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Some questions and issues in content-based language teaching

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Some key concepts and arguments in immersion/content-and-language-integrated teaching

In recent discussion on immersion, the California Proposition 227 (1998) "English for the Children" – submitted to California voters in 1998 – has played a large role. The proposition explicitly supports *"sheltered English immersion"* and argues that "learning a language is much easier if the child is immersed in that language". This article is meant to discuss key terminology, terminological development, major types of programs in immersion/bilingual/or content-and-language-integrated teaching and learning (CLIL), summarise major research findings and discuss some aspects of CLIL in Finland.

It is probably worth pointing out already here that obviously programs and research findings are context-dependent. Generalizations are possible but require very careful consideration. Canadian immersion/bilingual education findings tend to refer to the context where majority-language (English-speaking, non-disadvantaged) students study the language of the minority (French) using various approaches. American research findings tend to refer to situations where minority-language students are helped to make a transition to the mainstream (English-medium) educational system. In Finland, the situation is closer to the Canadian approach, perhaps with the exception of immigrant students.

Various types of immersion/bilingual/or content-and-language-integrated teaching and learning (CLIL)

Krashen, among others, has argued that there is a great deal of confusion about the term "sheltered English immersion". Indeed, it appears that there is considerable disagreement about the proper use of this and other related terms, about the position people claim and are claimed to hold, and about the interpretation of the outcomes of pilot schemes and even research studies. Cummins (1998c, 1999b) has actually pleaded for moving "beyond adversarial discourse" and urged that more attention be devoted to matters related to the research, ethics and public discourse in search for common ground in the debate on bilingual education. The following draws mainly on Krashen's discussion of the relevant terminology (Krashen, 1997) and on Cummins' recent contributions to the discussion and debate (Cummins, 1998a, b, c, 1999a, b).

Krashen (1997) notes that one definition of immersion is "submersion" or "sink or swim" (doing nothing), an approach that is not very often advocated. English for the Children does not support that approach.

A second use of the term refers, according to Krashen, to the program used in Canada for French as a foreign/second language development for English-speaking children. Canadian-type immersion is bilingual education. It satisfies the three requirements that Krashen considers proper bilingual education: (1) comprehensible input in the second language; (2) literacy development in the first language; and (3) subject-matter learning in the first language. In addition, because the vast majority of the children in these programs are middle class, they do a considerable amount of reading outside school. Much of the curriculum is in the first language (English), and the goal is bilingualism – development of both languages.

Krashen mentions as a third type of immersion "structured immersion". Structured immersion uses the first language only minimally and includes direct teaching of grammar and preteaching of vocabulary. Krashen considers the results of structured immersion research not at all convincing: children in structured immersion in Uvalde, Texas, reached the 30th percentile of the reading comprehension subtest of the Metropolitan Achievement Test at the end of grade 3. After leaving the program, however, they dropped to the 15th and 16th percentiles in grades 5 and 6. A comparison group did even worse.

A fourth definition of immersion is, following Krashen's classification system, "sheltered subject-matter teaching," which in America was inspired by Canadian-type immersion. These are classes, used in both second- and foreign-language teaching situations, in which intermediate-level language students get subject-matter instruction with the second language used as a medium of instruction. Native speakers and beginners are not included in these classes, in order to make sure that the input is comprehensible. According to Krashen, studies show that students in sheltered classes make at least as much progress in the second language as students in regular intermediate language classes – and usually more – and learn subject matter at the same time. In addition, they acquire more "academic language".

The *gradual-exit program* uses sheltered subject-matter teaching as an intermediate stage between classes taught in the first language and the mainstream.

Key terms used in the debate on immersion/bilingual/or content-and-language-integrated teaching

Comprehensible input is one of the key terms used in all discussion on language acquisition and also very much in the debate on immersion/bilingual/or content-and-language-integrated teaching. It obviously comes from Krashen's comprehensive and seminal theory on language acquisition. Although not all reviewers of his theory are prepared to accord comprehensible input such a decisive role as Krashen did and does, by the same token there are hardly any dissenting voices about its importance for language acquisition and learning. The widely accepted hypothesis – and empirical support for the efficacy of rich and comprehensible input – is one of the cornerstones of the theoretical argument in favour of immersion/bilingual/or content-and-language-integrated teaching.

BICS/CALP – basic interpersonal communative skills and *cognitive academic proficiency,* respectively – originally introduced by Jim Cummins in 1979 to point out that the language of everyday interaction and conversation was not the same as the language required in the school context. He wished to warn educators that good BICS should not be taken as a guarantee of and adequate CALP. The distinction was also meant to qualify John Oller's argument about there being basically only one global language proficiency (unitary language hypothesis). Cummins (e.g., Cummins & Swain, 1986) elaborated the pedagogical implications of the distinction in a figure where one dimension represents the range of cognitive demands and the other contextual support. This leads to four quadrants, and CALP-type of language is typically in the cognitively demanding + context-reduced quadrangle.

The BICS/CALP dichotomy has been subjected to quite a lot of varied criticism. Cummins (1998b, 2000) deals with the criticisms and responds to it in a lengthy exposition. He addresses the criticisms point by point, the response is – at least to this author – very illuminating and convincing.

At present, Cummins appears to prefer the terms "*conversational*" and "*academic" language proficiency.*

Supplementing the BICS/CALP dichotomy, Cummins has introduced the *linguistic interdependence hypothesis,* defined as follows: to the extent that instruction in Lx is effective in promoting proficiency in Lx, transfer of this proficiency to Ly will occur provided there is adequate exposure to Ly (either in school or environment) and adequate motivation to learn Ly. A related notion is *common underlying proficiency (CUP)*, used to refer to the cognitive/academic proficiency that underlies academic performance in both languages, which permits positive transfer of academic and conceptual knowledge across languages. This rejects the hypothesis of "maximum exposure" to the majority language as the sine qua non for academic success. For an interesting and quite detailed discussion of other terminology and concepts, see especially Cummins (1999a).

What applied linguistics research says about bilingual/CLIL

According to Cummins (1998c) research is unambiguous in relation to three issues: (a) the distinction between conversational and academic skills in a language; (b) the positive effects of bilingualism on children's awareness of language and cognitive functioning; and (c) the close relationship between bilingual students' academic development in their first and second languages (L1 and L2) in situations where students are encouraged to develop both languages.

Cummins (1999) summarises the applied linguistics research perspective as follows:

- Bilingual programs for minority and majority language students have been successfully implemented in countries around the world.
- Bilingual education, by itself, is not a panacea for students' underachievement. Underachievement derives from many sources and simply providing some first language (L1) instruction will not, by itself, transform students' educational experience. Optimal programs are such that aim to develop bilingualism and biliteracy, such as developmental (late-exit) and two-way bilingual immersion (dual-language). Dual-language programs also serve English-background students in the same classes as minority language students with each group acting as linguistic models for the other.

- The development of literacy in two languages entails linguistic and perhaps cognitive advantages for bilingual students on a variety of metalinguistic and cognitive tasks.
- Significant positive relationships exist between the development of academic skills in L1 and L2, even for quite dissimilar languages. These cross-lingual relationships provide evidence for a common underlying proficiency that permits transfer of academic and conceptual knowledge across languages.
- Conversational and academic aspects of language proficiency are distinct and follow different developmental patterns. It usually takes at least five years for second language learners to catch up academically to their native majority-language (usually English-speaking) peers but conversational fluency in the majority language (English) is often attained within two years of intensive exposure to the language.
- The best setting for educating linguistic minority pupils is a school in which two languages are used without apology and where becoming proficient in both is considered a significant intellectual and cultural achievement. Virtually all applied linguists endorse developmental or two-way bilingual immersion programs in preference to quick-exit transitional bilingual programs.

Jay Greene (1998) has carried out a useful meta-analysis of the effectiveness of bilingual education (ie., analysed the results of several studies). He showed that when at least some instruction was in the "native" language, the outcomes measured in the majority language (English) were better. Meta-analysis produces an estimate of effect sizes in terms of the standard deviation. In reading the benefit was about 12 percentiles – in other words, a student in an all-English program would be twelve percentiles lower than a student in a bilingual program. For instance, a student whose percentile score was 35 (65% of all students would be better than him, and 35% weaker than him) would have a percentile value of 47. The benefit was statistically ascertained to be real (not due to chance only), and the effect size is considered moderate.

A sample progamme advocated by Krashen

Krashen (1999) has presented a proposal for a feasible sample program for bilingual education. He did this at the famed Georgetown University Roundtable on Languages and Linguistics in May 1999.

Why Bilingual Education? Krashen gives four reasons: 1) Bilingual education is sensible. 2) Published research supports bilingual education. 3) It is a shame not to promote primary or heritage language development. 4) America and its economy benefit from bilinguals.

Krashen elaborates the rationality argument by suggesting that an LEP (=limited English proficiency) child who knows the subject matter will understand more in a class taught in English than one who does not. The more math the child knows, the easier it will be to understand a math class taught in English. The more the child understands, the faster he or she will acquire English. Bilingual education gives children subject-matter knowledge and thus speeds their English language development. Also, children who develop literacy in their primary language have a much easier time developing literacy in English. It is easier to learn to read in a language you already know, and once you can read, this ability transfers to English. Thus, in addition to making sure children do not fall behind in subject matter, bilingual education makes a powerful contribution to their language and literacy development.

According to Krashen, published research supports bilingual education. Children in well designed programs, programs that give them solid subject-matter instruction in the primary language, literacy in the primary language, and ESL, acquire academic English as well and usually better than children in all-English programs. Children who develop their primary language – in addition to English, not instead of – show superior cognitive development in some areas, typically do better academically than their monolingual peers from the same group, and do better in the work world. Thus the country and its economy benefit from bilinguals.

Krashen argues – probably referring only to the American context – that the best solution for the LEP children is a solid academic foundation in the first language, with ESL (= English as a second language) beginning immediately, and with subjects being taught in English as soon as they can be made comprehensible for the child.

Krashen distinguishes two goals of bilingual education:

- the development of academic English and school success
- the development of the heritage language

Krashen holds that good bilingual education programs achieve both goals.

According to Krashen, confusion about the first goal is understandable: How can children acquire English, their second language, while being taught in their first language?

In Krashen's view, this occurs for two reasons:

- First, when we give a child good education in the primary language, we give the child knowledge, knowledge that makes English (L2) input more comprehensible. A child who understands history, thanks to good history instruction in the first language, will have a better chance understanding history taught in English (L2) than a child without this background knowledge. And more comprehensible English (L2) input means more acquisition of English (L2).
- Second, Krashen claims that there is strong evidence that literacy transfers across languages, that building literacy in the primary language is a short-cut to English (L2) literacy. The argument goes like this: If we learn to read by understanding the messages on the page, it is easier to learn to read if we understand the language. Once we can read, we can read, and the ability transfers to other languages.

Krashen claims that the empirical support for this claim comes from studies showing that the reading process is similar in different languages, studies showing that the reading development process is similar in different languages, and that correlations between literacy development in the first language and the second language are high, when length of residence is controlled. All the above is claimed to be true even when the orthographies of the two languages are very different.

According to Krashen, good bilingual programs have the following three characteristics:

- They provide background knowledge through the first language via subject matter teaching in the first language. This should be done to the point so that subsequent subject matter instruction in English is comprehensible.
- They provide literacy in the first language.
- They provide comprehensible input in English, through ESL and sheltered subject matter teaching. In sheltered classes, subject matter is taught to intermediate second language acquirers in a comprehensible way. Krashen stresses that sheltered classes are for intermediates; they are not for beginners and not for advanced acquirers or native speakers. It is extremely difficult to teach subject matter to those who have acquired none or little of the language. Beginners should be in regular ESL, where they are assured of comprehensible input. Including more advanced students in sheltered classes is problematic because their participation may encourage input that is incomprehensible to the other students. There is substantial evidence supporting the efficacy of sheltered subject matter teaching for intermediate level, literate students.

The gradual exit model advocated by Krashen is one way of doing a bilingual program that utilizes these characteristics (Table 1). In the early stage, non-English speaking students receive all core subject matter in the primary language. At the next stage, limited English proficient children receive sheltered subject matter instruction in those subjects that are the easiest to make comprehensible in English, math and science, which, at this level, do not demand a great deal of abstract use of language.

Putting sheltered subject matter classes at this stage insures in Krashen's opinion that they will be comprehensible. Students in sheltered math, for example, have had some ESL, giving them some competence in English, and have had math in the primary language, giving them subject matter knowledge. These two combine to help make sheltered math comprehensible. Those forced to do subject matter in the second language immediately, without any competence in second language, have neither of these advantages. The gradual exit program appears to be the fastest way of introducing comprehensible subject matter teaching in English.

Krashen claims that while the child is doing sheltered math, he is developing additional background knowledge and literacy through the first language in subjects that are more abstract, social studies and language arts. This will make instruction in English at later stages more comprehensible.

Table 1. A sample bilingual program (Krashen, 1999)

	Mainstream	ESL/Sheltered	First Language
Beginning	Art, Music, PE	ESL	All core subjects
Intermediate	Art, Music, PE	ESL, Math, Science	Social Studies Language Arts
Advanced	Art, Music, PE, Math, Science	ESL, Social Studies	Language Arts
Mainstream	All subjects		Heritage Language Development

In later stages, math and science are studied in the mainstream and other subjects, such as social studies, are studied in sheltered classes in English. Eventually, all subjects are done in the mainstream. In this way, Krashen sees sheltered classes functioning as a bridge between instruction in the first language and the mainstream.

Once full mainstreaming is complete, advanced first language development is available as an option. Krashen sees as a definite advantage of this kind of plan the fact that it avoids problems associated with exiting children too early from first language instruction (before the English they encounter is comprehensible) and provides instruction in the first language where it is most needed. This plan also allows children to have the advantages of advanced first language development.

In the gradual exit program, the second language is not delayed. It is introduced as soon as it can be made comprehensible. Quite early on, students in these programs do a considerable amount of serious academic work in English, well before they reach the very high levels required for official reclassification. Thus, Krashen suggests that the gradual exit model is not subject to the criticism that bilingual education programs delay exposure to English (i.e., the majority language) for years. While educational programs obviously cannot be just imported from one context to another, Finnish educators might do well to study to what extent the model might be applied in the teaching of immigrant children and in extensive immersion and CLIL more generally.

Immersion and CLIL in Finland

It is a tired cliché in Finland – repeated from the times of J.V. Snellman, a "national" philosopher who lived in the 1800s – that Finland has a "heavy language program" in schools. It is true that students in the junior and senior secondary used to have 2-4 compulsory L2s, and in the present comprehensive school two L2s are compulsory. The total number of lessons reserved for L2/FL study is not, however, large in comparison to most European countries (note should be taken that in most other European countries students study languages belonging to the Indo-European family of languages and sometimes the languages are quite closely related).

The L2/FL study did not use to lead to the ability to actively use foreign languages due to the grammar-translation approach. Thus, even if the demands were strict and students often had to repeat grades due to poor performance in L2/FLs (and mathematics), the results were felt to be unsatisfactory. This led to suggestions by two Ministers of Education (Jaakko Itälä and Christoffer Taxell) in the 1970s and 1980s to consider using L2/FL as the medium of instruction. Their suggestions received little attention and no active support.

However, the dominance of English led to several policy attempts to diversify the language provision and language study. One of the working parties was asked, in addition to presenting ideas for increasing the diversity of FL study, to explore the possibility of teaching subjects in a foreign language. It found the idea promising and recommended the approach in 1989. The introduction of IB-schools was proposed the following year and eight IB-schools are now in operation.

The educational legislation in the 1990s transformed the Finnish school system from a highly centralised to a highly decentralised system. One part of this change was the right granted in 1991 to comprehensive schools (A 261/1991), upper secondary schools (A 262/1991) and vocational schools (A 565/1990) to quite freely decide on whether to use other than L1 in teaching when it is deemed appropriate.

CLIL-teaching spread quickly in the 1990s. In a survey carried out in the mid 1990s (for a comprehensive review, see Takala, Marsh & Nikula 1998) on CLIL in vocational schools, it was found out that at least one third of the vocational institutions had CLIL in some form, and there was a clear indication of interest in a number of institutions to start CLIL. There are some indications that the proportion has grown all the time since then. A survey covering comprehensive schools and the upper secondary schools in 1996 showed that some 5% of lower stage schools (grades 1-6) had CLIL in some form, some 15% of upper stage schools (grades 7-9), and the corresponding percentage for the upper secondary schools was 25. In most cases the language of instruction had been English and the extent of CLIL varied from mostly rather limited exposure (a short course or a dozen lessons) to a considerable part of the curriculum. CLIL was often dependent on the interest of individual teachers, more seldom a conscious school policy.

Especially the researchers at the University of Vaasa have carried out intensive research on immersion in Swedish (for a review see, for instance, Björklund, Buss, Laurén & Mård, 1998).

With more and more immigrants (including refugees) coming to Finland, more attention has been paid to their enculturation and language studies. The law obliges the municipalities to look after the provision of services for immigrants. The goal of teaching the immigrants' heritage languages and Finnish or Swedish is functional bilingualism.

Usually refugees and asylum seekers and other immigrants are entitled to preparatory teaching for about one year in their own groups (with a maximum of 10 students), which are partly integrated with the other groups. After the preparatory period, immigrant students are placed in the mainstream classes but they continue to receive enhanced teaching of Finnish (or Swedish) and remedial teaching in other subjects. The provision of services is best in bigger cities.

Teacher candidates can specialise in Finnish (Swedish) as a second language and there is also a professional association of such teachers to support the work in the field.

Not suprisingly, there has been some debate on CLIL and immersion in Finland, and some critical voices have been heard about teachers' inadequate knowledge of the instructional language, mostly English. The National Board of Education made a review of CLIL and issued a decree about the language requirements.

The decree (March 26, 1999, effective from August 1, 1999: D 7/011/1999) concerns the language proficiency of teachers who teach in preschool and basic education (grades 1-9) using as the medium of instruction some other language than the pupil's mother tongue.

The Act on Basic Education (A 628/1998, §10) states that the language of the school is either Finnish or Swedish. The language of instruction may also be Sami, Romani and sign language. In addition, part of the instruction can be given in another language than the pupils' own language provided it does not jeopardise the pupils' ability to cope with the instruction. It is allowed to provide the instruction of some special group or school mainly or entirely in another language than those mentioned above.

The decree about teacher qualifications (D 986/1998, §9) states that the teacher must have a perfect mastery of the language of instruction. If the language of instruction is other than the language of the school, teaching can be provided by a person who masters the language of instruction. The National Board has the authority to decide how this language mastery is demonstrated.

The National Board of Education accordingly decided that the required language mastery is possessed by a teacher who has

1. obtained a proficiency level 7 in the National Certificates Examination (A 668/1994, D 669/1994), or
2. completed university level studies in the language equivalent to 55 credit units.

The above is required in such cases where four weekly hours or four courses in a school year are taught in the language in question.

The required language proficiency must be demonstrated by the end of three years from the issuance of the decree.
The present author has consistently advocated level 6 as sufficient, and finds it rather odd that even native speakers (of English) are required to take the test. In normal cases it should be sufficient to have proof that the (foreign) teacher's education has taken place in the language concerned.

Conclusion

It is obvious from the brief discussion in the above that bilingual education, immersion and content-and-language-integrated teaching and learning are matters of both great interest and great concern. It seems equally obvious that properly arranged they can lead to very good language learning, good academic performance and to potentially also to other cognitive benefits.

As mentioned earlier, educational programs cannot be transferred, and the results of educational/applied linguistic research cannot be generalized, from one context to another without very careful reflection and even then with caution. Yet, we in Finland can benefit a great deal from the experiences and research results obtained in other contexts. Krashen's sample program was presented in the above. In the references cited, Cummins also offers concrete suggestions on the "ideal" arrangement of bilingual education, which are worth careful study. We can even learn from the debate conducted in other contexts. One lesson is obvious: we in Finland would do well to avoid the prevailing tone of debate, especially the acrimonious tone in the US. Discussion should be based on research findings and research findings should be considered critically but not distorted to support one's preconceptions. Immersion and CLIL are indubitably very promising approaches to integrating the learning of content and language. They deserve a fair chance for implementation and they need reliable evaluation.

As applied linguists, educators and researchers, we should do our best to develop CLIL and immersion with appropriate preparation and training, appropriate organisation and support systems, as well as research and development work. Parents and students have the right to expect highly professional planning and management of educational innovations.

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