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The Need for a Research-based Policy in CLIL

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13.1 Introduction

Content and Language Integrated Learning (CLIL) has been practised in Malta since the introduction of schooling more than a century ago. For historical, social and cultural reasons, Maltese, the language of the local population, has had to coexist with another language in education as well as in most social domains. At first it was Italian, and more recently it has been English that has enjoyed the status of the 'language of education' and it is used for official purposes in the country (Malta was a British colony between 1800 and 1964). At school pupils are used to learning through an additional language which is not the first language of the home. Recently a number of research studies have shed important light on the potential difficulties emanating from this reality. At the same time, they have explained what strategies are successfully employed by teachers to help pupils overcome the 'burden' of learning almost all non-language subjects through English. This chapter highlights the most important research results of CLIL in classroom practices in Malta, and makes a recommendation for a policy based on an analysis of the situation.

13.2 Linguistic Context

As shown in Table 1, Maltese is the first language of 98% of the population of Malta, while the vast majority (76%) of Maltese are bilingual, since they are able to perform most communicative tasks in English as well as in Maltese. About a third of the Maltese people are fluently trilingual given that Italian is well known in Malta.

Languages	Population 324,386	% of total
Maltese	317,311	97.82
English	246,157	75.88
Italian	118,213	36.44
French	31,945	9.85
German	6,807	2.10
Arabic	5,955	1.84
Other	5,769	1.78

Table 1: Languages spoken in the Republic of Malta (1995 census results)

Since 1964 Maltese has been the national language and has shared co-official status with English. In most personal, social, economic, religious and other contexts both languages are used to varying degrees, but largely for the same functions. In Parliament and in the Law Courts Maltese takes predominance, while in business, for written administration and for international communication English plays a crucial role.

13.3 Languages in Education

The whole of the Maltese educational system is bilingual in Maltese and English, and pupils are obliged to take at least one other foreign language. Almost all of the examinations in non-language subjects are in English. In a small number of subjects, such as Systems of Knowledge, Maltese History and Religion, students are allowed to answer the examination questions in either English or Maltese. Most textbooks and the literature in general are largely available in English, including those for the subjects in which Maltese is recommended as the medium of instruction.

The National Minimum Curriculum (NMC) published in 1999, which is the first clear and explicit policy statement regarding language use in the classroom, makes the following recommendations:

- teachers of Maltese, Social Studies, History, Religion and Personal and Social Development teach these subjects in Maltese;
- teachers of foreign languages teach in the language in question; and
- teachers of the remaining subjects teach in English.'

The process of discussion prior to the publication of the NMC was an open one and involved teachers, parents, linguists and policy makers. The reasons given by the policy makers at the Ministry of Education for enforcing English-immersion education were that the level of English proficiency of Maltese students was (perceived to be) much lower than desired, and that non-language teachers' recourse to code-switching was not to be encouraged, since this was one of the reasons that lead to a lowering of competence in English. The aim of educators is for Maltese pupils to attain native-like competence in English. Maltese-English is not an accepted variety and it is perceived as a version of English 'full of mistakes'.

The counter-argument presented by educational researchers and teachers was that strict immersion in English was a barrier to pupil understanding and participation in lessons, which are basic ingredients in learning. Furthermore, linguists argued that since both learners and teachers are bilingual in Maltese and English, and since code-switching is natural in the local context outside the classroom, it would be presumptuous to say the least, to expect teachers and learners to change their linguistic behaviour in the classroom.

CLIL is a state of fact across schools, subjects and levels, and teachers do not receive any specific preparation except for a few hours dedicated to the subject of bilingual education in their pre-service training. It is taken as axiomatic in Malta that teachers are to use English and Maltese as necessary in the classroom, and that they are able to do this through the very fact that this is the way they have experienced schooling and learning themselves (for a detailed analysis see Camilleri 1996).

13.4 Quality and Research

The aims for using English in most non-language subjects are linguistic ones. The discussion on CLIL in Malta is clearly centred on the issue of whether English is causing difficulties; when, to which pupils, and how. Research on the use of language in the Maltese classroom has identified some potential problems, namely:

I the question of text difficulty;
II the lack of the necessary writing skills on the part of students;
III problems related to word understanding;
IV relationship between level of pupils' academic ability and the use of an additional language.

A number of strategies have also been highlighted, as they are regularly used by teachers to overcome these difficulties:

I code-switching between the native language and the additional language;
II the use of gesture and recourse to other non-linguistic means to make up for the lack of pupils' linguistic skills in English.

a *Reading with understanding*

Most of the English textbooks are imported from the UK and were written with the native English-speaking pupil in mind. Exceptions to this have been the primary level mathematics textbook used for several years but which is now no longer in use, and a number of physics worksheets that were purposely written by a Maltese team. The readability of a text is an important variable in pupil understanding and this includes, for instance, the use of technical and non-technical vocabulary and the length and complexity of sentences. In 1988 Alexandra Sollars conducted a wide-scale study on the readability of general science textbooks used in the first two years of secondary school by the less able pupils that attend Area Secondary Schools, as opposed to Junior Lyceums, which depend on entry examinations. A number of formulae may be used to test text readability and to compare levels of difficulty with the age of pupils. In fact, Sollars (1988), having applied two such formulae, reported that the British textbook used was too difficult for pupils of average and below-average ability. She concluded that ability (as measured by annual test results) is a significant factor in reading a science text with understanding, and that therefore teachers must be alert to the problems caused by the textbooks and the specific difficulties faced by these pupils, such as their reading ability and their motivation:

"When the pupils have to tackle work on their own, they will not show any progress unless they can fully comprehend what they are asked to do. Also, if the pupils' intrinsic motivation is low, providing books which have a high level of prose difficulty is more likely to lead to non-comprehension and frustration." [46]

b *Grasping register*

One of the common tasks of a teacher in a CLIL classroom is to explain subject-specific terminology. Furthermore, for learners to make sense when reproducing knowledge they need to be able to express themselves in the appropriate register.

Farrell and Ventura (1998) published an important study on word understanding by sixth form students (pre-university students who are among the top 15%) in Physics. Learners were given two tests, the first of which consisted of a list of the most frequently used technical and non-technical words in the scientific register of Physics A-level education, and the students were required to state whether they knew the meaning of each word or not. In the second test the words were presented in a sentential context and the students had to explain their meaning, and were allowed to explain them by drawing, by using their L1 (Maltese), or by paraphrasing. The results showed that there was a very low correlation between 'claimed' and 'actual' knowledge of the meaning of words. This study revealed that learners and teachers often run away with the idea that the technical language has been acquired, when in fact it has not.

Another relevant study is that by Farrugia (2003) which is based on ethnographic data and includes lesson observations and transcript analyses. She looked at immersion English classes at primary school level and compared the use of mathematical language by teachers and pupils with that in some other classrooms where code-switching was a common strategy. She concluded that in order for learners to grasp mathematical language and to make precise use of it in their second language, they need to have first acquired the mathematical concepts in their L1. She advises teachers to highlight the use of language and more specifically the mathematics register in their lessons.

As both Farrell and Ventura (1998) and Farrugia (2003) point out, words need to be understood and learned within the contextual setting provided by the subject matter. This means that a basic level of general English proficiency is not sufficient for successful content learning. It seems that not enough is being done in the classroom in order to ensure that learners grasp the relevant register.

c *Writing skills*

Another aspect of learning is writing. Learners are regularly asked to write in class work tasks, for their homework, and above all in examinations. The writing abilities of learners in their language of instruction must not be underestimated.

Farrell (1996) focussed on the writing skills of Advanced Physics students in their L2, English. He found that poor writing skills overall had adverse effects on the grades attained by students. In this case the Physics textbook was adequately matched to the students' comprehension skills, but students faced difficulties in expressing themselves in writing. Their sources of difficulty were, for example, inadequate vocabulary; unidiomatic English due to L1 influence; grammatical confusion of parts of speech, and spelling and punctuation. Farrell (1996) notes that as a solution to the perceived difficulties of Maltese pupils learning through English, a team of educators had produced worksheets with purposely-designed exercises that cut down on the use of writing. It was also reported to me by a teacher (Joe Ebejer, personal communication) that, in the classroom, it was common for teachers to 'teach' students how to reproduce knowledge in point form rather than in prose in order to help them 'avoid' committing language errors. Farrell (1996), however, argues that this is doing a disservice to Maltese learners 'as these were not being given the opportunity to exercise and improve their writing in science at a very crucial stage of their education' (p. 112). As a consequence, they remained crippled in their writing skills for a very long time, unless they found a teacher who was able to help them overcome the problem.

d *The language of examinations*

Ventura (1991) reported on a very interesting study whereby a wide range of students in different schools who underwent instruction in science where literacy is carried out through English, sat for a test in either the Maltese or English version of the same test. The groups were matched for equivalent abilities, background and preparation. The result was that the *"...performance of the more able in science is independent of the language of the test, but the less able obtain far better results if they take the test in Maltese"* (p. 17). He concluded that *"...there is a cut-off point in the effect of language on achievement. Pupils who can cope with the language demand of the questions show their true knowledge of science, others who do not have this minimum grasp of the language perform below their ability"* (p. 17). The results of this study point to the need of Maltese medium instruction and/or testing for lower-ability pupils, as it was the case in this group that language was a significant variable in scores obtained in a science test. Otherwise, it might be worth considering the introduction of a different syllabus for weaker learners.

13.5 Conclusions

Research carried out on CLIL in Malta has shown that it is not automatic for a pupil to perform well in a non-language subject taught through a language which is not their mother-tongue, even if it is the second language of the environment, and simultaneously acquire a high level of proficiency in that language. Policy makers need to take into

46 (Sollars 1988:26)

account the facts that: CLIL provides a special learning context that presumes the fulfilment of requirements such as (i) the need for learners to come to the CLIL classroom already prepared with linguistic baggage and a range of skills related to reading and writing in the relevant register; and that (ii) teachers need to be provided with the necessary training in related issues such as how to guide learners to interact with text.

It is desirable for further research to be carried out so as to ascertain how lower ability students can be aided in their learning difficulties caused by the additional language used as a medium of (especially written) instruction, and also to ascertain whether it would be more beneficial to move towards a policy which discriminates more clearly between learner needs, syllabus content, medium of instruction and type of school.

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