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EMERGENT WRITING OF LESLLA LEARNERS

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1 Introduction

Writing is a multi-concept that refers to different cognitions and skills, such as a) using a writing tool, creating legible letters and acquiring automaticity in handwriting, b) representing spoken language in writing according to the conventions of the orthography of the language (spelling), c) expressing oneself in writing and composing a written text. Emergent writing refers to the gradual development of knowledge of what counts as writing and of the representational features of writing and the orthography of a language. Although we would like to stress here that learning L2 writing involves much more than learning how to spell (for instance writing in a dialogue diary, sending an e-mail to the teacher, cooperating in story-writing or writing a poem), we focus in this contribution on learning to use the basics of an orthographic system, which might be a useful tool in improving reading and listening skills as well. There is a vast body of research on the development of writing and spelling in young children, from the first scribbles and the first ideas about what writing represents, through invented spellings to the stable use of the orthographic conventions and the structural features of different text types such as a narrative, a letter or a report (Ehri, 1997; Ferreiro & Tebereskoy, 1988; Gentry, 1982; Gibson & Levin, 1975; Luria, 1978; Puranik & Lonigan, 2009; Read, 1975). Research on emergent writing and beginning spelling of adult first time writers, however, is very scarce (Van de Craats, Kurvers & Young-Scholten, 2006; Worthy & Viise, 1996)

This contribution aims to examine the emergent and beginning writing of adults learning to write Dutch as a second language, and to investigate developmental patterns in their writing and spelling products.

2 The development of writing

2.1 Learning about features of writing

Long before young children begin to understand the intimate relationship between units of writing and units of speech, they will have acquired knowledge about the features of writing as can be deduced from their early forms of writing or their

concepts of writing. Gibson & Levin (1976) reviewed previous research on the development of (concepts of) writing in young children and found that young children between three and five years of age gradually demonstrate knowledge of the following features of writing:
- directionality (scribbles that clearly go in one direction);
- linearity (scribbles appear along a line);
- variability (the scribbles must show variation to count as real writing);
- recognizable patterns (their writing consists of letter-like shapes or letters).

The early writing of many three-year-olds already shows directionality and linearity, that of five-year-olds also shows variability and recognizable patterns. Ferreiro & Tebereskoy's (1988) developmental model of emergent writing distinguished a first stage of *undifferentiated writing* (scribbles), followed by a stage of *early differentiation*, in which the children distinguish writing from drawing and in which their writing shows directionality and linearity.

In the next stage of *formal differentiation*, children gradually become aware of:
- minimum quantity. According to the children, more than one letter is needed to call something writing; for something to be called writing, most of them would say you need at least three letters;
- internal differentiation. Children begin to realize that a written word needs different letters to be a real written word (*ttt* would be rejected as a written word);
- external differentiation. Children realize that two different strings of letters are needed to write two different words.

Tolchinsky (2003) also notices that the early writing of many three-year-old children is already linear and discrete, and consists of distinguishable units; writing recognizable symbols starts later.

Gentry (1982) analyzed and identified several levels of emergent writing, which he based on changes in letter formation and on the correspondence between spoken and written language. He described the first two stages in this development as follows: the children at the first level produce scribbles and marks, but they do not produce letter-like forms. At the next level, which is called 'precommunicative', children do produce letter-like forms or even letters, but these are not related to the sound units of speech. Only the writer might be able to 'read' what he has written, and probably only for a short period of time.

Common to these developmental models of emergent writing of children is, first of all, that they are based on children's own invented writings; they clearly gradually show more knowledge of universal features of writing (from directionality to linearity, to variability and differentiation), and of language-specific letter-like forms. Secondly, these early writings do not represent any awareness of how writing represents speech, or of how letters relate to sounds. (For the next stage in the models, the first grasp of the idea that writing represents speech, see the next section.)

What about emergent writing of adult first time writers? Unlike young children, adult non-literates will not easily take a pen and pretend they are writing when asked to do so. Nevertheless, if they do, their early writings can be analyzed using the developmental features brought forward by Gibson & Levin (1976), Gentry (1982) and Tolchinsky (2003).

Figure 1 presents the writing of one of the adult literacy students in the research project of Danielle Boon in East Timor (Boon & Kurvers, 2008). A dictation task was offered to the students in one of the groups in the village of Liurai after about three months of teaching. Joao filled in the form with scribble-like writing. Although he does not write letter-like forms and clearly has no understanding of the representational nature of writing, his writing shows the first developmental features of directionality and linearity. He knows that writing looks different from drawing and he clearly has knowledge of what fluent handwriting looks like. It might be considered 'a doctor's prescription' (i.e., handwritten by a medical doctor) as several of the students in Kurvers' research project called it, when they were given several examples of writing, pictures, geometric forms and scribbles, and were asked which of them were intended to be read (Kurvers, Van Hout & Vallen, 2009).
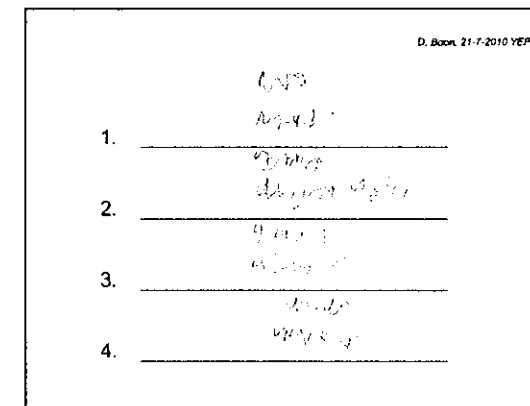

Figure 1: Dictation task Joao

Fatima, a non-literate woman from Morocco, first entered the adult literacy class when she was in her fifties. During her first lesson, teacher Willemijn Stockmann handed over a form to the other students in the group who had attended class for some time already. Fatima also liked to write and her first few efforts are shown in the following form (Figure 2).

Fatima clearly shows knowledge of features of writing. There is directionality (all shapes are written from left to write), there is linearity, she is probably aware of the fact that writing needs variability (not one line is the same) and all the shapes she produced clearly indicate knowledge of distinctive features of letters such as vertical lines, circles and curves. Fatima does not know the letter forms however, and she certainly has not grasped the idea that letters represent sounds.
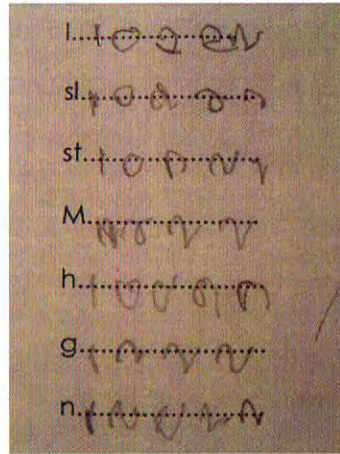
Figure 2: Fatima's first writing exercise in class

Mateus (Figure 3) is another student from Danielle Boon's research in East Timor. He also got the dictation task and was asked to write the word *uma* (house).
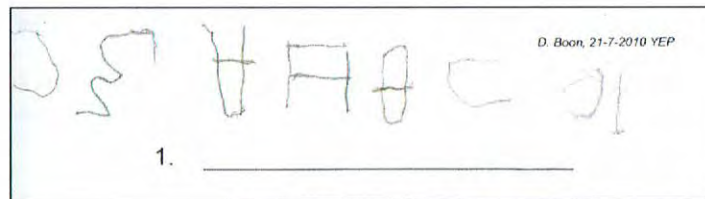

Figure 3: Dictation task Mateus

Mateus is already more advanced in his writing than Joao and Fatima. His writing shows linearity, directionality (from left to right), variation and letter-like forms and letters. His writing also demonstrates minimum quantity and internal differentiation: he does know that one has to write more than one letter and to use different letters to make it look like real writing.

The next example comes from Jamila, who had attended an adult second language literacy class for about 25 weeks, for a few hours a week (Kurvers & Van der Zouw, 1990). At that moment, the group had practiced (next to oral Dutch) about 20 sight words, the three words that were dictated belonging to the first eight words the teacher had been teaching them.
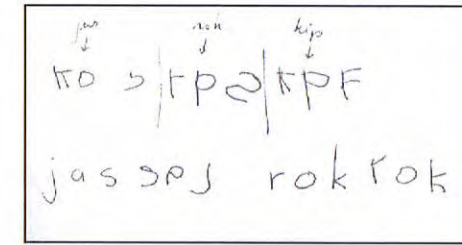
Figure 4: Jamila's dictation

In the top row, Jamila tries to write the words *jas* (coat), *rok* (skirt) and *kip* (chicken/hen). She demonstrates all the features mentioned before (linearity, directionality, minimum quantity, internal variation and external variation). She knows the letter-shapes; she knows that she has to use other letters when asked to write *jas* than when she is asked to write *rok* or *kip*. What she clearly does not know yet, however, is that each letter in each of the words represents a phoneme or sound. She tries to remember the visual make-up of each of the words and tries to assemble three-letter configurations based on the words she has been practicing (*jas, tas, rok, sok, kip,* etc.). Without much success, because according to her knowledge at that moment, she is convinced she simply has to learn all those configurations by heart. The example shows how difficult this is, in particular because there is no system in the visual features as such. In the bottom row, the researcher first wrote the words, and asked Jamila to copy them. Except for the left-right direction in *jas*, this did not pose any problem for Jamila. This left-right rotation is not that strange for beginners in general (another Moroccan student wrote her name in Arabic from left to right instead of from right to left): an object like a chair or a pipe does not change its identity when you rotate it. It takes some time getting used to that letters and words suddenly do.

These are a few examples collected from different research projects; we do not have many of them. Most of the adult beginners in the first period of their L2 literacy classes, however, would refuse to write something down that they had not learned yet. Their explanations for this are straightforward: "I told you already that I cannot write yet" or "I can only write my name, nothing else" (Kurvers, 2002). In line with the developmental patterns we have illustrated before, we assume this to be an even more advanced stage of knowledge of features of writing. All these students would probably have demonstrated the features we presented before, but they also show some awareness of representational features of writing: they know they should follow some formal principles or rules, but they do not know how.

The last example of emergent writing comes from Kwaku, an asylum seeker from Sierra Leone, who could speak some English. Kwaku was awaiting the decision of the authorities regarding a permit to stay in the Netherlands and meanwhile was attending an adult L2 literacy class in the Netherlands. The teacher informed us that Kwaku had written the following message (Figure 5):

Figure 5: Kwaku's first letter to the teacher

When asked what he had written, Kwaku explained: 'I hope so everything okay.' Kwaku knows the letters of the alphabet and is clearly aware of the fact that writing represents speech, but he has not yet grasped the alphabetic principle of one letter-one sound. He probably used the letter names to represent most of the syllables in his own message.

2.2 Learning how writing represents language, learning how to spell

In this paragraph, we will present how learners discover in what ways writing represents language. We will present and discuss two influential stage models of spelling development. Stage models are development models that characterize the phases in the learning processes they attempt to describe as stages.

The first model that will be discussed is Gentry's (1982). Gentry developed his model of developmental stages in order to 'help teachers better understand how English spelling develops' (Gentry, 2000: 318). He derived his examples of invented spellings from Bissex' book *GNYS at WRK*, a case study of the author's son Paul's invented spellings and writing development. He identified five developmental stages, starting with the *precommunicative stage*. In this stage, the speller shows some elementary knowledge of the alphabet, but has no comprehension of letter-sound correspondence. This is clearly noticeable when looking at *precommunicative* writing products, as in (1); they appear to be random strings of letters known by the speller, without any intention to write specific words. Other features of a child finding itself in this stage are: mixing of uppercase and lowercase letters indiscriminately, inclusion of number symbols in writing and (un)awareness of the left-to-right directionality in English writing, as in (1).

(1)   SSHIDCA
       TAHTL

The second stage that Gentry identifies is the *semiphonetic stage*. This stage is characterized by the beginning notion of the relation between sound and letters and the partial reproduction of a word's sounds. Often, whole words are being represented by one, two, or three letters; this abbreviated form is the main characteristic of this stage, together with letter-naming as a strategy to represent words, as in (2).

(2)   GABJ (garbage)
       BZR (buzzer)
       DP (dump)
       HAB (happy)

The third stage is the *phonetic stage*. This stage is characterized by the fact that children can give a total mapping or reproduction of letter-sound correspondence. Letters are thus assigned on the basis of what children hear: phonemes that are not observed are not represented. "Also, children systematically develop particular spelling for certain details of phonetic form: namely, tense vowels, lax vowels, preconsonantal nasals, syllabic sonorants, *-ed* endings, retroflex vowels, affricates and intervocalic flaps" (Gentry, 2000: 320), as in (3).

(3) a   EF U CAN OPN KAZ I WIL GEV UA A KN OPENR
        (If you can open cans I will give you a can opener)

    b   PAULZ RABR SAF RABRZ KANT GT EN
        (Paul's robber safe. Robbers can't get in.)

The fourth stage is typified as the *transitional stage*. Features are: vowels appear in every syllable, pre-consonantal nasals are written, and the letter naming strategy is replaced by representation of both vowels and consonants. Unstressed vowels sounds are represented, though not always with the right grapheme (e.g. MONSTUR). Still, this resembles conventional spelling more than the phonetic MOSTR). The speller moves from phonological spelling to morphological and visual (or orthographic) spelling strategies. As a result of this new spelling strategy, children most of the time include all appropriate letters, but may mix them up from time to time, due to interference (Bissex, 1980). Examples are given in (4).

(4) a   THES AFTERNEWN IT'S GOING TO RAIN. IT'S GOING TO BE FAIR
        TOMORO

    b   FAKTARE'S (factories) CAN NO LONGER OFORD MAKING PLAY
        DOW (dough)

In the fifth and last stage, the spellers are spelling in a *conventional way*. Their knowledge of the English orthographic system and its basic rules is now firmly established. They have an extended knowledge of prefixes, suffixes, contractions and compounds. They have developed a visual (orthographic) strategy that enables them to judge whether words 'look right' or not.

The spelling development model of Henderson & Templeton (1986) also identifies five developmental stages, four of which are highly comparable to those in Gentry's model. In both the precommunicative stage distinguished by Gentry (1982) and the first stage of Henderson & Templeton (1986) no understanding of the relation between sound and letter is to be found. In the semiphonetic stage of Gentry (1982) and the second stage of Henderson & Templeton, children start grasping the principle that written language represents speech. This becomes clear in their writing products, which often contain one, two or three phonemes of the attempted written word. Henderson, however, also includes the notion that children, somewhere during this second stage, start attending school and consequently receive formal reading and spelling instruction. As a result of this instruction, they start developing a store of 'sight words', "which are considered to be the initial source from which children begin to learn the ways in which the spelling system represents speech" (Henderson & Templeton, 1986: 308). In the phonetic stage of Gentry and the third stage of Henderson & Templeton, children have understood the alphabetic principle: they provide a full reproduction of all audible phonemes in a word. According to Henderson & Templeton, they also start to develop the within-word pattern principle and are learning the principle that words that have similar meanings are spelled similarly (i.e., *sai*boat, *sai*lor, main*sail*). In the Gentry's transitional stage (Gentry, 1982) and the fourth stage of Henderson & Templeton (1986), vowels appear in every syllable. In the last stage of Gentry's model (1982) children are considered to spell in a conventional way. Henderson & Templeton are

somewhat more careful here, stating that at this stage the children have developed full comprehension of the principle that related words (in meaning) are spelled similarly in most of the cases. They stress the importance of the more developed skill to derive spellings from the spellings of other words and argue against the idea that English spelling is opaque and solely to be learned by serial memory alone. Rote memorization is, according to them, unnecessary in writing words like 'sign', 'signal' and 'signature', or 'image' and 'imagine', because it does not take the notions of pattern relationships into consideration.

Even though stage models have been very influential in gaining insights into the development of spelling, there has also been criticism. Some scholars argue that stage models are too rigid in their interpretation of learning processes (Rittle-Johnson Siegler, 1999). One of the arguments presented is that children sometimes find themselves operating in two different stages. This seemingly operating at two different stage levels, however, might also be interpreted in a different way. A more primitive-looking spelling for a word like 'wedefokast' (weather forecast) compared to 'kant' (can't) could also be caused by the phonological complexity of the word at hand. To put it in other words, we are probably not dealing with a child that is applying a less advanced strategy, here but most likely with a child that is deconstructing the phonological structure of the word it is trying to write. Children mastering the skill to write a simple monosyllabic CVC-structure word applying the alphabetic principle can still have trouble applying the same principle to more complex multisyllabic words. This does not necessarily mean that they are reverting to an earlier stage.

Three remarks need to be made here. The stage theory models we have discussed so far were designed to be applied to children's developmental processes. However, the participants in our research were adults. Viewed from this developmental perspective, there is no reason why an adult learning process should basically be different from that of a child (Van der Zouw, 1999).

Both models have been developed for spelling development in English. Even though we would of course expect learning the whole of English orthography to be more difficult than learning the comparatively simpler Dutch orthography, we would not expect the acquisition of the basic principles of an alphabetic writing system to be different for these two languages. The third remark however, might be more relevant for the data we are going to present. Most models are developed for children learning to spell in their mother tongue, the phonological structure of which they are already very familiar with. The participants in our study are learning to write in a second language, with a phonological repertoire that might differ considerably from their L1 (just think of the fourteen different vowels in Dutch compared to three or five in some of the participants' own languages). It might be that the poor phonological segmentation skills that hamper correct phonological representations are caused by difficulties encountered in identifying sounds that do not belong to their own phonological repertoire yet.

3   The study

3.1 Design of the study

Research questions

The aim of this study was to investigate the previously mentioned skill of learning to represent spoken language in writing: the development of spelling abilities of beginning adult spellers in a second language. We analyzed test booklets of 90 participants in a literacy course. The participants were immigrants who were taught how to read and write in Dutch L2 literacy classes. Most of them had not received any previous education and were practically illiterate when they entered the literacy class. Literacy courses in the Netherlands operate on three levels: A, B and C, where level C gives students access to the course that needs to be passed in order to apply for a residence permit. Level C corresponds to the A1 level in the Common European Framework of Reference for Languages (Council of Europe, 2001). This means that the participants can understand and use familiar everyday expressions and very basic phrases. Students starting at level A often have no or only very limited previous knowledge of script. When finishing level A, participants are able to copy words faultlessly and write short sentences like 'I am.... (Mimoun)'. When taking fluency of writing into consideration, one can conclude that these students write spelling letter-by-letter. Level B includes participants that have some knowledge of script and can write new, short words with a CVC-structure (consonant-vocal-consonant) like *dog* and *big*. Students at level B are able to write more fluently, and are also able to write consonant clusters like in *plaats* ('place') correctly. Participants at level C classes can write a lot more words and sentences, but may encounter difficulties with longer, more complex words; they write fluently but still at a slow pace.

Our main goal was to lay bare the facts of adult literacy development in a second language. Using the models presented before, we will focus on the developmental process in their learning to write in a second language.

Instruments

As part of their literacy course, the participants had to take tests to determine whether they could move on to a higher level. We analyzed the test booklets of 90 participants in literacy courses. The teachers assigned each of their students to a level they deemed fit: level A, level B or level C. Depending on the level, the test booklets contained the following tasks: filling out the address data of a card, filling out a form, writing down a number of words with the help of pictures, a dictation, filling out a complaint form and writing down a few sentences. We selected three tasks for this study that were used in all three levels of the booklets. This makes the outcomes easier to compare, even though the content of the task sometimes differed. One task we analyzed was filling in words on the basis of pictures and cues on quantity. The student was presented three pictures, and had to fill in what word should be put on the blank line. An example is given in (5).

(5)   2 kilo....   (picture of 2 apples)
        2 kilos of .....   (picture of 2 apples)

This task was represented in both the A level booklets and the B level booklets.

The next task we analyzed was an oral dictation task. The sentences presented to the student differed in complexity between the levels. A-level students were asked to write down sentences containing on average three or four words. B-level students were asked to write down sentences containing on average four or five words with words of a more complex structure. C level students were asked to write down sentences containing on average five words with longer words that are less common. An example of each level is given in (6) below.

(6) a   Level A   De jas is duur.   *The coat is expensive.*

    b   Level B   Ik bak een grote taart.   *I am baking a large pie.*

    c   Level C   Schrijven is best moeilijk. *Writing is quite difficult.*

Booklets of level B and C also contained a picture task where the right word had to be filled in. An example of this task is given in (7).

(7)   Het huis heeft een ..... (picture of a door).
        The house has a..........
        Die maak ik open met een ...... (picture of a key).
        Which I open with a ......

Participants

The participants in this study were immigrants who took part in literacy courses. The immigrants attended different schools spread throughout the Netherlands, among other places in Venlo (south), Amsterdam (west), Nijmegen (east), and Leeuwarden (north). The group comprised 85,6% women and 14,4% men. Ages at the time of the test moment varied from 22 years old to 63 years old (mean age 41). The majority of the students were born in Morocco (36,7%), the second largest group were born in Afghanistan (11,1 %). The other students originated from the following countries: Armenia, Bangladesh, China, Dominican Republic, Eritrea, Ethiopia, Ghana, India, Iraq, Cape Verde, Congo, Mauretania, Nigeria, Sierra Leone, Somalia, Sudan, Tanzania, Thailand, and Turkey.

When viewing the countries of origin, it is not surprising that the language mostly reported as mother tongue was Berber, being one of the main languages spoken in Morocco (together with Arabic) and being spoken by 24,4% of the students. Somali, Turkish and Dari were also frequently reported as mother tongues. A majority of the students participating in this research did not have any previous education in their country of birth (55,6%) and were non-literate in their first language (L1) upon arrival in the Netherlands (60%). Most of the other students had (some years of) primary education, a small group had had more than seven years of schooling in their home country (5,5%). Students who had attended school for more than two years (a few had had even more than six) in their country of origin were considered to be alphabetized in a different language, often using another script (37,8%). The years of residence in the Netherlands varied from less than one year to thirty-seven years. The mean number of years of residence in the Netherlands was 12; 10% had resided in the Netherlands for less than 2,5 years. 19% had lived in the Netherlands for 2,5 to 5 years, 23% for 6 to 10 years, 43% for more than 10 years.

3.2 Results

To determine the development of our participants in their writing process, we judged the spelling strategies the students were applying. Departing from the models we discussed in the previous section, we defined five categories of strategy use.

The first category we distinguish is the *pre-phonetic*. The participants do not yet have the notion that writing represents spoken language. This becomes visible in their writing products, which show no relation between what they are asked to write down and what is actually written down.

The second category we distinguish is the *semi-phonetic*. Participants who write words using this strategy, are beginning to grasp the notion that spoken language is represented in writing. Very often, words are represented with only two or three letters. The third category we distinguish is the *phonetic*. Spellers using this strategy are able to represent a full representation of a word, on a phonetic basis. They often do not include unstressed vowels like schwa or 'r' before consonants in words like *hard*.

The fourth category we distinguish is the *phonemic*. Participants using this strategy are able to write down all the phonemes occurring in a word, but not always with the right grapheme or graphemes in the right order (vowels or diphthongs written with two letters like 'ou').

The fifth category we distinguish is the *conventional*. Participants write words according to the conventions of the orthography. Also, they are able to write down words they do not know and that they hear for the first time, since they are able to derive how to spell these words from the spelling of words they already know.

This last category could be identified as words spelled correctly. When participants pluralized words in a non-standard way (for example writing *appelen* (apples), using the common *-en* instead of *-s* for the plural of *appel*) but spelled them correctly, we judged this as correct/conventional as well. All other categories consisted of incorrectly spelled words.

We were especially interested to see which strategy the participant had used to form a word. Also, we were interested to see whether we would find instances of all the categories we distinguished.

When analyzing our data, we came across many linguistically interesting data, a selection of which we will present below. We focused on strategy use and found examples of all spelling strategies that were used to identify the different stages of spelling development. Table 1 presents examples of each, arranged by category.

Table 1: Examples of different spelling strategies

Strategy Word	Pre-phonetic	Semi-phonetic	Phonetic	Phonemic	Conven-tional
Appels *apples* (level A, B)	Hol Efpo	Pal Appier	Apl Apols	Apels Appal	Appels Appelen
Bruin *brown* (level B, C)	Lee Pos	Dron Blorwn	Beraun Braouwn	Brauin Broun	Bruin
Vol *full* (level A)	-	Vos Vuer	Foor Wool	Fool Vool	Vol
Grote *big* (level B)	Co	G Gut	Groed Graatn	Groete Groot	Grote
Moeilijk *difficult* (level C)	M	Murlijku Moeen luk	Moulk Mollek	Moeilek Muilike	Moeilijk Moeilijke

As we can see in Table 1, there is a great deal of variety in strategy use. Students that use *pre-phonetic* strategies write words that have no relation to the word that had to be written. Even though their productions contain actual letters, they are not decodable to someone who does not know what is supposed to be written.

Students who write words in a *semi-phonetic* way, are clearly beginning to grasp the notion that spoken language is to be represented by written language. They are starting to comprehend the alphabetic principle. Their words clearly contain phonemes that actually occur in the words presented. Obviously, they do not yet succeed in presenting a full phonetic representation of a word, but in their writing products their starting to comprehend the grapheme-phoneme correspondence principle is trickling through.

Students writing words in a *phonetic* way clearly have a full notion of the fact that written language represents spoken language. They succeed in providing a full representation of all audible phonemes in a word, even though they sometimes have trouble selecting the right phoneme (*graatn* for "grote"). This is hampered by the fact that our participants are learning to write in a language that is not their mother tongue. Several examples, like *beraun* (including a vowel between two consonants), *foor* (difficulties hearing the difference between r-l) *groete* or *moulk* nicely illustrate that there the spelling is close to how they would pronounce the words themselves.

Students writing words in a *phonemic* way give a full representation of all the phonemes in a word, but do not do this in a conventional way yet (*brauin* for "bruin"). They have a full understanding of the alphabetic principle, but have some trouble representing the diphthong *ui* /œy/ in the conventionally correct way (although their use of *aui* is quite adequate). As we can see, they often have trouble representing the proper vowel signs (*muilike* for 'moeilijke').

Students writing words in a conventional way have a full understanding of the alphabetic principle and understand that words are often spelled slightly differently from the way they are pronounced. They are able to derive ways of spelling words from

other words that they already know and have developed a visual strategy (sometimes also called orthographic) that enables them to judge whether words 'look right' or not.

This review shows that we come across all strategies that were formulated as being indicative of stages in spelling development. When taking a closer look at some words that were clearly not learned before the test was taken, it becomes even clearer where the bottlenecks in learning to write in a second language are located.. The word *sleutel* ('key') turned out to be a very difficult word for our participants, on multiple levels. Of all the students, 65 were asked to write down this word, with the help of a pictorial cue. We noted 50 different ways of writing this word (see Table 3). Some were coded as *other*, as we assumed these participants attempted to write a different word, such as *slot* ('the lock') or *sluiten* ('to lock'), which in Dutch are close in pronunciation to *sleutel* ('key').

Table 3: Overview of 50 different ways of writing sleutel ('key') according to spelling strategies

Semi-phonetic	Phonetic	Phonemic	Conventional	Other
selt	slouwtel	sluitel	sleutel (5)	dit
soltos	sloten	sluuel		gesleijto
soetl	sloute	slotel (3)		slot (2)
sleut	sleuiter	sloetel (2)		srood
schluit	sluite	sloutel (2)		sloet (2)
suoetil	slocto			sluit
salt	sleutol			schloet
gelost	sluter			slut
sletoen	sloeten (2)			sluiten (2)
slauit	sloto			stuitels
slool	slouten			not filled in (2)
suot	sleuten			
sletole	slauter			
selotrs	slauten			
seltel	schlotel			
	slutjel			
	slurul			
	slouitl			
	sletouen			

This assignment provided us with a wealth of material, because it shows exactly what a complicated task it is to provide a phonetically proper reproduction of a common, but phonologically rather complex word in a language that is not your mother tongue: the consonant cluster *sl* at the beginning, the Dutch vowel 'eu' /ø/ (which is sounded like the middle vowel in Goethe), written with two letters, and the unstressed last syllable. Remember that in this item the word is not pronounced by the teacher as in oral dictation, but represented by a picture. Since this word has been offered to participants taking a test on levels B and C it is already interesting to see that we find no *pre-phonetic* accounts. We do see many *semi-phonetic* and *phonetic* accounts. Even though this may appear as if B and C level participants do not apply more advanced strategies, this is not in itself the case. Most probably, this is a fairly new word for the participants; they probably sound it out to themselves, but do not have a firmly established grapheme-

phoneme correspondence for vowels written with two different letters or diphthongs. This is plausible, since almost all of the mistakes are made with regard to the vowels. This is thus probably due to poor phonological decoding. As far as we know, the vowel 'eu' /ø/is not to be found in any of the languages spoken by our participants. As a result, it is difficult for them to map and identify the right sounds and to select the proper grapheme when asked to write this word down. This phenomenon has been reported on earlier (Kurvers & Van der Zouw, 1990). Also, this word shows us very clearly what the differences in strategy use provide in terms of writing. It distinctively shows that the people who use a *semi-phonetic* strategy only reproduce the word partially and often omit clusters. For students using the *phonetic* strategy, we can clearly observe that the cluster at the beginning of the word (sl-) is represented in every writing production. Apart from the difficulties representing the exotic vowel *eu*, we observe most of the errors in the final unstressed syllable, ending in 'l'. Participants struggle to identify a final consonant. If they do perceive the final consonant, they have trouble identifying its form. We notice the occurrence of final *r*, / and *n*, rather common transpositions for students from Asian countries. In the phonemic stage we see that the word structure is firmly established, the only difficulty that is observed is how to represent the *eu* sound. In the *conventional* stage participants have learned that the vowel sound is represented as 'eu' in Dutch.

Since the students at the three literacy levels (A, B and C) used different booklets for their writing tests, with a different number of items that also differed in difficulty (students at level C were asked to write more complex words than students at level A), we first calculated the percentage of correctly written words for each of the books and subsequently used the scale score the testing institute (CITO) provided to be able to put the scores for the different test-booklets on one and the same underlying scale. In this case, this means that that we got a scale-score for each of the students as if they all had made the writing test at level B. Since levels B and C also consisted of students that had more than two years of schooling in their home country (level A only one student), we also compared these scores for those students who had two years or less of schooling in their home country (the non-literates). Table 4 presents the mean percentage of correct spellings and the mean scale score B for each of the groups and the outcomes of the analysis of variance for both measures.

Table 4: Mean percentage of correct spellings and Scale score by level-group for all students and non-literates only

All students (n=88)	Level A	Level B	Level C	F(df)	p
Mean % correct	.49	.53	.58	F $_{2,88}$=2.03	.14
Sd	.21	.18	.13		
Mean scale-score	12.9	27.55	28.57	F$_{2,72}$=24.31	.000
Sd	5.08	8.32	3.81		
Non-literates (n=54)					
Mean % correct	.47	.51	.61	F $_{2,37}$=2.32	.10
Sd	.21	.17	.134		
Mean scale-score	12.78	26.15	28.91	F $_{2,51}$=5.14	.000
Sd	5.38	8.79	3.48		

Although all students at level C write 58% of the words correctly according to the conventions, level B students score 53% and level A students 49%, the difference

between the groups is not significant. At each level, about half of the words are written correctly. As expected, on the underlying scale the groups differ significantly (p=.000). More interesting however, is the fact that the students at level B do not seem to differ much from students at level C. The pair-wise comparison reveals that only students of level A differ significantly from level B and C, while the students of level B do not differ significantly from the students of level C. Students seem to grow in writing, but more so when they go from the lowest literacy level to level B, than when progressing from level B to level C. The same picture emerges when we compare the non-literates only. The groups do not differ in the percentages of correct efforts, but they do differ significantly in scale-score. But also for the non-literates only there seems to be a major improvement between level A and level B, not between level B and level C.

More interesting for the investigation of developmental patterns are the word-writing strategies students use when they do not write words correctly. If the developmental stages that have been revealed in research with young children are indicative as well of adults' learning to spell in a second language, one would expect the level A students to more often use the more pre-and semi-phonetic strategies and the level B and C students to more often use the phonetic, phonemic and conventional strategies. Again we have to consider that the words the students at level B and C had to write were more complex in structure than the words at level A and B. Table 5 and Figure 6 present the outcomes.

Table 5: Percentages of word writing strategies by level group

All students (n=88)	Level A	Level B	Level C	Total	
Pre-phonetic	57%	31%	12%	42	(100%)
Semi-phonetic	29%	35%	36%	214	(100%)
Phonetic	17%	48%	34%	335	(100%)
Phonemic Conventional	18%	44%	38%	377	(100%)
	18%	41%	42%	1461	(100%)

First of all, it turns out that overall the most advanced conventional strategy is used the most often (see the Total column), followed by the phonemic strategy, which shows that most students in Dutch L2 literacy classes have grasped the alphabetic principle (see Total column). The least advanced strategies (pre-phonetic and semi-phonetic) are used in less than 10% of all spellings, the pre-phonetic strategy is hardly used at all (less than 2%). Table 5 also shows the relative occurrence of the different strategies for each of the level groups. The pre-alphabetic strategies pre-phonetic and semi-phonetic are relatively much more often used by students at level A, while the alphabetic principle (one sound-one grapheme) is more often applied by students at levels B and C, although level B students tend to stick closer to the phonetic level of the language than students at level C do. Level C students hardly use pre-phonetic strategies anymore. Figure 2 presents the same outcomes graphically.
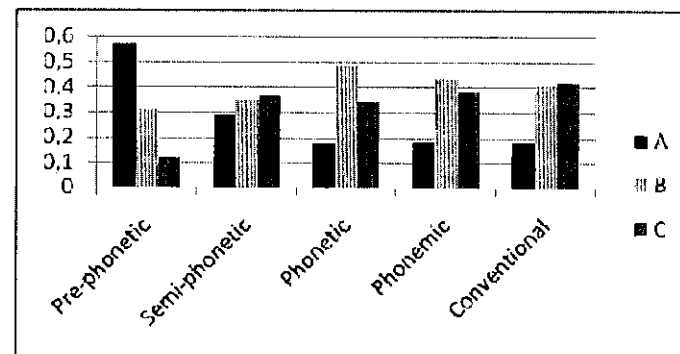
Figure 6: Use of word-writing strategies for each of the level-groups

The height of the bars in Figure 6 nicely illustrates the developmental pattern: for the level A group the height of the bars goes down from pre-phonetic to the conventional strategy, for level C students the height of the bars goes up from left to right, and the results of the level B students are nicely in between, showing relatively high scores at the intermediate strategies.

4 *Conclusions*

Adult migrants learning to read and write in a second language are by and large well aware of the representational features of writing. From the very beginning in adult L2 literacy classes, they most of them are trying to represent the phonological structure of the words they hear or want to write using configurations of letters that are somebow related to the sounds of the words.

It makes sense, we conclude, that the developmental patterns that have been found in research with children are also indicative of the development of adult beginning writers in a second language. The examples show that adult LESLLA students gradually develop the skills to address the representational features of an alpbabetic orthography: they move from the semi-phonic to phonetic and from phonetic to phonemic representations: they gradually start representing unstressed vowels and syllables and frequent consonant clusters in an appropriate way. The strategies found in research with young children are all traceable in the data we presented as well. Besides, the data revealed that the less advanced strategies decrease and the more advanced strategies increase when students reach a higher level group. Looking through the lens of spelling development, the methodology used in most adult L2 literacy classes in the Netherlands seems to be sound: the majority of the students do not write the words they want to write simply by guessing.— the choices they make are motivated.

The very fact that we uncovered spelling strategies comparable to those found in children, and the use of more advanced strategies by students in the higher level groups, underscores the likely existence of developmental stages. Several students in our study, however, did apply different spelling strategies in the same task. This could

be interpreted as a counter-indication for the validity of the stage-model (Rittle-Johnson Siegler, 1999).

We will try to interpret our findings in the context of this discourse. First of all, we did not investigate invented spellings only (as Gentry, 1982, did): some of the words and word-patterns in our study had been practiced in class. This might mean that students can apply what they have already learned (for example writing simple monosyllabic cvc-words), and that they cannot apply this strategy in writing more complex words so that they have to revert to a less advanced strategy. It might also mean, however, that students in principle do use a more or less stable strategy (for example trying to apply the one sound-one grapheme principle), but that their performance is severely hampered by the fact that they have to write a word in a second language. To put it more concretely, they might well be able to apply the alphabetic spelling principle, but they simply do not know precisely what they heard the teacher say or how to pronounce a word. What looks like a mixing up of several stages (for example the same student using both semi-phonetic, phonemic and conventional spellings) is probably caused by the three-fold challenge these students are facing at the same time: trying to detect the phonological structure of a word the sounds of which they are not very familiar with, learning that a phoneme is an abstraction, not always detectable from what they hear (the phonetic level) and learning the basic principles of an alphabetic script and the Dutch orthography. More research is needed to disentangle which problems are attributable to the universals of emergent writing and spelling, and which problems to adults trying to get a grip on the phonological repertoire of an unfamiliar language. It might be interesting to compare these findings with research on adults learning first language writing.

The developmental patterns we found can indeed be compared to those of young children learning to spell. A big difference with young children, however, is (apart from the second language) the amounts of practice young children get in learning to write. It may well be that more practice (and feedback) would be very valuable for these adult L2 literacy students as well. Not for the sake of spelling correctly as such (there are more tools that can be used to that end) but mainly because practicing writing might be a very useful tool in improving people's listening skills as well, in particular the skills to deconstruct what teachers are dictating, or, more importantly, what other people are telling them in daily conversations.

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