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Language Policy Division
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*THE LINGUISTIC AND EDUCATIONAL INTEGRATION OF CHILDREN AND ADOLESCENTS
FROM MIGRANT BACKGROUNDS*

STUDIES AND RESOURCES

N° 2

Language(s) of Schooling: Focusing on vulnerable learners

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LIST OF STUDIES AND RESOURCES ACCOMPANYING THE CONCEPT PAPER ON

The linguistic and educational integration of children and adolescents from migrant backgrounds

1. *Language diagnostics in multilingual settings with respect to continuous assessment procedures as accompaniment of learning and teaching* – Drorit Lengyel
2. *Languages of schooling: focusing on vulnerable learners* - Eike Thürmann, Helmut Vollmer and Irene Pieper
3. *Migrant pupils and formal mastery of the language of schooling: variations and representations* – Marie-Madeleine Bertucci
4. *Capitalising on, activating and developing plurilingual and pluricultural repertoires for better school integration* – Véronique Castellotti and Danièle Moore
5. *Professional development for staff working in multilingual schools* – Jim Anderson, Christine Hélot, Joanna McPake and Vicky Obied
6. *Co-operation, management and networking: effective ways to promote the linguistic and educational integration of children and adolescents from migrant backgrounds* - Christiane Bainski, Tanja Kaseric, Ute Michel, Joanna McPake and Amy Thompson

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...educators have begun to realize that the mastery of academic subjects is the mastery of their specialized patterns of language use, and that language is the dominant medium through which these subjects are taught and students' mastery of them tested.

Jay L. Lemke (1989)

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Introduction

In the Concept Paper of the Council of Europe “Linguistic and educational integration of children and adolescents from migrant backgrounds” (2010) the distinction between conversational and academic language has been briefly discussed (in section 2), pointing out that in order to achieve educational success pupils from migrant backgrounds must be more than conversationally fluent in the language of schooling: they must also master the varieties of academic language that constitute the fabric of the different curriculum subjects.

All pupils face this challenge, whatever their linguistic background. However, research has established that learners from socially and economically disadvantaged backgrounds tend to find the challenge particularly difficult to overcome. Because knowledge is virtually inseparable from the language that embodies it, the project “Languages in Education – Languages for Education” (LE) of the Council of Europe takes the view that all teachers must be language teachers in the sense that they are aware of the specific language demands of their subject(s) and of appropriate strategies for language support. The following study elaborates on this theme, extending the arguments above and suggesting some of the ways in which schools, teachers and learners can meet the challenges of language across the curriculum, especially focusing on the needs and perspectives of vulnerable learners.

The fact that this paper is mainly concerned with the development of competences in the dominant language of schooling, especially of bi-/plurilingual students with a migrant background, does not question at all the value of linguistic and cultural diversity for inclusive mainstream education. We acknowledge explicitly that those languages young people bring to school – even when they are not necessarily part of the curriculum – fulfil valuable functions not only for the individual learner, for his/her cognitive growth and his/her positioning in a complex socio-cultural setting, but also for their monolingual peers who can experience the opportunities and challenges of cultural and linguistic diversity through informal interaction and also through the reflection on language encounters in the classroom and in interdisciplinary projects.

Inclusive education has to provide for all the different groups of migrant learners, whose situation can differ enormously. For example, special attention has to be paid to the needs of learners who have newly arrived in a receiving country and who have no or only very little knowledge of the dominant language. This group of vulnerable learners definitely needs specific professional attention and support helping them to “survive” and to stabilize themselves and to acquire the basic means of everyday communication quickly. This must go hand in hand with the presentation of age-appropriate cognitive concepts in subject-matter learning (if possible supported by teaching in their home language) and the acquisition of basic elements of the school-specific register.

These introductory remarks are intended to make the reader aware that the following discussion of the specifics of the language of schooling should be embedded in a comprehensive approach to education which values all cognitive, language and cultural assets young people bring to school.

1. The language factor of school achievement

The world of education is challenged by the fact that a large proportion of children and young people perform below their potential in school, i.e. their achievements do not match their natural abilities. This affects all aspects of their future lives and limits their potential to participate actively in public life and to compete successfully for employment. There is a serious achievement gap in most of the educational systems across Europe, the United States and other parts of the world, and this gap continues to exist despite sustained and large-scale efforts to close it.

Some causal factors have been identified which predict low achievement and school failure. They originate either in the individual learner (e.g. motivation, self-concept, task/goal orientation), or in the specific social/family background (e.g. expectations, values and attitudes towards education, family cohesion, family support), or in the school context itself (e.g. teacher expectations, teacher

motivation, teaching styles, peer relationships). However, there are general patterns underlying these factors and they threaten social cohesion, since socioeconomic status, ethnicity, language and cultural background strongly intervene in formal education. Large-scale assessment studies such as TIMS, PISA, DESI, PIRLS/IGLU have proven beyond doubt that children from marginalised and hence from vulnerable groups perform at a significantly lower level than students from the autochthonous majority.

The personal, economic, and social costs of academic underachievement are high and growing. Each year, increasing numbers of students enter school with circumstances in their lives that schools are ill prepared to accommodate. Yet from this academically and culturally diverse population must come the next generation of scientists, engineers, and other skilled professionals. (Costello 1996)

In the past, schools have often responded to low academic performance with strategies affecting the organisational set-up of teaching and learning such as ability grouping, grade retention, special education, and pull-out programmes in which vulnerable students are removed from their regular classrooms and offered remedial instruction in particular subject areas. There is a danger inherent in these strategies that marginalized groups will be “being judged and found wanting based on negative stereotypes related to [their] social category membership” and that this “can seriously undercut the achievement of immigrant and minority students” (Schofield/Bangs 2006: 93). However, several decades after the introduction of remedial measures, achievement gaps still exist to a greater or lesser extent. Indeed, there is evidence that such measures may actually reduce student engagement and learning opportunities while stigmatizing those they are designed to help. Recently, pedagogical approaches have begun to focus on students’ assets, on varied teaching strategies, and on providing meaningful scaffolding support. Another aspect of critical importance for each child's success in school is the emphasis on high expectations for all students and the fostering of resiliency, i.e. the ability to adapt and succeed despite risk and adversity.

In the course of several major school-achievement surveys a strong correlation was established for primary as well as secondary education between language competences (esp. reading comprehension) and performance in non-language subjects¹ (e.g. mathematical and scientific literacy). In-depth follow-up studies indicate that the most powerful predictors for mathematical competence are socioeconomic status, migration status, the family’s cultural capital, previous education and family language (see Table 1).

Predictor for mathematical competence	Variance: Prediction rate in %
Socioeconomic status	16.5
Migration status	3.0
Cultural capital	2.0
Pre-school education	1.6

¹ The use of the term “non-language subjects” to denote “subjects with a non-language content” (e.g. chemistry, history, geography etc.) appears to be counterproductive for a project concerned with the language issues that affect teaching and learning in such content areas. It could even be misleading. But since there are no viable terminological alternatives available for distinguishing these subject areas from those in which language is the object of study, we will continue to use this term as a stopgap. This terminological problem has also been discussed for CLIL-issues in other languages than English (e.g. “Sachfach” in German, cf. Breidbach 2007: 26).

Family language	0.5
Employment father	0.3
Family structure	ns

Table 1: Prediction of mathematical competence (Prenzel et al. 2004)

As one can see in Table 1, socioeconomic status exerts a much stronger influence than migrant status. But when these and other factors combine, out-of-school background does not provide children and adolescents with the experience that enables them to adapt to the patterns of language use which are typical of school as an institution of formal education.

In the search for areas where school can effectively intervene and compensate for the disadvantages of vulnerable groups, the language factor has only recently been (re-)discovered. According to our analysis many learners from monolingual and migrant backgrounds are challenged by the language(s) of schooling and can therefore be considered as “vulnerable”. They are the central concern of this paper. We begin by characterizing and illustrating their situation and describing some of the expectations of school in terms of the linguistic competences needed in non-language subjects. Then we will identify possible strategies and techniques for supporting the language development of such learners.

2. Language and literacy education and the multilingual school

2.1 Language diversity in schools

A number of case studies of immigrant minority groups and their languages have shown the extent of language diversity which schools in larger European urban settings are confronted with. Most of these surveys were either conducted by Guus Extra and Peter Broeder or influenced by the work of the “Babylon” group at the University of Tilburg (e.g. Broeder/Extra 1999).

In 2001/2002 such a survey was conducted in the German city of Essen at the level of primary education (Chlosta/Ostermann/Schroeder 2003). The aim was to establish language profiles for individual primary schools and catchment areas. Data were collected concerning home languages (i.e. languages spoken in the family), languages learnt in school (preference of languages, skills and competences) and background variables (e.g. gender, age, grade level, country of origin). 99% of primary schools (n=106) in the city of Essen and 87% (n=21,667) of the pupils participated in the survey. Here are a few of the overall results: Slightly more than 100 languages are spoken by primary school children in Essen; 28% of children grow up in two or more languages; every school has to cater for bi- or plurilingual children – and these bi-/plurilingual children are not distributed evenly across schools.

Proportion of bi-/plurilingual pupils	Number of schools
less than 10%	13
between 10% and 28%	49
between 28% and 50%	24
more than 50%	19
Total	105

Table 2: Language diversity in primary schools (city of Essen), Chlosta/Ostermann/Schroeder 2003: 48

In one school 97% of the children had two or more languages. Figure 1 shows how many languages are present in the individual schools:

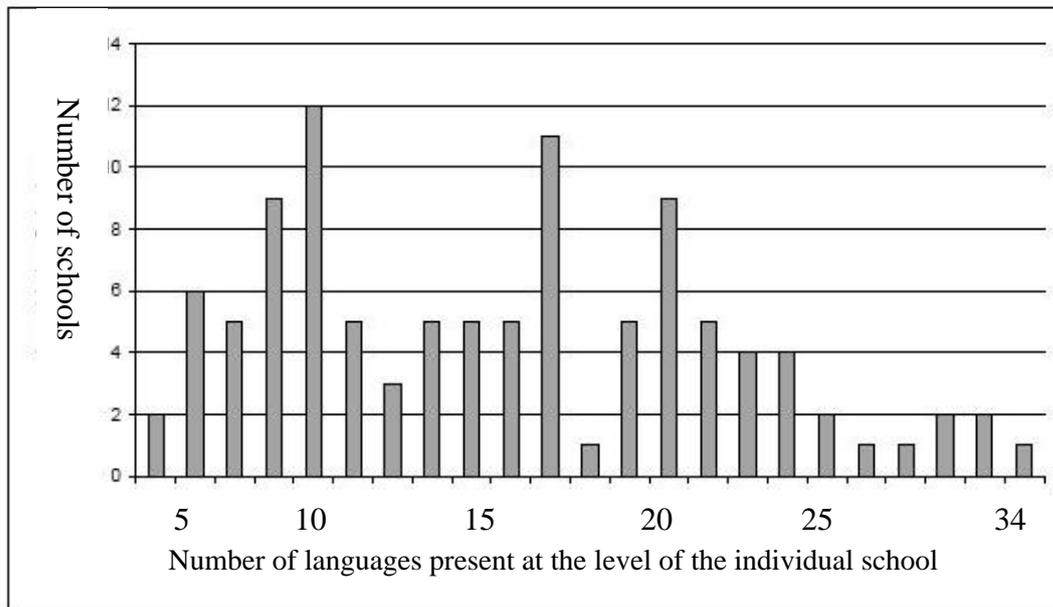


Figure 1: Number of languages brought to school by primary pupils in Essen, Chlosta/ Ostermann/Schroeder 2003: 49

Results from other European cities – e.g. Utrecht, Leeuwarden, Hamburg – show similar patterns. In view of these findings, the question arises how language and literacy education can adapt to this rich and diverse language intake and at the same time help all learners to acquire an adequate level of proficiency in the dominant language of schooling.

2.2 School language domains

If one views “school” through the eyes of a social constructivist as a discourse community (e.g. Swales 1990) with specific pedagogical goals and purposes and thus specific genres and patterns of language use, one can classify communicative activities according to three basic domains of discourse (Figure 2).

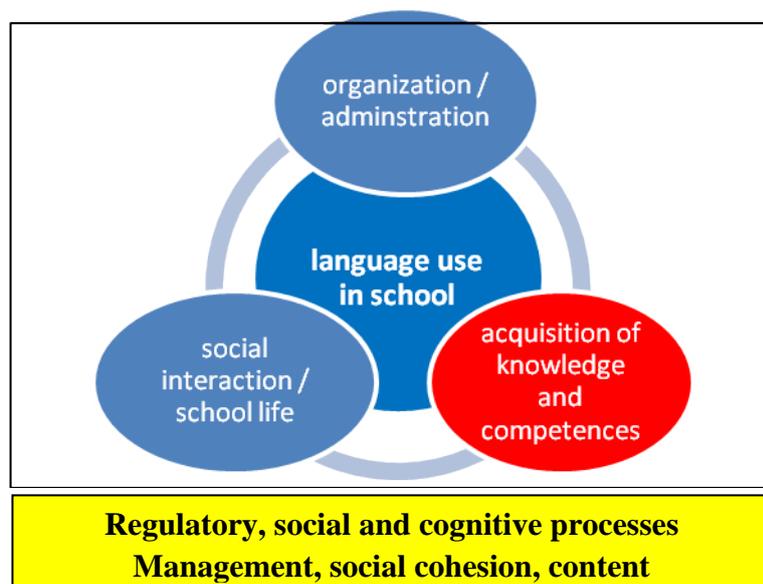


Figure 2: Language of schooling: three domains of discourse

- There is informal interaction among peers during school breaks, even during classes and in the context of extra-curricular projects. During these activities language is the dominant medium for creating and maintaining social contact. Language use is informal and very close to the everyday patterns used by children and adults when they are at ease communicating with peers, friends and relatives. The majority of students can cope with language demands in this field except for recently arrived migrants who have been brought up in a language other than the dominant language of schooling. These *informal basic communicative skills for social interaction* are acquired fairly rapidly.
- There are also more formal communicative activities in school relating to administrative, legal, pedagogical, and organisational aspects of school life in the shape of, e.g., report cards, examination requirements, certification issues, timetabling and information on classrooms, teachers and resources, financial arrangements, attendance, school rules and codes of conduct. In these instances language is used in a regulatory function. To a considerable extent the language patterns of these speech acts and documents are unfamiliar to students and their families and difficult to understand in detail. Especially families with low socioeconomic status (SES) and a migrant background find it difficult to assess the relevance of these formal oral or written communicative procedures which serve informational, advisory or disciplinary purposes. For reasons of future reference we will call these aspects of school language *organisational and administrative*.
- The third domain of discourse under the label of “language(s) of schooling” is of paramount importance for academic achievement. It is the learners’ *ability to cope with the specific patterns of classroom language use*. Although classroom communication is multifaceted, the command of the school’s dominant language for cognitive purposes is the *sine qua non* for successful learning in all subject areas. For migrant learners as well as for “native” students from families with low SES the acquisition of this specific language register is of the utmost importance, not only for “survival” at school and success on the labour market, but also for acquiring full literacy (“Bildungssprache”²) in the dominant language as a prerequisite for active citizenship. Some consider these students to be “outsiders” because they have a limited command of the form of literacy required in school. Alternatively, because they are unpractised in the use of the language register that is prevalent in the context of formal education, they are seen as “failures”, “academic illiterates” and “inept in critical thinking”.

Thus systemic support for vulnerable student groups has to account for the specifics of classroom language use and it has to implement empowering strategies for cognitive academic language use directed at those students who have not yet had the chance to familiarise themselves either with this particular language register or with the particulars of domain- and subject-specific genres and text types.

2.3 Language and literacy education and the role of school subjects

Language and literacy education for young people growing up monolingually, as for those who are growing up in more than one language, should have three principal goals. Schools should

- develop individual learners’ plurilingual profiles to the full extent of their capabilities. That is, the development of their general communicative abilities in the dominant language of schooling, in

² Although “Bildungssprache” is traditionally used to refer to a particular language (e.g. *Deutsch als Bildungssprache an Universitäten im Ausland*), Habermas (1990) uses the term for the language in which topics of general interest are discussed in public and which is also prevalent in the field of education. Gogolin (2006) has taken up the term in this sense for FÖRMIG (*Förderung von Kindern und Jugendlichen mit Migrationshintergrund*), a project that provides targeted language support for migrant students. Recently Ortner (2009) has described the “rhetorical-stylistic” characteristics of “Bildungssprache” (see also Vollmer 2009b and Vollmer/Thürmann 2010).

their home language(s) and foreign languages should be supported by adequate teaching provision which focuses on spoken as well as written language;

- provide learning opportunities for students to develop an awareness and a deeper understanding of the advantages and challenges of linguistic and cultural diversity in their personal life, in school and in society at large;
- make students aware that learning in all school subjects requires a specific literacy (language register) based on specific thinking strategies, genres and language patterns and that the mastery of such language use must be considered a prerequisite of success inside and outside school;

In plurilingual education, as defined by the Council of Europe's LANGUAGES IN EDUCATION, LANGUAGES FOR EDUCATION project, these three strands are complementary and of equal importance.³

What exactly is meant by the term “languages *in* education – languages *for* education”? First of all, the term “languages” refers to *all* languages present in school (see Figure 3):

- the dominant school language – e.g., Polish in Poland, Swedish in Sweden, German in the schools of the German minority in Denmark etc. – which is taught in its own right (language as a subject, LS) and which at the same time is a communicative tool for teaching and learning in non-language subjects;
- foreign languages, classical as well as modern – e.g., English as a first foreign language in Italian primary schools, French as a second foreign language in Spanish schools, Latin in German secondary schools – which are taught as school subjects following foreign language teaching methodologies and curricula. Modern languages might also be used in special programmes ((Content and Language Integrated Learning (CLIL), *Bilingualer Unterricht*)) as a tool for teaching and learning non-language subjects;
- second languages⁴ – languages relevant or even dominant in a country or (bilingual) region and therefore essential for everyday communication, social interaction, and school learning, e.g. French for speakers of Turkish (with a migrant background) in francophone Belgium, German in the Autonomous Province of Bolzano for learners who are growing up in Italian-speaking families or Italian for speakers of Valdôtain/Franco-Provençal as first language in the Autonomous Region of Vallée d'Aosta;
- heritage/home languages⁵ – e.g. Turkish spoken by large numbers of citizens with a migrant background in Germany and in many other central and western European countries, Kurdish spoken by students whose families come from Turkey or Iraq. Heritage/home languages can also be taught as school subjects or as an additional language provision.

³ In some countries, this has become a controversial political issue. It has been argued (e.g. by the “English only” and “English first” movements in the US) that developing proficiency in the dominant language of schooling is of foremost importance and that school's support of plurilingualism has a negative effect on achievement and the acquisition of the dominant language of schooling. Most arguments of this kind have been refuted by language experts and psycholinguists, cf. Krashen 1996, 1999, and (most convincingly) Cummins 2008. Cf. also a similar debate in Germany, documented in Gogolin/Neumann 2009.

⁴ The term refers to languages which are acquired, learned, and used alongside one's first language (including foreign languages). A “second language” can be acquired in a natural way, but it can also be taught as a subject or as “language support” (as in initiation/transition programmes designed to lead learners into mainstream education).

⁵ This language category is termed differently in different countries and socio-cultural contexts; in Britain, for example, languages like Punjabi, Pahari, or Urdu are called “community languages”, while the teaching of English as a “second” language to speakers of community languages is called “English as an additional language” (EAL).

Secondly, the term “languages *for* education” (language across the curriculum, language in other subjects) refers to the genres and language patterns prevalent in schools (cf. section 2.2), particularly in the classroom, where language is used to mediate cognitive processes intimately connected to thinking skills and is thus the most important tool for construing, communicating and negotiating meaning in the academic sense of the term.

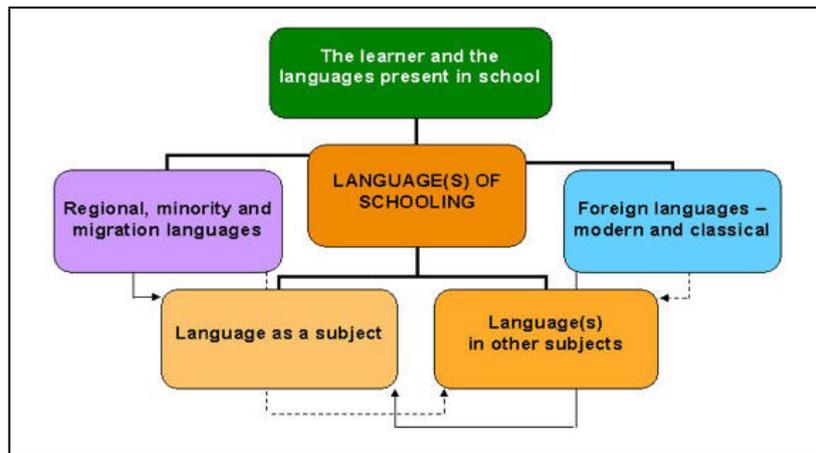


Figure 3: Language(s) of Schooling within LE (Council of Europe 2009)

From the school's point of view, the responsibility for language learning lies with different language specialists and is organised in terms of subjects, courses and teaching provision with their specific curricular aims, objectives, syllabi and contents, teaching hours and methodologies.

From the point of view of the language learner, particularly the student with a migrant background who is already plurilingual, language learning and language use are not truncated in the way institutions of formal education organize language education. In the mind of the plurilingual individual language learning is indivisible, languages interact, and linguistic and communicative experience, awareness, and knowledge can be transferred from one language to another, provided plurilingual competences are systematically supported by a coordinated effort across the school curriculum, i.e. by all subject areas, including non-language subjects, which remains to be shown in section 3.

2.3.1 The dominant language of schooling as a subject

The dominant language of schooling as a subject (LS) mirrors the spirit of the age (“Zeitgeist”) like no other subject and thus may carry a heavy load of objectives which go far beyond language and literacy education. In certain regional and historical contexts it has been linked to nation building and the formation of national identity through an authoritative canon of literary texts as well as social and political themes, topics and issues. Especially in these cases, contrary to demographic facts, the curriculum has been based on the (false) assumption that all learners are brought up in the dominant school language and enter the classroom with comparable language competences. Such an assumed linguistic homogeneity has probably never existed in the LS classroom.

However, in recent years educational systems in many European countries have been confronted with linguistic and cultural diversity to such an extent that the development of students’ linguistic repertoires and communicative competences has become a challenging task. There are students of migrant background who speak the dominant language of schooling as fluently as monolingual speakers. Other groups are still in the early stages of literacy development in the language of schooling and/or their home language. Still others, particularly recently arrived migrant children and adolescents, hardly speak a word of the school’s dominant language. They need particular attention and specific support in acquiring the basic patterns of everyday communication, along with the rapid acquisition of basic elements of the language of formal education.

The diversity of language biographies caused by migration has made traditionally oriented school systems acknowledge the fact that the “native” (monolingual) student population is also by no means homogeneous in its command of the dominant school language. Thus the central aim of language and literacy education in LS is to provide learning environments and learning opportunities for **all** students to become a “competent language user” in the complex meaning of the term “*gesellschaftlich handlungsfähiges Subjekt*”⁶ (e.g. Habermas 1981, 1990; Hurrelmann 2006). The aims of LS thus reach far beyond the mastery of language for functional purposes, but include the entitlement to participation in cultural, political and social life (Pieper 2007; Aase/Fleming/Pieper/Samihaian 2009).

Language, literature and the socio-cultural context of language use are the main content elements of LS. Students are introduced to reading and writing and to the world of literature and language. They learn to master an increasing repertoire of genres both in oral and written communication and to explore the world of texts, media, communication and symbolic interaction. Thus language is not only developed as a means of communication. The heuristic or epistemic use of language also has its place in LS: via language we develop new insights and can acquire knowledge (cf. also Vygotsky 1978, also 1986).

To develop a degree of mastery in the field of language and literature, students should also acquire the necessary meta-cognitive skills and the ability to use language in a more reflective mode. In LS students are thus encouraged to reflect on language in various ways, although national curricula differ as regards content and the depth to which language awareness, knowledge about language and reflection on linguistic form and communicative language use are taught. In this way LS contributes to the emancipative dimension of education by providing knowledge and tools for awareness raising and critical reflection on language use in private and public domains, including the learners’ own use of language in oral and written production. Reflection on the language of schooling also supports the learning of other languages and helps students to understand and perform in multilingual contexts. Although LS cannot in a systematic way provide students from immigrant backgrounds with an education in both their language of origin and the language of the receiving country, it can at least exploit the richness of the multilingual classroom.

The aims of LS have a strong transversal dimension within education: students learn to express themselves orally and in writing and to master various forms of discourse. It can be argued that on the one hand learning in LS serves learning in all other curriculum subjects. On the other hand, however, all other subjects contribute to the acquisition of the dominant language as well, because learning processes in the classroom are fundamentally linked to language use. Thus all subjects offer opportunities to develop language capabilities, though their development is less in focus as will be shown.

It is sometimes argued that LS carries exclusive responsibility for ensuring that disadvantaged students acquire the necessary skills in the dominant language to participate successfully in non-language subjects, because – it is further argued – LS teachers are the only ones qualified for the task. However, assigning this *ancilla*-function to LS seems unacceptable to the majority of LS professionals. To do so takes no account of the intrinsic link between content and language learning in all subjects and the epistemic use of language. Such use of language, whether oral or written, contributes significantly to cognition and the development of knowledge in practically all contexts.

⁶ Transl.: “an autonomous, self-determined subject being fully able to participate actively in society”.

2.3.2 *Special support in the dominant language as second language*

Many students of migrant background need special support in the dominant language as second language. For learners whose command of the dominant language of schooling falls below a functional threshold, the mainstream LS classroom cannot offer effective and systematic support. Special provisions are indispensable if these learners are to close the gap between their age-appropriate cognitive potential and their capabilities in the dominant language until they are in a position to participate actively in mainstream classes. In many European countries the LS staff is professionally qualified to teach the dominant language to monolingual speakers of that language. Teaching the same language as a “foreign” or “second” language requires different curricular priorities as well as specific teaching methodologies and adequate learning materials.

Special support for the dominant language as a “second” language can be organised in many ways depending on the specific needs of the learners and the school’s resources:

- Reception classes or courses for newcomers in which the whole or major parts of the curriculum are either taught using a sheltered immersion or dual language (L1/L2) approach— in both cases with reinforced language components in the schedule.
- Tandem teaching – especially in lower primary education – where classes are taught by two teachers, one being a subject specialist (e.g. in mathematics, science, geography), the other being responsible for targeted language support either through L1 (other than the dominant language of schooling) or through specific L2 scaffolds. This can cover the whole curriculum or only part of the curriculum (e.g. initiation to literacy).
- Individual or small group remedial tutorials as add-ons to mainstream education.
- Dominant language as a second language as a subject in its own right with special curricular and examination provisions, if (and only if) L1 is also officially taught as a subject.

2.3.3 Foreign languages

The goals of the foreign language classroom are somewhat different to those of LS in that they are more geared towards the development of communicative competence. Also, the amount of time and effort which has to be put into the acquisition of the new language system is considerably greater, the approach has to be more structured and guided than in the case of the dominant language as a native language, additional goals like intercultural learning come in explicitly.

The communicative functional concept of teaching foreign languages strongly advocates an immersive approach. In recent years, however, cognitive elements have been strengthened and more importance has been given to the learner’s prior linguistic knowledge and experience. Current language teaching concepts and methodologies tend to make more use of already existing insights and strategies in terms of language awareness and language learning awareness. Knowledge of structures and pattern of the language(s) already learned in school or acquired out of school, of language and communication in general and particularly of the relationship between L1 and L2 has been (re-)discovered as a necessary and valid support system for foreign/second language learning. In this respect, the procedures and methods of learning a foreign language are structurally similar to the ones needed for acquiring and dealing with the dominant language of schooling as a second language. This may call for a co-ordinated and cross-curricular approach to language teaching in general with the aim to support and strengthen multilingual competences.⁷

The question has been raised whether students from migrant backgrounds who are already bi- or multilingual but have not yet acquired the dominant language to a level of functional proficiency for

⁷ Although there is a broad spectrum of empirical work on tri-/pluri-/multilingualism (cf. Britta Hufeisen’s extensive bibliography on the website of the International Association of Multilingualism) and on the effects L1/L2 on L3, there is little empirical evidence to show how the language of students from migrant backgrounds influence their acquisition of a foreign language (e.g. English) taught at school, e.g. Jung 1981, Hafez/Jagomast 1986.

school should be made to learn foreign languages. It has been argued that additional languages might interfere with progress in the dominant language and could endanger students' overall achievement. Instead – it has been proposed – students from migrant backgrounds should be allowed to replace a mandatory foreign language course by one in their home language. There are no clear research findings, however, to confirm that this position is valid. As for learning English as a foreign language in Germany, we know from a recent study that bilingual and multilingual learners, including children from migrant backgrounds, perform better in that new language than their monolingual (German) peers. In particular, they show higher degrees of overall proficiency than their monolingual peers at the end of grade 9 in all types of school, but the difference proved significant in the statistical sense only for “Realschule” (middle school). This has been explained by the fact that those bi-/plurilingual migrant learners who have progressed into the higher levels of secondary schooling are able to make use of language learning competence and strategies developed at an earlier stage. When it comes to acquiring a third or fourth language, this gives them an advantage over their non-migrant peers but also over those of their migrant peers who grew up monolingually with a different home language (Hesse/Göbel/Hartig 2008: 214).

Learning a foreign language means using another system of communication. This necessarily implies the *intercultural dimension*, acknowledgement of which may lead to greater sensitivity in understanding and expressing meaning in L2/L3, especially in face-to-face interaction, which often involves ambiguity and requires negotiation between the participants. This is something that plurilingual migrant learners are already familiar with, which may explain why they have some advantages in handling the socio-pragmatic aspects of communication (cf. Hesse/Göbel/Hartig 2008).

2.3.4 Content and language integrated learning

Programmes that use a foreign language as medium of instruction for content learning, as in *Content-Based Language Learning* (CBL) and *Content and Language Integrated Learning* (CLIL), have been highly successful across Europe. A large-scale survey of comparative achievement in German as the dominant language of schooling and English as first foreign language (DESI) has clearly shown that in a balanced sample of learners from mainstream classes and bilingual (= CLIL) programmes, the latter performed significantly better on communicative tasks. For instance, at the age of 15 they have a lead of two years over students from mainstream classes for listening comprehension. They also have a significant advantage when it comes to detecting and correcting “mistakes” and deploying strategies of self-evaluation.

Programmes with a dual focus on language and content have turned out to be highly successful mainly because language learning is embedded in meaningful knowledge acquisition and communication about it, but also because in recent years submersion approaches were given up for the sake of teaching methodologies which were especially adapted to the language needs of the language learners. This holds equally true for the CLIL programmes, which mainly cater for students who are learning the language of instruction as a foreign language, and for sheltered immersion programmes⁸ for students from migrant backgrounds who need to build up proficiency in the dominant language of schooling. These methodologies seek to use increasingly demanding content challenges to develop both general language competences and the specific competences needed for the acquisition and use of subject knowledge.

Experience shows that in the long run the dual focus on language and content is not bought at the cost of subject knowledge and skills. Even when students' competence in the second/foreign language is still relatively undeveloped, essential aims and objectives can be achieved in the non-language subject area. Relevant research results can be summarised as follows:

⁸ Cf. the SIOP-programme (SIOP = Sheltered Instruction Observation Protocol, cf. section 4.8); Echevarria/Graves 2010, Echevarria/Vogt/Short (2007); cf. also the CALLA-programme (Cognitive Academic Language Learning Approach, <http://calla.ws/>).

- When students use a “foreign” language rather than the one most of them are familiar with (as L1, for example), they become more fully aware of the mediating role of language for all content learning than is the case in monolingual classrooms. In spite or because of linguistic “difficulties”, concepts and their relationships are probably processed more deeply and become more meaningful provided account is taken of their developmental level.
- The students’ assumed or apparent level of proficiency in the language of instruction should not determine the knowledge structures dealt with or the tasks or issues presented however complex they may be. Even low-achieving students will cope with those issues (which are authentic and challenging), provided they receive adequate language support. Ways of supporting them will be listed below (see section 4).
- *Writing* plays an important role in learning how to use specific registers of academic language, in group work or in preparing presentations and discussions of findings. By using writing to perform subject-specific tasks and solve subject-specific problems, learners can practise being as explicit and precise as possible without too many time constraints and the relationship between content, form and function will come to be experienced as inevitable. Consideration can be given to the linguistic choices that have to be made, and editing furnishes opportunities for self-correction and improvement. This is equally true for other tasks, including developments in multimodal learning: writing is only mentioned here because this aspect of literacy is often neglected in bilingual teaching, at least in Germany.

In many ways students’ experiences in CLIL classes are comparable to those of students from migrant backgrounds when they have to follow content lessons in a language they have not yet (fully) mastered. Teaching the dominant language of education as a second language may very well profit from principles and methods, including scaffolding techniques, which have been developed world-wide for CLIL programmes (cf. for example *Baker 2006; Hammond/Gibbons 2001, 2005; Doff 2010; Thürmann 2010*).

2.3.5 Home languages, language maintenance courses

Young people may bring languages to school which are not part of the official mainstream curriculum. These regional, minority or migrant languages are used in the schoolyard during breaks, they may be shared with peers who pick up elements of them from friends, they may be used to establish contact with parents who are not fluent in the dominant school language, and – at least in some educational systems across Europe – they may also be taught as a subject, as part of heritage or language maintenance programmes designed to help maintain cultural and linguistic identity and broaden learners’ communicative reach. Additionally they may also serve as the medium of learning in non-language subjects, primarily to foster an age-appropriate cognitive development.

If feasible (number of pupils in a catchment area, provision of qualified teachers, availability of school books and materials etc.) home languages should be taught as an element of inclusive mainstream education and as subjects in their own right. The rationale for teaching home languages as subjects is based on specific curricular principles and methodologies which include aspects equivalent to but also different from LS and foreign languages. At least three priorities should be observed when such programmes are being established:

- Employment of qualified teachers – preferably familiar at first hand with the cultural, linguistic and social circumstances of migration
- Strong focus on
 - the variety of the home language⁹ which is being used in the public domain and on written genres since communication at home, with friends and within the community of native speakers abroad tends to be of a primarily oral and informal type

⁹ This does **not** refer to the fact that in some contexts official national standard varieties are being taught to

- socio-cultural content as well as intercultural strategies
- language awareness and knowledge about language and communication, which should be aligned with the concepts and terminology ordinarily used in LS.
- Classroom methodologies which acknowledge students' plurilingual competences and open windows on other languages (e.g. dominant language of schooling, foreign languages).

These quality criteria can rarely be met by supplementary programmes in home languages authorised and organised by local communities or agencies funded by the country of origin.

3. Language for education in non-language subjects

The statement "Schooling is primarily a linguistic process" is taken from the introductory chapter of Mary J. Schleppegrell's (2004) book on the "language of schooling", i.e. the language of classroom teaching and learning, which adopts a functional linguistics approach. This might look like too narrow a view of the complex and multifaceted educational process. However, Schleppegrell justifies her position as follows:

Developing the kind of knowledge that comes through schooling requires that students learn to use language in new ways. Even brief observation of any classroom shows the role that language plays in both managing activity and presenting academic content. It is through language that school subjects are taught and through language that students' understanding of concepts is displayed and evaluated in school contexts. In addition, knowledge about language itself is part of the content of schooling, as children are asked to adopt the word-, sentence-, and rhetorical-level conventions of writing, to define words, and in other ways to focus on language as language. In other words, the content, as well as the medium, of schooling is, to a large extent, language. (2004:1-2)

Many teachers are not prepared to make the linguistic challenges of schooling explicit to learners. In any case, although they themselves may be proficient users of the specific register of their subject, they may not be fully aware of its distinctive features and patterns of use which set it apart from informal communication. Since in many educational systems educators have turned a blind eye on the specific linguistic challenges of schooling – students from migrant backgrounds as well as low-achieving learners with a native background have not received adequate language support particularly in the non-language subjects.

3.1 General features of classroom language use

The early stages of language acquisition and literacy development at primary level have received a lot of attention from experts and practitioners. There is also ample experience and valuable empirical data to support the general language development of children and young people who are in the process of acquiring a basic command of a language in which they have not been brought up. But as Schleppegrell (2004) points out, less empirical work has been done on the acquisition of literacy by older learners and the kind of tasks facing students in the later years of primary and in lower, upper and post-secondary education. It is thus appropriate to characterize the type of language used in classrooms across the whole curriculum. In the following example the focus is on the language of the science classroom:

Example (taken from White/Welford 1988)

minority groups (e.g. Turkish being taught to young people from Kurdish speaking families). It rather emphasises the necessity that these young people should be acquainted with the variety of their home language which is being used in more formal and official contexts – especially in a written mode – wherever it exists or is evolving.

11-year-olds were involved in a scientific experiment called "Tracks". The experiment consists of six steps: (1) putting four green marbles in the track, (2) dropping one glass marble down the track, (3) dropping one steel ball down the track, (4) positioning two glass marbles at the top of the track, (5) dropping two glass marbles down the track, (6) dropping two steel balls down the track.

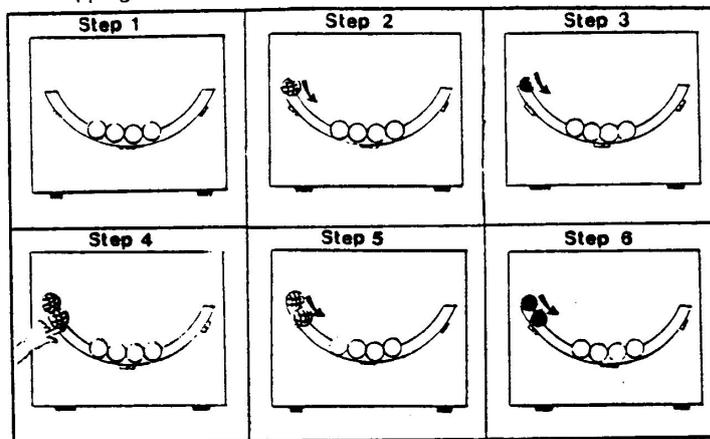


Figure 4: The "Tracks" experiment (White/Welford 1988)

After having carried out the experiment, pupils were asked to report back what they had observed when one or two marbles were dropped into the track. Here are some responses:

Sample 1	Sample 2	Sample 3
<p><i>Well, when we done ... em ... that ball, it went up high there, then it stopped. An' with them it went up, 'n not quite so high except it went back there and up.</i></p>	<p><i>Well, when we ... put the first striped one up, an' it hit the ... four marbles ... first marble pushed the second marble, but it ne ... never got very far. When we put one ball *bearian, it got up to – nearly to the end of the white ... strip ... nearly to the beginning of the ... green strip at the other side. When we put ... the two ... em ... striped marbles in ... the same happened...</i></p>	<p><i>When one of the blue ... striped marbles, came down there, one of the green ones went up, a little way. An' ... when ... a silver one came down, one of the green ones went up, but further. An' when ... two of the blue striped ones came down, two of the green ones went up. An' when both the silver ... marbles came down, two of the green ones went up further.</i></p>

Table 3: Pupils responses in the "Tracks" experiment (White/Welford 1988)

Assessment clearly showed that pupils who were most highly rated for the science dimension were also highly rated for the language dimension and vice versa.

What are the general characteristics of this specific language proficiency which on the one hand facilitates observation, cognition, and problem solving and on the other helps to communicate experiences and findings in a way that is adequate to the context of the subject classroom and highly rewarded with good grades?

In the late 1970s, the Canadian educator Jim Cummins introduced the distinction between basic interpersonal communication skills (BICS) and cognitive academic language proficiency (CALP) in order to explain (among other things) why immigrant children often appear to educators to be fluent in both their L1 and L2, but still show levels of verbal academic performance considerably below grade/age expectations. Cummins emphasised that analysis of psychological assessments

administered to minority students showed that teachers and psychologists often assumed that children who had attained fluency in English had overcome all difficulties with that language. Yet these children frequently performed poorly on English academic tasks as well as in psychological assessment situations. The distinction of two modes of language use – *conversational* versus *academic*, as he later called them (Cummins 1991) – draws attention to the fact that it takes immigrant children considerably longer to acquire academic proficiency than conversational fluency in their second language. Failure to take account of the BICS/CALP (conversational/academic) distinction has resulted in discriminatory psychological assessment of bilingual students and premature exit from language support programmes into mainstream classes.

According to Cummins, students with a high degree of cognitive academic language proficiency are successful learners since they can cope with cognitively demanding tasks and context-reduced communication in and outside school (see Table 4).

	cognitively undemanding communication		
context-embedded communication	1 st Quadrant	2 nd Quadrant	context-reduced communication
	3 rd Quadrant	4 th Quadrant	
	cognitively demanding communication		

Table 4: Distinction of Cummins (1979): BICS and CALP

Corson’s work (1995, Table 5) added depth of field to the distinction of BICS and CALP:

BICS	CALP
Interactive texts: high personal involvement, produced under real-time constraints – low explicitness	Edited texts: produced under conditions permitting editing and high explicitness of lexical content, but little interaction or personal involvement
Situated Content: concrete colloquial style	Abstract content: detached formal style, with nominalisations and passive constructions,
Reported style: past tense and perfect, 3 rd person pronoun; primary narrative emphasis – marked by considerable reference to a removed situation	Immediate style: high occurrence of present tense forms – descriptive, expository – little reference to a removed situation

Table 5: Distinction of BICS and CALP according to Corson (1995)

Thus, the naïve conception of school language as a more or less colloquial register laced with the technical terms of a specific field of knowledge has to be abandoned. Learning the language of schooling involves much more than acquiring the technical terms of the different curriculum subjects. Rather, it is a matter of moving from utterance to “text” in the original sense of the word. It has been argued that schooling is a process of teaching children to “speak a written language” –

and to construct oral as well as written texts of increasing explicitness, with language increasingly able to operate as an unambiguous representation of meaning.

No matter whether spoken or written, practised or only imagined, the conception of language use in non-language subjects is literacy-based.¹⁰ At a very general level, experts define the idealised concept of academic discourse using terms like¹¹

distanced – decontextualised – dispassionate – exact – objective – complex – highly structured – complete – unambiguous – explicit.

In school, these features are not necessarily regarded as the norm for ordinary classroom communication and teachers are flexible in using and tolerating different registers. However, when it comes to high-stake assessment and prognostic evaluation of students' subject-specific performance, compliance with the conventions of academic discourse is of enormous importance, affecting all semiotic/linguistic repertoires and individual uses in such situations: body language, pronunciation and prosody, spelling, lexis, idiomatic and pragmatic patterns, morpho-syntax, textual strategies and structures.

Teaching learners to use academic language means expanding their repertoires, sharpening their awareness, and helping them to make appropriate linguistic choices. However, when it comes to teaching and learning how to handle the specific registers of classroom language the question arises how to break down generalized descriptors of language use into elements and strategies that are “teachable” and “learnable”.

3.2 Analytical, task-based approaches

Task-setting seems to be an appropriate point of departure in the search for criteria to determine the choice of linguistic means. For example, in the upper secondary geography classroom students might be confronted with the following task:

Give a brief oral information recount on the situation in the Gulf of Aden of no more than 5 minutes on the basis of relevant information drawn from the [UNOSAT](#) thematic map “Reported Incidents of Somali Pirate Attacks and Hijackings 2008”.¹²

¹⁰ Obviously these “descriptors” do not apply to LS and other subjects when creativity is a primary concern, e.g. when students are asked to write fiction.

¹¹ See e.g. Schleppegrell (2004: 5-7) in the chapter “The challenges of *literate* language”; cf. also features derived from the dichotomy of proximity and distance in communication by Koch/Oesterreicher (1985) and their distinction of medial and conceptual literacy.

¹²

http://unosat.web.cern.ch/unosat/freeproducts/somalia/Piracy/UNOSAT_SOM_Piracy_Gulf_Aden_Sept08_Lo_wres_v6.pdf

Setting the task entails specific classroom activities which can be classified into five distinct areas for all subjects across the curriculum (Table 6):

Area 1:	Area 2:	Area 3:	Area 4:	Area 5:
Organising procedures and activities, negotiating meaning	Retrieving information and acquiring knowledge	(Re-)Structuring concepts, adapting and extending knowledge	Communicating and presenting learning outcomes	Reflecting on and evaluating the learning process
<i>Focus on oral teacher-learner as well as learner-learner interaction, mélange of informal and more formal language patterns – also written components (e.g. black-/whiteboard notes)</i>	<i>Focus on reading-, watching-, listening comprehension activities – associated mainly with documents/materials from the public sector</i>	<i>Focus on thinking skills structuring and fine-tuning mental concepts – truncated use of classroom discourse, terminology</i>	<i>Focus on production of oral/written statements/texts/presentations with supportive non-language material – compliance with conventional patterns of classroom language use</i>	<i>Focus on meta-cognitive verbal mostly oral, occasionally written activities – classroom interaction, but also self-reflective</i>

Table 6: Areas of verbal classroom activities

The rather complex task from the geography classroom requires activities in three of these areas: 2 – retrieving relevant information from a thematic map, 3 – reorganising and structuring findings according to a given topic/question, and 4 – preparing and giving a presentation of results following the conventions of a given text type. These are general constraints that determine the students' choice of linguistic (textual) means.

The *subject-specific topic or content* requires an extensive and sometimes specialised vocabulary as well as enhanced awareness of the use of terminology. In our geography example students should be familiar with the specific terminology of maps and cartography, navigation and shipping, military intervention and legal action. For the learner the content-determined lexical aspect of the language of schooling cannot be reduced to the acquisition of hitherto unknown and “difficult” words (e.g. “bathymetric map”), their precise meaning, spelling and pronunciation. It also implies reflected usage and the awareness that familiar words may be associated with unfamiliar and very precise meaning when used as an element of domain-specific terminology (e.g. “beach” = zone of unconsolidated material that extends landward from the low water line to the place where there is a marked change in material or physiographic form, or to the line of permanent vegetation, usually the effective limit of storm waves; “chart” = special-purpose map designed for navigation or to present specific data or information). The lexical aspect of school language extends also to domain-specific collocations, e.g. “exert force”, “apply pressure”.

There is a danger – especially for those who are not language experts – of reducing the issue of school language to its lexical component. Terminology has long been a concern in school subjects, and young people have always been taught domain-specific vocabulary and how to use it. However, this approach was not enough to develop the competence actively to cope with the language of schooling in a comprehensive way, since it neglected cognitive and textual strategies. An approach which takes into account the genre to be produced – in our case an “oral information

recount” – is more likely to be aware of the communicative demands of the task in hand and to develop students’ linguistic repertoires in their functional contexts.

Although language is the *semiotic system* which dominates teaching and learning in school, there are several other semiotic systems learners have to cope with. For instance, when learning about the First World War in advanced history classes learners may be confronted with material like that shown in Figure 5.¹³

In order to acquire and expand their competence in the language of schooling, learners have to become aware of the potential and limitations of different modes of representation on various levels of abstraction, develop analytical skills, apply adequate methods of retrieving information and construing meaning and – above all – “translate” non-verbal propositions into coherent texts for the sake of classroom communication and/or further cognitive processing (cf. Leisen 2010).

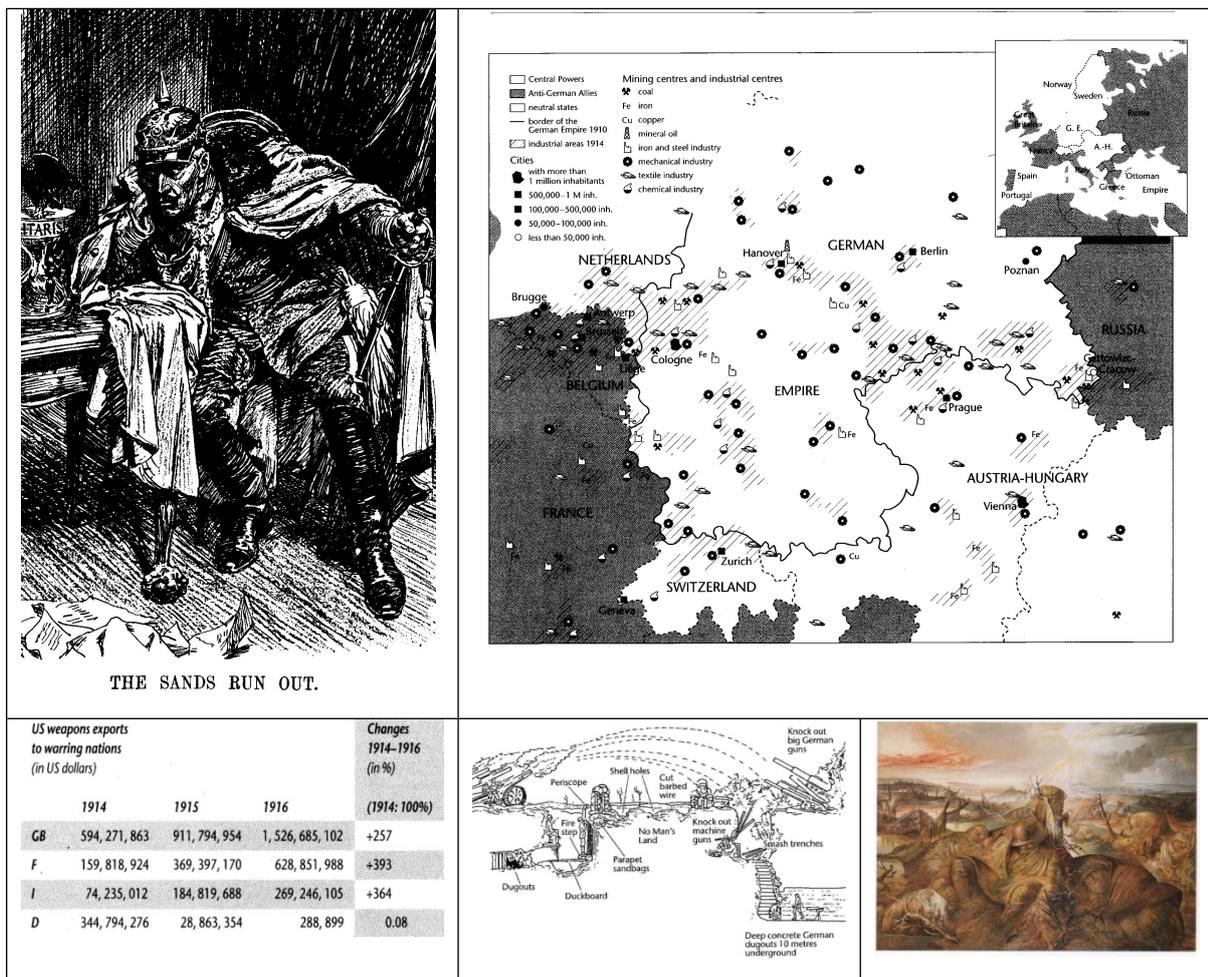


Figure 5: Sources used in CLIL history classes, Otten/Thürmann 1999

¹³ Material taken from Otten/Thürmann (1999).

Leisen (2005) has ordered semiotic systems (modes and forms of representation) which are frequently used in CLIL-programmes according to levels of increasing abstractness:

Mathematical representation	law: $m \times n = n \times m = a$ product isn't changed by rearranging its factors. Formulas, notation: $ \langle a, b \rangle = \text{magnitude of vector} = \sqrt{a^2 + b^2} \dots$
Symbolic representation	Flow chart – table/tabular representation – graph – structure diagram ...
Verbal representation	Oral/written utterances, messages, texts – mind maps – notes, outline – arrangement of textual and visual elements ...
Visual (multimedial) representation	Photo – drawing – pictogram – film – video ...
Physical representation	Object/person – experiment – action/activity ...

Table 7: Semiotic systems used in school (according to Leisen 2005)

3.3 Types of discourse/genres

In and out of school young people are confronted with an infinite universe of discourse genres/texts. Manfred Görlach (2004), for instance, has documented more than 2,000 different genres written and published in English since the 16th century; and a comprehensive analysis of curricular documents issued by the German Länder has identified more than 120 different genres to be treated in class. It seems obvious that one of the foremost aims of language and literacy education is to make learners aware of the diversity of discourse, but also of recurrent patterns which might guide their expectations as listeners or readers and their efforts to construct discourse when speaking or writing.

The terminology used here – “type of discourse”/“genre”¹⁴ – is supposed to signal that in this approach texts are considered (a) as a whole and not as parts, paragraphs or “moves” and (b) that types of discourse/genres share specific features on several levels: purpose/function, situation/audience, domain (e.g. administration, health, politics, literature), language elements and patterns. If we define school as a discourse community and different subject areas as sub-communities, some crucial questions arise regarding language and literacy education: Which genres should be taught for which purposes and in which subject areas at which point in time? And how can reflected awareness of such genres be developed in a coordinated and organised way across the curriculum?

In order to answer these questions we can draw on some established work-sharing traditions and avenues to the world of texts. Language as a subject, for example, generally defines a major part of its content as “literary understanding and appreciation”. Thus, students are introduced to literary genres and their specific patterns in LS, but also – to a lesser extent – in other language-centred subjects (foreign languages, home languages). The responsibility of LS for analysing and composing texts according to genres goes far beyond a concern for literature in general. In many European countries the scope of texts to be dealt with and produced in class has expanded continuously since the 1970s, and now includes *expository* texts and *multi-modal* texts like films and hypertexts. The same is true for other language-centred subjects where students are taught to analyse and write transactional and non-fictional texts. For this purpose genres are used to scaffold (cf. section 4.5), showing learners how to compose and structure texts, what to include and how to

¹⁴ By no means can it be claimed that there is a uniform and coherent use of terms like “genre”, “type of discourse”, “mode of discourse”, “discourse function”, “text type”, “rhetorical mode”. “mode of writing” etc.

choose appropriate linguistic means. Since LS cannot possibly touch on each and every genre and since some genres are clearly linked to specific subject areas (e.g. report on an experiment), curricula in many educational systems provide for a systematic approach and distinguish classes of genres with similar features, e.g. report, recount, narrative, procedure (e.g. minutes, recipe), exposition, explanation, discussion, analysis, response/evaluation (e.g. to/of a work of art or a literary text), persuasion, essay. These classes of genres might differ from one educational system to another. However, the strategy of focusing on one or a few exemplary genres for each class of genres is fairly widespread.

Although literary and fictional texts may also occur, the primary concern of non-language subject areas lies with non-fictional genres. As sub-groups of the academic discourse community, they may have their own genre preferences (or even a canon of genres, e.g. appreciative genres in visual arts, expository genres in the science classroom). And their criteria for analysing and composing texts of a specific genre may diverge from those of the LS-classroom to a greater or lesser degree.

From the perspective of the learner, who needs support and guidance with regard to the language of schooling, there is definitely a need for a coordinated cross-curricular approach to genre-based teaching. This implies a classificatory system, a limited inventory of mandatory genres, coherent terminology and quality criteria for composing oral and written discourse.

3.4 Basic language or discourse functions

There is another approach to discourse and texts which is more functional and flexible than choosing an open set of genres. Carlota Smith (2003), for instance, analyses “the local structure of texts”, i.e. she moves below the level of the text as a whole and identifies five discourse modes: Narrative, Description, Report, Information, and Argument. These modes are realized at the level of the passage and – as she puts it – cut across the boundaries of genres, which means that a genre can consist of several discourse modes and that a specific discourse mode can be found in different genres. Smith also claims that modes of discourse are intuitively recognizable as distinct from one another and are distinguished by linguistic correlates.

Smith’s modes of discourse come very close to the concept of “language function” or “discourse function”. We know from curriculum analysis carried out for several subject areas in four European countries (England, Germany, Norway, Czech Republic; Vollmer 2007, Thürmann 2008, Vollmer et al. 2008) that there seems to be a limited set of *basic language or discourse functions* which are repeatedly mentioned and which seem to represent (or at least relate to) something like basic structures of content and procedural knowledge. These functions are conventionalised, sometimes more, sometimes less explicitly; they are understood and shared by the respective discourse communities and constitute a link between pedagogical approaches to dealing with text types and genres (see above, section 3.3) and academic ways of thinking, writing and speaking. These functions reflect the logic of experience and knowledge construction and thus the basic patterns of cognition. At the same time they provide a framework for “translating” those cognitions into socio-semiotic reality, into language and discourse (cf. Halliday 1978; Halliday/Hasan 1989). In that sense discourse functions are both cognitive and linguistic in nature and come very close to the concept of thinking skills (see Figure 6).

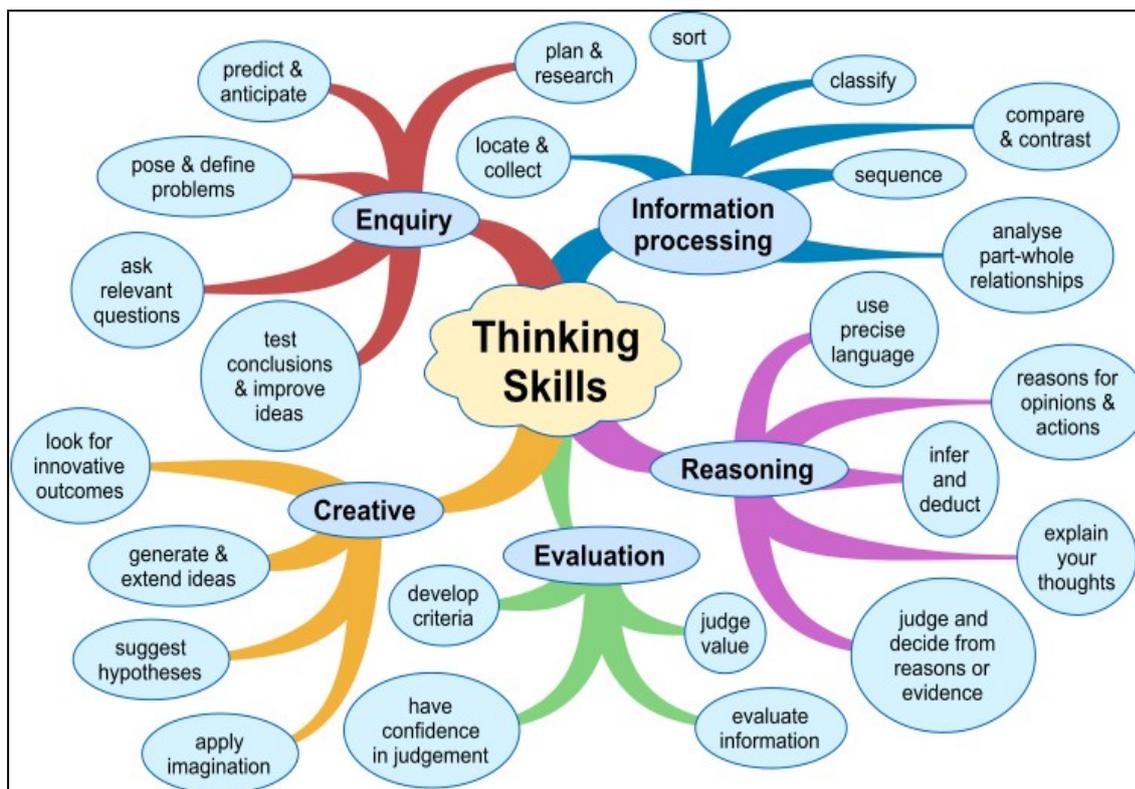


Figure 6: Thinking skills (Logotron 2010)

Earlier work by Bernhard Mohan is also very pertinent in this context: Mohan's (1986) "Knowledge Framework" is a conceptual tool for understanding the relationship among subject matter content, thinking skills and the linguistic features that need to be taught and learned. The framework is intended to be "a guide to the structure of knowledge across the curriculum" (Mohan 1986:25) and structures teaching/learning activities according to six major types of knowledge structure:

Classification	Principles	Evaluation
Description	Sequence	Choice

In designing a content-based English as a Second Language (ESL) writing curriculum Beckett/Gonzalez/Schwarz (2004) demonstrate the potential of Mohan's Knowledge Framework for scaffolding purposes (cf. section 4.8):

Theoretical/General		
Classification	Principles	Evaluation
Sample thinking skills:	Sample thinking skills:	Sample thinking skills:
Classifying Identifying Understanding Applying or developing concepts	Establishing hypotheses Interpreting data Drawing conclusions	Evaluating Ranking Judging Appreciating
Sample language:	Sample language:	Sample language:
Verbs of class membership Verbs of possession: <i>have</i> comparison: <i>more than – taller than</i> Classification: <i>include, place under</i>	Cause/reason: <i>is due to</i> Condition & contrast: <i>if there is</i> Prediction: <i>probably</i> Generalization & explanation: <i>completely</i>	Describing emotions: <i>like, dislike, satisfactory</i> Evaluation adjectives: <i>good, right/wrong</i> Verbs of volition: <i>prefer, had rather</i>

Sample thinking skills:	Sample thinking skills:	Sample thinking skills:
Observing Identifying Comparing Contrasting	Arranging events in order Following directions Predicting order	Selecting Generating solutions Solving problems Identifying issues
Sample language:	Sample language:	Sample language:
Stative verbs: <i>believe, feel</i> Relative clauses: <i>who, what, how</i> Prepositions of place: <i>between, under</i>	Logical & chronological connectors: <i>during, next, finally</i> Prepositions of space and time: <i>at, around, about, towards</i>	Modals: <i>can, will, must, should</i> Request/offer: <i>I can, I could, Could I</i> Preference: <i>prefer, had rather</i>
Description	Sequence	Choice
Practical/Specific		

Table 8: Sample thinking skills and language related to Mohan’s Knowledge Framework (based on Beckett/Gonzalez/Schwartz 2004: 167f.)

This clearly shows that cognitive operations and thinking skills can be closely linked to specific linguistic elements. In the act of deciding what to do in order to understand an issue and speak or write about it, both sides – the cognitive and the linguistic – coincide.¹⁵ Because language choices depend on cognitive but also on social factors, we speak of “discourse functions” rather than “language functions” in the narrow sense of the term. But both terms are acceptable, as is the term “modes of discourse”, provided we are aware of the fact that these functions or modes structure social reality through both cognition *and* language management.

We can distinguish between *macro functions* on the one hand and (*meso* or) *micro functions* on the other. They differ in their degree of coverage, level of abstraction and range of meaning and applicability. We have identified the following macro functions as relevant across the whole curriculum:

**EXPLORING – NAMING – DESCRIBING – NARRATING – REPORTING –
EXPLAINING – EVALUATING – ARGUING – REFLECTING – SIMULATING**
(symbolically or by way of acting)

The reflective use of these macro functions is one of the major prerequisites for successful learning in school, especially in connection with the handling of genres. Thus they can be used as *basic descriptors of what has to be achieved in education across all subjects*.

In addition to these macro functions we can identify and name a large number of meso or micro functions. Examples are: LABELLING – DEFINING – POINTING (at, out) – SPECIFYING (details) – COMPARING – CONTRASTING – RELATING – JUDGING – APPRECIATING – POSITIONING etc. Most of these micro functions relate to or are components of macro functions. On the other hand, some of them are clearly linked to *one* specific macro function as in the case of SUMMARIZING, which is a subcomponent of DESCRIBING (see Figure 7):¹⁶

¹⁵ An example of the use of Mohan’s Knowledge Framework in the history curriculum of England (Key stages 1 and 2) can be seen at <http://www.naldic.org.uk/ITTSEAL2/teaching/EALandHistoryKS1and2.cfm> .

¹⁶ We use the *-ing* form (gerund) in naming these functions in order to indicate the inherent processes of decision-making in performing them and to distinguish them from text types and genres (e.g. “summary” vs “SUMMARISING”, “description” vs “DESCRIBING”). Capital letters are used to indicate that we are not dealing here with the everyday meaning of ordinary verbs, but with labels for specific functional units.

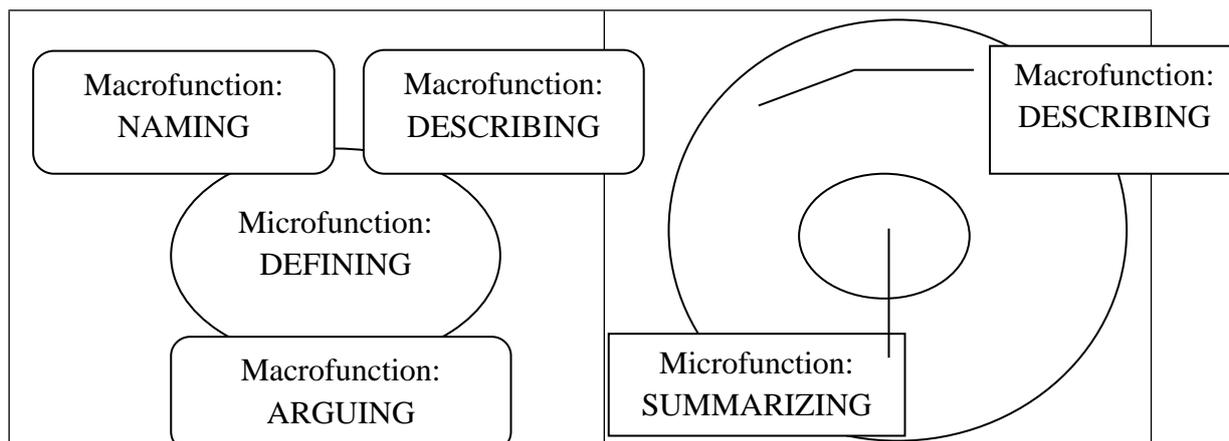


Figure 7: Relation of micro to macro functions

As regards the relationship between discourse function and genre, in the case of a summary we can say that it is primarily made up of *one* particular discourse function, namely SUMMARIZING. Such a unitary relationship is very rare, however, and most genres can be characterised as multifunctional. But the details have to be looked at each time one deals analytically with a given genre or its production. Clearly, this whole area needs to be dealt with systematically and in much more detail (cf. Vollmer/Thürmann 2010; Vollmer/Thürmann/Arnold/Hammann/Ohm 2008, to be revised in 2010).

These descriptions of basic cognitive as well as linguistic/semiotic competences involved in school learning were developed originally *for non-language subjects*. However, it can be shown that the categories used and the dimensions distinguished hold true for *all* areas of teaching and learning, *including language as a subject*. The types and functions of discourse outlined above hold good for all subjects, including most of the goals and activities of LS. A close comparison of the most recent competence indicators for the language of schooling as a subject (in Germany) with those for the sciences and geography supports this view.¹⁷ It is very important that migrant children can eventually be offered a pedagogical tool based on this descriptive framework for language learning across the whole curriculum, an expanded portfolio for linking all areas of learning in an explicit and transparent way, as opposed to the more or less hidden curriculum of the past. This will give them a fair chance to transfer knowledge and skills from one area to another and to see how they can use what they have already acquired somewhere else (in another subject, in another language) – provided that they are adequately activated and supported in doing so (see section 4.3 “*Encouraging language transfer*”). But the real test will be whether this approach towards integrating language learning with content learning leads to the development of an integrated curriculum that is accepted by teachers of all subjects and provides the basis for developing a whole-school language policy (see section 5 for more details).

LS tends to focus on genres that are less prominent in other subjects but familiar to most students as a result of their socialisation: literary/fictional texts (oral, written and multi-modal), poetic and other kinds of creative texts. This generates a focus on the functional contribution of particular aspects of the linguistic repertoire, the stylistic devices used in different genres, the rhetorical choices that lead to effective communication, and reflection on language as a system. A goal of LS may be the development of genre-competence (including stylistics), which involves reflecting on the communicative and linguistic patterns embedded in genres and making students aware of genre-dynamics (changing patterns over history). What can and should *primarily* be experienced

¹⁷ Again, this will have to be elaborated on in more detail in order to help curriculum planners and teachers to identify possible common descriptors (descriptions of transversal language/discourse functions, genres and language competences) and specify them according to their settings. Meanwhile, for teaching history and the sciences a list of competences has been provided (cf. Beacco 2009, Vollmer 2010).

and learned through LS is in the process of being formulated (cf. Aase/Fleming/Pieper/Samihaian 2009; Pieper/Vollmer in progress).¹⁸ But it should be stressed once more that according to our analysis the common core of cognitive-linguistic competences to be acquired in the language of schooling is embedded *in all subjects*, and that this gives plurilingual learners an opportunity to link and transfer across languages as they meet the academic demands of the curriculum. At the same time vulnerable learners may request continuous language support from the school system and the educational authorities as their right (cf. the work of schools that participated in the FörMig project 2009).

4. Strategies and techniques for supporting the language development of vulnerable learners

4.1 Specify measurable objectives and monitor language learning progress and needs

Schools are not indifferent to the progress of migrant learners, and much time and effort are currently being devoted to the advancement of vulnerable groups. However, more often than not the specific needs of learners go unnoticed and young people are left behind and cannot catch up with their cohort because of the cumulative way in which key concepts and verbal and cognitive skills are acquired. A pedagogical early warning system makes all the difference. It should be calibrated against indispensable minimum verbal and cognitive skills at certain age levels and used as a basis for screening at least in contexts with a high quota of students with a migrant background and/or from families with a low SES. Such a system presupposes that national or regional education authorities have defined minimum requirements and standards regarding language and cognitive skills across the curriculum.

Some steps have already been taken in that direction, e.g. by the Nederlandse Taalunie's "Framework of Reference for Early Second Language Acquisition" (2009) and by the descriptors of the curriculum in Basic Norwegian for language minorities.¹⁹ Thürmann & Vollmer (2010) have also started to define a "Framework

minimum cognitive and language requirements, adopting a dual approach: (a) for the end of compulsory schooling (the lower achievement stream = German *Hauptschule* at age 15) and (b) a graded progression of requirements for language/discourse functions from primary to the end of secondary schooling (cf. also Vollmer/Thürmann 2010).

An early warning system also needs a testing/screening component. For the advancement of low achievers and young people from migrant backgrounds it is most important not only to know precisely what is expected of them in terms of explicitly stated objectives and competences to be achieved, but also to know reliably where exactly they stand and how to move ahead. In other words, they should get as much feedback as possible on their progress as often as is feasible and clear advice on the possible next step(s) in their development. To develop a systematic and reliable cognitive and linguistic profile of each individual learner requires highly complex observational and diagnostic skills.

This responsibility to assess existing competences in LS, identifying strengths as well as weaknesses, has been taken seriously in a number of places, and this has yielded interesting and important case studies in the description and analysis of linguistic competence independently of subject-specific content (in German: *Sprachstandsmessung*). In recent years a number of instruments have been developed and piloted that relate to different age groups, different subjects

¹⁸ If LS defines its own subject-specific content, e.g. as "literary analysis and appreciation", it becomes structurally equal or similar to the other non-language subjects anyhow (cf. Pieper/Vollmer, in progress).

¹⁹ Both documents can be downloaded from: http://www.coe.int/t/dg4/linguistic/langeduc/boxc2-schooling_EN.asp?#Descript.

and different language/discourse functions (see, for example, the FÖRMIG publication by Lengyel/Reich/Roth/Döll, 2009 and study N° 1 of this same series of studies and resources « Language diagnostic in multilingual settings with respect to continuous assessment procedures as accompaniment of learning and teaching' (Council of Europe, Lengyel, 2010) which accompanies the concept paper on 'The linguistic and educational integration of children and adolescents from migrant backgrounds'). Ideally instruments of this kind should be used not only for summative but for formative evaluation that involves learners themselves in the interpretation of results and, provided the instruments are well designed, leads to the development of appropriate support measures (*Sprachförderung*). Effective diagnostics requires either a high degree of knowledge and professional skill on the part of teachers or the involvement of assessment specialists.

The assessment of content-sensitive language competences is much more difficult and much less developed than context-/content-free language diagnosis. This has to do with the fact that traditionally the language dimension was neglected in non-language subjects, in evaluation as in teaching . The language component of subject-based task performance has only recently been given more attention, sometimes even a score of its own in addition to the content score. The criteria for evaluating language-in-context could range from the *effectiveness of textual organisation of meaning* to *appropriateness of language use*. The first criterion could be subdivided into three aspects: (i) effective ordering of structural units in the text, (ii) effective organisation of meaning into different structural units, and (iii) effective linking of structural units; while the second criterion could be broken down into four sub-dimensions: (i) sufficient and correct use of subject-specific terms and expressions, (ii) sufficient use of formal language and clear, succinct formulations, (iii) sufficient use of general academic vocabulary and structures realising semantic relations, and (iv) correctness of Standard Language grammar, vocabulary and punctuation. A set of assessment criteria like these has been developed and successfully applied in a research project that focused on students' *writing* in geography (Coetzee-Lachmann 2009, Vollmer 2008, 2009a).

4.2 Foster language awareness and knowledge about language and communication

There is a widespread misconception that children in primary and adolescents in secondary education are generally de-motivated when it comes to making language and language use a classroom concern. This might hold true for a systematic grammar-based approach with its terminology, extensive drill exercises and assessment of declarative metalinguistic knowledge. However, experience has shown that even young children in elementary education enjoy playing and experimenting with language(s). Language awareness that focuses on linguistic and cultural diversity can be taught as a separate element of the primary curriculum. The language awareness component can also be integrated in LS, in home-language courses and/or in foreign language classrooms in order to open windows on other languages. Especially in multilingual contexts introducing language awareness activities at an early age has proved very effective for future language learning and for developing learners' capacity to reflect sensitively on their own performance. Topics might include:

The language encounters ,	<p>Languages around me – A world of languages – How language works – Playing with language(s) – Naming names – All languages are thieves or: The long journey of words – Special ways of talking – Reading pictures – Turning speech into writing – The adventure of learning languages – How and what do I read ...</p>	Hawkins language
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encounters , Begegnung mit Sprachen , evenir aux langues , ELBE – is also suited for lower²⁰

and even upper secondary education and can be integrated into LS, foreign and home language teaching.

4.3 Increase word power

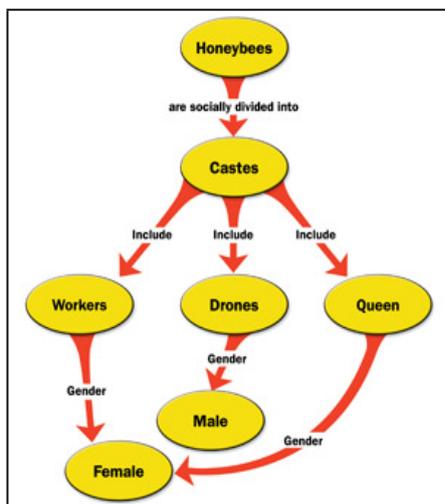


Figure 8: Concept map “honey bees”
Michael Sutphin (2007)

It goes without saying that the lexical dimension is centrally important when it comes to mastering language across the curriculum, and it has always attracted the attention of subject specialists. This should not come as a surprise since the nominal components of subject-specific terminology are very close to the cognitive concepts of academic domains. Classroom routines around these technical terms are believed to build up declarative knowledge which can then be assessed by requiring students to give definitions or expound the meaning of terms in relation to neighbouring terms (e.g. in geography: *crescentic*, *linear*, *star*, *dome*, and *parabolic dunes*). This “lexicon-prime” approach to classroom language and cognition is often supported by graphic organizers designed to serve as visual representations of abstract concepts and cognitive processes (cf. Perna/Aksela 2008 for chemistry, for example).

However, other lexical elements might also need attention when it is a matter of supporting vulnerable learners. When they are expected to describe, explain, or argue complex issues in a coherent way, whether orally or in writing, synsemantic/functional words play a decisive role, fulfilling functions that range from single word, elliptical or telegraphic utterances to coherent statements. Such words (conjunctions, particles, pronouns, prepositions) connect sentences and weave them into a text, precisely locate objects in time and space, indicate logical relations and modalities, signal affiliation and membership, make references within a spoken or written text, refer to the “outside world”, and so on. In classroom discourse they definitely carry a higher functional load than in everyday informal usage.

A systematic expansion of word power is also necessary in order to enable learners to clarify the “position” or “claim” of the speaker/writer. Look at the following example from Andy Gillett’s (2010) guide for academic writing:

Previous studies (Jones ..., Smith ...) have indicated that the intensity of physiotherapy provision may affect some patient outcomes including reduced mortality following a stroke.

Words which signal the author’s stance are: *indicate*, *may* and *some*. Instead of “*indicated*”, *shown*, *proved* or *suggested* could have been used. *May* might have been replaced by *could* or *will* or simply omitted. *Some* was chosen where *many*, *few* or *most* were also possible. Gillett also shows that the rhetorical act of “taking a stance” can be realised by a broad range of linguistic means (Table 8).

1	Introductory verbs	e.g. <i>seem</i> , <i>indicate</i> , <i>suggest</i>
2	Thinking verbs	e.g. <i>believe</i> , <i>assume</i> , <i>suggest</i>

²⁰ Cf. package of materials published by bm:bwk (2006); teaching packages in different dominant languages are also available at http://home.ph-freiburg.de/jaling/material/material_examples.html; Oomen-Welke 2007.

3	Reporting verbs	e.g. <i>claim, find, confirm, assert</i>
3	Evaluative adjectives	e.g. <i>important, misguided, wrong, inaccurate, incorrect</i>
4	Evaluative adverbs	e.g. <i>accurately, unsatisfactorily</i>
5	Adverbs of frequency	e.g. <i>often, sometimes</i>
6	Modal verbs	e.g. <i>will, may, might, could</i>
7	Modal adverbs	e.g. <i>certainly, definitely</i>
8	Modal adjectives	e.g. <i>certain, definite</i>
9	Modal nouns	e.g. <i>assumption, possibility</i>
10	Signalling words	e.g. <i>furthermore, similarly</i>

Table 8: Language means for taking a stance according to Gillett 2010

Increasing students' word power in classroom discourse should also develop procedural knowledge and increase their capacity to help themselves. Techniques include:

- working with prefix-root-suffix, decomposing and generating words;
- familiarizing them with frequently used content words (e.g. *hydro*), prefixes and suffixes (e.g. *hyper, auto-matic*) of Greek and Latin origin
- teaching them to know when to use and how to handle a dictionary
- developing their ability to self-assess their word knowledge
- ...

4.4 Encourage language transfer

The notion of language transfer implies that it is possible to economise on learning effort by taking something from one learning experience and applying it productively to another. Transfer requires awareness of linguistic structures and their specific features and functions as well as the context in which they are embedded. But it also requires that a given phenomenon or behaviour is perceived and understood in such a way that similarity with a different phenomenon or behaviour can be (re)discovered. Transfer can occur in the same domain, another domain or in another subject altogether. It can also relate to elements of another language or to the comparison of whole language systems and of the rules underlying them. Thus, the act of transferring is an expression of language awareness at work.

We can distinguish between positive and negative transfer. In the case of positive transfer, prior knowledge or already existing skills make it easier to learn new yet similar competences based on a high degree of overlap or "agreement" between an earlier learning situation and the new one. An example would be "negation": once one has learned the function of NO, it is soon possible to discover and acquire the syntactically much more flexible NOT in a number of different contexts, all of which are structurally combined by wanting to reject something or to express the opposite of something. Negative transfer, on the other hand, makes it difficult to perceive and grasp features of an object or learning situation which are different from those previously experienced. It can dominate or even block the mind and prevent the dynamics of creative learning from unfolding.

Some experts believe that transfer happens spontaneously, while others argue that it has to be learned and repeatedly supported. Certainly in the case of migrant learners and vulnerable learners in general, it would be helpful to undertake research designed to explore the procedures and steps that explicitly lead to transfer. Whether transfer seems teachable or not, it certainly can and should be systematically supported and exercised. In the long run, learners have to be encouraged to practise transfer on their own, transfer from one language or subject to another and transfer that focuses on specific features of language, e.g. by asking themselves: What do I already know or what can I already do that might serve as an orientation, or help me to reduce the challenge in front

of me? How can I make use of what I have understood or experienced before? What makes this task seem familiar so that I don't have to start completely from scratch? Questions like these will help learners to develop new areas of knowledge, of perception and of mental action and will eventually lead to the formation of transfer strategies. These can relate to the smallest components of a language like words or to grammatical structures all the way up to discourse functions in genres or linguistic patterns in text types. They can also relate to the content level and its intricate link to terminology and preferred (conventionalised) ways of talking about subject matter. They can relate to the different languages the learner knows (including heritage or home languages) and their productive use for subject learning. And finally, transfer strategies can have to do with the learning process itself, with finding out and reinforcing basic patterns of discovery, collecting evidence, interpreting data, documenting and presenting findings, relating them to prior knowledge, arguing, evaluating, etc. The more a subject or a domain within a subject and the linguistic resources learners need in order to deal with it are structured and made explicit - in the curriculum as well as by the teacher -, the more likely it is that (migrant) learners will discover elements or levels of similarity between tasks, between cognitive demands, between mental procedures and their verbal representations as a prerequisite for language transfer. Encouraging learners to experiment with these different types of transfer will help them to become more autonomous in their learning. But this approach needs time and space in the classroom, in the daily work of all teachers: transfer competence has to be seen as an important educational goal in itself – across the whole curriculum.

In pedagogical reality, transfer is probably exploited too little, one of the reasons being that subjects and curricula are not structured in such a way as to support it in a natural manner. Because the division of the curriculum into different subjects and the division of subjects into learning units and isolated pieces of knowledge may prevent it from happening spontaneously, teachers should help vulnerable learners to make frequent and explicit use of transfer. Re-organising learning, overcoming false separations between different curriculum areas, promoting and strengthening links between concepts and learning experiences, exploiting the language(s) of schooling as a unifying tool and thus supporting plurilingual education in both meanings (using and acquiring more than one language, but also acquiring, using and integrating the different communicative repertoires offered by different subjects) – all of these measures will help vulnerable learners to develop to their full potential and make full use of the curriculum.

What remains to be considered is how learners themselves know whether or not their transfer processes were appropriate and successful and how they could improve their strategies. A joint reflection on these issues, possibly supported by grids for self-assessment and teacher evaluation, is an important aspect of this emancipative pedagogical approach.

4.5 Support learner autonomy

Since Henri Holec's *Autonomy and Foreign Language Learning* (1979) the Council of Europe has supported approaches which empower the learner as one who has "*the ability to take charge of [his or her] learning*"²¹. Currently the Council's Language Policy Division promotes two portfolios which are designed to help learners to take responsibility for their own learning by self-assessing their learning experiences and outcomes: (a) *The European Language Portfolio* (ELP), (b) the *Autobiography of Intercultural Encounters* (AIE). David Little and Mike Fleming (2010) argue for the development of additional portfolio tools which accommodate the diverse objectives of the Council's LE project "without losing sight ... of individual learner's developing plurilingual repertoire" (cf. also: Pieper 2007; Krogh 2010). Designed to support language and literacy education across the curriculum, such tools would not only benefit the individual learner, but also facilitate attempts by the individual school to co-ordinate plurilingual approaches across language subjects and language support in non-language subjects targeted at low achievers (cf. section 5.1).

²¹ Holec 1981: 3.

4.6 Improve delivery features and teachers' classroom management skills

Both experience (e.g. in CLIL-programmes) and empirical data tell us that teachers' verbal behaviour in classroom interaction can heavily influence learners' language development. There are many possible forms of classroom discourse, but resorting to simplifying verbal strategies and means ("teacherese") in order to save time for teaching subject content, will eventually turn out to be counterproductive. The danger that interim competences will fossilise can be overcome if certain principles are observed.

- The *IRF sequence* (= initiation, response, feedback), based on work by Sinclair and Coulthard (1975), has been central to the analysis of classroom discourse. In many cases of everyday classroom interaction, the "Teaching Exchange" can be described by three "moves": Opening (initiation) – Answering (response) and Follow-Up (feedback). Dalton-Puffer (2007) provides the following example from CLIL:

Opening move (I)	Answering move (R)	Follow-Up move (F)
marker, starter, elicitation, directive, informative, check, prompt, clue, nomination	acknowledge, reply, react, comment	accept, evaluate, comment
T	...which, ah, religion did he have? Did, did you, did your article say? Spanish, the Spanish King, Philip the Second, was Catholic, Protestant, Puri...?	
S	Catholic.	
T	Catholic, exactly. Good ...	

Table 9: Triadic Dialogue (Dalton-Puffer 2007: 34)

This triadic dialogue functions very well as a tool for teachers to structure interaction and to manage and control classrooms (Nikula 2007: 181). But there certainly are drawbacks as regards students' development of CALP competences since tightly structured IRF sequences usually (a) leave no room for students to initiate a sequence, (b) elicit minimal responses, (c) provide no opportunities for learners to develop and verbalise their ideas or engage in extended forms of talk, and (d) prevent students from coming to a coherent understanding. However, Nikula (2007: 182) points out that the success of the IRF-pattern for language development mainly depends on its third part (R): "...if the third part is treated as an opportunity to further develop and expand on issues dealt with in the classroom, the IRF structure can well enhance the quality of classroom talk and also open up possibilities for active student participation."

- A crucial issue of delivery features in classroom interaction is "*wait time*". Mary Budd Rowe (1972) came up with the concept of "wait-time" – periods of silence between teacher questions and student responses – as an instructional variable. She found that pauses between teacher initiation moves and students' reaction rarely lasted more than 1.5 seconds. She also discovered, however, that when these periods of silence lasted at least 3 seconds, many positive things happened to students' and teachers' behaviours and attitudes. A number of research studies reviewed by Tobin (1986) have shown that extending wait-time affects students' behaviour in a number of ways:
 - They give longer responses.
 - There is an increase in student talk and fewer questions go unanswered.
 - There is an increase in the complexity of learners' responses.
 - There is more learner-initiated discourse and more learner-to-learner discourse.
 - The increase in quality of discourse can lead to higher achievement.

Increased wait-time appears to enhance learners' achievement, because they use the additional time to organise their thoughts, which leads to an improved quality of discourse.

Increased wait-time was also responsible for positive changes in teachers' behaviour. Their questioning strategies tended to be more varied and flexible; they reduced the quantity and increased the quality and variety of their questions; and they asked additional questions that required more complex information processing and higher-level thinking on the part of students. Met (1994: 174) highlights the value of wait-time for learners who may know the content of the answer but who need extra time to articulate their response.

- Especially learners for whom the language of schooling is not a home language have to rely on a *language role model* as well as *corrective feedback*. Some teachers may think that by using informal, colloquial language, they can lower communication barriers and make content easier to comprehend. But if vulnerable students have no language role models at home, they depend on the teacher's language use in order to acquire classroom appropriate patterns – and this refers to all dimensions of language use (distinct diction, correct choice of words, coherent and extended speech, controlled pace etc.). Thinking-aloud strategies have proved to be efficient scaffolds since they provide students with a combination of cognitive and linguistic supports. By verbalising their thoughts as they work their way through a problem, teachers model how expert thinkers verbalise and solve problems. By thinking out loud with their teachers and with one another, students gradually learn how to use verbalisation to direct their own problem-solving processes.

Corrective feedback may be even more important for students' language development. Explicit correction and recasts (reformulations by the teacher of all or part of the student's deficient output) do not seem to be very effective, since they normally do not lead to peer- or self-repair activities. The following strategies appear to be more effective:

- elicitation = the teacher asks for reformulation
- metalinguistic clues = the teacher provides comments, questions, suggestions related to student output
- clarification = the teacher uses phrases such as "I don't understand" or "What do you mean?"
- repetition = the teacher repeats student output highlighting the error or part of the utterance which needs improvement.

4.7 Develop writing

Educational success also depends on learners' abilities to present their knowledge and thinking *in writing*. Not only are students mostly required to perform written tasks in examinations; writing is also the means by which they can capture the results of a learning process. This is true for non-language subjects (which have their own genres, e.g. information report) as well as for language as a subject, so attention should be paid to writing tasks across the curriculum.

We know from experience that teachers of non-language subjects tend to avoid the use of extensive writing activities in the classroom, especially with young and/or weaker learners, because they consider such activities, including correction and feedback, to be too time-consuming. Thus they may decide to make use of a work-sheet where only words or specific terms are to be filled in, instead of asking learners to write a summary. For the same reason, teachers may prefer oral reports on an experiment to written ones, especially as oral reports may seem to allow students to perform 'better', at least at a superficial level. And students themselves may prefer oral tasks to the more demanding and strenuous business of writing. However, such avoidance of writing works to the disadvantage of learners, because it means that they are not helped to develop writing routines and strategies or to master important subject-specific genres. Hence, they have less opportunity to develop their cognitive academic language proficiency, which is at least conceptually based on written language.

One of the reasons why students, particularly those from migrant backgrounds, may seem quite able during lessons but fail in formal examinations, is a mismatch between the demands of oral communication in class (which is clearly situated) and the demands of presenting knowledge or procedures in writing – especially in tests which require de-contextualised thinking and verbalisation. Accordingly, subject teaching should make (more) use of writing activities which help students to solve a problem or to explore a theme at greater depth and/or with greater precision. In this way the epistemic function of writing, well known in language as a subject, can play an important role in subject-teaching too.

Teachers need strategies if they are to develop the writing skills of their learners, especially those for whom literacy poses a major challenge. It is necessary to build up a writing culture in the subject-specific classroom and to provide students with models for structuring written genres. Such an approach should be followed across the whole curriculum, preferably organised transversally in order to facilitate transfer and in accordance with the curriculum in language as a subject as well as in foreign languages.

The strategies outlined call for greater cooperation among teachers of all subjects (see section 5 below). But within any one of those subjects, success largely depends on careful scaffolding procedures which focus on the linguistic dimension of writing and of learning in general.

4.8 Scaffold cognitive-language activities in non-language subjects

In many European educational systems teachers are not well prepared to provide adequate language support in subjects such as geography, history, and science. Normally they take learners' linguistic competences for granted and focus on teaching academic content and subject-based skills. Yet on the fringes of mainstream education there are programmes which successfully face the challenges of content-and-language-integrated learning/teaching, of language-sensitive teaching (= *sprachsensibler Fachunterricht*) and of sheltered learning²². These programmes (cf. section 2.3.4) are concerned with teaching non-language subjects through a foreign language (CLIL, *bilingualer Unterricht*) or teaching non-language subjects to language learners (e.g. SIOP²³, CALLA²⁴). Such programmes are based on the realisation that the mastery of academic subjects is the mastery of their specialized patterns of language use, and that content and language should therefore be integrated. It is thus essential to come up with practical pedagogical strategies and techniques of language support which are appropriate for non-language classrooms and which can be handled by non-language subject specialists.

For more than 30 years the term *scaffolding* has resonated with researchers and teachers concerned with language intervention in the non-language classroom. Wood/Bruner/Ross (1976) were the first to use “scaffolding” as a metaphor to denote the temporary assistance provided by

²² The term “sheltered” (in combination with “teaching”, “instruction”, “learning”, also: “language-sensitive content instruction”) refers to concepts making content accessible for learners of the dominant language of schooling. In former times, students were considered “sheltered” because they studied in classes separate from the mainstream and did not compete with native students. Today, the majority of these learners – provided they have successfully mastered initial stages of acquiring the dominant language of schooling - study alongside their native peers. They are held accountable to the same curriculum standards, and take the same high-stakes tests. “Sheltered” instruction has come to mean a set of practices valuable to all teachers in helping students with a migrant background learn the dominant language of schooling and, at the same time, learn content material in English (http://www.siopinstitute.net/media/pdfs/Resources_Shelt_Inst.pdf). The concept was originally developed for elementary foreign language immersion programmes to enable some portion of the curriculum to be taught through the foreign language; cf. Crandall 1994.

²³ SIOP = Sheltered Instruction Observation Protocol; it was started by Jana Echevarria and Deborah Short in the late 1980s and has been fine-tuned since (see Echevarria/Graves 2010).

²⁴ CALLA) = Cognitive Academic Language Learning Approach; a method for training teachers employing strategies for direct instruction of learning strategies and for teaching language through education content, cf. CALLA website: <http://calla.ws/>

“experts” (= parents, teachers, knowledgeable peers) to enable learners to complete a task, develop fuller understanding, or acquire a specific skill, so that they will be able to complete similar tasks on their own in the future. The concept of scaffolding ties in with Vygotsky’s (1978) concept of “zone of proximal development (ZPD)”, meaning that good teaching thinks ahead of the actual development and offers appropriate next steps in that development without over-demanding the learner. Effective scaffolding keeps support and challenge in balance; it is timely, i.e. provided at the point of need; and it is progressively adapted to address the actual needs of the learners.

In non-language classrooms learners may need language support in order to understand subject-specific content, and this calls for *micro-level scaffolding* or *point-of-need scaffolding*. Scaffolding at the micro level should be administered between the learner in need and the teacher or peers who are able to help. Moreover, classrooms with language learners should definitely be equipped with a broad range of supportive material (dictionaries and IT for online quests are a priority) so that learners can help themselves.

Macro-level or *designed-in scaffolding* is needed when learners have difficulties with content or procedures directly associated with subject-specific content and/or with the curricular goals of the lesson or teaching unit. In such cases the whole class needs scaffolding that provides cognitive and language support. For instance, when the curricular goal in a social science classroom is to write an information report on the history of production methods, e.g. in the automobile industry, learners are either aware of the characteristic features of an information report or they need systematic (meta-) language and cognitive scaffolding. A genre-based approach to scaffolding could run through these stages (Figure 9):

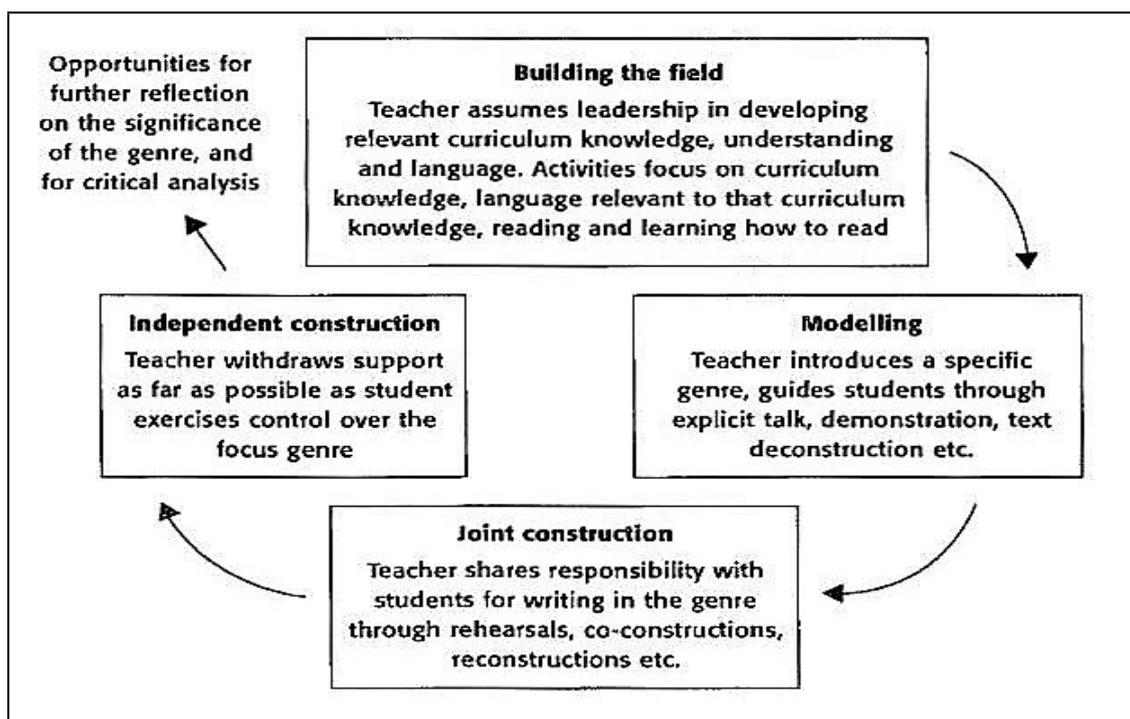


Figure 9: Genre-based curriculum stream (Hammond 2001)

A cycle like the one captured in Figure 9 may lead to deeper understanding of the nature of information reports which learners can transfer from one subject to another and also from one language to another – provided teachers follow a whole-school language learning policy and adopt a joint approach to genres, text-types and language/discourse functions. Scaffolding support for genres (e.g. information report) should observe the following elements and features (Table 10):

Function	Information reports are used to pass on knowledge and understanding to readers/listeners who are not familiar with the specifics of a topic.	
General features	Information reports <ul style="list-style-type: none"> • use facts to explain something • describe and classify information • draw attention to different aspects of the general topic • give details concerning these aspects • are not based on personal involvement, have no personal/ subjective views 	
Generic structure	Title/heading	Tells readers/listeners what topic is covered
	Introductory paragraph	(a) announces and very briefly highlights aspects of the topic to be covered, (b) identifies source(s) of information, (c) explains features of information source(s), (d) characterises methods, (e) indicates possible limitations
	Body paragraphs	deal with specific aspects of the topic. Each paragraph is grouped around a central idea/aspect. Each paragraph has a topic sentence. To keep them coherent they can be broken up by sub-headings. Paragraphs are arranged in a logical order
	Conclusion	gives any final details, may also be used to (a) review most important findings, (b) draw well-founded conclusions from the evidence given in the body paragraphs
	Support (optional)	to enhance understanding (a) visual elements (photographs, drawings, graphs, diagrams, maps), (b) list of technical terms and their definitions, (c) list of resources
General language features	<ul style="list-style-type: none"> • descriptive, rather than imaginative • verbs: third person rather than first person • basic tense: simple present • frequent use of passive voice • absence of informal register (e.g. “method was a bit silly and time-consuming” – “really quite good” – “and that’s about it”) • things/phenomena rather than persons as subject of sentences • nominal style • paraphrasing technical terms 	

Table 10: Characteristic genre features: Information Report

Additionally, appropriate language means can be presented as options from which learners can choose:

the report is based upon ... / the major findings can be summarised as follows ... / in the light of the evidence drawn from ... / the purpose of this report is ... / what makes this aspect so important ... / as one considers the presence of ... / finally one can say that ... / this report considers ... / the source under analysis was published by ... / the most significant aspect appears to be ...

Macro-level scaffolding in non-language subjects is mainly focused on genres/text types and discourse/language function inasmuch as combining cognitive, language and textual aspects.

5 Strategies for school development and school-support systems

5.1 On the level of the individual school

Step 1: Sustained co-operation between language departments = LS, foreign languages, teaching dominant language as a second language, home language courses, provision of additional (extra-curricular) language support

Step 2: Workshops in which language and non-language staff discuss (a) which genres should be introduced in a systematic and reflected way through which subjects and at which point in school careers, (b) characteristic features of such genres, (c) language/discourse functions and their linguistic features

Step 3: Workshops on methodologies for dual-focused teaching in non-language subjects (e.g. expanding word power, classroom delivery strategies, scaffolding)

Step 4: Co-operation with local educational support agencies to organise advice for parents

Step 5: Whole-school language learning policy document with overarching aims and objectives and principles of classroom management for the benefit of plurilingual education and the advancement of vulnerable students

5.2 On the level of curriculum development and quality control

Area 1: Define minimum standards for the language of education (classroom register) at certain stages of school careers

Area 2: Include a set of common language competences in the curricula of non-language subjects

Area 3: Install screening procedures based on the above-mentioned standards at least two stages (pre-school, beginning of lower secondary education)

Area 4: Apply quality criteria of the school inspection system to the specification of the language needs of vulnerable students and the development of necessary language support

5.3 On the level of in-service training

Step 1: Co-operate with universities and other experts to train a sufficient number of language learning advisors to help schools develop and implement their language learning policies

Step 2: Install and evaluate such an advisory system on a regional basis – starting with large conurbations and schools with above-average linguistic and cultural diversity.

5.4 On the level of pre-service teacher training

Step 1: Raise the awareness of the language dimension in training programmes designed for non-language specialists

Step 2: Design modules on integrated content and language learning for learners of the dominant school language in all subjects

Step 3: Train teacher students to analyse not only the learners' needs and competences, but also the cognitive-linguistic implications and demands of learning tasks, textbooks and other learning materials, test items etc.

5.5 On the level of publishers of textbooks and other learning materials

Step 1: Provide a checklist and tools for publishers, editors etc. as regards the basic language requirements in each subject

Step 2: Encourage them to design language-sensitive units, anthologies and tasks as well as different types of scaffolding for language-sensitive subject learning

Step 3: Offer forms of assessment that integrate content and language.

The implementation of the above-mentioned strategies for school and classroom development should make a substantial contribution to the progress of vulnerable groups, because they focus on cognitive and language competences for successful learning across the curriculum. But since educational systems across Europe differ to a large degree in their organizational set-up and administrative responsibilities, it is of little avail to point out the practical specifics of implementation in this paper. Nevertheless, it should be emphasized in conclusion that more research is urgently needed on classroom discourse, teacher attitudes, mental concepts of classroom language patterns and norms, and practical strategies of language and cognitive scaffolding in different subject-areas.

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