisition of German*

| Stage (Projection) | Trigger in L1A | Trigger in L2A |
|---|---|---|
| Stage 1a (VP) | stress pattern | L1 bootstrapping |
| Stage 2 (FP) | 3 person singular –*t* | modal verbs |
| Stage 3 (AgrP) | agreement paradigm | copula paradigm |
| Stage 4 (CP) | object clitics | complementizers |

## 5   Conclusion

The studies discussed here show that rate of development of inflectional morphology is influenced by language-module external factors for *both* adults and children. Our analysis of data from educated young adult George reveals how morpho-syntactic development appears to be influenced by application of general cognitive mechanisms. The relative speed of George's mastery of inflectional morphology can be traced to his metacognitive processing of German, but it constitutes LLK. Where we find that George's morphological speed results in an atypical syntactic route, we have evidence of the indirect effect on syntactic acquisition of metacognitive processing – explained by how triggering data typically operates. If problems post-puberty learners have in attaining native morpho-syntactic competence in a second language boil down to poor use of triggers (e. g., items such as "the" and "is"), can the learner being "forced" at the right time to deal with them during reading, making triggers more available to the learner?   If the L2 English learner is producing utterances such as "Car fast" and is then learning to read sentences like "The car is fast", does this prompt the learner to move from the VP Stage, Stage 1, to the next stage?   Answers to this and a range of other questions await further research.

Finally, our review of studies suggests that Prévost and White's (2000a/b/c) conclusions regarding child-adult L2 morpho-syntactic differences are premature. There is a need to devote considerably more attention to the roles played by literacy, education, print exposure and meta-cognitive processing during the acquisition of morpho-syntax in a second language, as the recent work by Tarone, Bigelow and colleagues demonstrates. Studies carried out must consider what we already know about the interplay of inflectional morphology and syntax during acquisition. Because age, literacy and input have tended to be confounded (Moyer, 2004), studies examining the role of literacy need to include learners of varying ages from six (Long's 1990 critical period termination for phonology) to post-compulsory schooling. And finally, these studies

must acknowledge the positions represented by various theoretical frameworks, as shown in Table 9.

*Table 9: Some hypothesis on the involvement of literacy in acquisition of morpho-syntactic competence*

|  | Hypothesis | Testable by | Evidence from | Hypothesis Status |
|---|---|---|---|---|
| Strong generativist hypothesis | Literacy does not affect acquisition. | looking at L2 learners regardless of their literacy, etc. | existing studies of immigrants | supported |
| Indirect influence hypothesis | Literacy affects morphology which in turn affects syntax. | comparing non-literate and literate L2 learners | Tarone, Bigelow and colleagues' work | some support |
| Indirect influence hypothesis II | Literacy affects phonology which affects operation of triggers (morphology) which affects syntax. | comparing non-literate and literate L2 learners | Weak generativist hypothesis: Vainikka & Young-Scholten 1998 | some support |
| Interface hypothesis | Literacy affects processing which affects acquisition of morphology and syntax. | comparing non-literate and literate L2 learners | Tarone, Bigelow and colleagues | some support |

We hope these hypotheses will inspire a surge of research on the under-examined issues of how literacy and how meta-cognitive processing influence the development of morpho-syntactic competence in a second language by learners of all ages.

*References*

Bailey, N., Madden, C & Krashen, S. (1974). Is there a 'natural sequence' in adult second language learning? *Language Learning* 24:235-243.

Bigelow, M., delMas, B., Hansen, K. and Tarone, E. (2006). Literacy and the processing of oral recasts in SLA. *TESOL Quarterly*.

Bley-Vroman, R. (1990). The logical problem of foreign language learning. *Linguistic Analysis* 20:3-49.

Brown, R. (1973). *A First Language. The Early Stages*. Cambridge, MA: Harvard University Press.

Chaudron, C. (2001). Progress in the language classroom. Research evidence from *The Modern Language Journal*, 1916-2000. *The Modern Language Journal* 85:58-76.

Chomsky, N. (1981). *Lectures on Government and Binding.* Foris: Dordrecht.

Clahsen, H. (1991). Constraints on parameter setting. A grammatical analysis of some acquisition stages in German child language. *Language Acquisition* 1:361-391.

Clahsen, H., Eisenbeiss, S. & Vainikka, A. (1994). The Seeds of Structure: A syntactic analysis of the acquisition of Case marking. In T. Hoekstra and B. D. Schwartz (eds.) *Language Acquisition Studies in Generative Grammar.* Amsterdam: Benjamins. pp. 85-118.

Clahsen, H. & Muysken, P. (1986). The availability of Universal Grammar to adult and child learners - A study of the acquisition of German word order. *Second Language Research* 2:93-119.

Crain, S. (1993). Language acquisition in the absence of experience. In P. Bloom (ed.) *Language Acquisition: Core Readings.* London: Harvester Wheatsheaf.

Curtiss, S. (1982). Developmental dissociations of language and cognition. In L. Obler & L. Menn, eds., *Exceptional Language and Linguistics.* New York: Academic Press. pp. 285-312.

DeKeyser, R. (2000). The robustness of critical period effects in second language acquisition. *Studies in Second Language Acquisition* 22: 499-533.

deVilliers, J. & deVilliers, P. (1973). A cross-sectional study of the acquisition of grammatical morphemes in child speech. *Journal of Psycholinguistic Research* 2: 267-278.

Dulay, H. & M. Burt. (1974). Natural sequences in child second language acquisition. *Language Learning* 24:37-53.

Ellis, R. (1990). *Instructed second language acquisition.* Oxford: Blackwell.

Felix, S. (1985). More evidence on competing cognitive systems. *Second Language Research* 1: 47-72.

Fodor, J. A. (1983). *The Modularity of Mind.* Cambridge, MASS: MIT Press.

Gibson, E. & Wexler, K. (1994). Triggers, *Linguistic Inquiry* 25:405-454.

Gombert, J-E. (1992). *Meta-linguistic Development.* London: Harvester Wheatsheaf.

Hawkins, R. (2001). *Second Language Syntax: a Generative Introduction.* Oxford: Blackwell.

Haznedar, B. (1997). L2 acquisition by a Turkish-speaking child: evidence for L1 influence. In E.

Hughes, M. Hughes & A. Greenhill (eds.) *Proceedings of the 21st Annual Boston University Conference on Language Acquisition* pp. 245-256.

Haznedar, B. & Schwartz, B. D. (1997). Are there optional infinitives in child L2 acquisition? In E. Hughes, M. Hughes and A. Greenhill (eds.) *Proceedings of the 21st Annual Boston University Conference on Language Development.* Somerville, MA: Cascadilla Press. pp. 257-268.

Hornstein, N. & Lightfoot, D. (1981). Introduction. In N. Hornstein & D. Lightfoot, eds., *Explanation in Linguistics: The Logical Problem of Language Acquisition*. New York: Longman. pp. 9-31.

Jordens, P. (1996). Input and instruction in second language acquisition. In P. Jordens and J. Lalleman (eds.) *Investigating Second Language Acquisition*. Berlin: de Gruyter. pp. 407-449.

Klein, W. & Perdue, C . (1997). The Basic Variety (or: Couldn't natural languages be  much simpler?) *Second Language Research* 13:301-347.

Krashen, S. (1985). *The Input Hypothesis*. London:Longman.

Kurvers, J., van der Craats, I. & Young-Scholten, M. (2006).  Research on low-educated language and literacy acquisition. In J. Kurvers, I. van der Craats & M. Young-Scholten (eds.) *Low Educated Adult Second Language and Literacy Acquisition*. Amsterdam: LOT.

Lardiere, D. (1998). Dissociating syntax from morphology in divergent end-state grammars. *Second Language Research* 14:359-375.

Lenneberg, E. (1970).  The biological foundations of language.  In M. Lester (ed).  *Readings in Applied Transformational Grammar*.  New York: Holt, Rinehard and Winston. pp. 4-20.

Leonard, L. B.  (2000). Specific language impairment across languages. In Bishop, D. and L. B. Leonard (eds.)  *Speech and Language Impairments in Children*.  Hove: Psychology Press.

Levy, Y. (2002). Longitudinal study of language acquisition in two children with Williams Syndrome. In B. Skarabela, S. Fish & A. J-H Do (eds.)  *Proceedings of the 26th Annual Boston Conference on Language Development*. Somerville, MA, Cascadilla Press: pp. 348-358.

Long, M.  1990. Maturational constraints on language development. *Studies in Second Language Acquisition* 12:251-285.

MacWhinney, B. (2004).  A multiple process solution to the logical problem of language acquisition *Journal of Child Language*, 31, 883-914.

Mobaraki, M. (2007). The acquisition of English by two Farsi-speaking children. Unpublished PhD thesis. Durham University.

Myles, F. (2004).  From data to theory: The over-representation of linguistic knowledge in SLA.  *Transactions of the Philological Society* 102:139-168.

Piatelli-Palmarini, M. (ed.) 1979.  *Language and Learning: The Debate between Jean Piaget and Noam Chomsky*. Cambridge, MA:  Harvard University Press.

Pienemann, M.  (1987). Psychological constraints on the teachability of languages. In C. Pfaff (ed.) *First  and Second Language Acquisition Processes*.  London: Newbury House. p. 143-168.

Prévost, P. & White, L.   (2000a). Accounting for morphological  variation in L2 acquisition: truncation or missing inflection? In M.-A. Friedemann & L. Rizzi (eds.)   *The Acquisition of Syntax*. London: Longman. pp. 202-235.

Prévost, P. & White, L. (2000b). Finiteness and variability in SLA: More evidence for Missing Surface Inflection. In A. Greenhill, H. Littlefield & C. Tano (eds.) *Proceedings of the 23rd[ ] annual Boston University Conference on Language Development*. Somerville, MA: Cascadilla Press. pp. 439-450.

 Prévost, P. &  White, L. (2000c). Missing surface inflection or impairment in second language  acquisition? Evidence from tense and agreement. *Second Language Research* 16:103-134.

Radford, A. (1990). *Syntactic Theory and the Acquisition of English Syntax.* Oxford: Blackwell.

Radford, A. (1995).  Children - Architects or brickies? In D. MacLaughlin, and S. McEwen (eds.)

*Proceedings of the 19th Annual Boston University Conference on Language Development*, Somerville, MA: Cascadilla Press, 1-19.

Robinson, P. (1995)  Attention, memory and the noticing hypothesis. *Language Learning* 45:193-215.

Sakus, W. G. & Fodor, J. D..(2001). The structural triggers learner.  In S. Bertolo (ed.) *Language Acquisition and Learnability*. Cambridge: CUP. pp. 172-233.

Schmidt, R. (1990). The role of consciousness in second language learning.  *Applied Linguistics* 11:129-158.

Schwartz, B. D. (1993).  On explicit and negative data effecting and affecting competence and linguistic behavior.  *Studies in Second Language Acquisition* 15:147-163.

Schwartz, B. D. and Rex Sprouse. (1996). L2 cognitive states and the full transfer/full access model. *Second Language Research* 12:40-77.

Smith, N. & Tsimpli, I-M. (1995).  *The Mind of a Savant.*  Oxford: Blackwell.

Tarone, E. & Bigelow, M. (2005). Impact of literacy on oral language processing: Implications for second language acquistion research. *Annual Review of Applied Linguistics* 25:77-97.

Vainikka, A.. & Young-Scholten, M. (1994). Direct Acess to X'-Theory: Evidence from Korean  and Turkish adults learning German. In T. Hoekstra and B. D. Schwartz (eds.) *Language  Acquisition Studies in Generative Grammar*. Amsterdam: Benjamins. pp. 265-316.

Vainikka, A. & Young-Scholten, M. (1996). The early stages in adult L2 syntax: Additional evidence from Romance speakers.  *Second Language Research*. 12: 140-176.

Vainikka, A. & Young-Scholten, M. (1998). Morphosyntactic triggers in adult SLA. In M-L Beck (ed.) *Morphology and its Interfaces.* Amsterdam: Benjamins. pp. 89-113.

Vainikka, A. & Young-Scholten, M. (2002). Restructuring the CP in L2 German. In B. Skrabela, S. Fish & A. H.-J. Do (eds.) *Proceedings of the XXVI Boston University Conference on Language Developmen*t. Cascadilla Press. pp. 712-722.

Vainikka, A. & Young-Scholten, M. (2005). The roots of syntax and how they grow. Organic Grammar, the Basic Variety and Processability Theory. In S. Unsworth, A. Sorace, T. Parodi & M. Young-Scholten (eds.) *Paths of Development in L1 and L2 Acquisition.* Amsterdam: Benjamins. pp. 77-106.

Vainikka, A. & Young-Scholten, M. (2007). Minimalism vs. Organic Syntax. In S. Karimi, V. Samiian & W. Wilkins (eds.) *Clausal and Phrasal Architecture: Syntactic Derivation and Interpretation.* Amsterdam: Benjamins.

VanPatten, B. (1988). Review essay. How juries get hung: Problems with the evidence for focus on form in teaching. *Language Learning* 38:243-260.

White, L. (1989). *Universal Grammar and Second Language Acquisition.* Amsterdam: Benjamins.

Yamada-Yamamoto, A. (1993). The acquisition of English syntax by a Japanese-speaking child: With special emphasis on the VO-sequence acquisition. In J. Clibbens & B. Pendleton (eds.) *Proceedings of the Child Language Seminar.* University of Plymouth. pp. 109-120.

Young-Scholten, M. & Strom, N. (2006). First-time adult L2 readers: Is there a critical period? In J. Kurvers, I. van der Craats & M. Young-Scholten (eds.) *Low Educated Adult Second Language and Literacy Acquisition.* Amsterdam: LOT.

Zobl, H. & Liceras, J. (1994). Functional categories and acquisition orders. *Language Learning* 44:159-180.

# OBSTACLES ON HIGHWAY L2

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## 1    *Dutch as a Second Language in the Dutch Context*

To date (2007), the population of the Netherlands consists of more than 16 million people. Roughly ten percent of them are immigrants and refugees who do not speak Dutch as their native language. Refugees have come from countries in Southeast Asia, former Yugoslavia, Iraq, Afghanistan, and African countries, while the largest groups of immigrants are from Turkey and Morocco. In addition, there is a growing international group of partners and spouses of native Dutch inhabitants. The number of low-educated adults in this group of immigrants and refugees is estimated at 70%. Low-educated in this case means having an educational level of elementary school and one or two years of secondary school at most. For women, full illiteracy or two years of education at elementary school level is no exception. This is the group of adults who usually learn Dutch as a second language (DSL) in centers for adult education where trained teachers are paid to teach DSL.

The present L2 teaching and learning context is one in which the communicative approach plays an important role: the focus is on the use of language, on skills, and on competencies, because this is considered the most efficient way of learning a new language; grammar receives scant attention although many teachers and learners would like to focus on form (i.e. grammar). Objectives are formulated in the form of can-do statements and communicative roles and situations in which the immigrant has to function. Examples of such can-do statements are: I can read [how many times] a day; I have to take my medication; I can write a postcard to congratulate a colleague.

When the new Immigration Act became effective (January 2007), an "integration exam" became compulsory, and a basic level of Dutch – A2 of the Common European Framework of Reference for Languages or CEF (Council of Europe, 2001) – has become a part of the exam. This level must be attained within three and a half years of training and is required for getting a residential permit. Adult immigrants have to prove themselves able to function in Dutch society and to speak and understand enough Dutch to do so. The exam consists of a number of crucial practical situations in which the immigrant has to prove that he can function adequately, for instance in the domains of citizenship, of education, of health and upbringing, and in the domain of labor. Examples of such crucial practical situations are: application of documents at the municipality, contact with his/her children's school teacher, and talking about conditions of employment.

Of course efficiency and speed are important: the costs of a course are high, whether paid by the municipality, the learner himself, or a combination of the two. An immigrant learner is not a language learning fanatic; for him the results count, he wants to have a job. Yet, I have the feeling that this orientation on functional skills and competencies is getting excessive and that it is no longer possible to pay attention to the building stones of language proficiency, viz. to vocabulary and grammar, that there is no more time left to let immigrants enjoy learning, reading and speaking a new language. And, what is more serious, the focus is directed so one-sidedly to the crucial practical situations that a solid basis of language knowledge is being neglected. There seems to be no time to register small scale progress related to vocabulary and grammar or the lack of such progress, for instance when the communicative approach does not work so well for specific learners. Time, attention, and maybe some specific instruction is needed to make progress again.

This paper focuses on one low-educated learner for whom the communicative approach was not very successful because she couldn't deal with the immersion situation in the lessons.

## 2    A Case Study

### 2.1    Data Collection, Participants, Method

The data used for the present case study come from a longitudinal corpus of semi-spontaneous and experimental data, entitled the LESLLA corpus because the eight Turkish and seven Moroccan female participants are typical representatives of the LESLLA group, as they all had received little scholing in their native country:  from zero to seven years. They were learning Dutch in the instructional environment of a center for adult education, in which the teaching method and materials can be best characterized as reflecting a communicative approach. Some of the participants profited from the immersion situation at work or from contact with Dutch neighbors, mothers, authorities or social services. However, at the start of data collection, they were all beginners below level A1 of the CEF (see Section 1), although some of them had been living in the Netherlands for ten years or more when they started the course. The participants were observed for 15-18 months, during which the researcher had nine meetings with them, divided over three cycles. In each cycle, the same tasks were administered, ranging from free tasks (film-retellings, picture story-telling) to more controlled tasks. The present study is restricted to the data from one production task: the picture story-telling of The Snowman (Briggs, 1989), a wordless picture book. Participants were asked to tell in Dutch the adventures of a boy who made a snowman which came to life in his dream, as if they were telling

the story to their own children. The task was repeated twice so that any progress should become visible; it was registered on a Sony mini-disc recorder, digitalized and converted into PRAAT (Boersma & Weenink, 2003) files to enable a precise orthographic transcription.[1]

The aim of the larger project was to investigate which syntactic and morphological aspects would be involved when learners do not make progress or stop making progress. We focus on one participant, Gülisar, and on one task because that will be sufficient to illustrate her problems with learning Dutch. Gülisar was 31 years old, had received an education of five years of elementary school in Turkey, and had finished a semi-intensive one year DSL course (10 hours a week) when data collection started. She was married but lived single with her 5-year-old son and had Turkish friends but no relatives in the Netherlands.

In this paper, I focus on five grammatical items that are basic in spoken communication, so basic even that native speakers of Dutch have great, if not insurmountable, problems understanding the speech of L2 learners if these items are not realized properly. These basic aspects are: (i) presence and position of the verb, (ii) presence and position of a subject, (iii) prepositions, (iv) possessive constructions, and (v) the verb 'to have.'

## 2.2 Gülisar's Picture Story-Telling

In order to give the reader an idea of the language level of this learner and of the specific problems she encountered, one connected excerpt from the transcription of spoken text is given together with the relevant drawings. The same utterances are used for the specific grammatical items discussed later.



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[1] PRAAT (= TALK) is a program for phonological analysis. Orthographic transcription was done by two persons and was checked by the researcher. The sound files of all production tasks with transcription are available on DVD by sending an e-mail to I.v.d.Craats@let.ru.nl.

1.  Sneeuwman niet oog niet neus niet oor niet mond.
    Snowman    not eye not nose  not ear  not mouth.
    Target:    De sneeuwman heeft geen ogen, geen neus, geen oren en
               The snowman  has   no   eyes, no   nose, no    ears and
               geen mond.
               no   mouth.
A target Dutch main clause has an SVO (subject-verb-object) word order.

2.  Ja    straks huis   terug.           Mama    vragen.
    Yes  soon house back.                Mummy ask.
    Target:    Hij gaat naar huis terug.        Hij vraagt zijn moeder.
               He  goes to home  back.          He asks   his  mother.
In Dutch, some verbs can be split in two parts: the inflected verb (*gaat*)
follows the subject and the particle (*terug*) appears at the end of the
sentence.

3.  Kep en  sjaal  nemen thuis.
    Cap and scarf  take    home.
    Target:    Hij neemt de muts and the sjaal mee          van huis.
               He  takes  the cap and the scarf with (him) from home.
In Dutch, as well as in English, a subject should always be present; the
word order here is: OVX, where X stands for an adverbial adjunct.
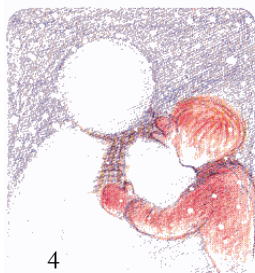




4.  Sjaal  kleden sneeuwman.
    Scarf  put-INF snowman.
    Target:    Hij doet de sneeuwman de  sjaal  om.
               He  puts the snowman  the scarf  on.
In Dutch, the subject must be realized and the object should follow the
inflected verb; the particle (*om*) is separate from the verb *omdoen* in
sentence-final position.

5. Kep hoofd op sneeuwman.
   Cap  head  on   snowman.
   Target:    (Hij doet) de kep op het hoofd van de  sneeuwman.
                    He  puts  the hat  on the head   of   the snowman.

The preposition *op* behaves here like a postposition because it relates to *hoofd* (head).

6. En dan  terugkom       thuis.
   And then backcome-1SG home.
   Target:    En  dan komt   hij weer thuis.
                  And then comes he  again home.

When an adverbial adjunct (*dan*) is in the first position of the sentence, it is followed by the finite verb and the subject: XVS.

   Tafel  op koekies.
   Table  on cookies.
   Target:    De  koekjes  liggen op de tafel.
                  The cookies  lie      on the table.

In Dutch, a copula or a positional verb (*zijn*/*liggen*) is obligatory. Note that *op* (on) follows the noun to which it belongs (*tafel*), so we deal here with a postposition. The subject follows the postpositional phrase (*tafel op*).

Niet koeke mandarijn.            Hand nemen    koeken.
Not  cookie tangerine.           Hand take-INF cookies.
Target:   Het is geen koekje maar een mandarijn.
          It    is not  a cookie but a tangerine.

          Met zijn hand pakt    hij de koekjes.
          He takes the cookies with his hand.

A provisory subject (*het*) and a copula are obligatory; the overt realization of the subject (*hij*) is missing in the second utterance as well.



7. Mandarijn sneeuwman neus maakte
   Tangerine  snowman nose made-PAST.3SG
   jonge.
   boy.
   Target: Met een mandarijn maakt de jongen de neus van de sneeuwman.
   The boy makes the nose of the snowman with a tangerine.

The Dutch word order is SVOX or XVSO (with obligatory subject-verb inversion when the sentence is introduced by an adverbial).

Word order is rather free in Turkish, but SOV is the basic order, as in (1).
See Kornfilt (1997) for details. In the sentence below the subject is not
realized overtly, but it is clear from the inflected verb that you-PLUR is the
subject. At the introduction of the subject or in cases of emphasis, the
subject is realized overtly at the beginning or at the end of the sentence
(following the verb). The finite verb is at the end of the sentence.

> (1)   kitabı      ver- me- yor- sin-iz.
>       book-DEF give-NEG-PRES-2 -PL
>       "You do not give the book."

In colloquial Turkish, the finite verb can be followed by a subject, a direct
or an object, an adverbial adjunct, or the possessor. It has a pragmatic
function, viz., to present this element as background information.
     The phrase structure in Turkish is such that the head of the phrase
follows the complement, so the object precedes the verb (OV) in (2a), the
possessor precedes the possessee (P'sorN) in (2b) and the noun precedes
the postposition (OP) in (2c).

> (2)    a    kitabı ver-yor-sin-iz
>             book  give-2PL
>             "you give a book"
>        b    Ayşe-nin    araba-sı
>             Ayşe-GEN  car-POSS
>             "Ayşe's car"
>        c    arab-nın  iç-in-de
>             car-GEN   inside-POSS-LOC
>             "inside the car"

Turkish lacks a verb expressing "to have." Instead of being indicated by a
possessive verb, the existence of a possessive relationship (*Ayşe-nin araba-
sı*) is expressed by means of an existential verb (*var*), as in (3).

> (3)    Ayşe-nin    araba-sı var
>        Ayşe-GEN  car-POSS exists
>        "Ayşe has a car"

Several utterances in the story-telling excerpt above do not have a verb at
all. That is quite normal for beginners, but the word order is remarkable.

The object seems to occupy the position of the subject in the following utterances:

(4)  a   Mummy *ask*
     b   Cap and scarf *take* home
     c   Scarf *put* snowman.
     d   Tangerine snowman nose *made* boy.

The four utterances seem to have a certain regularity, but which? It is not so easy to formulate the grammatical rule that underlies these sentences, particularly not for teachers, whether they teach DSL or ESL. They are simply not trained to pay attention to this type of phenomenon. I have put the verb in italics in (4) to make it more salient that the verb is not inflected (4a, b, c); the (indirect) object precedes the verb (4a, b, c, d) and the verb figures in sentence-final position (4a) or is followed by one other element which can be either the subject (4d) or an adverbial adjunct (4b, c). Even when a verb is inflected (4d) it is placed after the object.

One may claim that the order is OV, not an English word order, nor a normal Dutch word order in main clauses (although this word order is permitted in Dutch subclauses), but a Turkish word order. In colloquial Turkish it is becoming more and more common to add an element after the verb, especially the subject. So, we are dealing with a real interlanguage that is based on the L1 with regard to the position of the verb. If this is an interlanguage, one may wonder how long this stage will continue.

In Table 1, the results are given for the picture story-telling in each of the three cycles with an interval of approximately five months. It can be observed that there is no progress at all with respect to verb realization, verb placement and the inflection of the verb.

*Table 1:   Utterances without and with verbs over 15 months (interval 5 months)*

|                            | Cycle 1 | Cycle 2 | Cycle 3 |
| -------------------------- | ------- | ------- | ------- |
| No verb                    | 41 %    | 44 %    | 40 %    |
| Verb-final (not inflected) | 45 %    | 37 %    | 42 %    |
| Inflected verb             | 14 %    | 19 %    | 18 %    |

## 2.5   Presence and Position of the Subject

Native speakers of Dutch and English are used mentioning the subject of a sentence explicitly. That is not what Gülisar does. When we focus on the utterances containing a verb in the excerpt given above (repeated in (5)), it can be seen that in most utterances, the subject is lacking (5a, b, c, d, e) and when the subject is present, it is in final position (5f).

(5) a   Mummy *ask*                              No subject
    b   Cap and scarf *take* home.               No subject
    c   Scarf *put* snowman.                     No subject
    d   And then *backcome* home.                No subject
    e   Hand *take* cookies.                     No subject
    f   Tangerine snowman nose *made* boy.       Subject present

Actually, in the fragment above, there is only one utterance in which the subject is realized in sentence-initial position, viz., the sentence about the snowman, but the verb is lacking here (6).

(6)       Snowman not eye not nose not ear not mouth.

A teacher may wonder if there is a grammatical rule underlying those utterances and, if so, what it may be. The most important rule seems to be: Do not explicitly use a subject when it is clear from the context who or what the subject is. Therefore, Gülisar does not express the boy as a subject, as he is the protagonist. If a speaker has the feeling that some explanation is needed, the subject can be added at the end of the sentence (5f). The second rule is: Explicitly express a subject (i) when there is a topic shift or (ii) when you want to express emphasis or contrast. The latter rule is applied in (6) because the boy is no longer the topic but the snowman. These grammatical rules are not a personal invention of Gülisar but are based on the L1: Turkish (cf. Kornfilt, 1997, or other grammar books on Turkish). Table 2 gives an overview of subject realization in Gülisar's picture story-telling. Utterances without a verb and those without a subject are counted, e.g., when a simple one-word utterance as: *buiten* (outside) was meant as a whole sentence: he is going outside.

Table 2:  *Utterances with and without subject verbs over 15 months (interval 5 months)*

|                            | Cycle 1 | Cycle 2 | Cycle 3 |
|----------------------------|---------|---------|---------|
| Subject and verb present   | 21%     | 19 %    | 16 %    |
| No subject, verb present   | 38%     | 37 %    | 44 %    |
| Subject, no verb           | 22 %    | 17 %    | 21 %    |
| No subject, no verb        | 19 %    | 27 %    | 19 %    |

As can be inferred from Table 2, Gülisar's interlanguage in which subjects can be "omitted" under certain conditions is still used at the end of the project in Cycle 3. The number of subjects explicitly expressed does not increase and neither does the number of verbs.

*2.6        Prepositions*

The most important feature with regard to the realization of prepositions in the fragment cited above is that there are only a few of them, also in cases where they are obligatory in Dutch. In fact, none of the utterances (5a) - (5f), contain a preposition. Two prepositions can be found in the fragment, when Gülisar described pictures 5 and 6 using the preposition *op* ('upon' or 'on'), repeated in (7a) and (7b). And there is one more preposition in (7c) in her description of picture 8.

(7) a   [tafel  op] koekies
          table  on  cookies
           "cookies on the table"
      b   kep [hoofd op] sneeuwman
          cap head    on snowman
        "the cap on the snowman's head"
      c   [glaasje water in] de  tanders
          glass    water in the teeth
          "teeth in a glass of water"



First, we are dealing here with postpositions rather than prepositions; second, the subject may follow the postposition phrase, as in (7a) and (7c); third, the copula is lacking. This interlanguage can be fully explained by the L1. Turkish has a morphological system of cases where location can be expressed by a suffix. In addition, there is a small number of postpositions expressing location and the realization of the copula ('to be') is optional in the present tense. Table 3 provides an overview of Gülisar's results for prepositions.

*Table 3:  Overview of the use of pre- and postpositions over 15 months (interval 5 months)*

|                                | Cycle 1 | Cycle 2 | Cycle 3 |
|--------------------------------|---------|---------|---------|
| No pre/postposition realized   | 68 %    | 56 %    | 54 %    |
| Postpositions                  | 19 %    | 27 %    | 22 %    |
| Prepositions                   | 13 %    | 17 %    | 25 %    |

As Table 3 shows, Gülisar makes (a modest) progress in the use of prepositions. The number of zero realizations decreases (note that this is no more than 14% over a period of 15 months), and the number prepositions has doubled after an increase of postpositions in Cycle 2.

In Dutch, possession within nominal phrases (e.g., John's bicycle) can be expressed in two ways, as shown in (8). In (8a) the possessor precedes the possessee, in (8b) the order is reversed and a dummy preposition *van* ("of") has been inserted.

(8)  *nominal*                          *pronominal*
  a  Jan's /   z'n fiets              zijn fiets
     John's / his bicycle             his   bicycle
  b  de fiets     van Jan            de  fiets     van hem
     the bicycle of John             the bicycle of him

In the excerpt below, the possessive noun phrases in (9a) and (9b) are found, the example in (9c) comes from another fragment of the same sample.

(9)  a    sneeuwman neus
          snowman    nose
          "the snowman's nose"
     b    kep hoofd op sneeuwman
          cap head   on snowman
          "the cap on the snowman's head"
     c    vader  moeder  slapenkamer deur
          father mother  sleeproom   door
          "the door of father and mother's sleeping room"

What these examples have in common is that the possessee, which is the head of the noun phrase, is in initial position; a native speaker of Dutch would also place the head (nose, head and door) in initial position, e.g., *de neus van de sneeuwman*. So, the interlanguage grammar seems to have the following rules for Gülisar:
   -  the head of the phrase is on the right side;
   -  the possessor is in initial position;
   -  the possessor can be separated from the possessee (9b) and placed at the end of the  sentence (comparable to what happened with the subject).
The reader will understand that these rules correspond to Turkish grammar. Table 4 provides the number of nominal possessive constructions found in the picture story-telling, not in percentages but in raw numbers due to the low number of items.

*Table 4:  Overview of possessive nominal phrases*

|                            |              | Cycle 1 | Cycle 2 | Cycle 3 |
|----------------------------|--------------|---------|---------|---------|
|                            | (example)    |         |         |         |
| Possessive pronouns        | zijn kamer   | 1       | -       | -       |
| Possessor - possessee order | Jan fiets   | 7       | 13      | 14      |
| Possessee - possessor      | fiets Jan    | -       | -       | 3       |
| Insertion of *van*         | fiets *van* Jan | -    | -       | -       |

As can be seen in Table 4, Gülisar's dominant strategy of constructing possessive noun phrases is that of the L1. In the last cycle the L2 order emerges, though without the linking element *van*. There is only one suppliance of a possessive pronoun in Cycle 1. The noun phrase, which can be used without any inflectional marking, is obviously preferred by Gülisar.

## 2.8    To Have

The verb "to have" expressing a possessive relationship occurs only once in the three cycles, right at the beginning of Cycle 1, in the third month of the data collection. As can be seen in (10), it is far from easy for Gülisar to produce such an utterance.

(10) kind bedkamer hebben   /heb      /hebben   hef //heeft (month 3)
     child bedroom have-INF /has-1SG /have-INF/hef-3SG   //has-3SG
     "the child has a bedroom"
     (/ = repetition without correction ; // = repetition with correction)

The utterance in (10) shows her difficulties in producing the correctly inflected verb form. After four attempts, Gülisar succeeds, but the position of the verb still corresponds to the L1 order. In spite of the fact that the verb "to have" occurs frequently in the textbooks, she cannot produce it any more spontaneously in the next 12 months. The verb "to have" remains unexpressed, as shown in (11).

(11)    sneeuwman niet oog niet neus niet oor niet mond (month 15)
        snowman not eye not nose not ear not mouth
        "the snowman has no eyes, no nose, no ears, no mouth"

These examples show that even frequently occurring verbs, such as "to have" cannot be used after 15 months (plus 12 months before the data collection started) of instruction. The reason why Gülisar was able to produce the utterance in (10) may be that much attention was given to the

conjugation of the verb in the lessons at that time. Instead of having this knowledge become automated, she seems to fall back and to rely on her L1, where a specific word for "to have" is lacking (see Kornfilt, 1997; Van de Craats, Corver & Van Hout, 2002).

### 3    Is Gülisar the Only One?

The above examples and tables lead to the conclusion that there is hardly any progress in Gülisar's L2 acquisition process, that she mainly relies on her L1, and that both free and bound morphology (viz., free morphemes like *van*, "of," and bound inflection morphemes) are great obstacles. What about the other participants in the corpus?

I cannot go into full details here by providing tables for all grammatical issues discussed so far for all participants in the corpus, but I want to make two exceptions: for the realization of the subject and for the position of the finite verb. Table 5 gives an overview of missing subjects for four other participants, two Turkish and two Moroccan learners.

*Table 5:   Percentages of missing subjects in a retelling task of 2 Turkish and 2 Moroccan learners*

| Cycle | Ayfer Turkish | Emine Turkish | Najat Moroccan | Mina Moroccan |
|-------|---------------|---------------|----------------|---------------|
| 1 | 60% | 60% | 62% | 40% |
| 2 | 80% | 57% | 58% | 20% |
| 3 | 60% | 44% | 57% | 18% |

After 15 months of Dutch lessons, Ayfer has not made any progress in realizing the subject, Emine is more successful, the Moroccan Najat has progressed slowly, Mina has made progress like Emine, but her final result is much better.[2] It should be noted that Mina did not have any formal education. She is more or less an self-made woman in literacy acquisition: with a little help from her brothers and an uncle, she learned to read and write in Arabic script at age 12. In the Netherlands, at age 20, she took a literacy course in Latin script with the result that she was the most advanced learner and fastest reader of all 15 participants in the present corpus. All in all, it is clear that subject realization in Dutch is a serious obstacle in learning Dutch, particularly for learners with a Turkish language background.[3]

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[2]  Moroccan, like Turkish, is a language that permits subject pro-drop (i.e. non-realization of the pronominal subject).

[3]  The results are better for Moroccan learners, as can be seen in Table 5. The fact that Moroccan Arabic makes use of a dislocated topic – often a subject – seems to be the cause

The second example is the position of the verb. In a drag and drop task, the participants were asked to make a sentence by dragging constituents to a line and dropping them at the right position. The task differed from a normal drag and drop task in that there were too many constituents. In that way, Turkish learners could construct an L1-based sentence and a Moroccan learners could do so as well. An example is given in Figure 1. When Turkish learners rely on their L1 structure, the result will be: *Freek een bon krijgen / krijt* (Freek a fine get/gets), and when the Moroccan learners do the same, the result will be: *Freek krijt een bon* (Freek gets a fine). The results for the two language groups are given in Table 6.
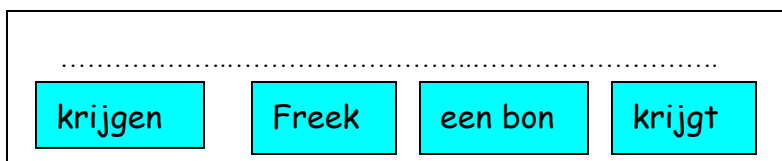


*Figure 1: Example of an item from the drag and drop task: "Freek gets a fine."*

*Table 6: Overview of the responses on the item from Figure 1 in Cycle 1*

| Turkish learners | Moroccan learners |
| --- | --- |
| Freek een bon **krijt.** | Freek krijt een bon. |
| Freek krijt een bon. | Freek krijt een bon. |
| Freek een bon **krijgen**. | Freek krijt een bon. |
| Freek een bon **krijt.** | Een bon krijt Freek. |
| Freek krijt een bon. | Freek krijt een bon. |
| Freek krijt een bon. | Freek krijt een bon. |
| Freek een bon **krijt.** | Freek krijt een bon. |
| Freek krijt een bon. | |

50% of the Turkish learners constructed the sentence based on their L1; all Moroccans did the same and arrived at a target-like sentence. This task was repeated twice. In the last cycle, three out of eight Turkish learners still showed full reliance on the L1. Gülisar was one of them. Unlike in the spontaneous production task, there was no time pressure in this controlled task. Nevertheless, the Turkish participants found it hard to carry out this task with correct results.

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of this difference between Turkish and Moroccan learners, which has been manifested for the other participants in the project as well.

## 4  Conclusions and Recommendations

The results of the grammatical aspects we have considered above show that, for most low-educated Turkish learners of Dutch, the structure of the L1 is the cause of individual and collective obstacles in the acquisition of Dutch. The context of the school, the instruction of the teacher, and help of textbooks do not seem to have much impact on the results. In 99% of the cases, the teacher is not aware of what the problem is for the learner, since she is not familiar with grammatical properties of the learner's L1, although Turks are the largest ethnic minority group in the Netherlands. Talented learners like Mina are not hindered by these problems: for them, the communicative approach and all tasks carried out in the world outside the classroom have their benefits. For many others, obstacles as shown above cause stagnation and sometimes even fossilization. Low-educated learners normally have little metalinguistic skill and are not able to discover the differences and similarities between their L1 and the L2 without the help of the teacher or a language-specific support. Program designers, coordinators and the like are generally not inclined to see the benefit of such support, because it has been impressed upon them for a long time that immersion and communicative approach is the best way and that one should not give privileges to specific groups. I am convinced, however, that initially, many low-educated learners with little metalinguistic skill may benefit from instruction and some explanation in their L1 about differences between L1 and L2.

What can be done to improve the instruction given to L2 learners like Gülisar? First, I would recommend that there be given more attention to linguistic differences and similarities between L1 and L2 in teacher training, in any case with regard to the main immigrant languages, i.e., Turkish and Moroccan Arabic, so that teachers will get more insight into the developmental errors of their students and be trained to explain to low-educated students and to practice with them the specific and basic features covered in this article. This can also be done by training teachers with a Turkish and Moroccan background or by setting up special computerized language programs tailored to one specific group of learners. If this turns out to be impossible, at least remedial teachers should be made aware of these special problems so that they can detect problems and organize help.

This presentation was followed by a screening of Noureddine Erradi's film "Newcomers to Morocco," which demonstrates the reactions of Dutch teachers when they became newcomers in an unfamiliar culture and had to learn a new language without knowledge of the script in that language. These high-educated learners clearly admitted how very useful some help in their L1 would have been.

*References*

Boersma, P., & Weenink, D. (2003). PRAAT Phonological Transcription, version 4.2.34, www.praat.org.

Briggs. R (1978). *De Sneeuwman* (The Snowman). Bussum: Van Holkema & Warendorf.

Council of Europe (2001). *A Common European Framework of Reference for Languages: Learning, teaching, assessment.* Cambridge: Cambridge University Press.

Dudok de Wit, M. (n.d.). *Father and Daughter.*

Kornfilt, J. (1997). *Turkish Grammar.* London: Routledge.

Van de Craats, I., Corver, N. & Van Hout, R. (2002). Conservation in the acquisition of have-clauses by Turkish and Moroccan learners of Dutch. *Bilingualism: Language and Cognition* 5, 2, 147-174.

# LITERACY IN EAST TIMOR

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## 1    Introduction

East Timor is a new nation and a developing country in Southeast Asia. An estimated 50% of its adult population (of 15 years and older) is illiterate. The Ministry of Education and Culture of East Timor is undertaking several activities to increase literacy rates among adults and adolescents in the country. Since 2003 I have worked as Adult Literacy Advisor to the Minister of Education, my position being supported by the United Nations Development Programme in East Timor. I am involved in the development and implementation of a new national literacy program, the scope of which includes adult/adolescent literacy policy definition, curriculum and material development, teacher training, and institutional capacity building.



*Photo 1:  Literacy game in Adawari, East Timor, August 2006*

The first part of this paper describes the activities and the literacy project that I coordinate on behalf of the Ministry's National Directorate of Non-Formal Education and that will result in the implementation of the new national literacy program in 2007-2008. The second part outlines the research plans on adult literacy learning in East Timor.

## 1.1      *New Developing Nation*

After twenty-four years of Indonesian occupation, East Timor gained
independence in May 2002. Although some development has been taking
place, today it is still Southeast Asia's poorest country. In the global
human development report 2006, East Timor ranked number 142 of 177
countries.[1] According to the country's national human development
report 2006, three quarters of its one million population live in rural areas;
70% of the population works in agriculture and 28% in services. Life
expectancy at birth is fifty-five year,s and the under-five mortality rate per
one thousand live births is 136. Of the total households, 67% have a main
floor of earth and/or bamboo, only 27% have electricity as the main
lighting source, and only 17% have sewerage or septic tanks.

In 2004, 43% of the population was under the age of fifteen and the
youth unemployment rate in that year was 23%. Among the population,
there is disappointment about the slow pace of development and about
the high unemployment rates. In 2006, ethnic tensions led to violence that
left at least thirty-seven people dead and caused 150,000 people (15% of
the total population) to seek refuge in IDP[2]-camps. Gang-related violence
and inter-communal tensions flare up frequently, which causes many
people to be afraid to go back to their areas and makes them prefer
staying in the IDP-camps.

## 1.2      *Language Situation*

When East Timor became independent in 2002, Portuguese and Tetum
were decided to be the country's two official languages and sixteen
national languages (including Tetum) were decided to be valued and
developed by the state. In addition to these official and national
languages, Bahasa Indonesia and English are accepted as working
languages.

The use of Portuguese in East Timor has its origin in the colonial
period: until 1975, East Timor had been a Portuguese colony for
hundreds of years. Tetum is for some people the mother tongue, but for
many East Timorese it can be seen as the lingua franca, used in most of
the country's thirteen districts. The fifteen other national languages are
(until today) mainly spoken languages. Eleven of them are Austronesian
languages (as Tetum is as well); four of them are of Papuan origin.[3] In

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[1] (with numbers 143-177 being African countries and Yemen and Haiti)

[2] IDP = internally displaced people

[3] Austronesian group: Tetum, Habun, Galoli, Atauran, Kawaimina, Welaun, Idalaka,
Mambai, Kemak, Tokodede, Baikenu, Makuva. Papuan group: Bunak, Makasai, Makalero,
Fataluku. Source: *Mai Kolia Tetun; a course in Tetum-Praça, National language of East Timor*,
Geoffrey Hull, 4th edition, 2003, p. xi.

recent years, the National Institute of Linguistics[4] published grammars and dictionaries for some of these national languages. This institute will continue to create basic resources like these for Tetum and the 15 vernaculars in the future. Bahasa Indonesia was the official language in East Timor during the twenty-four year long Indonesian occupation until 1999, so the younger generations who attended primary and secondary education during these years all speak Bahasa Indonesia. In more recent days, English has come up as a working language in East Timor due to the involvement of the international community in the organisation of the popular referendum in 1999, its role in the interim government until 2002, and its presence in many development projects ever since.

## 1.3    Literacy Rates

Literacy rates are low in East Timor: about half of the adult population is estimated not to be able to read or write. The national human development report 2006 includes the following information: *"In 2004 the adult literacy rate was only 50.1%, 56.3 for males and 43.9 for females. Illiteracy is highest among the older population: among 15-34 year-olds, 73% are literate while among those over 50 the proportion drops to 19%. This is largely the result of a lack of primary education: in 2004 about 62% of males and 80% of females aged 30-54 years had not completed primary education (the 2004 Census of Population and Housing)."*

Curtain (2006)[5], who ran a national youth survey for UNICEF Timor-Leste, found one third of the (800) young people surveyed to be functionally illiterate. According to the data of the National Population Census 2004, in seven of the country's thirteen districts, more than 30% of the people between fifteen and thirty-four years of age can not read and write, while in four other districts more than 20% of fiften- to thirty-four-year-olds can not read and write.

When East Timor became independent in 2002 it set itself a clear goal: in the National Development Plan, the vision for the next generation in the year 2020 is that people will be "literate, knowledgeable and skilled." Needless to say that there is a lot of work to be done.

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[4] The Instituto Nacional de Linguística (INL), a research centre of the National University of East Timor (UNTIL), concentrates its efforts on the creation of basic resources (monolingual and bilingual dictionaries, grammars, ABC books, texts of vernacular literature) for Tetum and for the other fifteen vernaculars defined as "national languages" in Article 13 of the Constitution.

[5] TL Youth Survey results 21-2-2006

*Photo 2: Literacy game in Adawari, East Timor, August 2006*

### 1.4     Literacy Programs

Many organisations have been organising literacy programs in East Timor. In 1974 FRETILIN[6] started to conduct literacy programs based on Paolo Freire's method. With the start of the Indonesian occupation in 1975, these literacy activities became part of the resistance movement. In 1981 Indonesia started a literacy program in Bahasa Indonesia in urban centres. In 2000, after the Indonesian occupation ended in 1999, Timor-Leste and Brazil started a partnership with a literacy program called Solidarity in Literacy (Alfabetização Solidária) in Portuguese, which was continued for about one and a half years. From 2001 until 2005, Oxfam GB conducted a literacy program in several districts, based on the Reflect methodology.[7] And, since 2001, the National Directorate of Non-Formal Education, part of the Ministry of Education and Culture, has been organising a national literacy program and regular capacity building sessions and teacher trainings.

        Currently, a large variety of organisations are operating in the literacy field. Alongside the Ministry's national literacy program, with 260 literacy teachers in the thirteen districts, literacy programs are conducted by UNICEF, Timor Aid, Xanana Gusmão Foundation, OPMT (East Timorese Women's Organisation), Cristal Foundation, Fundasaun ba Futuru Comunidade, BELUN, and other national and international NGO's. Various literacy methodologies are being applied. Most literacy courses take place in Tetum or in Portuguese, and local languages are often used for instruction and explanations. In view of this, there are

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[6] FRETILIN = the Revolutionary Front for an Independent East Timor, resistance movement that fought for independence, first from Portugal and then from Indonesia, now majority party.

[7] See www.reflect-action.org

major challenges for the years to come: compensating for the lack of good Timor-Leste based literacy and numeracy primers for learners and manuals for teachers, improving the education level of the literacy teachers, making available more resources for teacher salaries, providing long term training facilities, and countering the lack of qualified teacher trainers.

Unfortunately not many of the literacy programs mentioned have been thoroughly evaluated and, as a consequence, little is known about the effectiveness of the various programs and about their results.

## 2 Toward a New National Literacy Program

### 2.1 Preliminary Activities in 2004

In 2004, the National Directorate of Non-Formal Education started the first preparations for a new national literacy program. The agreed overall goal of a new program was to reach significantly more adults and adolescents every year with more effective literacy courses in the country's two official languages, Tetum and Portuguese. The directorate carried out a needs assessment and made a start with policy development. Conclusions from the needs assessment were that the sector lacked a specific national adult literacy curriculum as well as contextualized literacy course materials in Tetum and Portuguese (reflecting East Timorese culture and daily circumstances and being relevant for adults and adolescents living in this country). Another finding was that the 260 literacy teachers contracted by the government needed in-depth training on adult literacy methodologies and didactics.

According to the outcomes of the needs assessment the ministry decided to take initiatives in curriculum development for adult literacy, in material development in the two official languages, and in capacity building of teachers, trainers and staff.

As a landmark, the National Directorate of Non-Formal Education organised the "First National Adult Literacy Conference," which took place in September 2004, linked to International Literacy Day. This was done in collaboration with Oxfam GB and UNICEF and eight other international and national organisations with adult literacy experience in Timor-Leste. The main subject was the need for a national literacy campaign and how to learn from literacy experiences in East Timor's past (1974-1975) and from literacy campaigns in other countries.

In the same year, three workshops were organised to define the contents of a core curriculum for adult literacy courses. The first and third workshop involved local and international literacy organisations and the second about 100 adult literacy teachers and district coordinators.

First drafts of the new, Timor-Leste-based adult literacy course materials in Tetum and in Portuguese[8] were developed and tested for three months mid-2004. A revised version of the materials was delivered end of 2004, using the outcomes of the field test and the consultation of 100 literacy teachers. In this same year, all 260 literacy teachers attended their first training sessions on adult literacy methodologies and didactics.

The activities in 2004 resulted in a decision by the Ministry of Education and Culture in 2005 to conduct a three-year follow-up program.



*Photo 3:  Curriculum workshop in Dili, East Timor, October 2004*

*2.2        The "Timor-Leste Adult/Adolescent Literacy Project 2005-2008"*

The "Timor-Leste Adult/Adolescent Literacy Project 2005-2008," a three-year project to finish and implement contextualized course materials for the Timor-Leste adult/adolescent literacy program under responsibility of the National Directorate of Non-Formal Education of the Ministry of Education and Culture, started in July 2005.

The first aim of the project is to support the East Timorese national literacy program for adults and adolescents with a new generation of course materials in Tetum and Portuguese based on a widely accepted core curriculum for literacy courses. The second aim is to train current and new literacy teachers and facilitators to work with the new curriculum and materials for adult/adolescent literacy courses. The third aim is to establish a team of local experts that can develop, sustain and revise course materials and that can train future literacy teachers.

To reach these goals, the National Directorate of Non-Formal Education coordinates a range of activities (as described below) during three years. The key to success proves to be the collaboration with many

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[8] In Tetum "Hakat ba Oin" and in Portuguese "Passo em Frente," Versions May 2004, tested June-July-August 2004 in four groups in Becora Prison, Dili.

other organisations with literacy programs for adults and adolescents in East Timor.

### 2.2.1 *Overview of Completed Activities per End of 2006*

### 2.2.1.1 *Core Curriculum*

One of the first documents completed after the start of the three year project was the core curriculum for literacy courses for adults and adolescents in East Timor. The core curriculum's main part is a list of themes and sub themes that can serve as a basis for the selection of relevant content for literacy courses aimed at these target groups. Apart from this, it contains a short checklist of somewhat more technical components that can be paid attention to during literacy classes and a lot of tips and suggestions for the literacy teachers.

The selected themes are broadly considered to be relevant for East Timorese adults and adolescents that are learning to read and write. The list of themes and sub themes and the other elements of the curriculum were developed in a series of workshops with, in total, fourteen organisations that conduct(ed) literacy programs in East Timor,[9] combined with valuable contributions from one hundred literacy teachers and coordinators. All of them were asked what they thought would be relevant content for reading and writing courses for East Timorese adults. In addition to this, they participated in a priority ranking activity. Furthermore, the ideas and content suggestions were matched with the starting level of the new Equivalence Program for Primary Education for adults and adolescents,[10] a possible follow-up for students who finish the literacy program. This process resulted in the "Thematic guideline for adult/adolescent literacy courses in East Timor," a document that contains the fruits of a broad exchange of ideas and experience.

The participants in this process strongly preferred the name "Thematic Guideline" rather than "Core Curriculum." By using the word "curriculum," they were afraid that people would regard it as a program that *had* to be followed, more or less *imposed* on literacy organisations by the government. They felt that the word "guideline" left them more space to use their own creativity. All participating organisations stressed the importance of freedom of choice of content and didactics when preparing

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[9] The fourteen organisations were: BELUN, CARE INTERNATIONAL, DAI POPULAR, GFFTL, GOMUTIL, OPMT, OXFAM GB, NAROMA GROUP BUCOLI, SAHE INSTITUTE FOR LIBERATION, TIMOR AID, UNDP, UNESCO TL, UNICEF TL and the National Directorate of Non-Formal Education.

[10] This Equivalence Program for Primary Education for adults and adolescents is also being developed by the National Directorate of Non-Formal Education of the Ministry of Education and Culture of East Timor.

*Photo 4, Teacher training in Baucau, East Timor, September 2006*

literacy courses, so that course content could be matched with the learning needs of each specific group and people would not feel obliged to follow a certain path. They needed guidelines and checklists more than a set (standard) curriculum.

The themes they listed cover most areas of society that East Timorese adults/adolescents participate in: agriculture, economy, work, transport, education, environment, geography, health, history, human rights, languages & communication, local culture, public administration, etc. The idea is that, while practising and enlarging their reading and writing skills, the students learn useful things about themes that are relevant to them in their daily lives. When doing reading and writing exercises on health, for example, students learn about the importance of hygiene to prevent diseases, or about ways to prevent malaria. When reading about education, they learn about the education system in East Timor, and about the importance of sending their children to school and supporting them throughout their school career.

Most of the course components listed in the "Thematic Guideline" can, according to the developers, be part of any basic literacy course. They include some functional tasks like writing your name and signature, filling out simple forms, calculating prices, noting down dates, telephone numbers, etc. But they also include some minimal technical skills like being able to read and write the letters of the alphabet, to recognize and produce the corresponding sounds, knowing when to use capitals and small letters, and how to use space, margins, lines, punctuation, etc. This list of course components serves as a checklist to anyone preparing a literacy course.

Apart from the list of relevant themes and the inventory of possible literacy course components, the "Thematic Guideline" contains a lot of suggestions for the literacy teachers: on how to teach adults and adolescents, how to assess adults and adolescents' learning needs and use their knowledge and experience in the lessons, how to link lesson content to the daily lives of the learners by collecting real life materials and using these in the classroom, how to develop their own course materials together with the students, etc.

Version 1 of the "Thematic Guideline" was delivered in February, printed in May and distributed in the second half of 2006. Most of the literacy teachers, coordinators and organisations involved in literacy programs for adolescents and adults in East Timor now have a copy, and use it when preparing lessons and new courses.

### 2.2.1.2   New Literacy Materials for Beginners

For the adults and adolescents in East Timor who want to learn to read and write, a new set of literacy manuals has been developed. The manuals make good use of the materials and test experiences from 2004. The new set contains four student books and a teacher manual. All books were developed in Tetum ("Hakat ba Oin") and in Portuguese ("Passo em Frente"), both meaning "Step forward." Book 1 deals with the letters of the alphabet, one word for each letter, frequent letter combinations, the numbers until ten and the writing of names and signatures. Book 2, 3 and 4 are all built around the same series of topics: in the street, at home, food, body and health, family, nature, work, free time, reading and writing and Timor-Leste. Book 2 deals with an extensive series of words, book 3 with sentences and book 4 with short texts on the same topics. Apart from that, each book pays attention to basic numeracy skills and to the functional task of filling out forms.
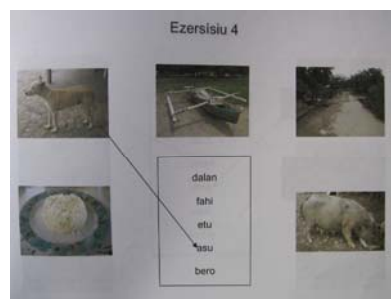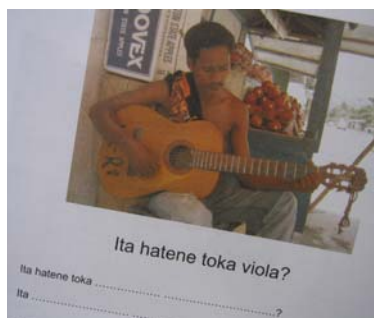


*Photo 5 and 6: Literacy in Tetum, "Hakat ba Oin" Book 2*

The "Hakat ba Oin" set, the version in Tetum, was tested in an eight-month-long field test in thirty groups in five districts. In September 2006 the field test was evaluated in collaboration with the 30 teachers involved. The teachers and students gave very positive feedback on the new materials because they reflect East Timorese culture and daily life: learners could easily relate to the topics and the many digital pictures provided them with useful visual information that supported them in their reading efforts. Often learners would recognize places or even people on the pictures, and to find their own country or district and their own people in the manuals turned out to be very motivating. They also liked the fact that the materials contain a lot of exercises and repetition. Teachers were surprised about how quickly their learners built and improved reading and writing skills. The changes suggested by learners as well as teachers mainly concerned a large number of details which implied many, relatively minor, changes. Typical suggestions received are: more variety in exercises and more productive writing exercises linked to the daily life of the learners. Apart from that, teachers suggested using fewer personal pronouns like "he" and "she" (confusing because both are "nia" in Tetum) in the sentences describing the pictures but instead inserting some frequent names like João, Domingos, Ana, Maria, etc. And some of the pictures turned out to be confusing or multi-interpretable; so, they were replaced by better ones.



*Photo 7 and 8: Literacy in Tetum, "Hakat ba Oin" Book 3*

The revised version of the four books and teacher manual in Tetum were delivered December 2006. The Tetum language was checked by the National Institute of Linguistics, and at end of December 2006, the corrected final version was delivered to the National Directorate of Non-Formal Education, to UNICEF, and to USAID-DAI. Also, the "Passo em Frente" set in Portuguese was tested in several experiments in the field. Outcomes of the experiments, largely similar to the Tetum field test results, are being used to make a revised version.

With UNICEF support, the Ministry of Education and Culture is going to implement "Hakat ba Oin" and "Passo em Frente" on a national level in 2007: all 260 literacy teachers in the country's 13 districts will use the new books in their literacy groups. The new materials cover a six-month-long literacy course of a maximum of ten hours per week. In addition to the efforts of the Ministry and UNICEF, USAID-DAI is prepared to invest in teacher and staff training to support the national implementation.
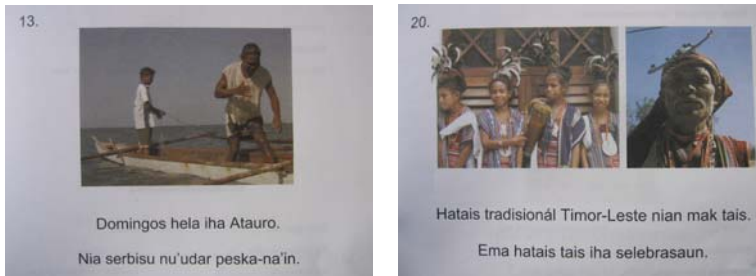


*Photo 9 and 10: Literacy in Tetum, "Hakat ba Oin" Book 4*

### 2.2.1.3 New Literacy Materials for Advanced Students

After the first six months of basic reading and writing, the students will need more practice to strengthen and enlarge their newly developed reading and writing skills. This is why another, more complex, set of materials was developed for more or less "advanced" literacy students, to make sure they continue using and consolidate their new skills. This new set brings the students to the starting level of the Equivalence Program for Primary Education that is being developed for adults and adolescents by the National Directorate of Non-Formal Education.

The new, more complex materials for advanced literacy students consist of fourteen student modules and one teacher manual and were also developed in Tetum ("Iha Dalan") as well as Portuguese ("A Caminho"), both meaning "On the road." The modules cover most of the themes in the "Thematic Guideline" as described above, each theme resulting in one module: agriculture, economy/work/transport, education, environment, geography, health, reproductive health, history, human rights, languages & communication, local culture, mathematics, public administration, and science. The basic texts and exercises in these modules provide the students with a lot of opportunities to practice technical as well as functional reading and writing. In the mean time, they receive a lot of useful information on a wide range of relevant topics. The module on reproductive health, for instance, stresses the importance of

prenatal checkups for pregnant women, of skilled birth attendance, and of breastfeeding. The environment module informs students about the importance of preventing soil erosion and air and water pollution.

In 2007, the "Iha Dalan" modules will be field tested in thirty literacy groups in five districts. Experiments with some of the modules in Portuguese ("A Caminho") are already taking place. By the end of 2007, the modules will be revised. This will be done on the basis of the field test outcomes and nationwide implementation of the final version is expected to take place in 2008.

### 2.2.1.4    *Capacity Building of Teachers, Trainers and Local Experts*

Several teacher training programs were conducted during 2005 and 2006 to build the capacity of literacy teachers and facilitators. Some 300 literacy teachers participated in sessions on literacy methodologies and didactics and prepared themselves to work with the new core curriculum and new course materials in their literacy classes. The teacher training program continues in 2007, linked to the national implementation of the new course materials in all thirteen districts.

In December 2006, twenty-two future teacher trainers attended a workshop on how to organize teacher trainings for literacy teachers on the contents and use of the new core curriculum and all the new literacy manuals. They will deliver teacher trainings to NGOs that want to work with the new materials and to the 300 literacy teachers contracted by Non-Formal Education that are going to participate in the national implementation of the new literacy materials. In 2007, more workshops for teacher trainers are planned. A guidelines document in Portuguese is available for all teacher trainers.

Capacity building of material developers is being prepared. To create opportunity to practise and develop new materials, they need laptops and digital cameras, for which budget has to be arranged.

Furthermore, six members of the Non-Formal Education staff are involved in preparing the national implementation of the new literacy materials for beginners in 2007 and for advanced literacy students in 2008. Preparations now focus on contents of the new materials, but, at a later stage, their tasks will also include distribution of all new literacy materials to literacy teachers in the thirteen districts. In addition to this they will be responsible for the following tasks: organisation of the start of the literacy courses applying the new materials, student administration, assessment of progress in the building of reading and writing skills in the three hundred classes, delivery of literacy certificates to students who pass the final test, monitoring and evaluation of the new literacy program in the thirteen districts, financial management of the new national literacy program, management and delivery of the teacher training program, future

adaptation and revision and reprinting of materials. Until late 2008, the Non-Formal Education staff will be supported in all aspects of the national implementation of the new literacy program.



*Photo 11: Teacher training in Baucau, East Timor, September 2006*

### 2.2.2    Objectives for 2007 and 2008

The main objective for 2007 is the implementation of the beginners' manuals in Tetum and Portuguese ("Hakat ba Oin" and "Passo em Frente") in all thirteen districts. Apart from that, the materials for advanced literacy learners will be field tested, the tests will be evaluated, and the materials will be revised accordingly. The Tetum version will have to be checked by the National Institute of Linguistics, and all the modules in Tetum ("Iha Dalan") and Portuguese ("A Caminho") will be printed to allow scaling of the project to the national level, covering implementation in all thirteen districts in 2008.

Furthermore, the syllabus needs to be finalized: a course outline describing the complete, new, year-long literacy program consisting of the six-month-long beginner and the six-month-long advanced course, covering the core curriculum and applying all the new literacy course materials.

The teacher training program covering all new materials will be continued during 2007 and 2008. Meanwhile, establishing and capacity building of teams of local experts (teacher trainers, material developers and NFE staff) will continue.

An additional objective for 2007 is the establishing of adequate connections between this one year literacy program and other adult education programs, the basic literacy program "Sim, eu posso" of Cuban origin[11] and the Equivalence Program for Primary Education, that will both be implemented at national level in 2007/2008 as decided by the Ministry.

### 2.2.2.1   Challenges

For East Timorese adolescents and adults who want to become literate in Tetum or Portuguese, the main challenge is that they have to learn to read and write in a second or often third language. In addition to this, they have to cope with lack of time due to their workload at home and in the fields, lack of resources, demotivation by community peers (in reported cases) and, in rural areas, lack of a literate environment.

Working on the improvement of literacy programs, the main barriers for the adult education sector are the low education level of teachers/facilitators, teachers struggling with the new standard Tetum, not many teachers being fluent in Portuguese, the low teacher salaries ($60 per month, often resulting in teachers switching to other education sectors with higher salaries, after they gain some teaching experience), the lack of educational resources, and the rather heterogeneous groups (many different levels within groups, different learning needs of adults and adolescents, etc.).

While great efforts are made by the Ministry and important activities take place, the above issues will continue to have considerable impact on success in the coming years.

### 3    Research Project on Literacy in East Timor

In 2007, a research project, which aims to investigate historical and contemporary aspects of adult literacy acquisition and use in multilingual East Timor, will start. The project will consist of a critical historical study of literacy policies and endeavours in a societal and political context and an empirical study. This empirical study will include (a) a multi-site sociolinguistic-ethnographic case study investigating values and uses of languages and literacy, instructional practices and learning in the act of becoming and being literate in Portuguese, Tetum and Fataluku and (b) an evaluation study assessing the influence of language choices, methodology and transparency on the effectiveness of adult literacy programs in these

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[11] "Sim, eu posso" is a 3 months audiovisual program to build basic literacy skills in Portuguese. This program was successfully applied in Brasil and is now - with the support of Cuba - being adapted for use in East Timor.

three languages. The empirical study will combine social-cultural and cognitive/linguistic perspectives.

In any society, becoming literate implies at least two things: on the one hand becoming a member of a community of literacy practices (mediated by values, attitudes, traditions, resources and praxis) and on the other hand getting access to the written code that is used in that culture, be it the mother tongue of literacy learners, a lingua franca or a relatively unknown language recently introduced as a result of changes in language and literacy policy.

In this research project these two strands of research and theory building will be combined, by looking at literacy in society (i.e. the uses people make of literacy in different domains and different languages and the values attached to it), by looking at the acquisition of literacy from different angles (comparing languages, orthographies and first and second language in the teaching and learning of literacy and the literacy skills acquired) and by unravelling the interactions between the two.

*References*

Constitution of the Democratic Republic of East Timor, May 2002.

East Timor National Development Plan, Planning Commission Dili, May 2002.

Human Development Report 2006: Beyond scarcity; power, poverty and the global water crisis, UNDP, ISBN 0-230-50058-7.

Mai Kolia Tetun; a course in Tetum-Praça, National Language of East Timor, Geoffrey Hull, Fourth edition, 2003, page xi.

Timor-Leste Human Development Report 2006: The path out of poverty; integrated rural development, UNDP, January 2006.

# A MORE PERFECT UNION: A NATIONAL CITIZENSHIP PLAN

Jeff Chenoweth, Catholic Legal Immigration Network, Inc. (CLINIC)

## 1    Introduction

The United States is a nation of immigrants united by a common creed and shared values.  With 37 million foreign-born residents, the United States' strength and vitality depends on the contributions of its newest members.  Naturalization can be viewed as a benchmark of immigrant integration. However, the United States lacks a coherent immigrant integration policy, much less a coordinated program to promote citizenship and to prepare immigrants for naturalization.

Most immigrants strongly value U.S. citizenship.  Fully 90 percent view citizenship as something "necessary and practical" or a "dream come true."[1] Yet, obstacles to naturalization are particularly challenging for the increasing number of immigrants with limited English proficiency, low income, and limited formal education.

## 2    Study Purpose

*A More Perfect Union: A National Citizenship Plan* sets forth the resources, activities and partnerships that would be required to naturalize as many eligible immigrants as possible.  It calls for a national mobilization in support of citizenship, identifying the roles of government, immigrant services agencies, English language instructors and other sectors of society in a coordinated plan.  It describes a program that could serve as the linchpin of an emerging U.S. immigrant integration strategy for current and future lawful permanent residents commonly referred to as LPRS or "green card" holders.

### 2.1    Study Overview

Research for *A More Perfect Union* reveals facts about: 1) the most vulnerable immigrants currently eligible to naturalize; 2) perspectives on the future eligibles hopefully coming from a legalization bill; 3) an analysis of how the U.S. government fails to broadly promote citizenship or provide naturalization services; 4) why a national citizenship program is needed; and 5) what outcomes can be expected of a national citizenship program.

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[1] Farkas, S., Duffett, A., & Johnson, J. *Now that I'm here: What America's Immigrants Have to Say about Life in the U.S. Today* (Washington, DC: Public Agenda, 2003), p. 29.

### 2.2        *Selected Characteristics of Immigrant Citizenship Groups*

Research for a national citizenship plan arose from a previous report by the Urban Institute in 2002 entitled *Trends in Naturalization,* updated by the Pew Hispanic Center in 2007 and named *Naturalization Trends.* The recent report reveals that the U.S. has at least 8.4 million lawful permanent residents eligible to become citizens.[2] This is exciting for our democracy and society but a challenge because we do not have the resources dedicated to promote citizenship robustly or provide naturalization services on this scale.

We know from the Pew Hispanic Center study that lawful permanent residents today, compared to recently naturalized citizens, have less English language ability, formal education and income. Nearly sixty percent (55%), at least 4.6 million, are estimated to be "limited English proficient." Twenty-four percent (24%), or about 2.1 million people, have less than a ninth grade level of education compared to just 9% of those recently naturalized. In addition, 41 percent of LPRs eligible to naturalize have incomes less than 200 percent of the poverty level, and worse, approximately 17 percent have incomes under the federal poverty level altogether.[3] (The poverty level for one person equals $9,800 and for a family of three equals $16, 600.)[4]

Three quarters of those eligible to naturalize live in five states: California, New York, Texas, Florida, New Jersey and Illinois; one-third alone in California.[5] But the dispersion of the remaining 25% of eligibles in other states is widespread across the country.

### 2.3        *Challenges to Becoming a U.S. Citizen: The English Requirement*

Based on the 2000 census, almost 14 million working-age adults in the United States, mostly immigrants, speak English "less than very well." The majority are of Mexican nationality (56 percent), have completed less than nine years of education (50 percent), and are the parents of minor children who speak English well, some as a first language (62 percent).[6] Although other minorities have improved their English literacy skills in the past decade, English literacy among Hispanics has declined. In 1992,

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[2] Passel, J.S. *Naturalization Trends, 1995 – 2000* (Washington, DC: pew Hispanic Center, Forthcoming 2007).

[3] Ibid.

[4] Federal Register, (January 24, 2006), Vol. 71, No. 15, pgs. 3848 – 3849.

[5] Passel, J.S. *Naturalization Trends, 1995 – 2000* (Washington, DC: pew Hispanic Center, Forthcoming 2007).

[6] Martinez, T. and Wang, T.  *Supporting English Language Acquisition: Opportunities for Foundations to Strengthen the Social and Economic Well-Being of Immigrant Families* (The Annie E. Casey Foundation and Grantmakers Concerned with Immigrants and Refugees, 2005), p. 6.

35 percent of Hispanics were identified as having below basic English reading and speaking skills. This figure increased to 44 percent in 2003.[7]

Many immigrants who are otherwise eligible for citizenship lack the English language skills necessary for the citizenship test. The law requires applicants to read, write, and speak basic English. A non-random survey of over 500 immigrants in Chicago found that 40 percent could "just barely get by" in English or could not "manage without an interpreter."[8] According to the Pew Hispanic Center, roughly 55 percent of immigrants who are eligible to naturalize and about 67 percent who will soon be eligible have limited proficiency in English.[9] It is not known how many of these immigrants could pass the citizenship test. The USCIS has reported anecdotally that a majority of its denials are due to lack of English.

In October 2005, the USCIS Office of Citizenship commissioned a study by the American Institutes for Research (AIR) to document the pass rates for the current citizenship test. A sample of 3,074 naturalization records revealed that 84 percent of applicants passed the citizenship test on the first attempt and 93 percent passed the test on a subsequent attempt, either on the same application or a later application.[10] Only 71 percent of elderly applicants 65 years and older passed the English portion of the test on the second attempt.[11] Applicants from the Caribbean and Central America had the lowest English pass rates for the first test, 82.5 percent and 81.4 percent respectively.[12] By country of origin, applicants from the Dominican Republic, Iran, Mexico, and Vietnam had the lowest pass rates (between 69.9 percent and 75.4 percent).[13] These rates improved to between 90.7 percent and 93.6 percent after the last attempt on the test.[14] Since persons with the greatest challenges are more likely to seek representation, pass rates were lower for applicants who had application assistance or legal representation.[15] Refugees had a

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[7] National Center for Education Statistics. *National Assessment of Adult Literacy: A First Look at the Literacy of America's Adults in the 21st Century* (Washington, DC: U.S. Department of Education, December 2005), p. 8.

[8] Gallagher, M. "Highlights From Phase One of the New Americans Research Project" Presentation to the Illinois Coalition for Immigrant and Refugee Rights by the Metropolitan Chicago Information Center (January 2006).

[9] Passel, J.S. *Naturalization Trends, 1995 – 2005* (Washington, DC: Pew Hispanic Center, Forthcoming 2007).

[10] American Institutes for Research. *Pass Rates for the Current U.S. Naturalization Test: Results from the Records Study* Report prepared for the U.S. Citizenship and Immigration Services (February 8, 2006), p. 7-8.

[11] Ibid, p. 10.

[12] Ibid, p. 10.

[13] Ibid, p. 16.

[14] Ibid, p. 14.

[15] Ibid, p. 14-15.

significantly lower pass rate for the first attempt in comparison to applicants with other types of immigration status, 77 percent compared to 86 percent .[16]

As suggested by these statistics, the English requirement is particularly challenging for immigrants with low levels of education in their native countries, especially those who are illiterate in their native language. Low levels of education and literacy are sometimes compounded by advanced age. For these groups, learning to read and write English can seem like an insurmountable challenge. ESL instructors estimate that it can take many years to prepare them for the citizenship test. An exemption from the English language requirement is available for immigrants meeting certain age and long-term residency requirements, but this does not cover immigrants who arrived in the United States at an advanced age and who often need an exemption the most. For example, a person who arrived in the United States at age 75 and wished to apply for citizenship at age 80 would not qualify for the English language exemption until age 90.

Interviewees for this report consistently stressed the importance of a legislative change to expand the English language waiver for the citizenship test. The current law allows an English waiver for eligible applicants who are 55 years of age or older with 15 years as a Lawful Permanent Resident and 50 years of age or older with 20 years as a Lawful Permanent Resident. A simpler alternative would be to broaden the English waiver to citizenship applicants age 60 years or older without respect to their years of residency. This alternative would allow them to take the U.S. history and civics test in their native languages.

Limited English skills coupled with low income and lack of formal education pose hardships not only for naturalization but for integration overall. A 2002 study by the Urban Institute found that immigrant families with limited English proficiency "are more than twice as likely to be poor as English proficient households."[17] The hardship is perhaps greatest for those families in which the parents speak little or no English but whose children are English proficient and have minimal skills in the parents' native language: "In addition to eroding family strengths, limited English proficiency can isolate immigrant families from the larger community, preventing them from interacting with American-born

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[16] Ibid, p. 15.

[17] The Urban Institute. *Immigrants in New York City and Los Angeles: Language Barriers, Legal Status and Hardship* (2002), available at http://www.urban.org

neighbors, engaging in civic life, and becoming integrated into their new community."[18]

### 2.4    The Need for Expanded English as a Second Language and Citizenship Instruction

Immigrants who want to learn English face considerable barriers, including a dearth of high quality, affordable, and accessible classes. Government-supported language programs are operating at full capacity, and many immigrant-impacted communities have a waiting list for English classes that stretches several months. Low-income immigrants, who cannot afford the high cost of private language institutes, depend on these programs. Another problem is that classes are not always scheduled at convenient times, making attendance difficult for immigrants who work long hours and support families. In addition, few English programs provide childcare, which is a major barrier for mothers with small children who wish to attend classes. Finding a class location that is convenient to where immigrants live, especially if they depend on public transportation, is also a challenge. These issues and more are expected to be addressed by the independent National Commission on Adult Literacy established in October 2006, led by the Council for the Advancement of Adult Literacy.

Immigrants consistently express their desire to learn English through formal language instruction. English instruction is the fastest growing component of adult education in the country. Of the 3.6 million adults who participated in federally funded adult education programs in 1999, 47 percent received English language instruction.[19] A survey of over 500 immigrants in New York City showed that nearly 90 percent wanted to learn English.[20] The majority expressed a desire to attend classes at night or on weekends, yet only six percent of the New York City Adult Literacy Initiative's classes were provided on weekends.[21]

Federal and state funding for English classes is inadequate to meet the need. In the New York metropolitan area, there are over one million people who do not speak English well or at all, and the supply of English classes is far below the demand. One study of 184 ESL providers reported 57.4 percent having a waiting list with waiting times ranging

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[18] Martinez, T. and Wang, T. *Supporting English Language Acquisition: Opportunities for Foundations to Strengthen the Social and Economic Well-Being of Immigrant Families.*

[19] Tolbert, M. *English Literacy and Civics Education for Adult Learners* (Washington, DC: National Institute for Literacy, August 2001), p. 2.

[20] New York Immigration Coalition. *Eager for English: How and Why New York's Shortage of English Classes for Immigrants Should Be Addressed* (New York, 2001), p. 1.

[21] Ibid, p. 6.

widely from several weeks to more than three years.[22]   Another study
suggests that the availability of classes in the New York area actually
decreased as immigration increased in the 1990s.[23] "In 2005, the
Massachusetts Department of Education reported that more than 18,000
residents were on waiting lists for ESL classes; the average wait is six
months to two years."[24]

Since the country's diverse and non-English speaking immigrant
population is expected to grow, the disconnect between English language
need and instruction capacity must be addressed. More English classes
and a larger corps of ESL instructors who are specially trained to teach
adult learners are needed, especially if Congress passes legislation to
legalize the undocumented. Limited funding for English language classes
represents a major barrier to integration. Immigrants want to learn
English, but too many cannot access formal instruction.

The national citizenship plan addresses the need to assist immigrants
who have limited English proficiency by expanding funding and
instruction for ESL and citizenship education. There is scant need for
additional pilot projects given the demand for services and the expertise
already accrued.  Models of quality ESL and civics[25] instruction and ESL
and citizenship instruction[26] are well-documented.  (See Chapter 7 on ESL
and citizenship instruction.)  The question is whether good models will be
given the resources necessary for replication where the need is greatest.

2.5      *What A More Perfect Union Offers Professionals in the Fields of*
         *Citizenship and English Language Instruction*

*A More Perfect Union* dedicates one of its twelve chapters, "Preparing
Immigrant Learners for Citizenship" to the critical issue of expanding
English and civic instruction. Written by five experts in the field, this
chapter presents five important topics concerning educational supports
given to immigrants learning English and naturalization content to
become U.S. citizens. The first topic describes immigrants with different
levels of ability and preferred modes of educational interventions. The
second topic presents standards of ESL/citizenship instruction to ensure
learner success and best use of resources. The third topic describes the

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[22] Tucker, J. T. *Waiting Times for Adult ESL Classes and the Impact on English Learners,*
(National Association of Latino Elected and Appointed Officials, June 2006), p. 3.

[23] New York Immigration Coalition.  *Eager for English: How and Why New York's Shortage of*
*English Classes for Immigrants Should Be Addressed*, p. 1.

[24] Martinez, T. and Wang, T.  *Supporting English Language Acquisition: Opportunities for*
*Foundations to Strengthen the Social and Economic Well-Being of Immigrant Families*, p. 12.

[25] Tolbert, M. *English Literacy and Civics Education for Adult Learners*, p. 18-23.

[26] Becker, A. and Wrigley, H.S.  *Citizenship Education in Illinois: What Works?*  (Chicago:
Illinois Department of Human Services, August 2000), p. 70-82.

components of an ESL/citizenship program and how programs can be best managed given limited monetary and human resources. The fourth topic presents ideas about how ESL/citizenship curricula can be developed and instructed to increase learner confidence, citizenship test and interviewing skills, and knowledge of meaningful and functional aspects of citizenship. The fifth topic presents the current sources and levels of funding for ESL and citizenship instruction and organizations involved in preparing immigrant learners to become U.S. citizens. In total, fifty-six recommendations are offered in this chapter to expand and improve ESL and citizenship instruction within the scope of a national citizenship program.

2.6      *Lack of Federal Leadership and Funding for Naturalization and English Services*

These characteristics of vulnerability and subsequent challenges to naturalization will be exhibited, likely in to an even greater degree, by the millions of undocumented people who may legalize if a bill passes offering a path to citizenship. The physical presence of the undocumented is even more scattered throughout the country, with many in communities that lack a sufficient infrastructure to expand services to teach English and civics and provide affordable legal immigration services for naturalization on a larger scale.

While the federal government plays a dominant role in regulating immigration, it continues to lack an immigrant integration policy to match. As a result, states in partnership with private organizations are cobbling together funding, policies and program initiatives on everything from ESL for early arriving immigrant school-age children to citizenship classes and voter registration for immigrant adults who have lived in the U.S. for five years or more.

From 2001 to 2006, there has been a severe decline in funding for naturalization compared to a decade ago. This includes federal, state, local, and philanthropic funding. The states of Illinois and California are two exceptions. Both states allocated $3 million for their current fiscal years for naturalization services.

There is no federal funding for direct naturalization assistance. The Office of Refugee Resettlement within the Department of Health and Human Services provides indirect assistance through a $200,000 citizenship and civic participation technical assistance grant for refugees, approximately 9 percent of the total U.S. immigrant population.

The Department of Education spends only $70 million per year to help teach English and civics education to the millions of limited English speakers. Even so, this money is usually directed to community colleges and adult basic education programs and rarely to community based

organizations that have more access to the poorest of the immigrant population. Furthermore, the Department of Education does not require the curricula to be linked to naturalization, helping immigrants understand naturalization eligibility, the application process, or preparing for the naturalization test.

The Office of Citizenship in the Department of Homeland Security was established in 2002. It has a peculiar location within the federal government but an admirable mission. However, it has a paltry budget of $3.2 million covering only bare staff operations and no funds for widespread distribution of free promotional or educational materials. It is important to note that these funds come solely from fees paid by immigrants to U.S. Citizenship and Immigration Service for immigration benefit applications. The amount of $3.2 million for the nation is shockingly small compared to the same amount spent by the states of Illinois and California respectively. Furthermore, the Office of Citizenship has no direct spending authority or budget for grant making to community based organizations.

2.7      *Past U.S. Efforts to Naturalize Immigrants*

Unfortunately, the United States has not experienced a long-standing, positive period of endorsing citizenship. One period, the "Americanization Movement" in the early 20th Century induced hundreds of thousands of immigrants to learn English, history and civics and become naturalized citizens. This was achieved through educational materials developed by the federal government and wide-spread partnerships formed with private organizations. Yet, the naturalization work done under the Americanization Movement had a troubling foundation and implementation flaws. It was begun chiefly out of concern that immigrants would retain their native languages, habits and political values perceived as counter to American traditions and democracy. These concerns increased when the U.S. entered into battle in WWI against powers in Europe, where most immigrants had come from. The Americanization Movement also used, at times, demagoguery, coercion and derision to promote immigrant assimilation.

The most productive period in promoting citizenship since came 80 years later in the mid-1990s. The passage of anti-immigrant legislation, Proposition 187 in California, gave immigrants fear of losing access to benefits without citizenship status. In the mid-1990s, the INS launched a naturalization initiative, "Citizenship USA.". This initiative expanded public information promoting citizenship and piloted government models to streamline the naturalization process. Citizenship USA became embroiled in controversy when a few members of Congress raised accusations that the INS initiative was designed to support President

Clinton's 1996 re-election campaign. Also, allegations of fraud were raised against some federal immigration subcontractors engaged in English testing and fingerprint taking for naturalization applications. A federal investigation revealed a small level of fraudulent activities that helped bring down the entire national initiative.

In 1996, Congress passed welfare reform legislation that limited non-citizen access to public, means-tested income and health care benefits. Shortly thereafter, Mr. George Soros, a billionaire immigrant philanthropist, donated $50 million of his private funds to his own foundation, the Open Society Institute, which in turn, established the Emma Lazarus Fund. The Fund supported a wide network of charitable organizations to help immigrants become citizens and learn English for the naturalization test. The programmatic and numerical impact was significant.

The Emma Lazarus Fund for naturalization was depleted within a few years and very little naturalization work was sustained thereafter; another short-lived effort. The Emma Lazarus Fund was a missed opportunity by advocates and elected officials to set forth a national citizenship program, a program that would achieve many benefits for immigrants and our nation's democracy. Unfortunately, the achievements from Mr. Soros' generous funds were made at a time of sour attitudes about immigrants in Congress. Regrettably, Congress continues to overlook the opportunity to promote citizenship and immigrant integration. Furthermore, it continues to tarnish the meaning of citizenship by coupling its honor with eligibility by the poor to receive federal and state support for basic needs such as food, housing and health care.

2.8     *Consequences of Failing to Create a National Citizenship Program*

U.S. political leaders must decide whether to continue the status quo, laissez-faire approach to naturalization or to implement an immigrant integration initiative through citizenship promotion. Failure to act could result in: long-term disenfranchisement; inter-generational civic disengagement; political alienation; fragmentation by social class, nationality, and immigration status; a large immigrant underclass; mixed-status families; and immigrant families physically separated for lengthy periods.

The U.S. government should initiate a national citizenship program as one of the best ways to advance immigrant integration. Sustained federal leadership is required to support a national program, backed by support from other funders and implemented by an existing network of national and local private organizations in partnership with an expanding

circle of other sectors of society. Modest and sporadic initiatives will not achieve the necessary goals.

A national citizenship program would lessen the disparity between educated and affluent immigrants and others. It could also serve to eliminate the myths and ease the tensions surrounding immigration. Debates over how many and what type of immigrants the country should accept have overshadowed questions of how immigrants best achieve their goals once they arrive in the United States and what support systems facilitate their integration and promote attachment to the country's democratic principles. Currently, the lack of an immigrant integration policy places excessive burdens on state and local governments and private organizations to assist immigrants with a host of integration services, creating an anti-immigrant backlash. The debate has become mired in rhetoric, leaving the public confused and postponing practical solutions.

## 2.9       *What a National Citizenship Plan Can Achieve*

A national citizenship plan as presented in *A More Perfect Union: A National Citizenship Plan* will: 1) garner support from federal officials for immigrant integration and to secure a federally-funded program; 2) serve as the linchpin of a U.S. immigrant integration policy; 3) forge stronger relationships between federal, state, and local governments in partnership with the private sector; 4) increase the naturalization rate for immigrants who are currently eligible to naturalize and for those who will be eligible; 5) serve as a catalyst for more English as a second language (ESL) funding and expanded classroom instruction; 6) deepen immigrants' knowledge of U.S. history and civics; 7) increase voter participation and broaden civic engagement opportunities; and 8) build stronger social bonds between native- and foreign-born people through the shared experiences of helping, or being helped, in the naturalization process.

## 2.10      *Conclusion*

*A More Perfect Union* is rooted in thoughtful immigrant integration research and studies. It furthers the discussion of citizenship and the strengthening of U.S. democracy by prescribing a practical plan for a national citizenship program with detailed steps for implementation.

3    *Priority Recommendations for a National Citizenship Plan*

3.1      *Funding*

1) Congress should appropriate funds to the USCIS Office of Citizenship (OoC) to enable it to fulfill its mission, to support a national citizenship program, and to provide technical assistance and funding to qualified nonprofit organizations for citizenship services.

2) Congress should appropriate sufficient funding so that USCIS does not need to depend entirely on fee revenue to adjudicate applications. Adequate funding would allow USCIS to halt annual fee increases, reduce its backlogs, and improve the technology for application processing and its customer services. Congress should give USCIS flexible access to fee-account revenue to enable it to respond to sudden increases in applications. It should also hold USCIS accountable to maintain backlog reduction goals, upgrade its technology, and improve customer services.

3) Funding should be prioritized for networks of direct service providers that are engaged in all aspects of citizenship services including: outreach, intake, application assistance, English as a second language (ESL) and citizenship instruction, naturalization test and interview preparation, legal representation, post-naturalization services, and provision of civic participation opportunities. In many cases, this will require non-profit organizations to share funding and to join services. Nonprofit organizations that are engaged in application assistance should be recognized by the Board of Immigration Appeals (BIA) or supervised by an attorney. These agencies should be the preferred anchors in local collaborative programs.

4) A federally led program should not supplant, but should help to coordinate, increase, and sustain the citizenship work now being performed with other sources of support.  State, local, philanthropic, and corporate interests should leverage federal dollars and expand the capacity of service providers, particularly for English language instruction. The OoC should track funding from these sources, state by state, and issue an annual report that publicizes citizenship funding commitments, their sufficiency, and the achievements of a national program.

3.2      *Program Design and Planning*

5) To generate broad public awareness and support, a national citizenship program should bring together the leadership, resources, and talents of the nation's public and private sectors. Native-born, naturalized, and

future citizens should be engaged in the program's design and implementation as a way to strengthen the program and to build bonds between these groups.

6) A national citizenship program should ensure that all LPRs have access to citizenship, regardless of their socioeconomic class or ethnic background. It should prioritize funding and services for LPRs who naturalize at the lowest rates. However, it should also assure that sufficient services be provided to those who can self-file and who need less information and assistance.

7) The OoC's budget should come chiefly from public funds, but its dependence on USCIS application fees should be reduced. The OoC should not seek or receive corporate or philanthropic donations. Instead, it should steer private funding to nonprofit groups by promoting naturalization and sharing successful program models. The OoC should hire community liaison officers for each USCIS district, and task them with coordinating local initiatives, conducting outreach, and building partnerships with nonprofits.

8) A national citizenship program should bring together academics and practitioners to identify the research and demographic data that will be needed to conduct outreach, design media campaigns, allocate funding, build service capacity, strengthen ESL and citizenship instruction, and provide benchmarks and tools for evaluation. Immigration experts should convene a privately funded national citizenship conference to share new research, knowledge, program models, and best practices.

9) A national citizenship program should include a methodologically sound evaluation component that documents successes and areas for improvement. Evaluation should rest on baseline data, shared modes of intervention, and coordinated data collection with a shared database. The database should maintain privacy and confidentiality, collect meaningful information, track benchmark information, and report successful outcomes. Program evaluation should document not only numbers of new citizens, but significant community interventions and steps contributing to citizenship. Protocols and technological barriers should be developed to restrict government and grantee access to confidential information.

### 3.3    *Program Outreach, Activities, and Services*

10) The OoC, nonprofit service networks, and local service providers should coordinate citizenship outreach. Appropriate content should be

developed by experts in media messaging and immigration services, as well as by immigrant organizers. Outreach should highlight naturalization requirements, as well as the benefits, rights, and responsibilities of citizenship. It should be designed with a consistent image and message, but be tailored to local needs and targeted populations. It should utilize naturalized citizens as spokespersons; offer true-life stories that balance emotional appeal and practical information; provide referral information; utilize multiple communication vehicles; be conducted primarily at the local level; and be evaluated for effectiveness.

11) USCIS should include in its approval notice for lawful permanent residence an addendum explaining citizenship eligibility requirements. It should also work with OoC to send *Welcome to the United States, A Guide for New Immigrants* to all immigrants and refugees upon their arrival. As a less costly alternative, it could distribute a multilingual flyer giving the Web link to the guide. Once an immigrant is eligible to apply for citizenship, USCIS should send him or her a reminder. If applicants fail the citizenship test, USCIS should refer them to local ESL and citizenship courses.

12) As part of a federally funded citizenship plan, local immigration service providers should significantly expand their provision of naturalization group processing workshops. These events should be sponsored and supervised by organizations with immigration attorneys or BIA-accredited staff, should use trained volunteers, and should follow stringent quality control standards for eligibility screening and application review.

13) Naturalization oath ceremonies should be the defining moment of the citizenship process and a key feature of a national citizenship program. USCIS should direct its district offices to offer same-day oath ceremonies if possible. The OoC should expand its efforts to organize and publicize high-profile naturalization ceremonies in order to raise awareness about citizenship. Ceremonies should be organized for days of national significance, such as Independence Day, Flag Day, and Citizenship Day. Court- and USCIS-administered ceremonies should be of equal solemnity and open to the public and service organizations. All oath ceremonies should conclude with voter registration. Local boards of election should oversee voter registration activities, and encourage civic organizations to provide this service.

*3.4      Removing Barriers to Citizenship*

14) Congress should pass a law that broadens the English language waiver for elderly citizenship applicants, allowing applicants who are aged 60 or older to take the U.S. history and civics test in their native language.

15) ESL and citizenship instruction should be expanded through adult basic education classes and community-based organizations. Classes should be available at different English language levels, including short-term, high-impact instruction for advanced students and long-term, tailored instruction for students with low literacy. Standards should be established for both professional and volunteer instructors. Instructors should receive training and be able to refer questions and clients to immigration legal experts. Curricula should cover the naturalization test and interview but include broader content that fosters an informed and engaged citizenry.

16) USCIS should expand the availability of citizenship application fee waivers for low-income immigrants. It should change its fee waiver policy to make it less discretionary; create a fee waiver application form to standardize the application process; explain the availability of waivers and the application process in its informational materials; establish an application filing discount for poor working families who wish to apply for citizenship together; and offer an option of paying the application fee in two installments.

*3.5      Improving the Citizenship Test*

17) The revised citizenship test should: adhere to the current legal requirements for level of difficulty and use of discretion; include consequential material on U.S. history and civics presented at a basic English level; and be standardized in its delivery yet able to accommodate applicants with special needs. It should not adversely impact vulnerable applicants or those who are members of specific ethnic, national or language groups; pose legal questions from the Application for Naturalization in assessing the applicants' proficiency in English; create undue delays in the naturalization process; or impose additional costs on applicants. USCIS must provide extensive training and monitoring of its officers to ensure proper implementation of the redesigned citizenship test.

18) The OoC should partner with nonprofit organizations to: create a curriculum and study guide at basic and advanced English levels for use in preparing applicants for the citizenship test; create a teacher's guide that

will allow teachers to receive broader and deeper instruction; create and distribute free, multimodal citizenship promotion materials; establish a clearinghouse of citizenship materials; fund training and technical assistance for ESL and citizenship teachers; and promote standards in citizenship education.

These recommendations form the basis of the more detailed analysis provided in *A More Perfect Union: A National Citizenship Plan.* If implemented, they will make an indispensable contribution to the integration of millions of would-be citizens and their families.

*References*

American Institutes for Research. *Pass Rates for the Current U.S. Naturalization Test: Results from the Records Study* Report prepared for the U.S. Citizenship and Immigration Services (February 8, 2006), p. 7-8.

Becker, A. and Wrigley, H.S. *Citizenship Education in Illinois: What Works?* (Chicago: Illinois Department of Human Services, August 2000), p. 70-82.

Farkas, S., Duffett, A., & Johnson, J. *Now that I'm here: What America's Immigrants Have to Say about Life in the U.S. Today* (Washington, DC: Public Agenda, 2003), p. 29.

Federal Register, (January 24, 2006), Vol. 71, No. 15, pgs. 3848 – 3849.

Gallagher, M. "Highlights From Phase One of the New Americans Research Project" Presentation to the Illinois Coalition for Immigrant and Refugee Rights by the Metropolitan Chicago Information Center (January 2006).

Martinez, T. and Wang, T. *Supporting English Language Acquisition: Opportunities for Foundations to Strengthen the Social and Economic Well-Being of Immigrant Families* (The Annie E. Casey Foundation and Grantmakers Concerned with Immigrants and Refugees, 2005), p. 6.

National Center for Education Statistics. *National Assessment of Adult Literacy: A First Look at the Literacy of America's Adults in the 21st Century* (Washington, DC: U.S. Department of Education, December 2005), p. 8.

New York Immigration Coalition. *Eager for English: How and Why New York's Shortage of English Classes for Immigrants Should Be Addressed* (New York, 2001), p. 1.

Passel, J.S. *Naturalization Trends, 1995 – 2000* (Washington, DC: pew Hispanic Center, Forthcoming 2007).

Tolbert, M. *English Literacy and Civics Education for Adult Learners*, p. 18-23.

Tucker, J. T.  *Waiting Times for Adult ESL Classes and the Impact on English Learners*, (National Association of Latino Elected and Appointed Officials, June 2006), p. 3.

The Urban Institute.  *Immigrants in New York City and Los Angeles: Language Barriers, Legal Status and Hardship* (2002), available at http://www.urban.org

# ADULT ESOL IN ENGLAND:  POLICY, PRACTICE, AND RESEARCH

James Simpson, University of Leeds

## 1    Introduction

The aim of this paper is to present an overview of the current intersection of practice, policy and research in the field of English for Speakers of Other Languages (ESOL) in England, with a focus on beginner ESOL literacy. To do this, three thematic perspectives on ESOL are put forward. The first perspective situates ESOL as a whole in its contemporary socio-political context, as a social policy in flux. I describe recent policy initiatives concerning ESOL, and the interplay of policy decisions and a changing ESOL population. The second perspective focuses on ESOL students and their diverse characteristics. I discuss recent research which explores the association between length of time spent in England and progress in ESOL, and the salient differences between two groups of students, long term residents and new arrivals. The third perspective suggests directions for future classroom-based research into ESOL and literacy, building on current interest among teachers for researching their own ESOL classrooms. Before turning to these themes, I provide a brief demographic snapshot of ESOL students in the second part of this introduction.

Much of this paper draws on findings from recent and current research projects, in particular a large scale study of ESOL students in England, the ESOL Effective Practice Project (EEPP) (Baynham, Roberts et al., 2007), funded by the European Social Fund and instigated by the National Research and Development Centre for Adult Literacy and Numeracy (NRDC). The methodology for the EEPP was adapted from the "What Works" study for adult ESL literacy students, a study of the effective teaching of literacy and English language to adults in the US (Condelli et al., 2003).

## 1.1    Who are ESOL Students?

In short, ESOL students are migrants to the UK who fall into four broad categories: those from settled migrant communities; refugees, who sub-divide into asylum seekers and settled refugees; migrant workers; and partners and spouses of people who are in the UK to study (DfES, 2000). These government-defined categories have remained stable for some years, yet are in the process of being reassessed (see Section 2 below). Moreover, such simple classification does not do justice to the most striking characteristic of the ESOL population, what Vertovec (2006) and

others refer to as *superdiversity*. Globalisation and patterns of mass forced and voluntary migration have resulted not only in large *numbers* of migrants coming to the UK, but also an enormous *range* of people. Consequently there is huge variety in ESOL classrooms across every dimension imaginable. The following figures are drawn from questionnaires on basic biographical information administered to 509 ESOL learners in 2004, part of the ESOL Effective Practice Project (EEPP). The learners in the survey came from 58 different countries of birth. The 10 most frequent are shown in Table 1.

*Table 1:   ESOL learners' countries of birth: Top 10 (n=509)*

| Country | Frequency | % |
| --- | --- | --- |
| Pakistan | 62 | 12.2 |
| Somalia | 54 | 10.6 |
| Turkey | 36 | 7.1 |
| Bangladesh | 29 | 5.7 |
| India | 22 | 4.3 |
| Angola | 21 | 4.1 |
| Congo | 21 | 4.1 |
| Sri Lanka | 20 | 3.9 |
| Iran | 17 | 3.3 |
| Iraq | 17 | 3.3 |

ESOL is a field in constant change, partly because of the ever-shifting nature of the ESOL student population. Thus, however recent the figures presented in Table 1 are, they are already out of date because of recent migration patterns. In 2004 a group of countries acceded to the European Union (EU), including Poland, the Czech Republic, and Hungary. There were no restrictions placed on citizens of these accession countries travelling to or working in the UK. Although many of these Eastern European EU citizens plan to remain only temporarily in the UK, a large number maintain that they wish to settle (Spencer et al., 2007). As EU citizens they were entitled to free ESOL lessons under the *Skills for Life* policy, though their status is less clear now, as I explain later. The scale of increase in numbers of this group of students is shown by the fact that enrolments by Polish nationals into ESOL classes increased from 151 in 2000/1 to 13,137 in 2004/5 (Niace, 2006, p. 17).

    Other background statistical data from the EEPP survey shows further interesting patterns concerning gender, age, literacy, education and employment (Table 2).

*Table 2: ESOL learners' characteristics (n=509)*

|  |  | % |
|---|---|---|
| Gender | Male | 36.8 |
|  | Female | 63.2 |
| Age group | 16-19 | 14.9 |
|  | 20-29 | 34.3 |
|  | 30-39 | 29.7 |
|  | 40-49 | 14.1 |
|  | 50-59 | 5.5 |
|  | over 60 | 1.5 |
| Can read in L1 |  | 88.8 |
| Can write in L1 |  | 82.3 |
| University-level education |  | 12.1 |
| Currently in employment |  | 20.5 |

So two thirds of ESOL students are women, half are under thirty, about one in seven cannot read or write in L1 while one in eight have a tertiary level education. And the vast majority are not currently working. Many migrants to English-dominant countries do not already have competence in English when they arrive. For these people, learning English is a matter of urgency. The importance of learning English has not been lost on the British government in recent years either. But while government intervention in ESOL has brought positive benefits, it has also resulted in some contention.

## 2 ESOL Policy

Historically, and despite certain attention from local and central government over the years, adult ESOL provision in the UK, in common with adult literacy and numeracy provision, was neglected in policy circles. Provision was characterised by *ad hoc* teaching and learning in community groups, homes and workplaces, with volunteer or part-time teachers. A major watershed in ESOL took place at the turn of the century with a decision by Britain's Labour government to bring the fragmented field of ESOL under centralised control, a process which, in brief, took the following path. Influenced by findings from the International Adult Literacy Survey, Sir Claus Moser's report to the government, *A Fresh Start* (DfEE 1999), recommended the launching of a national strategy to reduce the number of adults with low levels of basic skills. The response of the government was to put in place the *Skills for Life* strategy (2001) addressing this concern for adult basic skills in England and Wales. A similar parallel but separate system exists in Scotland. The language needs of bilingual students were not mentioned in the Moser report, and ESOL

was not originally included as a "Skill for Life." This changed with the publication of a government working group report *Breaking the Language Barriers* (DfES 2000), which brought ESOL wholly into the adult basic skills agenda. This move included the creation of a statutory *Adult ESOL Core Curriculum* (DfES 2001), parallel to the adult literacy and numeracy curricula already in place. This separate ESOL core curriculum was developed partly as a result of lobbying by activist groups, in particular the practitioner organisation NATECLA, the National Association of Teachers of English and Community Languages to Adults (as documented by Hamilton and Hillier, 2006). The assimilation of ESOL into *Skills for Life* also brought with it a new teacher training framework and qualifications mapped against national standards. *Skills for Life* also entailed the establishment of the NRDC, the National Research and Development Centre for Adult Literacy and Numeracy, which encompasses ESOL in its remit. The NRDC was created to provide a research base with which to inform the *Skills for Life* policy, which it continues to do today.

The *Skills for Life* policy has invested heavily into ESOL, though as we see below, there are signs that the government commitment to funding ESOL provision is weakening. Under *Skills for Life*, ESOL students are eligible for free tuition, and demand for ESOL outstrips supply in most areas. And students progress in ESOL classes. As the report of the ESOL Effective Practice Project puts it, "The progress the learners in our study make … is clear both from test scores and learner interviews and therefore justifies the investment in their learning made by *Skills for Life*" (Baynham, Roberts et al, 2007, p. 6). But bringing ESOL under centralised control and regulation has involved contentious clashes in cultures. As John Callaghan writes, in the context of his study of ESOL teachers' professional identities (2006, p. 30):

> Whilst government initiatives have brought in welcome resources, they have … laid a heavy bureaucratic burden on teachers, one which many see as being driven by auditing purposes and economic motives related to global competitiveness rather than the facilitation of language learning or the meeting of learners' needs.

The bureaucratisation of ESOL is largely responsible for current tensions between ESOL practitioners on the one hand and government agencies, particularly inspectorates, on the other. For example, an obligation to produce "measurable outcomes" is at odds with an understanding that processes of language learning are not necessarily linear. Moreover, the policy, management and inspectorate emphasis on "individualisation" (and lately "personalisation") of learning, particularly through the agency

of the Individual Learning Plan (ILP), is at odds with the group processes of learning so characteristic of learning in ESOL classes.

A further trend in ESOL policy is the drive to increase private sector involvement. This tendency is common across Further Education in the UK, and is associated with a strengthening of links in policy between learning in the Further Education sector and employment. Private sector investment in Further Education, be it in infrastructure, in materials and methods, or in direct funding of courses, brings with it an obligation, implicit or explicit, to orient learning and teaching towards work and employment. Yet with regard to ESOL, this can lead to a confusion between the broader aim of English language education and the pedagogic focus. While it is obvious that many (though not all) ESOL students need to improve their English language skills for employment purposes, it is not at all clear that the way to do this is to focus in class on narrow employment-related concerns. This distinction is not always recognised by those charged with inspecting ESOL classes. For example, an article by an inspector from the Adult Learning Inspectorate (ALI) published in the NRDC magazine *Reflect* (Julka, 2005), claims to identify the characteristics of a "Grade 1 lesson"; that is, one which would be judged "outstanding" by inspectors. The range of activities proposed in the article as comprising typical content in outstanding lessons is rather restricted. Mention is made of obtaining information about travelling, of filling out forms, of vocational texts and manuals. Books and magazines are for independent study only. There are strong echoes here of the competency-based and "survival English" materials and courses based on target needs analyses which gained currency in the 1970s. Such pedagogy has attracted much criticism over the years, not least on the grounds that it only prepares immigrants for menial work (e.g., Auerbach, 1986). It is an uncomfortable thought that well into the 21st century such a position regarding ESOL learners is being promoted by government inspectors. Moreover, there is little pedagogical justification for ESOL teaching and learning to be entirely needs-driven and vocationally relevant. For instance, recent theories of language learning stress the importance of the ludic or playful function of language in learning as well as in daily life (see in particular Cook, 2000).

Very recently, the British government, *via* the funding body the Learning and Skills Council (LSC), announced that from September 2007 ESOL classes would be free only for a targeted set of people, those who are "unemployed or receiving income-based benefits" (LSC, 2006, p. 5). The LSC policy announcement acknowledged that ESOL courses are a much-needed, and indeed over-subscribed, resource. Its proposal to "focus public investment on provision for those most at risk of disadvantage" (2006, p. 25) in fact excluded three groups who are precisely those most at risk. These were: asylum seekers awaiting a

decision on whether they have leave to remain in the UK (who are by law not allowed to work); unwaged members of families who are not claiming benefits; and low-paid migrant workers. Protests against the new government policy were vocal and widespread, with heavy lobbying from trade unions, teachers' groups, refugee groups, academics, and ESOL students themselves. As a result, there was some softening of the government's position. At the time of writing, asylum seekers who have been in the UK for six months or more will continue to be eligible for free ESOL lessons, as will some members of families not claiming work-related benefits. This latter group includes women from established migrant communities who were considered by many ESOL teachers most vulnerable to any cut in ESOL funding. Migrant workers, however, remain ineligible for free ESOL classes; the expectation, however unrealistic, is that employers will contribute towards the funding of courses for their migrant employees. It is predicted, therefore, that the composition of ESOL classes will change dramatically yet again, as students who are low-paid migrant workers find that they are no longer able to gain access to free ESOL provision.

Ironically, at the same time as cutting back on provision for ESOL, government ministers claim to recognise the importance of language in community building. In launching the Commission on Integration and Cohesion, the former Education minister Ruth Kelly described one of the aims of the Commission being to "encourage local authorities and community organization to play a greater role in ensuring new migrants better integrate into our communities and fill labour market shortages." She gave as an example of such an enterprise: "increasing the availability of English teaching" (Kelly, 2006). In a speech on "Meeting the Terrorist Challenge," the Chancellor of the Exchequer Gordon Brown stated, "I believe all who live in this country should learn English, understand our history and culture, take citizenship tests and citizenship ceremonies" (Brown, 2006). And writing in *The Guardian*, the Further Education minister Bill Rammell asserted that ESOL provision is an important part of the development of basic skills 'to improve social mobility and cohesion' (Rammell, 2006). It is interesting to note that these three politicians' speeches were made in the context of either social cohesion or national security. The suggestion that a lack of willingness to learn English is somehow responsible for breakdown in social cohesion or for terrorism is, of course, risible. In the first place, there is no such unwillingness on the part of adult migrants to learn English. On the contrary, it is perhaps a truism to say that most, if not all, people who migrate to the UK from countries which are not English-dominant wish to learn English and are highly motivated to do so: witness the waiting lists of most ESOL providers. And secondly, those perpetrators of terrorist offences such as the bombings in London in July 2005 were British-born individuals whose

English language competence was not in question. And yet it is surely the case that ESOL students are subject to negative representations in the media and public discourse, perhaps due to the tightening of the connection in law between immigration, national security and social cohesion.

## 2.1     *Current Research Informing ESOL Policy*

As I suggested above, there is a major focus on employment in the current thinking on ESOL in government and policy circles. In particular there is a concern about where people progress from ESOL and how they move from ESOL either into mainstream education (perhaps Higher Education) or into employment. ESOL in *Skills for Life* is divided into five levels, running from Entry Level 1 (beginner) through Entry Levels 2 and 3, Level 1 and Level 2 (nominally GCSE level). Many ESOL students progress to Entry Level 3 or Level 1 and fail to move ahead subsequently, often because their literacy skills lag behind their oral communication skills. Concern about routes beyond ESOL have led to a number of research and development initiatives, most recently the "Stick with it" research commissioned by the Quality Improvement Agency, a body set up by the British government to implement policy decisions and initiatives in the post-compulsory education sector. This research drive, which covers the whole *Skills for Life* policy area, is investigating ways of encouraging students to persist in their learning and studies, and progress from their classes into employment.

A second current concern relating to ESOL students in policy is the relationship between ESOL provision and literacy provision under the *Skills for Life* policy umbrella. The superdiversity of some urban centres means that a high proportion – sometimes the majority – of the population are bilingual. The consequence of this for *Skills for Life* provision is that classes, and not only ESOL classes, are often dominated by transnational students of various kinds: students who might have been born in the UK but who have spent much of their childhood in their parents' home country; people who are second generation children of migrants who have another language as a home language; people who have come to the UK as teenagers and who are enrolling in literacy classes ten, twenty, thirty years later; and, in general, students whose expert languages are not English. Previous research has recognised – but not fully taken account of – the fact that *Skills for Life* classes across the spectrum are full of such bilingual students, many of whom have a language learning need. As the NRDC Effective Teaching and Learning Writing study states (Grief et al, 2007, p. 24):

> Thirty per cent of the learners [on the study] did not have English as a first language and the 85 learners who recorded their first language had 44 different first languages between them. … In practice we encountered many learners in literacy classes who might have benefited from specialist teaching in English for Speakers of Other Languages (ESOL).

The experience of these students truly problematise the boundary between Literacy and ESOL, and are the concern of a recently completed exploratory study, again instigated by the NRDC (Simpson et al, forthcoming). One hoped-for outcome of this study is that there will be some readjustment of adult literacy pedagogy to take into account the needs of bilingual learners.

## 3    Large-scale Research into ESOL Students and L2 Literacy Learning

As stated in the introduction, ESOL students are a hugely diverse group. This section focuses on a particular sector of the ESOL population, one with relevance in the context of this collection. I concentrate on the identification and characteristics of adult learners of ESOL who, for one reason or another, missed out on schooling as children and are facing the challenge of learning literacy for the first time as adults and in a new language. To do this, I return to the ESOL Effective Practice Project (Baynham, Roberts et al., 2007).

Part of the EEPP study involved collecting background data on learners, observing the strategies their teachers used in class, and investigating correlations between those strategies and changes in the learners' attainment, according to a pre- and post-observation assessment of oral communication (see Simpson, 2006). To investigate which learner-related variables had an impact on progress, a multiple regression was conducted to determine the best combination of learner variables for predicting progress according to the assessment. Several combinations of characteristics were tested, including gender, age, employment status, ability to read or write in an expert language, and years of schooling. None of these factors in and of themselves were found to make a difference to progress. The only factors found to be significant were attendance rates – a weak but positive correlation with progress – and the length of time learners had already spent in the UK at the point of the study – a significant and negative correlation. In short, more recent arrivals in the UK are seen to have made greater progress according to the pre-/post-observation assessment than longer-term residents.

It was clear that length of time already spent in the UK was an important predictor of rate of progress, so this variable was investigated further. Drawing on data from 468 students about their length of time in

the UK, the cohort was divided into two groups, those who had been in the UK for up to five years, termed the *new arrivals*; and a *long-term resident* group, in the UK for five years or more. The new arrivals made up 78% of the sample; the long term residents 22%.

Data from the two groups were compared across a number of variables, in order to determine how they differed demographically. And perhaps unsurprisingly there were salient and significant differences between the groups. For example, there were proportionally more men and more young students in the new arrivals group. The groups also differed significantly in terms of mean years of schooling reported, with an average of 9.15 years for the recently settled group and 7.13 years for the longer term residents. And, crucially, a higher proportion of the long-term residents reported that they could not read or write in their first language.

These differences point to reasons why levels of progress varied between the groups. People who have been in the UK for longer are more likely to be older and to have had less experience of formal education as children. Both these reasons might affect progress. Evidence from second language acquisition research suggests that age makes a difference; there is a cut-off point which divides younger from older language learners, and older learners have to find strategies which compensate for the loss of the language learning mechanisms of the young (Long, 1990). People come to ESOL later in life for a variety of reasons (Cooke, 2006). Many wish they could have started earlier but were prevented by patterns of work or childcare. Those learners who received little or no schooling as children have a further disadvantage in adult ESOL classes. In general, people who have experience of school recognise and are able to operate within the artificiality of the classroom situation (Luria, 1976). In contrast, adults with little school experience are less able to fully understand the pedagogical aspect of classroom interaction. A related and overarching factor is that people who have not acquired literacy as children in a first or expert language have particular difficulties learning literacy for the first time as adults in a new language.

A headline finding from the ESOL Effective Practice Project reads:

> The newer arrivals need adequate provision now so that they do not become the future long-term residents facing more barriers to learning. Similarly, long-term residents need appropriate provision, including literacy where necessary. For them ESOL classes are often their first chance to learn English because commitments and constraints have prevented them from doing so in the past.

This finding, derived as it was from a large-scale correlational study, does not allow for the problematisation of the details of the issues which it illuminates. It also suggests a rather crude binary distinction between new arrivals *with* literacy and long-term residents *without*. It glosses over the fact that many new arrivals also have little or no foundational L1 literacy. Furthermore, it does not account for *why* these learners are reaching adulthood without acquiring literacy. And it presents a dichotomous notion of literacy which does not really fit the patterns of socially situated literacy practices, and individuals' participation in these. On the other hand, it can be viewed as a basis for a more situated and grounded examination of local contexts.

## 4    Classroom Research into ESOL Literacy

On a programmatic level, and with a speculative eye on putting forward directions and methodologies for research, I suggest that local contextualised research could be carried out by ESOL teachers investigating their own classrooms, with a view to change for the better. Practitioner-led action research in ESOL draws on a strong tradition of classroom-based action research (e.g. Kemmis and McTaggart, 1985; Richards, 2003) and exploratory research into language classrooms (Allwright, 1988). Tutors engaging in practitioner-led action research are able to position themselves as researchers; because this is *action* research, they are investigating local problems which might have locally appropriate solutions. Such a reorientation can be challenging for teachers. As a result of studying issues as they arise from their own classrooms, they may find themselves on unfamiliar ground. That is, rather than drawing primarily on previous training or on the literature on language teaching pedagogy, their starting point for developing an approach becomes their own classrooms. This reorientation allows them, therefore, to develop their own theories about teaching and learning from the study of their classrooms.

This is not to say that classroom-based research should be carried out in an unprincipled way. Rather, teacher-researchers bring to the research whatever insights previous research has gained that informs them about the teaching and learning needs of basic ESOL literacy learners, as well as their own experience of working with these groups of students. In this sense they engage in a type of principled pragmatism, as advocated by Kumaravadivelu (1994). The knowledge acquired through the close study of a classroom during a research project, combined with the skill developed over years of teaching, allows teachers to move away from an uncritical acceptance of externally developed approaches and methods. They therefore aim for a "postmethod condition," one which, argues

Kumaravadivelu (1994, p. 29), "empowers practitioners to construct classroom-oriented theories of practice."

Theorising from the classroom using the heuristic device of an action research project, while not common in Adult ESOL in the UK, is also not completely unknown. Here I mention two current initiatives which adopt a practice-oriented context-specific attitude towards the development of theory. These are the Dewsbury College Skills for Life Action Research project (Clarkson et al, forthcoming), and the ESOL Practitioners Guide project (Cooke et al, forthcoming). Both of these projects were instigated under the auspices of the NRDC. The first, the Dewsbury College project, was part of the recent NRDC Practitioner-led Research Initiative (PLRI), a three-year scheme involving 17 small-scale projects of various types across the *Skills for Life* policy areas of Literacy, Numeracy, ESOL and ICT. The Dewsbury Project involved setting up a collaborative and mutually supportive action research network amongst ESOL tutors; in the first cycle of the project six tutors each devised and carried out their own mini-projects, coordinated in a collaborative mutually supportive network which met face-to-face and electronically via blogs. The key innovation in this project, which in autumn 2006 commenced its second cycle, is that in each case the learners in the class are heavily involved in deciding the nature and direction of the intervention to take place. The second project, the ESOL Practitioners Guide, stems from the ESOL Effective Practice Project (EEPP), described in part in this paper. While working on the EEPP, the researchers became aware not only of what was happening in ESOL classes, but also of what was not. One thing not seen a lot in ESOL classes was the encouragement of longer stretches of talk from students. The Practitioners Guide project involves five teacher-researchers, working under the coordination of two university-based researchers, to investigate ways both of encouraging longer stretches of talk in their lessons, and of working with that talk in ways which might promote learning. Ultimately, methods and findings will be presented together in an ESOL teachers' guide. In each case, classroom-based researchers are drawing on the expertise of a university-based researcher who acts as a mentor.

### 4.1 *Teachers Researching their ESOL Literacy Classrooms*

Classroom-based practitioner-led research into ESOL literacy classrooms might focus on the following questions:

1. What do we understand by *Literacy*?
2. Who are our basic ESOL literacy students?

Once these questions have been investigated, classroom-based researchers can turn to the matter of appropriate pedagogy.

### 4.2      *What do we Understand by Literacy?*

When studying ESOL literacy at a local or classroom level, I maintain that it is important to turn away from *a priori* classifications of *literate* or *illiterate* in favour of an orientation towards literacy as socially situated practice. This allows one to sidestep the tendency to think in terms of typical outcomes for pre-defined groups. It also allows one to theorise literacy as embedded in everyday social practice, considering the classroom as one of many sites of language use. This follows the turn to the social and ethnographic taken in the New Literacy Studies (for example, Gee, 2000; Street, 1993). Teachers and classroom-based researchers can thus look beyond the mechanics of decontextualised literacy learning and view what happens in lessons in terms of classroom literacy practices. One way of investigating classroom literacy practices is suggested by Hellerman (2006), who provides a methodological framework for such a study. In his paper, Hellermann talks about how two adult ESL learners develop L2 literacy in their classroom at the National Labsite for Adult ESOL at Portland State University. Rather than focusing on their test scores, or in fact paying very much attention to the particular materials and techniques the teacher uses in the class, he concentrates on what he terms "the social processes which foster the development of classroom and interactional practices that characterize beginning literacy activities for adults in an L2" (2006, p. 377).

   Hellermann's position is aligned with the New Literacy Studies. In Hellermann's words, "linguistic processing … is embedded within and inseparable from social practices or routines in which individuals are engaged" (2006, p. 379). Within these literacy practices there are identifiable recurring literacy events. Through investigating these recurring classroom literacy events we can open a window on the process of the development of interactional competence through language socialisation, what we might term *literacy* socialisation. That is to say, investigating the interaction around the teaching of literacy, through examining literacy *events*, helps us to understand the processes by which students become socialised into literacy in their classrooms. Thus the identification and examination of recurring literacy events can become the focus of analysis of classroom observations and recordings.

### 4.3      *Who are Basic ESOL Literacy Students?*

In the introduction to this paper I discussed in broad terms the ESOL populations in the UK. But when carrying out small-scale research into a

class, it is important to understand who the students in the class are. Students with little or no literacy in L1, who are learning literacy for the first time in an L2, are likely to find themselves in beginner or basic ESOL classes. So what sorts of learners do we find in such classes? In their authoritative guide to teaching basic literacy to ESOL learners, Spiegel and Sunderland (2000) define a basic literacy student as: "Someone who is still learning to read a short simple text and struggles to write a simple sentence independently. … Some learners may have little or no print literacy in their own languages, while others may be able to read and write extremely well in one or more languages" (Spiegel and Sunderland, 2006, p. 15). Beyond this definition there are a number of factors which complicate matters for teachers of basic literacy to bilingual learners. Some students come to ESOL classes with an ability to read and write another language which uses Roman script. Others might be familiar with an ideographic writing system, a syllabary, or a non-Roman alphabet. Others still may have little or no knowledge of any writing system at all. Thus all students of basic literacy will be coming to the class with different starting points, and classifying students according to literacy need becomes problematic for teachers. One helpful distinction made by L2 literacy acquisition researchers in the cognitive tradition is between those students with some foundational L1 literacy and those with none. Those with some L1 literacy are viewed as having skills to transfer onto L2 literacy (Tarone and Bigelow, 2005; Young-Scholten, 2004). And in ESOL literacy classrooms, teachers recognise that progress is slower among those with no skills to transfer. As Bell (1995, p. 687) says, "Most ESL literacy teachers would agree that learners who are literate in their native language make better progress than those without native language literacy." ESOL teachers will also recognise the fundamental point about language transfer: people are able to transfer knowledge that they have about literacy, regardless of script; for example, an understanding, as Spiegel and Sunderland say (2006, p. 15) "that there is a link between sound and symbol or that different genres have their own conventions."

Moreover, students in Basic ESOL literacy classes will differ in the extent to which they are able to express themselves orally in English. Some may have oral communication skills in English because they have been resident in an English-dominant country for some time, but will report having little or no schooling in L1; and others, perhaps new arrivals, will have neither English oral skills nor L1 literacy. It may well be the case that literacy provision needs to take account of this distinction. Practitioner-led action research of the type I advocate could allow teachers to implement an intervention based on such an observation in an attempt to make provision more focused and relevant to students' needs.

## 5    Conclusion

In this paper I have discussed policy and research in ESOL, with a focus on beginner literacy for ESOL students. Returning to the socio-political perspective with which I began, detailed work on the nature of the classroom literacy learning of adult migrants is pointless unless provision is made for such students to actually study. Government policy which encompassed ESOL within the *Skills for Life* agenda brought with it welcome resources. Notwithstanding this, much policy attention on ESOL and ESOL students in the intervening years has been less welcome. In particular, we see a paradoxical situation whereby migrants to the UK are castigated by politicians for not learning English for "integration" purposes; the very same politicians instigate policies which deny the potential learners access to freely available English lessons. ESOL classes are a lifeline for many students, and to remove provision of English language education from some of the most marginalised and needy groups in society is callous in the extreme.

The second perspective focused on policy-oriented research, and research commissioned to inform policy, which of its nature tends to be broad brush and large scale. Such research can provide useful and informative insights, as shown by the interesting correlations generated in the course of the ESOL Effective Practice Project research described in this paper. Without this type of research, it is unlikely that general and generalisable patterns such as the ones described in section 3 of this paper would be allowed to show themselves. Such research findings, if used carefully by policy makers, managers and other practitioners, can be of positive benefit to ESOL.

Yet for research that aims to directly inform practice, there is no substitute for grounded, situated classroom-based research. I maintain that only by investigating lived experience, for instance of classroom literacy practices, can one probe the subtleties of individual contexts with a view to improving practice. The third perspective of this paper included a call for such situated research efforts to be encouraged and supported.

## References

Allwright D. (1988) *Observation In The Language Classroom*. London: Longman.

Auerbach E. R. (1986) 'Competency-Based ESL: One Step Forward or Two Steps Back?' *TESOL Quarterly* 20, 411-427.

Baynham, M., C. Roberts, M. Cooke, J. Simpson and K. Ananiadou (2007) *Effective Practice in ESOL*. London: NRDC. Available online at www.nrdc.org.uk

Bell, J. S. (1995) 'The relationship between L1 and L2 literacy: Some
     complicating factors.' *TESOL Quarterly* 29/4, 687-704.
Brown, G. (2006) Speech on 'Meeting the Terrorist Challenge', 10
     October 2006. www.hm-treasury.gov.uk/newsroom_and_speeches/
     press/2006/press_72_06.cfm
Callaghan, J. (2006) *Methodological reflections on a study of how ESOL teachers
     construct professional identities at the juncture of multiple, ill-defined and
     conflicting agendas.* MA dissertation, University of Leeds.
Clarkson, C. and colleagues (forthcoming) *The Dewsbury College Action
     Research Network.* London: NRDC.
Condelli, L., H. S. Wrigley, K. Yoon, M. Seburn and S. Cronen (2003).
     *What Works Study for Adult ESL Literacy Students.* Washington, DC: US
     Department of Education.
Cook, G. (2000) *Language Play, Language Learning.* Oxford: Oxford
     University Press.
Cooke, M. (2006) ' "When I wake up I dream of electricity": The lives,
     aspirations and 'needs' of Adult ESOL learners. *Linguistics and
     Education* 17/1, 56-73.
Cooke, M. et al (forthcoming) *The ESOL Practitioners' Guide.* London:
     NRDC.
DfEE (2000) *Breaking the Language Barriers: the report of the working group on
     English for speakers of other languages (ESOL).*
          http://www.lifelonglearning.dfee.gov.uk/esol/index.htm
DfEE (1999) *A Fresh Start - improving literacy and numeracy* (The Moser
     report). London: Basic Skills Agency.
DfES (2001) Adult ESOL Core Curriculum. London: Basic Skills
     Agency/DfES.
          http://www.dfes.gov.uk/curriculum_esol/intro/learners/
DfES (2001) Skills for Life: The national strategy for improving adult
     literacy and numeracy skills. London: Read Write Plus.
Gee, P. (2000) The New Literacy Studies: from 'socially situated' to the
     work of the social. In Barton, D., M. Hamilton & R. Ivanič (eds.)
     *Situated Literacies.* London: Routledge.
Hamilton, M. and Y. Hillier (2006) *Changing Faces of Adult Literacy, Language
     and Numeracy: A Critical History.* Stoke on Trent: Trentham Books.
Hellermann, J. (2006) 'Classroom interactive practices for developing L2
     literacy: A microethnographic study of two beginning adult learners
     of English.' *Applied Linguistics* 27/3, 377-404.
Julka, N. (2005) 'The characteristics of a Grade 1 lesson.' *Reflect* 4,
     October 2005.
Kelly, R. (2006) Speech at the launch of the Commission on Integration
     and Cohesion (24 August 2006.
          www.communities.gov.uk/index.asp?id=1502280).

Kemmis, S. and R. McTaggart (1988) *The Action Research Planner*. 3rd
    edition. Geelong: Deakin University.
Kumaravadivelu, B. (1994) 'The postmethod condition: (E)merging
    strategies for second/foreign language teaching.' *TESOL Quarterly*
    28/1, 27-48.
Learning and Skills Council (2006). *Our annual statement of priorities*.
    http://www.lsc.gov.uk/National/default.htm
Long, M. (1990) 'Maturational constraints on language development.'
    *Studies in Second Language Acquisition* 12: 251-85.
Luria, A. R. (1976) *Cognitive development: Its cultural and social foundations*.
    Cambridge, Mass: Harvard University Press.
Niace (National Institute for Adult and Continuing Education) (2006)
    Committee of Inquiry into English for Speakers of other Languages
    (ESOL) Interim report. Leicester: Niace
Rammell, B. (2006) 'English language skills are the key to integration. *The
    Guardian*, 10 October 2006.
    http://education.guardian.co.uk/further/opinion/story/0,,1891330,0
    0.html).
Richards, K. (2003) Qualitative enquiry in TESOL. London: Palgrave
    Macmillan.
Simpson, J. (2006) 'Differing expectations in the assessment of the
    speaking skills of ESOL learners.' *Linguistics and Education* 17/1, 40-
    55.
Simpson, J., M. Cooke and M. Baynham (forthcoming). *The Placement
    Practices Project*. London: NRDC.
Spencer, S., M. Ruhs, B. Anderson and B. Rogaly (2007) 'Migrants' lives
    beyond the workplace: the experiences of Central and East
    Europeans in the UK'. York: Joseph Rowntree Charitable Trust.
    http://www.jrf.org.uk/bookshop/details.asp?pubid=888
Spiegel, M. and H. Sunderland (2006) *Teaching basic literacy to ESOL learners*.
    London: LLU+.
Street, Brian (ed.) (1993) *Cross-cultural Approaches to Literacy*. Cambridge:
    Cambridge University Press.
Tarone, E. and M. Bigelow (2005) 'Impact of literacy on oral language
    processing: Implications for second language acquisition research.'
    *Annual Review of Applied Linguistics* 25, 77-97.
Vertovec, S. (2006) 'The emergence of super-diversity in Britain'. *Working
    Paper No 25*. Centre on Migration, Policy and Society, University of
    Oxford.
Young-Scholten, M. (2004) 'How do linguistic and cognitive factors
    contribute to learning to read for the first time in a L2 as an adult?'
    Paper presented at University of Lancaster, 12 November 2004.

# PROFESSIONAL DEVELOPMENT FOR PRACTITIONERS WORKING WITH ADULT ENGLISH LANGUAGE LEARNERS WITH LIMITED LITERACY

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## 1    Introduction

The population of English language learners in adult education programs in the United States is significant – nearly half of the adults enrolled in adult education programs are learning English as a second language. For example, in Program Year 2004-2005, over one million adults of various ages, nationalities, native languages, and English proficiency levels were enrolled in federally funded, state-administered ESL programs, and over 70 percent were of Hispanic or Latino origin (Pane, n.d.). (This number does not include adults enrolled in private programs, such as community-based, faith-based, workplace-based, and volunteer programs that do not receive federal funding.)

Approximately half of the students in federally funded adult education programs test at the two lowest levels in the National Reporting System (NRS), used by the U.S. Department of Education, Office of Adult and Vocational Education, to determine students' English language and literacy levels. For example, in Program Year 2003-2004, approximately 50 percent tested at the two lowest levels at the time, Beginning ESL Literacy and Beginning ESL (U.S. Department of Education, 2006a). (In July 2006, the two lowest levels were changed to ESL Beginning Literacy and ESL Low Beginning.) This means, according to the NRS skill level descriptions related to Basic Reading and Writing used that program year, that they had "no or minimal reading or writing skills in any language. [They] may have little or no comprehension of how print corresponds to spoken language and may have difficulty using a writing instrument" (Beginning ESL Literacy), or they may be able to "recognize, read, and write numbers and letters, but have limited understanding of connected prose and may need frequent re-reading; can write a limited number of basic sight words and familiar words and phrases; [and] may be able to write simple sentences or phrases, including very simple messages" (Beginning ESL) (U.S. Department of Education, 2006b). (It should be noted, however, that states use various instruments to test English language and literacy levels for NRS reporting, some testing for oral proficiency and some for literacy; they do not test literacy

in the native language. Therefore, NRS scores do not represent the complete picture of a student's language and literacy proficiency, and programs use alternative means to get a more complete picture for placement and other purposes.)

Practitioners (teachers, other instructional staff, and program administrators) working with students at beginning ESL literacy levels need guidance and support to be able to work with them effectively. They need to know the backgrounds and skills of the learners in their programs – their countries of origin, cultural backgrounds, native languages, levels of literacy in their native language as well as in English, prior education experiences, and goals for being in the program. They need to know the principles of second language acquisition and literacy development, research-based strategies for working with second language learners with limited literacy, materials that are appropriate for use with this population, and ways to structure and deliver instruction. Administrators need to know program designs, assessment instruments and procedures, staffing patterns, and professional development opportunities that will result in effective instruction for and education and workforce success of learners (Center for Applied Linguistics, 2003).

There are a number of challenges to meeting these needs. Solid data on learner populations and on their language proficiency are not always available to practitioners. Professional development for adult education teachers and administrators does not always focus on second language learners or on learners with limited literacy but rather is more general in focus. Teachers are often part-time and so do not have the time or support to participate in professional development. Ongoing technical assistance is rarely available to teachers and administrators. Teacher turnover in many parts of the country is high. Finally, structures and leadership are not in place in many states to plan, sustain, and formalize high quality, sustained professional development for teachers of adult English language learners. In the midst of these challenges, professional development is sorely needed, and effective professional development systems must be established.

## 2    *Building Professional Development Systems*

This paper describes a professional development process that the Center for Applied Linguistics, in Washington, DC, is conducting through one project, the Center for Adult English Language Acquisition (CAELA). CAELA staff and partners (Judy Alamprese, Abt Associates, and Andy Nash, World Education) are working with planning teams from 24 states to develop professional development systems to improve the effectiveness of adult ESL practitioners. Participating states include those that have experienced recent increases in immigrant populations. Many of

the new immigrant groups being served in these states have limited literacy in their native language and in English.

The purpose of this project, funded by the U.S. Department of Education, Office of Vocational and Adult Education, is to develop capacity within the participating states to provide professional development for teachers and program administrators who are working with adult English language learners. The goal is to develop an effective practitioner workforce that is prepared to improve programs and instruction, so that adults learning English as a second language have the education and tools to succeed in this country and achieve their goals.

## 2.1    The Professional Development Process

The research on professional development in adult education, and particularly in the education of adult English language learners, is limited. However, Dorothy Strickland and colleagues (Duffy, 2004; Strickland & Kamil, 2004; Strickland & Riley-Ayers, 2007), in reviews of the research literature on professional development for teachers in early literacy programs, outline professional development components that are relevant for CAELA's work with states. Their work shows that effective professional development

- Has a well-articulated purpose that is clear to all participants.
- Focuses on the actual content to be taught, the curriculum to be used, and the content areas in which teachers need knowledge and skills.
- Is consistent in message – draws from the same research base and sources of information about best practice.
- Is implemented and sustained over time.
- Provides participants with a variety of experiences that include small-group and individualized support with opportunities for discussion, analysis, reflection, and evaluation.
- Includes mechanisms for measuring changes that occur in teacher practice and in student performance.

The importance of these components is supported in work done by researchers in adult education (e.g., Crandall, 1993, 1994; Smith, Hofer, Gillespie, Solomon, & Rowe, 2003). One point is clear: The professional development process must be cyclical, ongoing, and sustained. It begins with planning and moves through implementation and into evaluation. In the evaluation phase, changes are considered and made that are then considered during subsequent planning, and the process continues. (See Center for Adult English Language Acquisition, forthcoming, for a detailed description of this process.)

*2.2      Components of the Process*

The professional development process includes a set of critical
components, which are discussed here in turn:
-    Analysis of data on learners and teachers
-    Analysis of the context in which the professional development
     process takes place
-    Selection of the practitioner groups that need professional
     development
-    Selection of activities, follow-up, and resources needed
-    Documentation of outcomes
-    Institutionalization of the process

With each component, a set of questions is given that professional
development planners can ask to help them 1) understand the needs of
practitioners working with second language learners with limited literacy
and 2) develop approaches and systems that will meet their needs. An
example from a hypothetical state is then given.

*2.2.1     Analyze Data on Learners and Teachers*

The first step in developing effective professional development is to
understand the students and teachers involved. Looking at demographic
data in a state, region, or program, and data on teacher background and
needs, the following questions can be addressed:
-    What is the population of second language learners?

-    What are their levels of language and literacy in their native
     language and in English? (In the United States, federally funded
     programs use data collected for the National Reporting System
     (NRS) to answer this question; see discussion in Kenyon & Van
     Duzer, 2003; U.S. Department of Education, 2006b.)

-    Are second language learners with limited literacy concentrated
     in specific areas or programs?
-    What do NRS levels indicate about the progress the learners are
     making?
-    Are the teachers working with them equipped to work with this
     population? Do they have adequate educational preparation,
     teaching experience, training, knowledge, and skills? (The states
     that CAELA is working with are using a teacher background
     survey to collect this information.)
-    What additional knowledge and skills do teachers need and want
     to work with these populations? (The states that CAELA is
     working with are using a teacher needs assessment to collect this
     information.)

For example, in a given state, the population of second language learners might include many different groups. A small number might be highly literate in their native language and simply need to learn English in order to succeed in work-related positions they are seeking. However, on intake assessments focused on English language and literacy, a significant number of learners have scored very low, and program experience with them shows that their literacy knowledge and skills are low overall, and that they have had limited opportunities in their countries for literacy development in their native language because of a variety of factors. These learners are concentrated in programs in one region of the state, and the teachers working with them have been working entirely with intermediate and advanced level English learners who are literate in their native language.

### 2.2.2 *Analyze the Context in which the Process Takes Place*

Many situational factors at the national, state, and local levels can affect the ability of practitioners to develop and implement effective professional development activities and systems. Questions like the following can guide an analysis of these factors.

- Have there been recent changes in learner populations in terms of numbers, countries of origin, native languages, cultures, and prior educational and literacy levels? Do these changes include an increase in the numbers or diversity of those with limited literacy?
- Have there been changes in the teacher workforce that have an impact on program effectiveness, including learner outcomes?
- What policies and initiatives are having an impact on teachers, programs, and learners?
- What funding is available for professional development of teachers working with these populations?
- What leadership and structures are in place to facilitate the professional development needed?

For example, in the state described above, the learners with limited literacy are new immigrant and refugee groups that have recently arrived. Some have come as refugees seeking a safe haven in the United States; others have been brought in by a local business to work in manufacturing plants. New classes must be established to serve them, and teachers and program administrators have no experience working with these groups (from a language and literacy or cultural perspective). Because the teachers in the programs involved are experienced adult ESL teachers, little professional development has been provided in that region of the state in the past several years, and program administrators have been happy with

the programs they have in place for the populations they have been serving.

### 2.2.3    *Select the Practitioner Groups that Need Professional Development*

When an analysis has been done of learner populations, teacher backgrounds and needs, and situational factors, specific groups of practitioners that need professional development can be identified, and the following questions asked:

-   What background, training, knowledge, and skills do these teachers have?
-   What content knowledge and skills do they need?
-   Are they asking for specific information and training that might be provided?

In our example state, state-level personnel might decide that a professional development process must be put in place for the teachers and administrators in the programs described above. The teachers and administrators have basic knowledge about and experience with working with adult English language learners, but they need information about the language and cultural backgrounds of the new immigrant and refugee groups, about variations in types and levels of native language literacy that can affect English literacy development, and about teaching reading and writing to students with limited reading and writing skills.

### 2.2.4    *Select Activities, Follow-up, and Resources Needed to Work with these Groups*

At this point actual professional development can begin, and the identified groups of teachers and administrators can go through a process of workshops, follow-up study circles, mentoring, peer observation, and feedback that will develop their content knowledge and skills so they can work effectively with the learners in their classes and programs.

In our example state, the state planning group decides to work with a known expert on second language learners with limited literacy to hold a series of one-day workshops (e.g., to be held once a week or several times a month). The workshops focus on information about the language and cultural background of the groups involved (using information from the Cultural Orientation Resource Center, Center for Applied Linguistics), research on reading development of adults learning English (e.g., Burt, Peyton, & Adams, 2003; Burt & Peyton, 2003; Burt, Peyton, & Van Duzer, 2005) and on working with literacy level learners (e.g., Holt, 1995; Florez & Terrill, 2003), lesson planning, materials selection and use, instructional strategies, and out-of-program learning opportunities in the area for this student population. During the workshops, teacher pairs are

set up. These teacher pairs observe each others' classes at least three times, followed each time by a half-hour discussion of what transpired in class. The pairs then attend a weekly study circle (e.g., two hours a week for four weeks) and read and discuss articles on literacy development in the second language (including some of those listed above).

Administrator pairs are set up as well. Program administrators work together to consider the basic features of their programs using program standards (e.g., Peyton, 2005; Teachers of English to Speakers of Other Languages, 2003), make plans for program improvement, and meet with the teacher study groups when determined appropriate.

If the state planning group believes, at the end of this process, that this group of teachers and administrators is ready to work effectively with these students and that a new group of teachers (and possibly administrators) needs to go through the process, it can be repeated. A new group of teachers and administrators is selected, and those who have completed the process are paired with the new group to serve as mentors to them. Working in this way, teachers and administrators not only develop the knowledge and skills they need, but they are also able to support others who are working with this student population.

### 2.2.5 Document the Outcomes

Most professional development efforts collect information about whether the planned events actually took place, were attended, and were well received. Thus, data are collected routinely on number of workshops, study groups, and other activities held; attendance at those events; and participant evaluations of the events (to answer the questions: Did we do what we had planned, reach the practitioner groups we planned to reach, and meet their expectations?). (See Guskey, 2002, for discussion.) Even more significant, however, are answers to questions about impact: What impact have these activities had on the practitioners involved?

- Do the participants in this professional development process know, and are they able to do, what was intended as a result of participation?
- Did they implement what was determined they would be able to implement?
- Do they believe they have learned and are successful?
- How do we know?

If desired, questions about impact on students can also be asked:

- Did learners accomplish their goals?
- Is there improvement in learners' English language and literacy?
- Are there measurable improvements in other areas?
- How do we know?

For example, to answer the questions above, the state planning team might collect data on practitioner knowledge and performance and on student performance. Data collected might include :

- Lessons plans that teachers have developed for specific groups of second language learners with limited literacy, at specific places in their development (e.g., at the beginning, middle, and end of a course).
- Lessons that these teachers teach, observed by a mentor or peer who uses an observation form or rubric with critical features of the lesson to be observed.
- Teacher descriptions of the knowledge and skills they have attained, reflections on their own practice, or critiques of their progress in a log or journal.
- Measures of learner progress. These should include the measures that the country, state, or region use to determine program success.

Planning for evaluation is complex and can be time consuming. Observation forms and rubrics need to be developed, classroom observations conducted, and staff selected to conduct observations, review lesson plans and reflection logs, and write analyses. Feedback processes, and improvement plans following feedback, also need to be developed. This planning and evaluation process must reflect input from all of the stakeholders (e.g., the teachers themselves, the administrators of their programs, mentors and advisors, and the state-level staff planning the process and conducting the evaluations).

### 2.2.6    Institutionalize the Process

The ultimate goal is that professional development is a consistent, regularly occurring process, in which all practitioners are involved. At this point, we look beyond the practitioners and activities themselves to the entire system in which professional development takes place. As Alamprese (1999) points out, when seeking program improvement, we often focus solely on professional development of teachers and quality of instruction and do not look at the larger picture, to consider the systems and resources needed to support instruction. We also often offer brief, one-shot workshops with little or no follow-up. However, research suggests that the duration of professional development activities and follow-up have an impact on the depth of teacher change (Shields, March, & Adelman, 1998; Weiss, Montgomery, Ridgway, & Bond, 1998). Finally, we have done very little in the way of long-term planning for sustained professional development and teacher quality. This seems to be especially true in adult education and, until recently (through the LESLLA Forum), in the education of adult English language learners with limited literacy.

As a result of the need to focus on, develop, maintain, and evaluate an entire professional development system, CAELA staff are developing a way to examine and support sustainable professional development systems (Center for Adult English Language Acquisition, forthcoming). Any such system needs to be aligned with learner and teacher needs; cyclical, sustained, ongoing, and informed by research on teacher change; and informed by the literature on building professional development systems in adult education, K-12 education, and business (e.g., the Association of Adult Literacy Professional Developers, 2005; Belzer, Drennon, & Smith, 2001; McLendon, 2000; Reynolds, Murrill, & Whitt, 2006; Senge, 1990).

Effective professional development systems consist of the following major areas:

- A *structure* that includes a mission and guiding principles, strong leadership, and collaboration and partnership among education entities
- A *decision-making process* that represents shared vision among key stakeholders and collaborative analysis and use of data for planning
- *Scope and content* that is responsive to teacher and student characteristics and needs, aligned with state and federal directives, and makes effective use of leadership monies
- *Support for professional development* that includes follow-up to initial activities, incentives, and release time for practitioner involvement
- *Evaluation* of the professional development process, quality of opportunities, and outcomes

Going through the components of this tool as a state, regional, or program team will help those involved determine the areas they need to focus on, those that are strong, those they can change, and those they do not have the power or resources to change (at least in the short term). This process provides a way for different organizations and entities to collaborate and coordinate approaches across programs or regions within a state, across states, or across the country. It might also provide guidance for stronger states, regions, or programs to mentor and help weaker ones.

## 3    *Factors That Can Help and Hinder the Process*

In our experience working with 24 states in the United States, we have identified a number of factors that can hinder or help the process of developing sustainable, high quality professional development. Factors that can hinder include the following:

- There is no mission statement to shape and guide professional development efforts.
- No goals and objectives are articulated.
- There is a weak organizational structure, and professional development efforts are decentralized and haphazard.
- Turnover within the planning team is high.
- There is weak or no leadership to support the work of the planning team.
- There is lack of coordination among initiatives and sectors within the state or region.
- New ideas crop up and are accepted with no analysis of how they fit into the whole picture or how they respond to needs identified by analysis of data.

At the same time, a number of factors can promote progress:

- The state, region, or program has a mission statement, clearly articulated goals and objectives, and an organizational structure.
- A stable planning team, with experience with adult English language learners, is in place.
- Strong, committed leadership promotes the work and facilitates the expected outcomes of the planning team.
- Strong connections and coordination exist across state and program initiatives and education sectors and organizations.
- Resources are devoted to carrying out professional development on the content and skills that teachers need.
- New ideas and initiatives are evaluated within the context of a well organized and well articulated plan.

## 4    Conclusion

Professional development for adult education practitioners has always been of prime importance, but it is often neglected or haphazard. The CAELA capacity building process for professional development provides an opportunity to think carefully about what a high quality, sustainable professional development system must include. It is critical that this process be implemented broadly so that second language learners with limited literacy are able to succeed in the United States and in other countries.

*References*

Alamprese, J. (1999). *Promoting systemic change in adult education.* Columbus, OH: Eric Clearinghouse on Adult, Career, and Vocational Education.

Association of Adult Literacy Professional Developers. (2005). *AALPD recommended policies to support professional development for adult education practitioners.* http://www.aalpd.org/documents/AALPDPDPoliciesFINAL10122005.doc

Belzer, A. (2005). Improving professional development systems: Recommendations from the Pennsylvania adult basic and literacy education professional development system evaluation. *Adult Basic Education, 15*(1), 1-23. http://proquest.umi.com/pqdweb?

Belzer, A., Drennon, C., & Smith, C. (2001). Building professional development systems in adult basic education: Lessons from the field. *Review of Adult Learning and Literacy, 2.* Mahwah, NJ: Lawrence Erlbaum. http://www.ncsall.net/?id=559

Burt, M., & Peyton, J.K. (2003). Reading and adult English language learners: The role of the first language. Washington, DC: National Center for ESL Literacy Education. http://www.cal.org/caela/esl_resources/digests/reading.html

Burt, M., Peyton, J.K., & Adams, R. (2003). *Reading and adult English language learners: A review of the research.* Washington, DC: Center for Applied Linguistics.

Burt, M., Peyton, J.K., & Van Duzer, C. (2005). *How should adult ESL reading instruction differ from ABE reading instruction?* Washington, DC: Center for Adult English Language Acquisition. *http://www.cal.org/caela/esl_resources/briefs/readingdif.html*

Center for Adult English Language Acquisition. (forthcoming, fall 2007). *State capacity building for adult ESL professional development.* Washington, DC: Center for Applied Linguistics. http://www.cal.org/caela

Center for Applied Linguistics. (2003). *Adult English language instruction in the 21st century.* Washington, DC: Author. http://www.cal.org/caela/esl_resources/languageinstructionEng.pdf

Crandall, J.A. (1993). Professionalism and professionalization of adult ESL literacy. *TESOL Quarterly, 27,* 497-515.

Crandall, J.A. (1994). *Creating a professional workforce in adult ESL literacy.* Washington, DC: Center for Adult English Acquisition. http://www.cal.org/caela/esl_resources/digests/CRANDALL.html

Cultural Orientation Resource Center. Washington, DC: Center for Applied Linguistics. http://www.cal.org/co/

Duffy, G. G. (2004). Teachers who improve reading achievement: What research says about what they do and how to develop them. In Strickland, D.S., & Kamil, M. (Eds.) *Improving reading achievement through professional development* (pp. 3-22). Norwood, MA: Christopher-Gordon.

Florez, M.C., & Terrill, L. (2003). *Working with literacy-level adult English language learners.* Washington, DC: Center for Adult English Language Acquisition. http://www.cal.org/caela/esl_resources/digests/litQ&A.html

Garet, M., Porter, A., Desimone, L., Birman, B., &Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal, 38*(4), 915-945.

Guskey, T.R. (2002, March). Does it make a difference? Evaluating professional development. *Educational Leadership,* 45-51.

Holt, G.M. (1995). *Teaching low-level adult ESL students.* Washington, DC: National Center for ESL Literacy Education (Available at https://www.cal.org/caela/esl_resources/digests/HOLT.html)

Kenyon D., & Van Duzer, C. (2003). *Valid, reliable, and appropriate assessments for adult English language learners.* Washington, DC: National Center for ESL Literacy Education. (Available at http://www.cal.org/caela/esl_resources/digests/langassessQA.html)

McLendon, L.L. (2000). *State adult education management and leadership functions: A self assessment.* National Adult Education Professional Development Consortium (NAEPDC). http://naepdc.org/

Pane, N. (n.d.). *NRS fast facts: Characteristics of English literacy participants in adult education: 2000-2005.* (Retrieved March 7, 2007, from http://www.nrsweb.org/docs/fast%20facts/ESL%20Fastfacts.doc)

Peyton, J.K. (2005). Using the ESL program standards to evaluate and improve adult ESL programs. Washington, DC: Center for Adult English Language Acquisition. http://www.cal.org/caela/esl_resources/briefs/eslprogstandards.html

Reynolds, T., Murrill, L.D., & Whitt, G.L. (2006). Learning from organizations: Mobilizing and sustaining teacher change. *The Educational Forum, 70,* 123-133.

Senge, P.M. (1990). *The fifth discipline: The art & practice of the learning organization.* New York, NY: Currency Doubleday.

Shields, P.M., Marsh, J.A., & Adelman, N.E. (1998). *Evaluation of NSF's statewide systemic initiatives (SSI) program: The SSI's impact on classroom practice.* Menlo Park, CA: SRI.

Smith, C., Hofer, J., Gillespie, M., Solomon, M., & Rowe, K. (2003). *How teachers change: A study of professional development in adult education.* Research brief. National Center for the Study of Adult Learning and Literacy.
http://www.ncsall.net/fileadmin/resources/research/brief25.pdf

Strickland, D.S., & Kamil, M. (2004). *Improving reading achievement through professional development.* Norwood, MA: Christopher-Gordon.

Strickland, D.S., & Riley-Ayers, S. (2007). *Literacy leaders in preschool settings: A quick guide for directors, principals, supervisor, and teacher leaders.* New York: Teachers College Press & National Association for the Education of Young Children.

Teachers of English to Speakers of Other Languages. (2003). *Standards for adult education ESL programs.* Alexandria, VA: Author. (Available for purchase from www.tesol.org)

U.S. Department of Education, Office of Vocational and Adult Education. (2006a). *Adult Education and Family Literacy Act Program Year 2003–2004: Report to Congress on state performance.* (Retrieved March 7, 2007, from
http://www.ed.gov/about/reports/annual/ovae/2004aela.doc)

U.S. Department of Education, Division of Adult Education and Literacy, Office of Vocational and Adult Education. (2006b). *Implementation guidelines: Measures and methods for the National Reporting System for adult education.* (Retrieved February 22, 2007, from
http://www.nrsweb.org)

Weiss, I.R., Montgomery, D.L., Ridgway, C.J., & Bond, S.L. (1998). *Local systemic change through teacher enhancement: Year three cross-site report.* Chapel Hill, NC: Horizon Research.

# TEACHING, LEARNING, AND SPEAKING: OBSERVATION AND ASSESSING ORAL LANGUAGE PRODUCTION OF THE NON-LITERATE ADULT LEARNER IN THE SECOND LANGUAGE CLASSROOM

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## 1    Introduction

This paper is about an ongoing research project concerning observation in the second language classroom for non-literate adult learners and the oral assessment of these learners. At this moment the tools used to find out what goes on in such a classroom will be described and illustrated. About the learning processes of second language acquisition of the low-educated, non-literate learner little is known. Studying their learning processes is a complex matter. These learners are not only handicapped by their illiteracy, as the written word is not available to them, but their competence in the L2 oral skills can be just as limited. This means that the intrinsic knowledge of sounds, words and sentences is inadequately developed to be put to use in the process of learning to read. Consequently, the low educated learner has a double handicap: learning to read and write while at the same time working on the oral skills, the latter being the building blocks on which the former materializes. For many learners formal education, the school, is their major source for developing these skills. If, for whatever reason, their access to the second language is restricted, the classroom is their only source. For this reason knowing what goes on in the second language classroom in terms of teaching and learning is of special importance.

A second reason as to why it is important to look into the learning processes of the low educated non-literate learner is the current situation in the Netherlands, where the research project discussed in this paper is located. In January 2007 the Integration Act (Staatsblad number 625, 2006),[1] which requires newcomers as well as oldcomers[2] to the Netherlands to take both a language and a knowledge-of-the-Dutch-society test, was enacted. Within three and a half years, with the possibility

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[1] This is a translation of the Dutch: *Wet Inburgering*.

[2] The term newcomers (*nieuwkomers*) is also used in the Netherlands to refer to those immigrants who came to the Netherlands from outside the European Union on or after January 1, 2007, when the Integration Act was enforced, in other words the recent arrivals. Analogous to the term newcomers, the term oldcomers (*oudkomers*) has been created to refer to those immigrants who arrived before the Integration Act was enforced and are legal residents, in other words, the longterm residents. Before this new law, the difference between new and oldcomers was defined by a previous law, enforced in 1998. This study, which started before the new law was enforced, will adhere to the definitions of new and oldcomer of 1998.

of an extension to five years,[3] all testees, irrespective of previous educational training, must attain CEF[4] (Council of Europe, 2001) level A2 for the oral and written skills. For the oldcomers, level A1 for the written skills is sufficient, but A2 remains the minimum for the oral skills. The question that subsequently arises in connection to the low-educated and possibly non-literate adult learner is: is the attainment of the said CEF levels a realistic demand for these learners, particularly when so little is known about the learning processes of second language acquisition for adults with low literacy? The study discussed below hopes to shed some light on this matter.

## 2    Background of the Study

This study addresses the problems of non-literate adult learners learning to speak a second language in a second language classroom. The data for the classroom processes are obtained through direct observation and recordings. Over the years, many second language classrooms have been observed (Allwright, 1988; Chaudron, 1988; Ellis, 1990; Van Lier, 1988). Most of these studies were concerned with literate learners of English as a second language and very few with non-literate learners and classroom observation. In the United States there have been, to my knowledge, three extensive national research projects which did focus on the non-literate and/or the low literate L2 learner through classroom observation. The first one was *Last Gamble on Education* in 1975 (Mezirow, Dakenwald, & Knox, 1975).[5] This project was concerned with classroom behavior in the adult literacy classroom. Through classroom observation of basic literacy and ESOL classes, fifty-nine classes in five different cities were studied. The study focused on forms of information exchange, bonding of groups, and modes of instruction. The researchers noted that because of classroom diversity, bonding through sharing of experience and peer learning was limited. Mixed-level classes and continuous enrolment were common. The mode of instruction was mainly teacher-directed and marked by routine exercises such as drills and recitation. To enhance

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[3] The new and oldcomers must finance schooling themselves. A certain amount is reimbursed if the stipulated level is attained before the three-year limit. If the level is not reached in five years, then a fine can be levied. Further obligation can be waived if sufficient effort has been put in without achieving the desired results.

[4] CEF, the abbreviation for Common European Framework of Reference for Languages, are rating scales developed by the Council of Europe to describe one's (second) language proficiency. The scales are divided into three main levels from basic user (levels A1 and A2) to independent user (levels B1 and B2) to proficient user (level C1 and C2). Although these scales were not developed for non-literate second language learners, they have been applied to this group in the Netherlands.

[5] This report was mentioned in Beder and Medina (2001).

attendance failure, in-class performance was kept to a minimum by simplifying and reducing task levels.

The second national study, *Classroom Dynamics in Adult Literacy Education,* was carried out from October 1997 to April 1999 by Beder and Medina (2001). The literacy classes in this study were comprised of L1 as well as L2 learners. Twenty different classes in eight states took part in the project. The classes were selected on basis of location, class size, type of school/provider, type of program and type of instruction. More than 200 students were involved. Each class was observed twice, the second observation occurring a week after the first. The focus was on the content and organization of classroom instruction, social processes that characterize the interactions of teachers and learners, and the forces outside the classroom that shape classroom behavior. The findings demonstrated strong teacher-directed teaching with a focus on the exchange of concrete, factual information. All the observed lessons were of the IRE form of instruction: Initiation, Reply, Evaluation. Learner-centered activities were only manifested in the social interactions between teacher and student. Rarely was there free-flowing discussion with the teacher or among the students, an important activity for developing oral literacy skills. Continuous enrolment and mixed-level classes had, as was also seen in the Last Gamble project, a negative impact on classroom behavior. Funding and the limited possibilities for professional development were also seen to add to this effect.

The most recent study in the United States was the extensive *What Works* project of Condelli, Wrigley, Yoon, Cronen and Seburn (2003). The objective of this project was to identify through qualitative and quantitative research which instructional activities help to develop and improve literacy and communicative skills in English. As in the Classroom Dynamics study, the classes were selected on a broad basis. Thirty-eight classes from thirteen different locations with a total of 495 students were involved. Within the domains of instructional practices, program practices and student factors, the study showed that several features can be related to student learning. Three instructional practices emerged as being most influential for positive language development. These were the bringing of the outside world into the classroom, use of the L1 for clarification, and varied practice with focus on communication. Positive program practices were seen in the longer classes for reading comprehension and oral communication. For student factors associated with positive language development, the most outstanding were regular attendance, prior education, and age.

In the Netherlands, a closer look at the second language literacy classrooms has, to my knowledge, only been done once. In years 1984-1986 Kurvers and Van der Zouw (1990) studied the literacy processes of selected students in intensive (fifteen hours per week) and non-intensive

classes (between one and a half to six hours per week). On onset there were respectively twenty-four and thirty-seven students. The study showed that better literacy results were obtained in the intensive groups. Although the oral skills and vocabulary development were not the focus of this study, it did show the importance of a strong language base in developing literacy skills. The study at hand is thus the second study in the Netherlands concerning second language classroom observation and the non-literate learner. The study is of importance for two reasons. First, it can illuminate classroom practices: what are the teachers and students doing in the classroom? Second, it addresses the question: what insights into processes of second language learning by the non-literate learner can be gained from these observations?

## 3    Focus of the Study

By the end of the study, six classrooms at centers of adult education will have been studied during a period of approximately one school year, or 40 weeks. The observations of three classrooms started at the beginning of October 2006, a fourth started in mid-January 2007, and the last two started at the beginning of February 2007. In the study, there are two major points of focus: classroom events and the development of the oral skills. These two components concern the teacher and the learner (or student) in a L2 literacy classroom for Dutch (DSL). Classroom events pertain to those events that take place within the confined space of a classroom where the teacher and the students interact for the purpose of learning to speak Dutch. They concern all the events which the teacher provides as opportunities to promote learning, in other words, the act (or the art) of teaching. They include aspects such as the setting, participant organization (who interacts with whom), activities performed, control within the classroom, and the materials used. The focus on the oral skills concerns the verbal interactions that take place within this setting: who speaks with whom, and why and which language is used, the L1 or the L2. In particular, the focal point will be those types of interactions concerning feedback, in other words, when and how feedback is given and what the student uptake is.

In order to develop some kind of understanding of the events and language interaction in a classroom, it is necessary to observe them in progress. Only then can an attempt be made to answer questions concerning if and which classroom events facilitate or even promote language learning. Research has indicated that even though instructed language learning does not alter the route or developmental stages of acquisition, it does have a positive effect on vocabulary learning, the rate of learning, and, to some extent, the accuracy of production (Ellis, 1990). In addition, second language acquisition research has shown that

classroom interaction contributes to language learning (Doughty, 2003). Certain kinds of interaction promote comprehension, such as real and natural communication and topic control by the learner (Ellis, 1990). If this is so, then language learning in the classroom should be characterized by ample interaction.

In the following section, six major components of the study will be discussed: the historical sketch, the survey of centers of adult education, teacher characteristics, learner characteristics, classroom observation, and the pre- and post- oral assessment.

## 3.1 Historical Sketch

In order to be able to understand the developments which have taken place (and still are taking place) within the field of DSL (Dutch as a second language) for this target group, it is necessary to put these developments into perspective. Since the arrival of the first migrant workers in the Netherlands in the 1960s, the teaching of DSL has taken enormous strides. Teaching has progressed from a situation of "kitchen table" education with socially motivated volunteers to one with professionally organized programs and trained teachers. Educational materials for DSL have had a comparable development. Insights into language learning were more often applied in teaching. The syllabi focused more on functional and communicative language use. Aspects such as realistic tasks and practical language training outside the classroom became more common. Nationally developed tests for Dutch as a second language entered the scene. Soon scales for five levels of competence for each of the four skills were defined – even for the low educated. Looking back, it can be seen that progress has been made in the field of teaching DSL, but can this also be said of the educational developments for the non-literate? The historical sketch will focus on the non-literate and the educational possibilities for him to learn to speak Dutch.

## 3.2 Survey of Centers for Adult Education

Questionnaires were sent to the centers for adult education where programs for non-literate learners of DSL are organized. From a total population of thirty-five such centers, twenty-seven responded. The objective of the survey was twofold: 1) to map out the educational situation of literacy teaching and 2) to serve as a base on which centers were to be selected for this project. The questionnaire concerned matters of enrolment, target groups, organization of the curriculum, types of programs or courses, placement, testing, materials used and teacher characteristics. From this questionnaire surfaced three types of program organization. The main characteristics central to these three types were:

the lesson time allotted to the oral and literacy skills, the placement criteria for the students, and the materials used for the oral skills. The time allotted to each skill was of particular interest because it could reflect a certain view on literacy acquisition and teaching practices in the classroom, which in turn could have an effect on the learning processes. One could assume that if more time is given to the oral skills this would result in an increase in the oral production of the student. The three most common types of organization with the three main characteristics are described in Table 1.

Table 1: *The three types of program organization in centers for adult education in the Netherlands in terms of time allotted to the oral/literacy skills, student placement and materials used.*

| Organization type | Lesson time allotted to oral/literacy skills | Placement of students | Materials used for the oral skills |
|---|---|---|---|
| Type 1 | Fixed 50-50 marked by the break. | Placed according to oral or literacy level | Use materials specifically developed for the oral skills. |
| Type 2 | Teacher aims at 50-50 | Class stays together; often mixed levels. | Often apply functional literacy materials for the teaching of oral skills. |
| Type 3 | Varies according to lesson topic | Class stays together; often mixed levels. | Use a mixture of literacy materials and self-made materials for oral skills. |

From this information, the six centers for adult education were selected. For each type of program organization, two centers were chosen – also keeping in mind a spread in terms of locality and size. In Table 2, the centers participating in the project with their main characteristics are listed.

3.3    *Teacher Characteristics*

Teaching the non-literate demands certain qualities and expertise of the teacher. In an interview, each teacher was asked about her (all the teachers happen by chance to be women) schooling and teaching experience. All the teachers, except one, have a BA in either education or social work. The exception has an MA in Dutch language and literature. All the teachers have had at least six years of experience in adult education, of which at least five were in teaching literacy classes. Half of the teachers

*Table 2: Selected centers and their characteristics as to organization type, region, size and type of students.*

| Center of adult education | Organization type | Region | Size of center of education | Type of students |
|---|---|---|---|---|
| Center 1a | 1 | NW | Medium | Newcomers |
| Center 1b | 3 | NW | Medium | Oldcomers |
| Center 2 | 2 | E | Small | Mixed |
| Center 3 | 2 | S | Medium | Mixed |
| Center 4 | 1 | W | Large | Newcomers |
| Center 5 | 3 | Center | Large | Oldcomers |

have had special training to teach Dutch as a second language and all of them have had some training in teaching literacy. The teachers did mention that, in spite of any training, most of their expertise was obtained through the act of teaching itself. All the teachers were Dutch by birth. In three centers, the teacher had the luxury of having an assistant. Two of these assistants were themselves former students of DSL.

Each teacher was asked in the interview to characterize a strong and a weak learner and what particular steps she takes in her teaching to accommodate these learners. According to these teachers' own impressions, a weak learner was one who: had poor concentration, frequently used L1, was slow in comprehension, had limited study skills, had a limited learning capacity, had little self-confidence, had little home support, had limited contact with the world outside the school and the home, and was often older than fifty years of age. To accommodate these learners, the teacher would use modelling techniques, give a lot of positive feedback, be very patient and repeat frequently. In contrast, the teachers saw the strong learner as one who: is an attentive learner who is focused, is active in the lesson, takes initiative, is motivated, does his homework and has generally good study skills. The teachers had more difficulty in wording what teaching strategies they use with such learners. In general, the teachers said that they would stimulate self reliance, give more vocabulary, give more difficult exercises, and give homework.

## 3.4     Learner Characteristics

Learner characteristics are compiled from four main sources: teacher's impressions, school records, my own impressions during classroom observations, and the results from the assessments. Information in the school records varies from center to center, but they all note such background information as marital status, country of origin, date of entry in the Netherlands, first (and sometimes second) language, literacy in L1

and L2, and schooling in the country of origin. Some test results are also kept track of, particularly the placement tests. Most centers keep a record of the schooling history of the student within its own institution, but the records of a student who has transferred from another center are often very sketchy and incomplete.

Certain basic characteristics of these learners are common to the group as a whole and are of particular importance in a formal learning situation such as a classroom. Of these basic characteristics, being non-literate in the first language is the foremost reason these learners form a separate group within the centers of education. Written material cannot be used as a support in the learning process, even if the basic decoding skills have been mastered. Being non-literate carries with it a second problem, that of schooling. These learners have had virtually no schooling experience. The lack of learning skills, normally developed during the early years of schooling, can seriously hamper the learning process in a formal school setting. Apart from these impeding factors, non-literate learners are also confronted with yet another problem – receiving instruction through the target language. It is known that hearing and seeing the target language spoken outside the classroom definitely can have positive effects on the learning process (Condelli et al., 2003). Outside the classroom, the learner has ample opportunity to experience the target language in use and to practice using it. On the other hand, using the target language as the medium of instruction in the classroom can avert learning. Giving instructions for exercises and explaining vocabulary and grammar can be misconstrued or not comprehended at all (Van de Craats, 2000). In short, the learner characteristics which this study deems to be important are that of age (being an adult learner), having had no or a limited formal education in the country of origin and thus no previous experience of formal learning, and being non-literate or low literate in the first language.

### 3.5     *Classroom Observation*

The main focus of this study is the classroom for non-literates where oral language skills are taught and practiced. The data for the processes that occur in the classroom are obtained through direct observation and recordings. Classroom observation in the field of second language teaching was of particular interest in the 1980s. During that time, several observation schemes were developed to capture those elements which seem to enhance language learning (Allen, 1989; Allwright, 1988; Chaudron, 1988). Of those schemes, COLT Observation Scheme (COLT meaning Communicative Orientation of Language Teaching) was developed at a time when communicative language teaching was at its peak (Allen, Fröhlich & Spada 1989). The construct of communicative

competence (Hymes, 1972), later expanded by Canale and Swain (1980), had an enormous impact on second language teaching and consequently on these observation schemes, including that of the COLT scheme. The aim of the COLT observation scheme was to be able "to examine the effects of classroom treatment that is of L2 instruction on the acquisition of the target language" (Allen, Bialystock, Cummins, & Mougeon, 1983:71). Even now, more than twenty years later, the COLT observation scheme is relevant, for it is not geared to a specific type of language instruction, but directs itself toward classroom processes and language production – precisely those elements concerning this study. The flexibility of the scheme has proven advantageous in product as well as process oriented research (Spada & Frölich, 1995). For this reason, the COLT observation scheme will be used as a guide in the classroom observations to capture those elements sought after. In other words: what does the teacher do? What do the students do? What is said to whom and why? Because the COLT Observation Scheme addresses these same questions, it is used as a starting point in the classroom observations.

The classroom observations consist of two components. The first concerns all that is seen but not heard. This includes visual observation such as seating arrangement, materials used, participant organization and with whom the interactions occur. The second component concerns all that is heard but not always seen. This is achieved by means of recording the classroom procedures. For this, a MP3 recording device is used. It is unobtrusive and produces good quality sound. The MP3 was pinned to the teacher's upper garment at shoulder level where it would not hinder her movements during teaching. Her voice and that of her student or students with which she was interacting could be clearly heard. These recordings were later transcribed orthographically, after which the transcriptions could be analyzed.

The most outstanding characteristic during the observations, which I have noted in the observations made thus far, has been the strongly teacher-directed teaching. In these groups, the classroom events, including the topic, interaction flow (the language used and who speaks), and activities were determined by and under control of the teacher. In the Type 1 and 2 classes, in which the oral skills take up 50% of class time, the teachers used materials especially developed for the teaching of the oral skills (see Table 1). In the educational centers of Type 3, where most of the classroom time was spent on interacting in Dutch, a variety of materials was used. In those groups, the teacher, in spite of an already prepared lesson plan, often followed whatever subjects the students brought up. Even in those cases, the teacher frequently steered the conversation in a particular direction. The topics in all these classes, Type 1, 2 and 3, were "close-to-home," fore example, health, shopping, or

public transportation. In order to make learning even more realistic, the teacher often brought in real materials, including folders from the neighbourhood grocery store, city maps, newspapers or even an assortment of groceries.

Next to the mode of teaching, the use of feedback was focused upon. The most common type of feedback which seemed to be used in the observed lessons was recast. In this type of corrective feedback, the teacher implicitly corrects the error a student makes in his utterance by reformulating or correcting it without explicitly stating that an error has been made. Such a form of recast is illustrated in the following role play, buying in a small grocery store, with the teacher as the shopkeeper. The recasts are printed in bold type.

Teacher:     *Goede morgen Mevrouw. Zegt u het maar.*
             Good  morning, Ma'am. Can I help you?
Student:     *Goede morgen. Ik wil een pak melk.*
             Good morning. I want a carton of milk.
Teacher:     *Een pak melk. Ja, uuuh, wilt u uuuh daar staat de volle en daar staat de halfvolle.*
             A carton of milk. Yes, uuh, do you uuh there is the whole and there the 2%.
Student:     *Ik wil vol.*
             I want whole.
Teacher:     *Een volle. Ja, o.k. Anders nog iets?*
             Whole milk.  Yes, o.k. Anything else?
Student:     *Ik wil 'n stuk oud kaas.*
             I want a piece of old cheese.
Teacher:     *Oude kaas.  [....]*
             Old cheese. [....]
Student:     *Hoeveel kost?*
             How much cost?
Teacher:     *Nou dat is dan bij elkaar, ja, hoeveel kost het?*
             Now that is all together, yes, how much does it cost?

In the three recasts in this fragment the teacher reformulates the words of the student by repeating them in the correct form. The first two recasts are somewhat dubious. In such a setting, a grocery store, the shopkeeper could just be repeating the customer's order, as also occurs in a restaurant by the waiter taking an order. Nevertheless, I am inclined to mark these occurrences as true recasts. The third response is definitely a recast. In that response the teacher starts to answer the posed question naturally only to interrupt herself by reformulating the question correctly. This certainly does not occur in a normal conversation.

## 3.6    *Oral Assessment*

The aim of the assessment is to capture any kind of language change (development) that has occurred during the forty week period of classroom observation. Even though national language tests for the low-educated have been developed, these tests are insufficiently fine-tuned to capture the small progressions in learning these learners make during the time span covered in this study. "Development" in this study refers to any kind of observable change in language use: expansion of vocabulary, fluency, or even greater effective use of language. In order to extract language to be analyzed, the learner has to execute various tasks. Each task requires general and specific vocabulary depending on the topic or setting. The entire assessment is taped with a MP3 recording device. These recordings are also transcribed for easy analysis. The assessment is to be administered at the start of the observation period and at its conclusion. All the pre-assessments have been completed. In total, seventy-four learners participated. The assessment constitutes five parts: an interview, vocabulary, a retention task, a description task, and a story-telling task. The entire assessment takes about fifteen minutes. Each of these parts is explained below.

### 3.6.1    *Interview*

The interview extracts spontaneous language use. The form is not strictly defined. How the interview develops depends largely on the learner. Each interview begins with general close-to-home topics with which the learner is very familiar:  country of origin, number of years in the Netherlands, the family situation, hobbies or interests, and schooling experience. Besides extracting language, the interview is also important in gaining the confidence of the learner by breaking the ice. This facilitates language production. I usually followed the student where (s)he would lead me only to ask questions when the conversation seemed to stagnate. Misunderstandings occurred regularly. Sometimes it was not clear if the student or I was the one who misunderstood.  The following episode, translated from Dutch, is such an occurrence.

| | |
|---|---|
| Teacher: | How many children do you have? |
| Student: | Children? Twenty-five. |
| Teacher: | Seven children? All in Holland? |
| Student: | No not in Holland. |
| Teacher: | But they do live in Holland? |
| Student: | Yes. |

At this point I decided to shift the conversation.

| Teacher: | How old are the children? |
|---|---|
| Student: | Old? |
| Teacher: | How many years? |
| Student: | Big boy Mahmet seven, uuuh twenty-six years. [And so forth.] |

### 3.6.2    *Vocabulary*

To elicit some general vocabulary knowledge, real objects and pictures are used. During the assessment the vocabulary items are presented five times, calling for receptive and productive knowledge. The first time real objects are presented; thereafter pictures are used – twice at a beginner's level and twice at an intermediate level[6] – both in the receptive and productive mode. Each level contains nouns and verbs.

### 3.6.3    *Retention Task*

The retention task is based on the assumption that if language is internalized, retention is easier. The task consists of five sets and each set contains three cards. On each card, there are pictures of single noun words. The first three sets have three pictures on each card, the fourth has four pictures, and the fifth five pictures. The cards in each set differ from the other cards in that set by only one picture. The sets build up in increasing complexity. In the first three sets, the number of syllables per word is increased. In the last two sets, the number of pictures on each card is increased. The execution of the task is simple. The assessor verbalizes the pictured words without pausing between the words. The cards are then laid before the student. The student has to determine which of the three cards corresponds with the words the assessor just said.

### 3.6.4    *Description Task*

The aim of the description task is to extract connected language, not just single words. The learner is stimulated to talk about four different photographs. The situations are familiar, and each requires its own vocabulary to tap as much language as possible. The situations are: buying bread at the market, a family picnic in the park, a family with a newborn baby and a literacy classroom.

In the assessments, the students seemed to focus more often on the items (the nouns) in the pictures rather than on the action depicted (the

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[6] In order to determine which words are beginner or intermediate level vocabulary, a vocabulary inventory of the five most-used textbooks for beginners (according to the survey) was made. If a particular word appeared in three of the textbooks, it was labelled beginner vocabulary.

verbs). If a verb was used, it was usually not inflected. An example of such a description task is the following, in translation, where the student tries to describe a photograph of two women buying bread at the market:

Store. Eggs. Woman. Shopping. I bread. Cake. Eggs. Yes.

It is not always easy to interpret the student's intent and, for an outsider ,almost impossible. Relying on my own teaching experience, I would assume the following interpretation. The picture is a colored photograph of a market stand where bread is being sold to two ladies. Here the student described the setting with a single word "store." Either she did not know the word for market (which I doubt, it being a basic and much-used word), she just forgot the word at that moment, or she did not observe the picture closely. The student also sums up a few items on the picture: eggs, woman, cake, and again eggs. When the student said "I bread," I presume she was trying to repeat the words the woman in the picture would use to buy bread (often practiced in the classroom). Finally, with a gesture, she made clear that the task was finished by resolutely saying "yes."

### 3.6.5    Story-telling Task

The aim of the story-telling task is similar to the description task, to extract connected language, but now by telling a story. Three picture sequences, each with four pictures, are presented. The situations are easy to interpret and, as with the description task, each sequence requires its own vocabulary. The picture sequences depict: receiving and opening a gift; washing and drying one's hands; and a robber stealing a purse and being pursued by the police.

In the story-telling task, the differences in language skill can be seen in the build-up of the story sequence as well as in the language used. In the example below (see Table 3), two students tell the same story. Both students are long-residence citizens. Student 1 is of Chinese of origin, literate in Chinese and with six years of basic education in China. According to the school records, she has been in the Netherlands since 1974. During most of this time, she worked in her husband's restaurant. Now, recently divorced, she attends language classes and in her free time enjoys the Chinese opera. Student 2 is of Moroccan origin. She has lived in the city of Haarlem for almost 23 years. During those years, she stayed at home to take care of her six children. Her social contacts are mainly limited to family and close friends with whom she converses only in Berber. Just recently she started attending classes in adult education.

*Table 3:   Two students telling a picture story*

| The story sequence | Student 1 | Student 2 |
|---|---|---|
| (Picture 1)<br>A man hands over a gift to a woman. | *Man geven vrouw cadeau.*<br>Man give woman gift. | *Cadeautje….cadeautje.*<br>*Ik uuh geef.*<br>Gift, gift, I uuh give. |
| (Picture 2)<br>The woman has the gift in her hands. | *Vrouw pakken die cadeautje.*<br>Woman take gift. | *Ik hier naar huis.*<br>I here to house. |
| (Picture 3)<br>The woman tears the wrapping off of the gift. | *Papier open, kijken.*<br>Paper open, look. | *Kapot.*<br>Broken. |
| (Picture 4)<br>The woman takes a vase out of the box. | *Wat zit in? Zit 'n vaas in.*<br>What is in? Is a vase in. | *Kan uuuh kan.*<br>Jug uuh jug. |

## 4    Summary and Conclusion

The study is still in progress.  Data collection began in October 2006 with three classes in centers of adult education and will continue to the end of 2007 with three other classes. The data is being collected through classroom observation and assessment. The six different classrooms represent three different types of classroom organization. The main characterization of the classroom organization is the time allotted for the oral and literacy skills. All observations are recorded and will be transcribed orthographically. The focus of the study is on the development of the oral skills and the verbal interactions in the classroom. The oral skills are assessed by a specially developed oral assessment. The pre-assessments, although not yet analyzed, have been completed and already show a great variety in language production between the three types of classes, as the examples cited above illustrate. One of the focal points of the verbal interactions will be interactions concerning corrective feedback and student uptake. By looking at feedback, an opportunity is created for a better understanding of the teaching and learning processes of the non-literate in learning a second language. The study discussed in this paper hopes to shed some light on this matter.

*References*

Adams, M.J. (2000). *Beginning to Read.* Cambridge: The MIT Press.
Allen, P.,  Bialystock, E.,  Cummins, J., & Mougeon, R. (1983). *The Development of Bilingual Proficiency: second year report.* Toronto: Ontario Institute for Studies in Education.
Allen, R. (1989). *Instructed Second Language Acquisition.* Oxford: Blackwell.

Allwright, R. (1988). *Observation in the Language Classroom.* London: Longman.

Beder, H., & Medina, P. (2001). *Classroom Dynamics in Adult Literacy Education.* Cambridge Massachusetts: NCSALL.

Blok, S. (2004). *Bruggen Bouwen.* Den Haag: SDU.

Canale, M., & Swain, M. (1980). Theoretical bases for communicative approaches to second language teaching and testing. *Applied Linguistics, 1, 1-47.*

Chaudron, C. (1988). *Second Language Classrooms*, Cambridge: Cambridge University Press.

Condelli, L., Wrigley, H.S.,Yoon, K., Cronen, S., &. Seburn, M. (2003). *What Works Study for Adult ESL Literacy Students: Final Report.* Washington D.C.: American Institute for Research.

Council of Europe (2001). *A Common European Framework of References for Languages: learning, teaching assessment.* Cambridge: Cambridge University Press.

Doughty, C.J. (2003). Instructed SLA: constraints, compensation, and enhancement., In: C.J. Doughty, & H.M. Long (eds.), *The Handbook of Second Language Acquisition*, Malden: Blackwell Publishing 2003, pp. 256-310.

Ellis, R. (1990). *Instructed second language acquisition.* Oxford: Basil Blackwell.

Emmelot, Y., Van Schooten, E., Timman, Y., Verhallen, M., & Verhallen, S. (2001). *Nieuwe kansen voor taalonderwijs aan anderstaligen* (WRR Werkdocument 124), Den Haag: SDU.

Hymes, D.H. (1972). On communicative competence. In: J.B. Pride & J. Holmes (red.), *Sociolinguistics*, Harmondsworth: Penguin Education 1972, pp. 269-293.

Kurvers, J., & Van der Zouw, K. (1990). *In de ban van het schrift: over analfabetisme en alfabetisering in een tweede taal.* Lisse: Swets & Zeitlinger.

Mitchell, R., & Myles, F. (2004). *Second language learning theories.* London: Arnold Publishers.

Spada, N., & Frölich, M. (1995). *COLT: Communicative Orientation of Language Teaching Observation Scheme.* Sydney: NCELTR Macquarie University. Staatsblad number 625, (2006). Den Haag.

Van de Craats, I. (2000). *Conservation in the acquisition of possessive constructions: a study of second language acquisition by Turkish and Moroccan learners of Dutch.* Tilburg University, doctoral dissertation.

Van Lier, L. (1988). *The Classroom and the Learner,* London: Longman.

**RECOMMENDATIONS TO FURTHER THE FIELD OF LOW-EDUCATED SECOND LANGUAGE AND LITERACY ACQUISITION – FOR ADULTS**

**IN THE AREAS OF RESEARCH, PRACTICE, AND PUBLIC POLICY**

These recommendations were proposed during a culmination session at a forum held at Virginia Commonwealth University in Richmond, Virginia, on November 2-3, 2006, by an international group of eminent researchers, practitioners, and policy makers who work with the LESLLA population in different regions of the world.

*Research*

- In order to guide practice and policy more research must be done on:
    - Culture-specific oracies or literacies among the target population and the process of second language acquisition by non-literates and low literate learners in their own culture;
    - The role individual cognitive and/or socio-cultural differences play in disparities in success rates in learning to read;
    - How non-literate or low literate adults process print and how they approach text;
    - What L2 oral competence level has to be reached to support L2 decoding-phonemic awareness by non-literates and whether there is an equivalent threshold literacy in L1 that transfers to L2 in adults;
    - How non-literate or low literate adults process oral language input; and
    - Specific approaches and instructional strategies.

- Various types of research (e.g., ethnographic, longitudinal, cross-sectional, case studies) are needed from a variety of perspectives (e.g., linguistic, anthropologic, social, educational, neurological).

- Funding sources for this research needs to be identified.

- Not only should classroom teachers and graduate students be encouraged to pursue research in the specific issues that second language and literacy learners present, but all LESLLA related research should be advanced through multi-disciplinary, collaborative and international efforts.

*Policy*

- International (e.g., UNESCO) and national agencies (e.g., O.V.A.E. of the United States) need to compile and report data on the LESLLA population. These data should include information on ethnicities, countries of origin, and years of schooling in home country of literacy level learners.

- International, national and local public officials or figures who already support immigration and second language/ literacy learning should be identified and contacted in order to support our efforts.

- Researchers and practitioners should develop vehicles/ connections to inform international and national leaders that define policy towards immigration and the LESLLA population.

- The general public should be informed of the issues and concerns surrounding the LESLLA population.

*Practice*

- Analysis shoud be made of the existing instructional resources for working with the LESLLA population; gaps should be filled in with new research-based materials and curricula.

- An electronic warehouse on the LESLLA website that includes a teacher network (listserv) and a listing of available instructional resources and academic publications categorized by relevance to practitioners should be created.

- Language instruction programs and/or government entities need to provide quality professional development and support for teachers working with the LESLLA population. This should include training in effective research-based methodologies for instruction in second language and literacy acquisition.