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The Hague Office

Bezuidenhoutseweg 253
2594 AM The Hague
The Netherlands
T +31 70 381 44 48
F +31 70 383 19 58
denhaag@epf.nl
www.europeesplatform.nl

Alkmaar Office

Nassauplein 8
1815 GM Alkmaar
The Netherlands
T +31 72 511 85 02
F +31 72 515 12 21
alkmaar@epf.nl
www.europeesplatform.nl

European Centre for Modern Languages

Nikolaiplatz 4
8020 Graz
Austria
T +43 316 323554
F +43 316 323554-4
information@ecml.at
www.ecml.at

Authors Margaret Apresyan (ARM), Gunther Abuja (AT), Mary Chopey-Paquet (BE), Stefka Kitanova (BG), Jarmila Novotná, Marie Hofmannová (CZ), David Marsh, Heini-Marja Järvinen Et Kim Haataja (FI), Patricia Bertaux (FR), Dieter Wolff (DE), Judith Kovacs (HU), Gisella Langè (IT), Elena Sentevska (MAC), Antoinette Camilleri Grima (MT), Anne Maljers (NL), Wenche Svenhard, Kim Servant, Glenn Ole Hellekjær Et Henrik Bøhn (N), Hiie Asser Et Peeter Mehisto (EE), Bronislawa Zielonka (PL), Danica Lauková (SK), Carmen Munoz (E), Sigrid Dentler (S), Do Coyle (UK)

Final editing Anne Maljers, David Marsh Et Dieter Wolff

Text editing Nick Bolton

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WINDOWS ON CLIL

Content and Language Integrated Learning in the European Spotlight

Anne Maljers, David Marsh Et Dieter Wolff, editors

Students' outcomes are not monitored, but many students graduating from Language Schools go on to study abroad or in Bulgarian universities. Of all graduated students, more than 90% become university students, but there is no official data on how many go to study abroad. There is no quality assurance system in schools specific to CLIL.

Some weaknesses should be mentioned: many schools develop CLIL, but there are not enough qualified teachers and not enough materials – and if there are, the books are literally translated and the language is difficult for both students and teachers. Among the threats is the possible transformation of the schools. Finally – and probably this is the main characteristic of Bulgarian CLIL – there are controversies: there have been many years of teaching subjects in a FL/CLIL but no training for teachers, and there are few studies on the subject, or they have started only recently.

In my opinion, specific future developments concern widening the training system for teachers and improving the quality of teaching and learning, as well as that of materials development. There should be development and application of specific CLIL criteria along with good practice.

5 Czech Republic



Jarmila Novotná & Marie Hofmannová

5.1 Linguistic Situation and Language Policy in the Czech Republic

The Czech Republic – *Česká Republika* (1995 estimated population 10,296,000), 29,677 sq miles (78,864 sq km) is situated in central Europe. It is bordered by Slovakia in the east, Austria in the south, Germany in the west, and Poland in the north. The official language of the country is Czech; minority languages relate to the population breakdown (see table):

Czech Republic (1991)	Czech + Moravian + Silesian	94.8%
	Slovak	3.1%
	Polish	0.6%
	German	0.5%
	Romany (gypsy)	0.3%
	Hungarian	0.2%
	other	0.5%

The majority of the population speaks *Czech* as their first language, while *Slovak* is the first language of the largest minority. These mutually intelligible languages belong to the West Slavic language group, which uses the Roman rather than the Cyrillic alphabet. Czech as a literary language dates back to the late 13th century.

Nowadays, Czech is the language of instruction in all types of schools. Minorities are guaranteed the right to education in their mother tongue by the Education Act. After the political changes of 1989, *English* became the first foreign language at primary schools, where it replaced compulsory Russian teaching. Secondary school learners have been enabled to select from a larger variety of modern languages. In the past, the customary approach was to present a foreign language in a compartmentalised way, by means of traditional methods, resulting in linguistic competence. Nowadays the main focus is to achieve competence in communicating in a foreign language, but it took more than a decade to introduce communicative language teaching all over the country.

The Ministry of Education, Youth and Sports permits schools to provide instruction through a foreign language in selected subjects. This has become a prerequisite for the establishment of a network of schools with specific educational programmes. In addition to compulsory foreign language teaching to learners aged 9 to 19, experimental *bilingual programmes* have been introduced to a limited number of upper secondary

schools where several content subjects are taught through a foreign language. In the Czech Republic such schools are called bilingual, whereas in a broader educational context in Europe this approach is called *Content and Language Integrated Learning (CLIL)*. As regards the learners' language development, the aim is to reach some level of bilingualism. Bilingual or plurilingual competence of language users is generally uneven. The likely ideal of CLIL is to bring the learners to 'functional bilingualism', i.e. the knowledge of two languages for a certain domain, for a certain content area. As an instrument of instruction, Czech CLIL uses those modern languages with a long tradition. Since Czech as the mother tongue of the learners (L1) is in a strong position, the language of instruction (L2) is a 'foreign language' and not a 'second language' – a situation that is typical of inland countries. As for the status of any L2, conditions in the country are not favourable because there is no support from real L2 communities in terms of authentic input. As one of the prerequisites for enrolment in Czech CLIL six-year programmes is the *criterion of proficiency*, the learners need to reach as high a competence level in L2 as possible. So far, development in L2 has been measured and assessed by language exams aimed at students aged 18/19. Local secondary school leaving exams, however, are not yet standardized and therefore, internationally recognized exams, such as FCE, or local state exams attract more and more candidates each year. In order to prepare learners aged 13/14 for CLIL programmes, intensive, general foreign language training is organised in the first two years of each secondary school with a bilingual section.

The main characteristic feature of CLIL is integration. It is believed that content and a foreign language can be better developed through gradual *interplay* (25–100% of the content is taught in a foreign language). From the outset, the proportion of content and L2 has been recommended by the policy makers. As regards the foreign language in Czech schools with a CLIL programme, the approach can be described as 'late total immersion': L2 constitutes almost 100% of the total language of instruction in several compulsory subjects. Linguistic adjustments are minimal and are requested by learners. This approach is beneficial for the development of knowledge and skills in the content area; it maximizes learning objectives. On the other hand, unfortunately, this means a slight drawback for L1 specific terminology development. Therefore, this is compensated for in the final year by inclusion of optional seminars carried out in L1 for easier linkage to higher education. In the early years of CLIL in the Czech Republic, some schools also experimented with an 'early partial immersion' approach where parts of the lessons were taught in L1 and parts through L2. This proved to be more advantageous for language learning, especially for the development of vocabulary. The disadvantages were described in the content areas where it resulted in limiting and minimizing learning objectives.

Formal language improvement classes in L2 continue alongside CLIL until the end of school attendance, with three 45-minute lessons per week on average. They are aimed at the development of general communicative competence. In some schools there are still

strong tendencies towards achieving academic skills, attention being paid to language forms, vocabulary, reading and writing.

Considering the criterion of age with regard to foreign language development, earlier Czech experiments carried out in 'schools with extended language teaching' proved that learners aged 11 seem to be more effective than those whose foreign language instruction commenced at the age of 8. Slovak and Austrian experiences, however, have shown contrasting results. Younger learners can make more use of second language acquisition (SLA); older learners can better cope with the level of abstraction required by the content.

5.2 CLIL in the Czech Republic

Education has been undergoing development since the political change in 1989. The transition proceeded from de-monopolisation to a qualitative diversification of educational opportunities. Recommendations for new educational policies and structures were stated in the 'Reviews of National Policies for Education' prepared by the Organisation for Economic Co-operation and Development (OECD) in 1996.¹¹

In the Czech republic traditional strong emphasis on centralisation often meant disregard or even rejection of trends and developments occurring in educational systems of advanced democratic countries since the war – mainly different forms of diversification. Similarly to Austria and other central European countries and in total contrast to the Anglo-Saxon tradition, the Czech Republic is still very legalistic: only that which exists through law can exist at all. Therefore, the legislative framework has been of crucial importance for almost all types of educational reform. At the same time, any gaps in legislation often make reforms almost impossible. This might be the explanation for why the extent of the school network with bilingual programmes is limited to seventeen schools only. Another reason could be that teachers and teaching authorities find it difficult to change.. A wide range of aspects of the heritage of the past regime have been identified, most of them of a sociological nature and falling under the heading of inertia of acquired attitudes and behaviour patterns. Teachers have invested emotional capital in acquiring their knowledge and teaching skills and that is why they defend the integrity of knowledge strongly. Emotional investments lie at the base of their negative attitudes towards new educational trends.¹² Nevertheless, after November 1989, education, similarly to other sectors of Czech society, experienced many changes. Some of them were initiated by the state, and others were the result of spontaneous activity of individual schools, teachers, and students.

¹¹ For more information see, for example, Novotná, Jarmila and Hofmannová, Marie. Attitudes towards teaching mathematics in English to Czech students. In Gagatsis, Athanasios, Papastavridis, Stavros. *3rd Mediterranean Conference on Mathematical Education*. Athens: Hellenic Mathematical Society, Cyprus Mathematical Society, 2003. p. 371–375.

¹² For more information see Hofmannová, Marie, Novotná, Jarmila and Hadj-Moussová, Zuzana. Attitudes of Mathematics and Language Teachers towards New Educational Trends. In N.A. Pateman, B.J. Dougherty, J. Zilliox. *Proceedings PME 27*. University of Hawaii, CRDG, 2003. College of Education: Vol. 3, pp. 71–77; Marsh, David and Langé, Gisela (Eds.), *Implementing Content and Language Integrated Learning*, Jyväskylä, Finland: Continuing Education Centre, University of Jyväskylä 1999.

As a rule, younger people are more open and more positive in their orientation to new reforms in education.

One of the first educational programmes implemented in 1990 in accordance with EU documents was a form of CLIL launched by the Ministry of Education, Youth and Sports and simultaneously researched by a project of Socrates Lingua A – Trans-language in Europe (TIE-CLIL). The project has undergone development in several directions: a growing number of schools (from 4 to 17), the length of study (1990–1995: five-year programmes, since 1996 six years of study). Further changes concerned curricula development, the use of textbooks and teaching materials, and teacher education. These factors will be dealt with below.

5.3 The Structure of Study

Bilingual programmes constitute independent 'bilingual' sections of secondary schools with special organization for a six-year study. The first two years, which stress L2 preparation, are a part of compulsory education (nine years of 'basic school'); therefore instruction must correspond with the binding curricula for this level. Learners who are interested in CLIL enrolment take up to twenty additional lessons of L2 per week. From the third year, up to six content subjects are taught through a foreign language. Neither content nor L2 are adapted to the learners' level. The curricula for this level are procedural; they may differ depending on the extent of cooperation with the foreign partner. However, the aims related to the contents of Czech curricula are binding for all bilingual sections. The final year offers optional seminars for mastering the subject terminology in L1.

Generally, all subjects can be taught through the foreign language, although different subjects offer different advantages. There are subjects that mainly rely on verbal communication and those in which non-verbal communication, and visual and graphic materials are used to clarify and integrate content presented verbally. Most of the content subjects taught through a foreign language in the Czech Republic (e.g. mathematics, physics, chemistry, biology, geography, and history) belong to the second group.

Various factors can be used when choosing which languages should be used for CLIL. They concern:

- the geo-political situation of the country or region where the school is located;
- the degree of similarity between the foreign language and the learners' mother tongue;
- the subject to be taught through the foreign language;
- local resources.

Czech bilingual schools consider mainly the first and last of these factors. Languages used are French (6 schools), German (4 schools), Spanish (3 schools), Italian, and English (2 schools each). The choice of languages is largely influenced by tradition; bilingual education was available already before World War II.

To conclude, it needs to be stated that each school is given a certain degree of freedom in the way in which CLIL is implemented, e.g. the selection of content subjects, number of lessons per week, choice of textbooks and teaching materials, methodology and assessment procedures. The number of lessons devoted to the mother tongue is the same regardless of the type of school. Czech CLIL is subject-based and refers to both the public and private sectors of education.

5.4 Aims

The aims of CLIL are of a general nature. As stated by Pavesi et al. (2001) and by Marsh and Langé (2000)¹³:

- CLIL can be seen as an educational approach that supports linguistic diversity, and a powerful tool that can have a strong impact on language learning in the future.
- CLIL is an innovative approach to learning, a dynamic and motivating force with holistic features. It constitutes an attempt to overcome the constraints of traditional school curricula.
- CLIL aims to create an improvement in foreign language competence and development of knowledge and skills in other non-language areas.
- CLIL also has an impact on conceptualization – literally how we think. This allows better association of different concepts and helps learners go towards a more sophisticated level of learning in general.

5.5 Teachers

Czech CLIL involves several types of teacher:

- Czech teachers qualified to teach the content area who have sufficient competence in L2;
- exchange (foreign) teachers supported by foreign ministries of education, educational authorities or European programmes;
- Czech teachers qualified in both the content subject and the foreign language. As a rule, the teaching load of CLIL teachers is lower than average (up to 3 lessons per week).

Since the 1990s, the Faculty of Education, Charles University in Prague has offered joint degree pre-service teacher training courses combining content subjects with foreign languages. At present, chemistry, mathematics, art, music, history and politics can be studied together with English, German, French or Russian. There are plans for further diversification of CLIL opportunities where the learners could benefit from exposure to a foreign language in the subject areas corresponding to their individual preferences.

5.6 Student Recruitment and Certification

Students can apply at the age of 13 (7th year of compulsory education). At the end of the school year, they take written entrance tests in Czech and Mathematics. Target

¹³ Pavesi, Maria, Bertocchi, Daniela, Hofmannová, Marie, Kazianka, Monika. *CLIL Guidelines for Teachers*. TIE-CLIL Milan: M.I.U.R., 2001; Marsh, David and Langé, Gisella (Eds.). *Using Languages to Learn and Learning to Use Languages*. Jyväskylä: UniCom, TIE-CLIL, 2000.

language knowledge is not required. The examination is coupled with a psychology test. The number of candidates exceeds several times over the 'numerus clausus', which is 30 students per school per year.

As regards leaving examinations in bilingual schools, different schemes have been introduced. Unlike regular upper secondary school leaving examinations with a minimum of four subjects, where two are compulsory (Czech and a foreign language) and the rest are optional, bilingual students take seven subjects. Since there are no standardized leaving examinations in the Czech Republic, each school can organise the final written and oral tests independently. Research comparing and contrasting these types of tests in bilingual programmes has brought striking findings¹⁴: The final exam, i.e. the school-leaving exam, differs significantly in its format. Whereas in one school the exam can take the form of a 15-minute oral test preceded by 15 minutes of written preparation, another school can administer both a 15-minute oral test and a written 180-minute test. In the second type, assessment of the candidates' achievement is 40% based on the oral part and 60% on the written part of the test. In CLIL tests no school assesses the examinees' language proficiency. Language errors are not taken into consideration when testing content knowledge and skills.

The following text is an example taken from French bilingual schools in the Czech Republic¹⁵. Here are the main characteristics of the leaving examinations:

- They unite different traditions of completing the study in both educational systems where the Czech school-leaving examination, except for the written test in the mother tongue, is based on oral exams, whereas the French school-leaving exam is based predominantly on written tests.
- They respect anonymous participation required for collectively guided correction in one place and at one time.
- They considerably increase the number of school-leaving subjects with regard to the Czech tradition.

Part of the preparation for the school-leaving exams is also passing of the so-called 'Bac blanc', i.e. a practice test at the beginning of the second semester. At the end of the 5th year, the learners take the first part of the exam, involving both written and oral exams in the Czech language and literature, and the French language and literature. At the end of the 6th year the learners take a written exam in French mathematics, which takes 4 hours, and two other written exams taking 3 hours, where the students opt between four other subjects taught in French – Physics, Chemistry, History and Geography.

¹⁴ Hofmannová, Marie, Novotná, Jarmila and Pipalová, Renata. *Assessment instruments for classes integrating mathematics and foreign language teaching*. ICME 10, TSG 27, Copenhagen 2004. www.icme-organisers.dk/tsg27/papers/16_Hofmannova_et_al_fullpaper.pdf

¹⁵ This description was adapted from *Bulletin SUF*, 6/96, which is the official document published by the French Cultural Institute in Prague

The learners then take another two oral school-leaving exams from other options that can become school-leaving subjects according to the regulations. If they again choose one of the above-mentioned subjects with a written examination, they can choose the language of this examination, either Czech or French.

5.7 Curriculum and Content

The issue of content is related to the concept of *knowledge*. In CLIL, the transition from declarative to procedural knowledge is enhanced by the use of foreign textbooks and teaching materials, which reflect the change of approach/methodology. We should distinguish between 'school knowledge' that is presented by an authority, and 'action knowledge' gained by learners for particular purposes that becomes incorporated into their present view of the world. The CLIL curricula were worked out in cooperation with foreign partners, and with Czech and foreign university specialists. The procedure might often be a compromise between the Czech school and the target language country partner institution, but all CLIL programmes must fulfil the aims and objectives of Czech educational curricula.

There is no specific *language curriculum* in CLIL classes. As was stated above, there are preparatory courses in the first two years of the 'bilingual' programme offering extra contact time in L2. After that, foreign language instruction continues with the same number of lessons per week as in any other secondary school in the country. As a result, in CLIL sections the overall number of contact hours with L2 is much higher, so that learners benefit from extended exposure to the target language.

5.8 Methodology

CLIL is not related to one specific methodology. However, it requires active methods, cooperative classroom management and emphasis on all types of communication (linguistic, visual and kinaesthetic). The change of the spoken medium may cause some anxiety on the part of the learners. Stimulation, game-like activities, involving students easily, getting them to talk without any embarrassment or inhibitions, and helping to promote a relaxed atmosphere are broadly used in foreign language teaching. Learners work in pairs or groups and their primary sources of learning are authentic materials. The tools the CLIL approach applies (brain-storming, problem-solving, induction, rule-seeking, guided discovery, etc.) maximise the opportunities for the learners to become proficient, independent and successful.

In the Czech Republic, the educational system in general has been undergoing a shift from a transmission model of teaching towards cognitive skills development. The traditional view, i.e. passing over information, is gradually losing ground. The advent of new, interactional strategies and dialogic structures offers opportunities to promote holistic ways of learning. The major changes between the teacher-directed and teacher/

learner-directed environments concern the following areas. Firstly, it is the shift from teaching to learning which entails learners' involvement in the contents, methods and their own learning processes. Learners share the teacher's responsibility as regards 'what to learn' and 'how to learn'. Secondly, there is a change in the learner's role, that is to say that learners leave the comfort of their passive roles and they are encouraged to discover their competencies, and to think about various factors that contribute to their successful learning process. Thirdly, there is an obvious change in the teacher's role. Teachers should be open to learners' ideas and suggestions, and be consultants as well as participants in the learning process. The last change is the classroom as a rich learning environment, a kind of well-managed laboratory or workshop, in which things are tried and investigated. In order to develop metacognition, learners naturally need attentive, sensitive and encouraging guidance from teachers who help them to identify strategies leading to effective learning by introducing a list of possible strategies and practising them with learners, at the same time making them conscious of the strategies they had been using intuitively up until then.

In CLIL it is necessary to integrate three components: a content-based curriculum, academic language skills development, coupled with the development of thinking strategies (metacognitive, cognitive, social, affective). The selection of methods and teaching strategies needs to correspond with the above requirements. Czech teachers may find inspiration in methods used in bilingual learning environments abroad, e.g.

- Cognitive Code Learning (CCL) – the method used in English language teaching in the early 1970s
- The Cognitive, Academic Language Learning Approach (CALLA) – the method aimed at limited English proficiency students
- Cooperative and experiential learning.

5.9 Materials

A lot of contact time in CLIL is spent with textbooks and other materials such as worksheets and computer programs. Therefore, such materials constitute an important part of language and content input. Bilingual classes may involve the use of two types of textbooks and teaching materials, those written in L1 and those published in the countries of the target language and used in schools in those countries. The problems that teachers and learners face when using L1 texts is clear – the necessity of translation. The experience from CLIL classes in the Czech Republic shows that even the second type of text is not the best solution. The implications of linguistic and cultural differences as regards comprehension are important. Obstacles were identified within each of the following areas: vocabulary from outside the content subject and realia, content subject

16 For more information see Novotná, Jarmila and Moraová, Hana, *Cultural and linguistic problems of the use of authentic textbooks when teaching mathematics in a foreign language*. ZDM, 2005

vocabulary and grammar.¹⁶ The teachers usually modify the context of problems presented in the textbooks in order to make it more comprehensible for their learners. Other modifications refer to methodology. The required degree of balance between language and subject learning must be sustained.

5.10 Expectations

What is it that makes a person want to learn a subject in a language different from his or her own? Young people in general have pragmatic goals, similar to instrumental motivation. They want to make themselves understood when they travel, seek new friendships and acquire knowledge. In a survey of young Europeans' attitudes towards learning foreign languages it was found that 29% wanted to learn an additional language to increase their career possibilities, while 14% wanted to learn in order to live, work, or study in the country (Commission of the EC, 1987). The largest category – 51%, were motivated by 'personal interest' (Cook, 1992).

The socio-educational model of learning (Gardner, 1985)¹⁷ incorporates the students' cultural beliefs, their attitudes towards the learning situation, their degree of integration and their motivation. In CLIL it covers several types: both extrinsic and intrinsic, but also instrumental motivation. To begin with, learners' priorities are interesting classes and teachers who show them their success. They are willing to engage in an activity simply because it is fun, exciting, informative, challenging, relevant and new. In later years students will probably be extrinsically motivated, i.e. more concerned with factors lying outside the classroom, as they will have long-term goals. More exposure to L2 is another reason why CLIL attracts so many learners. The CLIL programme, which is free of charge, offers enhanced foreign language competence related to a content area. In future, this will give students easier access to opportunities in the European labour market.

5.11 Pre-service Teacher Training

There is only one university in the Czech Republic that has included a systematic course of teacher training for CLIL in its curricula so far. It is Charles University in Prague, Faculty of Education. Since 1999/2000, the Department of Mathematics and the Department of English Language and Literature have been running a special optional course whose aim is to give students involved in pre-service teacher education insight into both theoretical and practical aspects of CLIL, i.e. to extend teacher education and provide its graduates with enhanced qualification – teaching mathematics in English.¹⁸ The course covers

17 Gardner, R.C. *Social Psychology and Language Learning: The Role of Attitudes and Motivation*. Edward Arnold, 1985.

18 In 1999–2001, Charles University in Prague, Faculty of Education, participated in the European Socrates Lingua A project TIE-CLIL – *Translanguage in Europe, Content and Language Integrated Language*. The major aim was to provide pre- and in-service development programmes in CLIL for language teachers and subject teachers through building on existing knowledge of this field, to provide state-of-the-art understanding of theory and practice. One of the outputs of the project is the book Langé, G. (Ed.), *TIE-CLIL Professional Development Course*. Milan: M.I.U.R. 2002, designing modules for CLIL teacher training.

language and cultural preparation, classroom observations, micro-teaching of peers with the use of innovative teaching methods and approaches, and a variety of related activities.¹⁹

The CLIL course develops the participants' knowledge and skills in English for further use in the teaching of mathematics, knowledge and skills in mathematics through the L2, and use of reciprocal teaching strategies with regard to students' individual differences. The course encourages interaction of the L1, L2 and the language of mathematics, and pays attention to the differences in the teacher's work, i.e. teaching mathematics in the L1 and in the L2. In the CLIL teacher training programme, the following items are substantial: interaction of the three languages during teaching mathematics in L2 with attention paid to advantages, disadvantages and possible problems that might occur, and differences in the work of a mathematics teacher when teaching in L1 and L2.

Course organisation

This two-semester pre-service teacher training course is open to students from the third year of their studies. It has the form of a seminar, two teaching units per week, with many activities run in the form of a workshop. It consists of:

- graded lesson observation with the aim of mastering subject-specific vocabulary and classroom teacher talk necessary for successful CLIL implementation, elaboration of observation sheets focused on teacher talk and classroom interaction;
- plenary discussion based on participants' experience and observation sheets;
- participants' work with a variety of textbooks and teaching materials for CLIL in comparison with similar materials in the mother tongue (L1); the aim is to achieve awareness of the specificity of expressing the subject matter in L2 with regard to the age and language competence of the students, and possible obstacles based partly on L1 and L2 interference and partly on the relationship between the subject matter and background knowledge of the target language community;
- participants' individual work with the aim of mastering subject-specific vocabulary in the textbook context and to revise and enlarge lexical items related to classroom teacher talk, participants' group work with the aim of adding CLIL-specific knowledge and skills;
- preparation of short teaching sessions where the participants show their mastery of teacher talk during any one of the lesson stages, i.e. presentation, practice, problem solving etc.;
- actual micro-teaching of peers with immediate feedback, which takes the form of analysis and plenary discussion based on filling in scribble sheets for each session;
- actual teaching at a selected school where CLIL is taught, assessed and analysed with the supervisor from the school with the help of observation sheets filled in during the teaching process.

19 For more information see Novotná, Jarmila, Hadj-Moussová, Zuzana and Hofmannová, Marie. Teacher training for CLIL – Competences of a CLIL teacher. In: *Proceedings SEMTO1*. Ed. J. Novotná, M. Hejný. Univerzita Karlova v Praze, Pedagogická fakulta, Praha 2001, p. 122-126.

20 The course programme is easily adaptable for in-service teacher training

Note: The course was originally designed for teacher training of prospective teachers of mathematics and the English language. It is run in English. Regardless of this fact, prospective teachers of other non-language subjects and foreign languages (and moreover, not only language specialists) also participate. This feature enriches the course in the multilingual perspective.

Since the opening of the CLIL course, the number of participating students choosing topics of their diploma theses in teaching mathematics through the medium of a foreign language has increased. The focus covers several aspects of CLIL, from suitable teaching strategies to terminological issues. This interest confirms the positive attitudes of students to CLIL.

Examination of the CLIL course confirmed the increasing flexibility of the course participants in didactical and methodological aspects of teaching mathematics. An insufficiency was detected in the development of specialised mathematical terminology. In a recent course, a number of activities supporting the use of mathematical terminology have been used and this trend will continue in the future.

5.12 In-service Teacher Training

There is no systematic in-service teacher training for CLIL. Occasional seminars or workshops are organised during teachers' conferences in cooperation between teacher training centres and universities.

Since the beginning of bilingual programmes under the supervision of the Ministry of Education, Youth and Sports, cooperation with foreign partners has been one of the key characteristics of the CLIL projects. In most cases, methodology training and language improvement study stays are offered to teachers by target language countries. With the increasing number of new teachers in training for CLIL, the extent of this type of cooperation may diminish.

5.13 Quality and Research

In the Czech Republic, a longitudinal research project aimed at selected aspects of instruction in a foreign language has run as a follow-up of the European project T.I.E. – CLIL (*Trans-language in Europe: Content and language integrated learning*), 1998-2001. The project deals with the language output of the participants of the teaching/learning process and the influence of language on cognitive processes while learning. In the project, the teaching of mathematics through English serves the researchers as an example of use of the CLIL method in Czech schools. The method has, however, a more general validity, since in the Czech Republic, other foreign languages and a number of other non-language subjects are employed in CLIL.

The CLIL method has a dual focus. In relation to cognitive processes a foreign language becomes an instrument for processing and storing of information. The use of a foreign language requires a different, deeper way of information processing and leads to enhanced acquisition of both the language and the non-linguistic content matter. Owing to the differences in 'mental horizons' reflecting the work in a foreign language, CLIL also influences the formation of notions, and thus literally the way we think. The research stresses orientation towards a variety of aspects of thought and speech, and their mutual relationships. The issue of teaching and learning non-linguistic content matter in an additional language enables the combination of domains that traditionally have been studied separately. Recently this link has received a lot of attention. At present, the research focuses mainly on the following domains: the relationship between communication and development of thinking in CLIL, assessment, division of attention in CLIL teaching, and teacher training.

5.14 Future Developments

At present, Czech bilingual programmes are designed for relatively small groups of carefully selected upper secondary school students with high ambitions, whose characteristics differ in terms of cognitive, psychological and social factors. The expected changes in the future are rooted in the changes to the whole educational system in the country.

After more than 10 years of somewhat spontaneous and chaotic changes in the Czech educational system, a new concept in educational policy was accepted in 2001. It was published in the *White book*. It resulted in the implementation of new legislation and in the creation of new educational documents.

The key document is the 'Rámcový vzdělávací program' (RVP), i.e. Educational Programme – Frame of Reference. It stresses the multilateral cultivation of a child's personality, compact cognitive development within the cognitive domain, and the domains of competences, attitudes and values. This document, in accordance with the latest trends in education in EU countries, highlights the decentralisation of education, increases in school autonomy and opens space for transformation of the teaching/learning process.

An important innovation is that the RVP enables different approaches to education in accordance with individual educational needs of learners and anticipates the possibility of choice and also the possible variety of educational approaches, methods and forms. It defines all that is common and imperative in education. Foreign language teaching and information technologies are a priority.

The RVP is a binding basic pedagogical document. It is the common general frame of reference for the 'Školní vzdělávací program' (SVP), i.e. School Educational Programme. The SVP is a document used by schools to realize education. It is the responsibility of the head-teacher to implement the SVP; other teachers participate. The SVP may include a specific programme for talented students as well as for students with special needs.

This new organisational framework in education opens space for more schools to offer CLIL programmes, depending on students' and parents' demands.