

3 Discussion

In conclusion, the language impaired monolingual children show phonological naming problems more often than the other groups, which also explains their fast naming speed in the total test contrary to the other groups that use slower processes. This indicates that this specific parafasic trend (substitution of phonemes) is more likely to be a symptom of language impairment in the monolingual (Swedish) group than in the bilingual group. The monolingual children are also less sure of the word *gestalts* and use more classifications in their naming. The bilingual child appears to have difficulty in finding any word at all. If the target word is missing, the language impaired bilingual child searches but gives up. The bilingual control child is slow in naming, does not find the target word as accurately as the Swedish child, but uses strategies that are pragmatically efficient: describes, chooses a Finnish word, or uses gestures.

A methodological problem remains to adjust: in analysing the naming processes quality also has to be taken into consideration. Is the word the child chooses appropriate, or is it impossible for the listener to understand the target word? For example, if the child describes a camel as /an animal with a hump/ it should be possible to find it in the statistics as an appropriate description versus the more inappropriate description /something you can ride on/ or even /a kind of an elephant/ for the same word.

The study is ongoing and the results are preliminary, as only 31 of the 130 children's productions have been analysed.

Acknowledgement

The CoPS project at the Rehabilitation Unit of Folkhälsan, Topeliusgatan 20, 00250 Helsinki, Finland, is led by Annika Mickos, FM., annika.mickos@folkhalsan.fi

References

- Catts, H., Fey, M. & K. Proctor-Williams 2000. 'The Relationship between Language and Reading – Preliminary Results from a Longitudinal Investigation'. *Logopedics Phoniatrics Vocology* 25, 3-11.
- Magnusson, E. & K. Naucclér. 2000. 'Language Problems in Poor Readers'. *Logopedics Phoniatrics Vocology* 25, 12-21.
- Renfrew, C. 1995. *Word Finding Vocabulary Test*. 4th edition. Oxon: Winslow Press Limited.
- Singleton, C. H., Thomas, K.V. & J. K. Horne. 2000. 'Computerised cognitive profiling and the development of reading'. *Journal of Research in Reading* 23(2), 158-180.

anna.simonsen@folkhalsan.fi

Bilingualism and writing difficulties. On the second-language development of immersion pupils with writing difficulties

Marina Bergström

Department of Nordic Languages, University of Vaasa, Finland

1 Background

"Early total immersion" is a program where monolingual children (Finnish-speaking children in Finland) attend a kindergarten and a school where the teaching is based on the children's second language. The aim of the program is to make it possible for pupils to learn good functional proficiency in a new language, while at the same time learn the same factual content as pupils who partake in so-called "traditional" teaching.

For the first few years, all activities take place in the second language. But the amount of teaching in the pupils' first language increases gradually in the higher grades so that about half the teaching at the upper levels is in the pupils' first language. (See e.g. Genesee 1987; Laurén 1999.)

The immersion program differs from other teaching that takes place in a language other than the pupils' mother tongue. For instance, the program is, in principle, meant to be suitable for all children independent of their linguistic and cognitive qualifications. Children are not tested for participation in the program, which means that individual variation in the classroom can be as great as in so-called traditional teaching.

Since considerably more instruction takes place in a language other than the pupils' mother tongue in an immersion program, it has been necessary to adopt a somewhat different way of working. Subject teaching in a second language implies pupil-centered instruction with emphasis on large units and individual learning (see e.g. Kaskela-Nortamo 1995, 2001). The conscious aim of immersion teachers to individualize would also seem to be the strength of early total immersion. Individualization will lead to a way of working that provides many different kinds of pupils with a functional proficiency in a second language. The teaching principles of immersion have, therefore, many advantages when it comes to pupils with special needs, and the program would seem to favour children who are traditionally regarded as weak language

learners. Furthermore, many recommendations made in the literature on teaching pupils with learning difficulties form a natural part of immersion teaching. For instance, immersion strongly encourages oral communication, and has in this way given children with special needs considerable proficiency in a second language. Even if there are individual differences concerning the speed at which pupils develop their language proficiency, all pupils seem to have, even at an early stage, a good ability to use their new language for meaningful communication. Traditional language teaching, on the other hand, often starts from the written language and the learning of abstract rules, which with regard to pupils with learning difficulties, tends to reinforce some learners' weak points. (Bruck 1982.) The fact that the target language in an immersion program is used as a means of teaching the various school subjects, further indicates that it is not merely a question of superficial linguistic competence, but of capability of using the language as an intellectual tool in various learning situations and in dealing with a broad repertory of subjects.

An earlier inquiry (Bergström 1997) made among immersion teachers in Canadian immersion schools, however, proves that not all immersion teachers on the basis of their practical experience consider the program suitable for all children. The fact that pupils in early total immersion learn their basic reading and writing skills in a second language results in a teacher not always being sure whether the difficulties experienced in leaning to read and write are due to real reading and writing disability or to problems with their second language. Often the problems are assumed to be caused by unfamiliarity with the second language, which causes real learning difficulties to be discovered at a rather late stage, when the pupils should in fact already have been given remedial teaching in order to be able to cope with the increased demands made on them in the higher grades. The interviews further suggested that some teachers tend to recommend the transfer of some pupils to a traditional school at an early stage. Such teachers have formed an opinion of features typical of less proficient immersion pupils, and think that children of this kind should concentrate on their first language. There is not, however, any definite agreement among teachers with regard to the difficulties that can make participation in an immersion program problematic for a certain category of pupils. So the conflicting views of what features are characteristic of a less successful second-language learner may, in practice, mean that pupils in different immersion schools have different possibilities of benefiting from the program. (See also e.g. Keep 1993, Cummins 1984.)

2 Characteristics of immersion pupils' writing skills development

In my investigation, I have by means of case studies followed the development of second-language learning based on six lower-level pupils who, in the opinion of their teachers, experienced difficulties in learning to read and write. I have focused on the development of these pupils' writing skills in order to find out how their difficulties come to the fore in learning to write, and how their learning to write differs from that of pupils who, in the teacher's opinion, have no difficulties in this respect. Furthermore, it has been interesting to study how the pupils have developed their oral second-language proficiency, and how their difficulties have affected their ability to use Swedish orally. The linguistic analyses of the pupils' language I see in relation to the practical measures, which the class teacher and the remedial teacher have taken to support the learning of these individual pupils.

Some aspects of immersion pupils' writing development will be presented below. I will illustrate and exemplify how some immersion pupils express themselves in writing in free written production and in a spelling test. My aim is to bring out aspects of their orthographic development and of their ways of creating cohesion in the texts they produce. One of the pupils presented below has been diagnosed as suffering from dyslexia while the others who are discussed are according to their teacher experiencing considerable difficulties in reading and writing and are in need of extra help. These pupils' production is further compared with the written standard of pupils without difficulties in order to illustrate how second-language writers whose development is normal express themselves in writing.

2.1 *The orthographic development*

In Table 1 some examples of five immersion pupils' spelling of some second-language words in a spelling test are given.

The examples show that the selected pupils in grades 2 and 3, on the whole, spell phonetically. As there is not, however, any unequivocal correspondence between phonology and orthography in Swedish, some problems still arise. One example of this is the phoneme /j/, which in Swedish is spelt in many different ways (j, g, gj, hj, dj). This means that the spellers cannot rely on pronunciation as most of the pupils (the weak spellers and the pupil with dyslexia) have done in the case of the word *gick* 'went', but will need orthographic knowledge.

Table 1. Examples of five immersion pupils' spelling.

	<i>Pupil with dyslexia grade 3</i>	<i>Weak speller grade 3</i>	<i>Normal speller grade 3</i>	<i>Weak speller grade 2</i>	<i>Weak speller grade 2</i>
BROR	BOR	BRUR	BROR	BROR	DRURD
GICK	JIG	JK	GICK	JK	JIG
MYGGOR	MUKÖR	MYGOR	MYGOR	MYGÅR	MYKOR
VÅG	VEG	VÅG	VÅG	VEG	VEEG

The fact that Swedish also has some phonemes that are entirely lacking in Finnish (i.e. the pupils' first language) cause, as the examples above show, other deviations from orthographic conventions. Such an example is produced by the weak speller in grade 3 who spells the word *bror* 'brother' phonetically correct but applies the phonology of Finnish. Since the grapheme *u* in Swedish represents the phoneme /u/, which is entirely lacking in Finnish (where the grapheme *u* represents the phoneme /o/), applying the strategy of the other language does not lead to an acceptable result. While the immersion pupils in grades 2 and 3, as a result of first language interference, often confuse *o* and *u*, such confusion does not occur in the texts of monolingual Swedish-speaking pupils. Moreover, the lack in Finnish of the voiced stops /b/, /d/ and /g/ makes pupils at the early stages use the corresponding voiceless consonants as in the word *myggor* 'mosquitoes' where the voiced stop /g/ is replaced by the voiceless /k/. Also, this kind of confusion is rare among monolingual pupils. Confusion between *ä* and *e* is, on the other hand, relatively common in the texts of both immersion pupils and monolingual Swedish-speaking pupils in Finland. This is due to the fact that the grapheme *ä* (e.g. in the word *våg*) is pronounced /e:/ by the Swedish-speaking persons in Finland. The rules concerning the spelling of phonemes /e/ and /e:/ are further inconsistent in Swedish, and thus they are difficult also for younger monolingual writers. (See also Laurén 1994.)

When comparing the pupil whom the teacher regards as representing a normal standard of development with the weak pupils, one of whom has been certified as having specific reading and writing difficulties, it will be seen that the above-mentioned confusion, which is to some extent due to interference from Finnish, is not to be found in the pupil exemplifying normal achievement in grade 3. This pupil no longer applies phonological strategy in his spelling, but instead bases his spelling on his lexical knowledge of how the words in question are spelt. However, this pupil still has problems with long and short

vowels in Swedish as is clear from his spelling of the word *myggor*, which he has spelt with a single consonant *g* after the short vowel *y*. This type of error definitely forms the biggest category of orthographic errors among immersion pupils in grade 3 in my study, while children who are one year younger encounter many different difficulties. Thus the weak spellers in grade 2 (see Table 1) show features which are generally not too unusual in the group (pupils in grade 2) when they, for instance, leave out the vowel in the word *gick*, which is spelt *jk* by one of the weak pupils. This also suggests phonetic spelling since the pupil has left out the vowel that can be considered to be part of the sound /j/. Furthermore, the other weak pupil spells the word *våg* phonetically by marking the long vowel by means of two graphemes as would be normal in Finnish. The pupil has not yet become aware of the rule that a long vowel in Swedish is not expressed by means of two vowels.

Even the pupil with dyslexia spells phonetically, which can also be seen from Table 1. This pupil has, however, other types of deviations, which cannot be explained due to phonetic spelling and do not result in phonologically acceptable forms. The spelling *bor* for *bror* suggests that the pupil fails to hear all the sounds that occur in a word and thus to mark them in writing. Another possible explanation might be that the pupil visually confuses the word *bror* 'brother' with the word he actually spells, i.e. *bor* 'live(s)', which may be more familiar to him.

If these results are compared with results obtained from the same test done by monolingual Swedish-speaking pupils in Finland (Staffans 1991), it can be established that the immersion pupils show a greater number of different types of deviations. Different types of mix-ups occur in the first few grades due to the fact that Finnish manages with fewer phonemes, and that the immersion pupils for this reason may find it difficult to make distinctions between the phonemes in Swedish. In the immersion group, however, individual variations occur since the pupils at different rates learn and become aware of the spelling of phonetically irregular words, and the fact that a phoneme in the second language can be represented by several different graphemes. The deviations that seem to prevail among the immersion pupils in grade 3 in my study are, however, on the whole the same as can be found among Swedish-speaking pupils in grade 2. In both groups, deviations concerned with the marking of long and short vowels predominate.

It seems natural that some pupils sooner than others learn to proceed from writing phonetically to reflecting on the possibly unphonetic spelling of words. Pupils without reading and writing difficulties are often better qualified for visualizing words and, as a result, for spelling unphonetic words. Pupils who

have difficulties in writing and who may not to the same extent familiarize themselves with the written form of their second language, encounter problems more often as they will more frequently have to write words which they have never seen.

2.2 Creating coherence in a text

How pupils with writing difficulties manage to tell something and create coherence in their written production are aspects that are seldom dealt with in the literature. In my study it seems, however, important to pay attention to features that have by tradition often been neglected in connection with pupils with writing difficulties. Illustrating features which touch on the communicative function of language proficiency is justified considering that it is thought to be particularly important in immersion teaching for the pupil to learn to use one or more languages for meaningful communication. In my study, particular attention has been paid to pupils' ways of connecting their narrative by the use of so-called clause-initial connectors. On the other hand, I have illustrated how the pupils tie constituents together in their accounts by means of various reference links. Below I will give some examples of the use of connectors.

Example 1 below shows a text by the pupil with dyslexia who was introduced in connection with the discussion of orthographic development. The pupil has written the text on the basis of a sequence of pictures (see Appendix 1) in grade 4. The text presented in example 2 was written at the same point of time by the pupil representing average development who was also introduced in Table 1 (Normal speller, grade 3). In both examples I have corrected the orthographical errors but retained the grammatical errors.

Example 1.

A story written in a second language by an immersion pupil with dyslexia.

	Apa på rymmen
	En apa tar en nyckel i städarens ficka.
	Städare märker ingenting.
	Städare står och städar.
ADVК	Så apan öppnar dörren
K	och går ut om dörren.
	Apan går till en annan dörr
K	och där är elefanten.
K	och alla söker apan.
	De hittar inte den
	de ropar på apan
K	och de går alla där
K	men de hittar inte den
ADVК	Så apan går till gården och staden.
ADVК	så går apan på bussen
K	och hoppar på bussens tak

	gå till staden
K	och alla människor ser den.
K	Så går apan till en butiken.
	Apan försöker gå till butiken
K	men dörrarna inte öppnar
K	och apan tänker
FR	Varför dörren inte öppnas
	Nu vet jag!
UK	När nån kommer ut
ADVК	så går jag till butiken och äter apan mat
ADVК	så går apan till en annan butiken
K	och apan ser en annan apan
K	och den är en leksak.
ADVК	så går apan till en hylla
ADVК	så går en man där och kör bort apan til xx
ADVК	så går apan till xx
ADVК	så går apa på djurpark
K	och apan inte hittar städare
K ADVК	och så går apan till bur
K	och städare laga dörren
K	och låser dörr

Example 2.

A story written by an immersion pupil without writing difficulty.

	Apa på rymden		
	Apan Pena rövade nyckeln åt vaktare.		
ADVК	Sen går han till elefantens bo		
K	och alla söker apan.		
ADVК	Sen går apan till bussens taket		
K	och alla människor skrattar		
	en stoppar bussen		
K ADVК	och sen hoppar apan till butik och vill ha mat		
K	men han får inte.		
	Han går till leksak butik		
ADVК	sen ser han en lek apa och blir arg till den		
UK	när han tror		
ATT	att den är riktig		
ADVК	Sen går han baka till vaktarens famn		
UK	när på staden är så tokigt.		
K	coordinating conjunction	ADVК	connective adverbial
UK	subordinate conjunction	ATT	generally subordinated
FR	interrogative in indirect question		att (that)

As can be seen from the examples, both pupils frequently use connectors to tie the different events depicted to form a connected story. Also, these pupils seem to overuse some single connectors at the cost of others. It has been noted in various studies (e.g. Lindberg, Juvonen & Viberg 1990) that bilingual children favour to some extent the connector *sen* 'then', which is often used together with the coordinating conjunctions *och* 'and' and *men* 'but'. No corresponding tendency has, on the other hand, been noted in the case of

monolingual Swedish-speaking pupils, who for their part seem to express themselves in a more varied fashion. For instance, the so-called connective adverbials *sen* 'then', *så* 'so' and *då* 'at that time' are used. As far as the two immersion pupils are concerned, the pupil representing normal development seems to favour the connectors *och sen* 'and then' while the pupil with dyslexia for his part favours the adverb *så*, which according to previous studies is more common among monolingual pupils. Besides, both pupils use subordinate clauses relatively sparingly, which contributes to making the clause structure fairly simple in both pupils' accounts.

If one examines the results of the whole group of pupils (the two pupils and their classmates at the same grade level), one can note that the individual variation in the use of connectors is great as well. The way of creating coherence presented above is already characteristic of younger pupils' texts. After this stage, the pupils start using more complex subordinate clause constructions when the use of connectors gradually becomes more varied. As a rule, the girls seem to develop somewhat faster than the boys, who perhaps somewhat more often rely on the use of the most common connectors. In oral production, on the other hand, most of the pupils' stories look more alike since the pupils then often favour the most usual connectors. As far as the oral narrative is concerned, the differences between the weak and the average pupils are, therefore, not great. With regard to written production, the weak pupils often express themselves in the same way as in their oral accounts, while the written discourse of other pupils has to a greater extent become different from the spontaneous speech.

The two stories exemplified show, nevertheless, that the pupil with dyslexia does not have a problem expressing himself in his second language. He has, for example, produced a longer text than the other pupils in the whole group. The content of his story is more detailed and versatile than that of the pupil representing average achievement, nor does he seem to have any obvious problems in finding words to express what he has to say. On the contrary, he has been more successful in finding suitable words for the different events illustrated in the pictures. For example, he uses the more appropriate word *bur* 'cage', while the pupil representing average development uses the word *bo* 'nest' or 'home' to describe the cages where the various animals are placed in the zoo. A degree of monotony is, however, due to the frequent occurrence of the verb *gå* 'go' to indicate movement. The overuse of the verb *gå* is not, however, characteristic of this pupil's text alone but is a common feature in many pupils' accounts.

3 Summary and conclusion

In immersion, the pupils will learn basic proficiency in reading and writing in a second language. With regard to the development of written language use, the performance of the pupils during their schooling is determined by a great number of factors such as the current level of the individual pupil's proficiency in written language development, the pupil's orthographic and grammatical knowledge of the new language, his/her vocabulary and ability to express him/herself orally in this language, etc. All this may contribute to the difficulty of discovering the real reading and writing difficulties in connection with immersion.

When comparing the orthographic deviations characteristic of different second-language learners, it can be noted that pupils learn the various orthographic conventions at an individual rate. While the pupils in grade 2 use to a great extent phonological strategy when spelling, the majority of the pupils in grade 3 have developed their spelling taking orthographic and morphological considerations into account. As far as the pupils in grade 2 and the weak spellers in grade 3 are concerned, interference from the pupils' first language and a certain inability to discriminate sounds belonging to the new language can be further noted. The pupil with dyslexia has clearly the greatest problems with regard to orthography, and he usually commits errors, which no longer occur in the writing of the rest of the pupils. Thus writing in his second language could, in the case of a pupil with specific writing difficulties, be expected to constitute a frustrating experience especially when the second language is structurally very different from the pupil's mother tongue. Since the Finnish language shows greater correspondence between phonemes and graphemes, it may also be quite likely that the pupil is a more successful speller in his mother tongue.

However, it is interesting to notice that the differences between the pupils of so-called normal achievement and the pupil with dyslexia are no longer very obvious when other aspects of written production are considered. The pupil with dyslexia writes, in the example quoted above, an imaginative story and shows that his writing enthusiasm is not disturbed by the obvious orthographic difficulties. What my study suggests and what is also apparent from the text written by the pupil with dyslexia is that the pupil in immersion has learnt a second language that he manages to use both orally and in writing. Learning a second language in a regular school where language instruction is often based on written language would, on the other hand, in all probability have been very difficult for this particular pupil.

References

- Bergström, M. 1997. *Språkbåd—ett program för alla barn? Attityder till och sätt att bemöta språkbådselever med speciella behov*. Unpublished licentiate thesis at the University of Vaasa.
- Bruck, M. 1982. 'Language impaired children's performance in a additive bilingual education program'. *Applied Psycholinguistics* 3, 45–60.
- Cummins, J. 1984. *Bilingualism and special education. Issues in assessment and pedagogy*. Clevedon: Multilingual Matters Ltd.
- Genesee, F. 1987. *Learning through two languages: Studies of immersion and bilingual education*. Cambridge: Newbury House Publishers.
- Kaskela-Nortamo, B. 1995. 'An overview of teaching practices in Swedish immersion in Finland'. In M. Buss & Ch. Laurén (eds.), *Language immersion: Teaching and second language acquisition*. Vaasa: Vaasan yliopiston julkaisu. Tutkimuksia No 192, 47 - 59.
- Kaskela-Nortamo, B. 2001. 'En språkbadslärares vardag'. In M. Nordman, Ch. Laurén, S. Björklund & M. Koskela (eds.), *Svenskan i Finland 6. Föredrag vid sjätte sammankomsten för beskrivningen av svenskan i Finland. Vasa 22–23.9.2000*. Proceedings of the University of Vaasa. Vaasa. In press.
- Keep, L. 1993. *French Immersion Attrition: Implications for Model Building*. Edmonton: University of Alberta.
- Laurén, Ch. 1999. *Språkbåd: Forskning och praktik*. Proceedings of the University of Vaasa. Tutkimuksia 226: Språkvetenskap 36.
- Laurén, U. 1994. *Tvåspråkiga och enspråkiga skolelevs skriftliga produktion. Performans och kreativitet*. Acta Wasaensia No. 37. Språkvetenskap 4. Vasa.
- Lindberg, I., P. Juvonen & Å. Viberg. 1990. 'Att berätta på två språk – en studie av tvåspråkiga barns återberättelser på första- och andraspråket'. In U. Nettelbladt & G. Håkansson (eds.), *Samtal och språkundervisning. Studier i Lennart Gustavssons minne*, 169-192. Universitetet i Linköping.
- Staffans, K. 1991. *KSS-diktamen, åk 2. En jämförelse av skrivresultaten i Umeå, Vasa och Korsholm åren 1981 och 1991*. Unpublished study.

Appendix

