



SUBJECT LITERACIES

and the right to quality education for democratic citizenship and participation

Seminar

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Report by Eike Thürmann

**Language Policy Unit
DG II – Education Department
Council of Europe**
www.coe.int/lang

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1. Context of the seminar

There is ample empirical evidence that the mastery of the specific language variety which is used for teaching and learning in school (language of schooling, academic language, *Bildungssprache*) is the most reliable track to a successful school career and one of the most important pre-conditions for a successful professional life after graduating from school (cf. Short/Fitzsimmons, 2007). However, at the same time, the crucial role of this specific language variety is often being ignored or underestimated in formal education. Moreover, the distinguishing characteristics of academic language¹ as it is used in the classroom, in school books and teaching materials, and in content assessments are - to a large extent - still unclear. An important component in addressing the difficulties many students face is a deeper and more thorough conceptualization of the language of schooling that could contribute to the improvement of language development standards and assessments and provide better guidance to teachers on how to support students' verbal and cognitive development (cf. Anstrom et al. 2010, p. iv).

In many cases, mainstream content teaching is based on the assumption that young people grow up in their families and among friends and neighbours with such patterns of language use and - if they should need support - it will be provided by the school's language specialists who take up professional responsibility for the students to get over any shortcomings. Across many countries, demographic facts as well as evidence from language acquisition research are in serious conflict with this assumption of normality:

- A growing number of families do not share the school's culture of literacy because of various factors such as socio-economic status, ethnicity, migration history, language and cultural background. In school, children from these families are struggling with learning through reading, writing, and oral discourse in a new language or being confronted in their own/native language with unfamiliar patterns of language use and discourse conventions. Large-scale assessment studies such as TIMS, PISA, DESI, PIRLS/IGLU have proved beyond doubt that these students perform at a significantly lower level than their peers with a mainstream autochthonous background – and that they face the danger of becoming socially vulnerable and of being marginalised, cf. Stanat/Christensen, 2006.
- In the past, educational systems have often responded to low academic achievement with strategies affecting the organisational set-up of teaching and learning (e.g. grade retention, special education, ability grouping, pull-out programmes). However, several decades after the introduction of these remedial measures – often combined with lowering curricular requirements – achievement gaps still exist to a larger or lesser extent. There is evidence that such measures may actually reduce student engagement and learning opportunities while stigmatising those they are designed to help.

The Council of Europe has identified language issues in education as a threat to social cohesion and social inclusion which the Heads of State and Government designated as priorities at the Third Council of Europe Summit in 2005. In the follow-up to this summit the Council's Language Policy Division (hence: LPD) launched the large international project "Language in Education – Language for Education" focussing on the development of effective skills in the language(s) of instruction which

¹ According to common usage in professional anglophone contexts, in this report the term "academic language" refers to such patterns of language use in schools which are characteristic of formal content-related learning and teaching activities.

are essential for successful learning across the whole curriculum. Within the wider concept of plurilingualism and respect for linguistic and cultural diversity, the project also addresses the needs of learners with a migration background and a mother tongue which differs from the official language of schooling. Since 2006, the language dimension in and for education has been explored by a large number of preliminary studies focussing on different national contexts, pedagogical issues, target groups and systemic approaches (e.g. teacher education, networking, curriculum development and implementation). On the basis of these studies, the progress made concerning plurilingual and intercultural education was discussed in a series of major international events (intergovernmental seminars and conferences). For the Intergovernmental Policy Forum in Geneva (Nov. 2010) the Council's LPU with the help of a group of experts had prepared the [Guide for the development and implementation of curricula for plurilingual and intercultural education](#) (hence: *Guide*) which was discussed during the forum by delegates of the Council's member states. Discussions proved an almost unanimous concern for equity and quality in education and language(s) as a potential medium and tool of support for "vulnerable groups". On the other hand, the enormous complexity of issues at stake became evident, which – in the meantime – is mirrored by the wealth of documents, tools and instruments of the Council of Europe's [Platform of resources and references for plurilingual and intercultural education](#) (hence: *Platform*). On the basis of the *Guide*, the activities of the LPD in 2011 and 2012 can be characterised by a strong concern for curriculum development in a broad sense of the term. Activities aimed at strengthening the alignment of national educational policies and provisions with the Council of Europe's values and objectives to ensure access to quality education, to promote linguistic and intercultural diversity and to improve social cohesion by raising the academic prospects of "vulnerable groups". On the other hand, the need was felt for probing deeper into particular areas of education to improve the quality of teaching and of educational opportunities of young people who have difficulties with the particular language and/or language register of schooling. Thus, the LPD has organised a series of restricted working seminars which are attended by a comparatively small number of member states, so as to facilitate discussions, stocktaking and the exchange of expertise from countries represented and experts invited for a particular topic. Among the criteria for the LPD to invite participants is their national or regional responsibility for curriculum development and/or educational policies and their implementation activities in the areas mentioned.

The working seminar "SUBJECT LITERACIES and the right to quality education for democratic citizenship" held in Strasbourg on September 27-28, 2012 belongs to this series of restricted seminars with a specific mission, which can be summed up as the challenge to discuss and evaluate possible answers to the following two leading questions:

- How can educators provide learning opportunities for students to gain control over a language variety which is crucial for successful learning in and across all school subjects and extend their capacity to move freely across a broad spectrum of language varieties in and out of school?
- Which curricular strategies are appropriate and acceptable for linking academic language to content requirements of school subjects and how can curriculum development for individual content domains provide for the integration of language and content requirements?

Experts have come to the conclusion that for the sake of improving educational opportunities the responsibility for sustainable academic language growth as a prerequisite for school success cannot be left to language experts ("Language as Subject", LS) alone, but that all subject areas across the curriculum have to contribute.

Prior to the seminar some member states had already initiated projects to include the language dimension into curricula for content learning (prominently Norway), and working groups initiated by the LPD (prominently the German-speaking group coordinated by Helmut J. Vollmer) had discussed such issues at great length and had come up with promising proposals. The preparatory group for this seminar had the impression that the issues under concern could not be dealt with successfully by curriculum and language experts only. Thus it was decided to also invite specialists for selected content areas representing the broad range of possible curricular subjects. So the LPD invited non-language specialists for mathematics, science and history as well as for language as subject. Needless to say that all of these experts are known for their extensive research concerning the language dimension of subject-specific content teaching.

2. Seminar organisation

22 delegates from 15 countries, five experts, six members of the coordinating team and three members of the Council of Europe's LPD participated in the seminar. Participants represented a wide range of responsibilities and expertise within their education systems – mostly with a focus on curriculum development.

Prior to the seminar and parallel to the planning processes, a questionnaire was sent out to the invited delegates to report on the situation of the language(s) of schooling in the national/regional context of their professional work. Summing up the responses one can say that the feedback from delegates made the coordinating team aware of the following tendencies:

- A smaller number of countries and institutions are already fully conscious of the key role of subject literacy and have initiated activities and projects to provide practical help to schools (e.g. projects in Austria on [educational opportunities for vulnerable groups](#), on the training literacy coaches, on the [language of textbooks](#), on [improving reading skills](#) in all subjects, on the [assessment of language skills](#), on a [multilingual curriculum](#)). In Germany the former federally funded project [FörMig](#) (now: University of Hamburg) has published a wealth of pertinent materials and guidelines and established regional networks. Important developmental and supportive activities are commissioned by public foundations and trusts (e.g. [Mercator](#)) and universities (e.g. [ProDaz](#) at the University of Duisburg/Essen).
- Other countries are also aware of the importance of subject literacy for academic success of marginalised groups and have developed a cross-curricular framework structure (most prominent in this group is [Norway with its Framework for Basic Skills](#)), introduced chapters on subject literacy into curricular documents for various content domains (Sweden, [North-Rhine Westphalia](#)), integrated the language dimension - on principles similar to CLIL - into a curricular system of key competences (Czech Republic) or are in the process of modelling transversal levels of competence (Luxembourg).
- There are also curricular approaches to subject literacy focussing on specific subject areas (e.g. Mathematics in Estonia, History in the Slovak Republic).
- Others consider subject literacy as primarily relevant for schools with a CLIL programme (e.g. Netherlands).

- A larger group of countries indicate that they have urgent curricular priorities for language issues in other domains (e.g. L1-teaching and national identity, language minorities and plurilingualism, L2-methodologies).

The Coordinating Team - Johanna Panthier, Jean-Claude Beacco, Jorunn Berntzen, Mike Fleming, Joseph Sheils, Eike Thuermann, Helmut Vollmer – tried to accommodate the delegates' specific backgrounds on the issue of subject literacy and their expectations as far as the structure of the seminar was concerned in drawing up a programme with three core areas for presentation and discussion:

- *Conceptual basis and points of departure:* subject literacy in the context of the Council's project on "Language(s) in and for Education" (with introductions to the seminar by Philia Talgott and Eike Thuermann, followed by presentations by Jean-Claude Beacco, Helmut J. Vollmer and Mike Fleming).
- *General Options and examples:* integrating the language dimension into curricula for subject teaching in primary and secondary education [the Norwegian example presented by Jorunn Berntzen and Ragnhild Falch and examples from Germany at federal and state levels (= North-Rhine Westphalia) presented by Helmut J. Vollmer and Eike Thuermann].
- *Subject-specific perspectives on the language dimension:* how content teaching can contribute to the development of academic discourse competence (with presentations for Language as Subject by Mike Fleming, History and Social Studies by Jean-Claude Beacco, Science Education by Sonja M. Mork and Tanja Tajmel and Mathematics by Helmut Linneweber and Susanne Prediger).

These three core areas were framed by plenary discussions and group work. As Eike Thuermann pointed out in his introductory statement the seminar was supposed to pursue the following aims in particular:

- take stock of Council of Europe's relevant documents on the role of language in knowledge building and in developing subject literacies
- compare and contrast two approaches to framework construction (Norway, North-Rhine-Westphalia)
- take stock of developments in other countries (educational contexts)
- consider options for frameworks from the perspective of content domains (language as subject, history/social sciences, mathematics, natural sciences)
- reflect, discuss and recommend further action related to general procedures in support of language teaching and learning within subject areas in Europe.

In short, the working seminar can be considered as an important preparatory step for an envisaged intergovernmental conference intended to raise awareness among *all* the Council's member states for the language requirements in subject learning and the role of curricular frameworks.

3. Conceptual basis and points of departure

The opening presentations made it quite clear that an over-arching and generally accepted common framework of reference designed by the Council of Europe for curriculum developers to define those language competences which are a necessary condition for students to take full advantage of learning opportunities in all subjects will not be feasible. As J.-C. Beacco pointed out, across the Council's member states there is an abundance of school subjects and differing curricular definitions of content areas and a broad range of educational traditions and cultures whereas in the field of foreign language teaching there is homogeneity of teaching aims and methods at least to some degree, which accounts for the wide international acceptance of the Council's CEFR. Thus it will mainly be left to the national/ regional authorities to undertake such curriculum initiatives and develop frameworks for academic language competencies and adapt them to their own contextual peculiarities. The Council of Europe's role is to encourage and facilitate national/regional educational authorities to integrate the language dimension into curricular documents and to provide for tools and strategies to make subject-specific language requirements transparent to teachers, learners, parents and to the general public. To some extent theoretical groundwork for the description of academic language competences has already been established and is being offered on the [Platform](#). Further activities by the national/regional educational authorities and the Council's initiatives should therefore take account of the following already existing documents:

- [Language and school subjects - Linguistic dimensions of knowledge building in school curricula](#) (Jean-Claude Beacco, Daniel Coste, Piet-Hein van de Ven and Helmut Vollmer) as the over-arching conceptual approach and below this conceptual umbrella reference points are specified for the end of obligatory education in the following content areas:
- [for the learning/teaching history](#) (Jean-Claude Beacco)
- [for learning/teaching sciences](#) (Helmut J. Vollmer)
- [for learning/teaching literature](#) (Irene Pieper)
- [for learning/teaching mathematics](#) (Helmut Linneweber-Lammerskitten).

From the opening presentations it can be concluded that alternative strategic options for establishing comprehensive sets of descriptors for subject literacy have to be considered. Beacco, Thuermann and Vollmer each indicated that there are various approaches eligible to bring about a change in the subject specialists' awareness of relevant discourse features in content teaching and learning. These can be summarized as follows:

A. *The basic-skills approach* implies the *a priori* definition of a set of language or discourse competences which are expected to be relevant for successful learning in *all* subjects. Curricula for individual subject areas are then obliged to associate specific content with these general linguistic/textual requirements so that – for the learners' sake – a high degree of transfer potential is being established, e.g. students who have learnt to write a factual account in biology can apply this knowledge to other subject areas. However, questions might be asked how these definitions of transversal competences come about and by which arguments and/or data they can be justified.

B. In the *additive content-area approach* different content areas focus on their specific contributions to general and culturally valued knowledge (German: Allgemeinbildung) and associate the pertinent specific language requirements for information retrieval, cognitive operations, the negotiation of meaning and the communication of learning results. In Mathematics, for example, students are

confronted with non-verbal semiotic representations (in the shape of numbers, equations, graphs etc.) which have to be “translated” into coherent verbal statements. The advantages of this strategic option can be seen in its practicality since subject-specific curricula and textbooks can be taken as references for establishing the features of subject literacy. However, questions might arise concerning the considerable amount of overlap and discrepancies between the subject areas and the general educational value of specific subject-based technical patterns of language use.

C. The *cross-sectional approach* probably is the most complex and ambitious way to specify a common set of relevant academic language competences. It can be characterised as a follow-up of either the *additive-content-area* or the *basic-skills approach*. If it is initiated by the *basic-skills approach*, the *a priori* competence descriptors are turned over to the individual subjects for critical inspection and their subject-specific relevance is examined and – if necessary – additional competencies are added to the common set. When the feedback from subject areas is completed an intersecting set of academic language descriptors is discussed and approved. The same procedure for defining communalities can be applied to the *additive-content-area approach*.

D. The *language specialist approach* might appear the easiest and most straightforward way to arrive at a set of descriptors for academic literacy. It suggests that reference points for the development of academic language competences are an integral curricular element of language as subject, implying that it is up to the language specialists to define which linguistic elements and structures, genres, discourse strategies and functions are relevant for successful teaching and learning and that the pedagogical responsibility for the teaching of such competences should primarily be assigned to language specialists. However, in his presentation “Literacy development in language as subject”, Mike Fleming comes to the conclusion that although academic language skills might be taught in a fairly systematic and analytical fashion in language as subject, there is still a necessary concern for language use in content teaching. With a greater sensitivity to language requirements, a teacher for e.g. biology is better able to provide contextual feedback, scaffolding and appropriate instruction for writing reports because the focus remains on the subject-specific topic and the peculiar way reports are designed by the discourse community of biology experts. Mike Fleming also points out that the subject-specific concern for language use broadens the capacity to handle and interpret successfully non-verbal systems of meaning making, above all numerical, graphical and pictorial ones.

These four different approaches outlined above could be applied to curriculum development on the macro level (educational system) as well as on the mezzo-level (school and classroom development).

In their presentations Eike Thuermann and Helmut J. Vollmer brought up two issues which they think have to be looked at in greater detail before further conceptualising recommendations and practical tools for curriculum development and subject literacy:

Terminological issues: There is an urgent need for clarifying concepts and technical terms and for establishing consensus in answering questions such as “What exactly is meant by “literacy”?” and “What are the distinctive features of the “language of schooling” (academic language, cognitive academic language proficiency, academic discourse, *Bildungssprache*)?” Eike Thuermann pointed out that the classroom patterns of language use are a blend of different varieties and refers to Bailey & Heritage (2008) and Scarcella (2008) and their distinction of “Basic colloquial Language (BCL)”, “School Navigational Language (SNL)”, “Essential Academic Language (EAL)” and “Curriculum Content Language (CCL)”. If one takes a cross-curricular perspective on school development and coordinated action to support the skills and abilities of “vulnerable” groups of students to understand and speak/write the particular idiom (and ways of thinking) which they are confronted with in all content

classrooms, one should primarily be concerned with EAL, leave the technical CCL (predominantly terminology, like “Renaissance” in arts, “shifting sand dune” in geography) to the subject specialist and expect the students to be more or less competent to cope with the BCL (“How are you this morning – and how was your weekend?” and SNL (“John, can you give a brief summary of what we can do to protect our ground water”). In his contribution, Helmut J. Vollmer attempted to clarify concepts and offered characteristic features of the academic language register (equivalent to EAL, I.a.) and defining aspects of “subject literacy”. He emphasised the inseparable connection of cognitive and verbal activities as the indisputable basis of learning in school.

The plenary discussion and the pre-conference feedback from delegates indicate that further project activities and future events (e.g. intergovernmental seminars) should be backed up by a list of key terms and brief explanations of the central concepts.² This would make the exchange of ideas easier and more reliable.

Structural issues: Subject literacy as cognitive academic language competence is a very complex structured construct which can be elaborated according to different theoretical assumptions and various levels of abstractness. Again, there are several options (here on the basis of Uribe, 2008) how to break it down into a system of partial competencies, e.g.

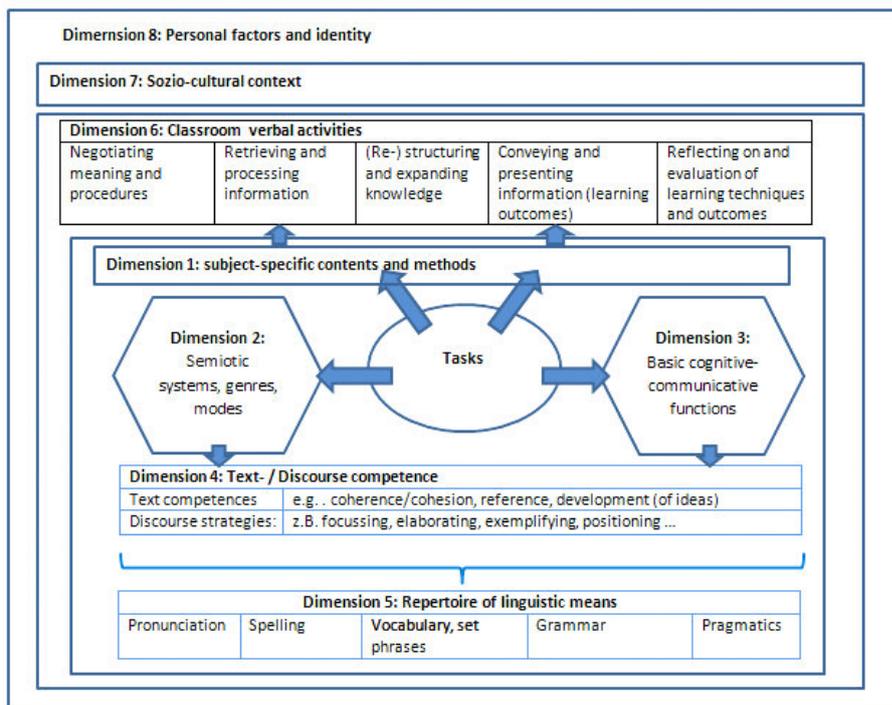
- The *linguistic approach* defines partial academic language competencies as the availability and reflected use of language elements on different systemic levels: e.g. the *phonological level* (including pronunciation, intonation and stress), the *lexical level* (knowledge of the forms and meanings of words and collocations that are used across academic disciplines like “assert”, “hypothesis”, “come to the conclusion”), the *morphological level* (knowledge of the ways academic words are formed with prefixes, roots, and suffixes and the grammatical constraints governing academic words), the *level of syntax* (knowledge of complex sentence structures and those structures which are typical of academic discourse e.g. frequent use of passive voice), the *level of text* (knowledge how to combine sentences/propositions into a cohesive linguistic “fabric”, how to avoid outside references etc.).
- The *communicative approach* defines partial competencies according to general communicative roles (e.g. listening, speaking, reading, writing) - similar to those also used in the CEFR. The communicative approach might also be based on typical communicative classroom activities such as “organising procedures and activities”, “retrieving information”, “exchanging ideas and constructing knowledge”, “presenting learning results” and “evaluating the learning process and results”.
- With the help of the *cognitive approach* partial academic language competencies can be structured along the lines of the *knowledge component* (ideas, concepts, notions, definitions based on personal experience and internal knowledge structures/schemata), the *higher order thinking component* (mental operations/cognitive language functions such as naming, describing, explaining, interpreting, analysing, evaluating, synthesizing, e.g. interpreting a chart, determining the credibility of a source), the *strategic component*

² Terminological issues have already been discussed in Daniel Coste (ed.), Marisa Cavalli, Alexandru Crişan, Piet-Hein van de Ven (2007). *A European reference document for languages of education?* in preparation of the Council’s 2007 [Prague intergovernmental conference on Languages of schooling within a European framework for Languages of Education: learning, teaching, assessment](#).

(knowledge of strategies like organise study, monitor errors, assess factors which might enhance the effectiveness of communication or compensate for breakdowns in communication), the *metalinguistic awareness component* (knowledge of the advanced techniques which allow to improve linguistic/cognitive performance e.g. through editing and revising).

- With the *contextual* or *genre-based approach* partial academic language competences can be structured according to *purpose, organisational features and linguistic markers* of those text-types or genres which have cross-curricular relevance. In this context, the whole scope of semiotic representations of meaning (especially through non-verbal or graphic forms of information transfer) have to be dealt with.

In their presentations Thuermann and Vollmer argued that for pedagogical purposes academic language proficiency cannot be conceptualised and comprehensively described by a single approach alone, as outlined above. Instead they presented a compact synthesis of several approaches as a basic structure for drawing up inventories of partial academic competencies and their descriptors. If curricular development applied the same basic structure for academic literacy in all subjects, in the long run students might profit from a co-ordinated whole-school language learning policy.



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Figure 1: Structured frame for academic discourse competence (Thuermann/Vollmer)

The plenary discussion made it

quite clear that for curricular purposes there is a need for a basic grid and for reference points in structuring and organising descriptors of academic language competencies. However, at the same time it became evident that such grids are based on specific linguistic, cognitive and socio-cultural theories and concepts which have a different impact on the different educational contexts across the Council's member states. For future activities and events it might be helpful to offer a few prototypes of such basic structures on the Platform, each with a few examples of pertinent descriptors for member states to choose from.

4. General options and examples

a. The Norwegian example

Jorunn Berntzen and Ragnhild Falch presented background, context, strategies, results and outlooks of *The Norwegian Framework for Basic Skills*. This national curricular initiative goes back to the early 2000's and a public concern for strengthening the literacy and numeracy skills which in 2006 – following a Parliamentary decision – were integrated into subject-specific curricula. In 2010, as a preparatory step for a curriculum reform with a still stronger and co-ordinated focus on the five basic skills, a generic framework for defining these skills and for integrating them into the curricular documents for all subject areas was commissioned. These five basic skills were labelled as

- Oral skills (being able to express oneself orally)
- Being able to read
- Being able to express oneself in writing
- Numeracy
- Digital literacy (being able to use digital tools).

The framework document was designed to serve as a tool for integrating the basic skills into the competence aims of the subject-specific curricula to be revised and to ensure common understanding among the curriculum groups how to define skills and a common progression of such skills across the curriculum. The framework document contains brief introductory texts explaining how the basic skills should be understood and grids which are structured on the one hand by five levels covering primary, lower secondary and upper secondary education and on the other hand by subcategories (partial competences). The cells contain definition of general skills: e.g.

Oral skills

Subcategories	Level 1	Level 2	Level 3	Level 4	Level 5
Understand and reflect	Can understand information and argumentation	Can understand relevant information. Can distinguish between facts and opinion	Can understand speech with ambiguous information. Can differentiate between informative and argumentative text.	Can understand extended speech and complex topics and reflect on the content and purpose.	Can critically assess content and purpose of complex speech.
Produce	Can combine verbal language and non-verbal resources to create meaning.				
Communicate					
Reflect and assess					

Each subject curriculum group had to decide which cells from the grids are relevant for teaching content and how to relate subject-specific content in the wording of such skills. This was also shown

by the presenters in an exemplary fashion for sciences. The feedback the framework group received from the subject curriculum groups is that the framework has a high level of quality, that it functions well as a tool, that the descriptors are well-balanced and that it is quite comprehensive. The revised national subject curricula will be approved by the Norwegian Ministry of Education June 2013.

4.2 The German example

In his presentation, Helmut J. Vollmer analysed the language dimension of the 2004 national German educational standards for sciences (biology, physics, chemistry) and their common concept of scientific literacy which is subdivided into four competence areas (partial competences):

Subject-specific knowledge (<i>Fachwissen</i>)	Basic facts, concepts and principles vary according to subject: They include notions like "system", "structure", "function", "development"
Epistemic / procedural competence (<i>Erkenntnisgewinnung</i>)	The labels for operations vary per subject, e.g. biology: "observe", "compare", "experiment", "use models", "apply techniques"
Communicative competence (<i>Kommunikation</i>)	Obtain information, exchange ideas, present results
Evaluation (<i>Bewertung</i>)	Identify topics, issues, challenges in public life and discuss and evaluate them on the basis of natural sciences

Vollmer pointed out that considering German curricular traditions it is quite remarkable, even a breakthrough that competence areas other than content and factual knowledge were considered at all and that the language dimension was explicitly included as integral part of science literacy. However, it seems that the national standards's conception of the language dimension is confined to "communication" as a subdimension of subject literacy and can be specified by descriptors such as

- Examine presentations in the media in terms of scientifically adequate content.
- Describe, illustrate and explain chemical (biological ...) facts using subject-specific technical means of expression and/or non-verbal representational modes.
- Relate scientific facts to everyday phenomena and deliberately translate from subject- to everyday language and vice versa.
- Document and present processes and learning results in a way which fits the occasion and the addressees.

According to Vollmer it cannot be denied that these descriptors are relevant for scientific learning and teaching. However, there is no identifiable conceptual system behind the selection and wording of descriptors. It seems that also the list of text types (genres) to be mastered by the end of compulsory education is of a highly arbitrary nature. He finds this type of arbitrariness also in national standards for biology. Nevertheless, Vollmer comes to the conclusion that they are more helpful than anything else that had existed in curriculum development for science subjects in Germany before. However, the challenge of future national curriculum reforms for the sciences lies in the need (a) to extend the language dimension beyond that of communication also to the processing of factual knowledge as well as to epistemic and evaluative discourse competences, and

(b) to show how academic language use in sciences classrooms relates to language demands in other subject areas.

The national German educational standards for sciences – as presented by H. J. Vollmer – may be taken as an example for the *additive content-area approach* (outlined under B. above in section 3) for accommodating the language dimension in curriculum development. In his presentation Eike Thuermann characterised another initiative in Germany similar to the Norwegian experience. However, it is based on an alternative curricular strategy of structuring subject literacy. For the lower ability level of students (German “Hauptschule”) the Ministry of Education in North-Rhine-Westphalia instructed curriculum groups to incorporate language requirements for content teaching, i.e. for subjects such as mathematics, sciences, history, geography and commissioned H. Vollmer and E. Thuermann to develop a tool designed to co-ordinate such attempts across the curriculum. On the basis of preliminary studies and an extensive analysis of curricular documents and textbooks they compiled > 90 general descriptors of academic language competences which students should have acquired by the end of mandatory schooling (approx. age 15) and organised them as a grid with the following five partial competences:³

- a. General classroom interaction: negotiation of meaning and participation: Students can clarify conditions for handling and completion of tasks, organise their work procedures effectively and arrive at results.
- b. Information retrieval and processing: On the basis of their own interests and/or tasks to be carried out, students can do targeted research for information or, where appropriate, extract relevant information from documents and other media.
- c. Basic cognitive-communicative strategies and discourse functions: Students can use appropriate linguistic strategies and tools to process information, experience, comments and ideas applying basic discourse functions: NAMING / DEFINING – DESCRIBING / PRESENTING – REPORTING / NARRATING – EXPLAINING / CLARIFYING – ASSESSING /EVALUATING – ARGUING / TAKING A STANCE.
- d. Documenting, presenting and exchanging of learning results: Students can describe or present their own ideas and the findings of their own work in an appropriate form and communicate on the subject using the basic language functions listed above and appropriate genres.
- e. Availability of linguistic means and language elements for the realisation of the above-listed competences on the level of individual words, collocations and idiomatic expressions, on the level of sentences, on the level of texts.
- f.

According to socio-functional views the linguistic means and language surface elements and structures on various levels (pronunciation, lexis / lexical phrases, morpho-syntax, text) are options which competent language users have when they are confronted with cognitive-communicative tasks and activities. Academic language requirements concerning text-types (genres) were integrated into the dimensions a. – d.

When the subject curriculum groups received this grid of general academic language descriptors (= > 90 parcelled according to the five dimensions mentioned above) they

³ Eike Thuermann, Helmut Vollmer. A Framework of language competences across the curriculum: Language(s) in and for inclusive education in North-Rhine-Westphalia (Germany). http://www.coe.int/t/dg4/linguistic/Source/Checklist_Nord-Rhein-Westphalia_en.pdf.

selected relevant items from the grid and adapted them to the subject-specific content they were dealing with. Also a chapter on the importance of language-sensitive content teaching was included into the curricular documents. To sum up the North-Rhine Westphalian experience: since 2011 curriculum development groups use the grid as a point of departure and a resource tool for their endeavours to specify subject-specific academic language requirements.

E. Thuermann ended his presentation by pointing out the importance of literacy coaches as change-agents who should be qualified to make language enriched State curricula come alive. In North-Rhine-Westphalia 60 senior teachers were trained as literacy coaches and familiarised with the grid explained above. Austria has embarked on a similar line of building support systems (see section 2 above). In addition, experience from the US where literacy coaches are very high on a national agenda, can be very helpful for establishing such programmes in Europe.⁴

5. Subject-specific perspectives on the language dimension

Speakers in this third section of the seminar were asked to address the following three questions:

- Are there any language requirements specific to your subject area?
- How do you see the relationship between your specific subject area and the possibility of formulating a general framework for the language of schooling?
- What do you think is the specific contribution of your subject to such a framework?

5.1 Language as subject

Often uniqueness is claimed for language as subject. In his presentation Mike Fleming examined such claims for (a) aims in relation to values, (b) literary / aesthetic content and (c) language elements. He also discussed the controversial issue of a service function for other school subjects and education in general. He sees a great degree of overlap with other subject areas when it comes to values, even reading fictional / literary texts and also to some degree advanced reading and writing skills – although especially for the early school years language as subject has a foundational role for children to become literate. However, there is one domain in language as subject which – to some extent – may claim uniqueness, i.e. knowledge about language. What Language as Subject can contribute to the growth of academic language competencies and also to a general framework for the language of schooling is the study and application of how language works in a broad range of contexts.

Although Mike Fleming dismisses the notion of a service function for Language as Subject, he acknowledges its special role in and for language education. He highlights what the “language specialist” can do for staff as well as classroom development. Through professional dialogue with “non-language” staff members continuity and progression in the development of language competence across the curriculum can be reflected and harmonised. As a rule, teachers of language as subject are also qualified to interact with “non-language specialists” to discuss and share perceptions about the language content of their subjects and to ensure breadth of language use and awareness so that students are not addressing a limited range of skills repeatedly.

⁴ Cf. Sturtevant, E. (2004).

5.2 Social Studies – History

In his presentation Jean-Claude Beacco approached the topic of subject literacy from a general pedagogical and also from an epistemological point of view of history as an academic discipline. The most appropriate tool for identifying linguistic means and patterns of language use in formal education seems to be discourse analysis, which also facilitates specification of genre-knowledge for a deeper understanding of texts and for the oral or written production of texts. Literacy should be taken literally in so far as reading and writing classroom activities are a necessary platform for successful teaching and learning and their underlying cognitive processes. Beacco indicates that teachers of “non-language” subjects need to be qualified linguistically to the extent that they become aware of the language dimension in content-based teaching to prevent the accumulation of learning problems and to prepare students for examinations at the end of their school career, which focus heavily on the comprehension and production of written texts.

The specific language requirements of history as a school subject – according to Beacco – must be derived from the specific contribution of history to citizenship and the ability to fully participate in society on the basis of its value system. He emphasises the concept of discourse both in relation to types of general discourse in society and the specific types of discourse which are used in school for building historical literacy. By analysing the situational contexts of such discourses and relating them to each other, subject (= historical) literacy can be developed by accounting for partial competences such as strategic competence, discursive competence, formal competence, cognitive and pragmatic competencies. From his presentation it can be concluded that a framework structure for subject literacy should reflect the complexity of socio-semiotic discourse concepts.

5.3 Science education

Both presentations on science education – the one by Sonja M. Mork and the one by Tanja Tajmel – established links between conceptual issues relating to a potential general academic language framework and practical classroom strategies. Sonja Mork’s focus was on primary education, Tanja Tajmel dealt with science on the level of secondary education.

From a practical point of view both presentations convincingly showed that academic language support can be integrated into the science classroom without slowing down content teaching or “dumbing down” the curriculum. For primary education examples were given concerning the use of writing logs and a project entitled “Hunting letters and numbers in nature” which scaffolded language use necessary for the observation of natural phenomena, their description and the presentation of what learners had found out. For secondary education Tanja Tajmel demonstrated how language support can be integrated into activities of noticing, observing and describing natural phenomena (“floating – sinking”). She underlined the importance of making teachers aware of the linguistic demands in the science classroom. For this purpose she presented an analytic framework for teachers to identify the linguistic means that are required for making use of a specific language function. She illustrated the application of the analysis framework for observing and describing a physical phenomenon.

Also from a conceptual point of view the two presentations shared common ground at least as far as language functions are concerned. It can be concluded from the two presentations that there are four fundamental questions which need to be answered when it comes to planning language support activities for the science classroom:

- Which language functions are required for a specific content-related learning activity?

- Which mode (conceptually oral/written) and which genre (text type) is the most effective for a subject-specific discourse associated with the learning activity?
- Which linguistic (and textual) means are necessary for this subject-specific discourse on which level of achievement?
- To which degree are these means already at the students' disposal?

As far as the key role of (cognitive-) language functions for a framework structure is concerned the two presentations seem to be in accord with the functional discourse approach chosen by Helmut J. Vollmer, Eike Thuermann and Jean-Claude Beacco. However, (a) there is no authoritative finite inventory of such functions, (b) the discussion is complicated by diverse technical terms, (c) and such functions can be specified on different levels of abstractness.

5.4 Mathematics

The two mathematics experts, Susanne Prediger and Helmut Linneweber-Lammerskitten, propose in their presentations that mathematical literacy has both cognitive and linguistic dimensions. Learning activities in the mathematics classroom should relate thought and language to each other.

On the basis of "HarmoS Educational Standards for Mathematics in Switzerland" Helmut Linneweber-Lammerskitten argues that linguistic competencies are

- a constitutive element of educational standards in mathematics
- a necessary precondition for successful learning
- a necessary precondition for acting as an active, reflective and intelligent citizen.

With reference to the Swiss educational standards and their can-do statements for mathematics he showed which language requirements are associated with the following competence dimensions of mathematical literacy:

- Knowing, Recognising & Describing
- Operating & Calculating
- Using Instruments & Tools
- Presenting & Communicating
- Mathematising & Modelling
- Arguing & Justifying
- Interpreting & Reflecting on Results
- Experimenting & Exploring.

The presenter comes to the conclusion that a general framework for academic language competencies seems possible and feasible on a fairly abstract level. He argues that mathematics can contribute cognitively as well as linguistically to a general framework with respect to transversal and overarching ideas and notions such as "quantity", "space", "shape", "(un-) certainty", "change" and "relationship". Mathematics can also make specific contributions as far as different modes of representation (semiotic systems) are concerned and the challenge of translating propositions from non-verbal systems into language and text and *vice versa*.

Susanne Prediger is explicitly – but not unconditionally - in favour of a general framework for the language of schooling and claims that it should be possible to establish such a reference system. However, she cautions those concerned with the development of a framework (a) to break down general descriptors to the level of subject-specific content and to specify them according to different topics and tasks within individual subjects, (b) to interact with subject specialists across the curriculum in the developmental process, (c) to anticipate strategies and conditions how to implement such a framework, (d) to be aware of the difficulty and complexity of the developmental task. In her presentation she analyses central examination tasks (Germany, North-Rhine-Westphalia). She points out which language requirements are inherent and demonstrates how they can be accommodated for by general framework approaches (Norway, North-Rhine-Westphalia). She also emphasises the key role of basic cognitive-communicative strategies and discourse functions for identifying and structuring necessary textual strategies and linguistic means for purposes of classroom discourse. A lot of research work has to be done before a general framework can be established and “translated” into concrete subject-specific terms.

6. Summing up and next steps

6.1 Feedback from group-work

The constraints of a general report only allow for a brief synthesis of the rich and multi-faceted discussions in the working groups. A fairly broad consensus was reached concerning the following points:

- There seems to be an urgent need for a Council of Europe’s document addressed on a political or administrative level to those who are responsible for the development of the national / regional educational system focussing on the language dimension of content teaching across the curriculum. Such a document should raise awareness, provide relevant information and recommend action in terms of curriculum development, practical implementation and teacher education.
- On the level of educational professionals a structured frame is needed which specifies academic language requirements on a general and abstract level and relates cognitive strategies and operations to genres (text types), to basic communicative-cognitive functions and to relevant linguistic / textual means. A reference document of this kind would allow authorities, schools, departments and – on a micro level – also individual teachers to plan the progression of academic language proficiency according to grade levels. It would – indeed – be a much welcomed tool for curriculum developers in Europe.
- Tools are needed to raise awareness of the language dimension in content teaching, e.g. checklists for self-reflection and/or for the observation and evaluation of language-sensitive classroom activities, including approaches for a critical textbook analysis. Such tools should be introduced to the pre- and in-service teacher training of *all* “non-language” specialists.
- The examples and experiences presented and discussed at the seminar were thought to be very useful and acceptable despite the fact that they represented different approaches towards a framework of academic language competence.
- The time for formulating and establishing academic language standards has not come yet and might not come at all since contextual and structural factors for education and

curriculum development differ considerably across Europe. Besides that, more evidence is needed concerning how to describe academic language competencies and how to integrate them into curricular documents and into teacher training.

- Concerns were shared how to make a framework (once it has been developed) really work and be used effectively. There are already examples of good practice, e.g. manuals and training kits for teachers with practical examples and not overburdened with conceptual considerations (e.g. in Austria⁵).
- Literacy coaches as change agents might intensify implementation measures. Qualification programmes for experienced teachers should be conceptualised and tested.

In general, framework approaches were welcomed as useful tools for school- and classroom development with the aim to raise quality and equity standards of education – especially for the sake of low-achievers and marginalised groups. However, participants indicated that it is extremely important in which way and for which purposes academic language frameworks are going to be used and that the implementation should be followed by evaluation and research to document its impact on the classroom, on teaching procedures, on learning results and the school system in general. Participants also discussed the potential antagonism between subject specialists and the need for a general re-orientation of “non-language” subject specialists requiring long term programmes and a strong commitment of resources. Some delegates even voiced concern whether the linguistic aspect might be given too much space in “non-language” subjects once a framework has been developed and communicated to schools through educational authorities.

6.2 Post-seminar feedback from participants

Many delegates returned an evaluation questionnaire and gave valuable feedback concerning organisation, structure and content of the working seminar and came up with ideas how the Council of Europe could provide further support for member countries’ initiatives and projects on subject literacy. In general, it can be gathered from the responses that the seminar was a well balanced event between general basic principles and concrete examples from different content areas. Obviously, inviting “non-language” specialists to an event focussing on linguistic aspects of classroom discourse paid off and gave more depth of examples and ideas. Also on a general note, the feedback proved that participants rated the importance attached to subject literacy in their educational context very high (4-5 on a 5-point scale) with only Belgium, Russia, and the Slovak Republic opting for 3. The proposals how to shape and arrange working seminars to make them even more profitable for participants will be looked at in greater detail by the Council’s Language Policy Division. For the sake of organising further work on the language(s) of schooling and for preparing future events on the topic, pertinent proposals are listed below:

- commission the development of a policy document for national initiatives to strengthen the language dimension in subject teaching/learning, also guidelines for national/regional framework development (guidelines could also be shaped into a series of booklets: e.g. 1. concept and theory/policy, 2. practical approaches to implementation, 3. teacher education, 4. evaluation and testing)

⁵ Dorner/Helten-Pacher/Langer/Schmölzer-Eibinger (to appear 2013)

- coordinate more work on the development of frameworks for the language of schooling (alternative models and concepts to choose from, graded according to age or competence levels including glossary of technical terms, of concepts and definitions)
- organise more key conferences and major events on subject literacy
- create arenas for exchange of experiences, good practice and research results
- continue to provide relevant documents on the Council's *Platform* and present them in an easily accessible way
- extend the concept of subject literacy to other areas and age levels (e.g. pre-school, elementary level, vocational training; to other subject areas, subject literacies)
- go down lower to the level of teachers and classroom practice
- provide experts for seminars in member countries (e.g. Russia).

Some of the proposals for future activities are clearly addressed to the ECML in Graz.

6.3 Next steps

In his intervention Jean-Claude Beacco specified the mission of the Council of Europe's Language Policy Division and pointed out that it can continue to support member states' educational policy planning as regards the language(s) used to acquire and to convey knowledge. It is in a position – according to the means at its disposal – to co-ordinate this planning by fostering contacts between member states and by guiding the development and distribution of shared concepts and instruments in keeping with the Council's general values and aims.

Jean-Claude Beacco also confirmed the role, organisational set-up and the efficiency of so-called restricted seminars operating on the basis of the *Guide* and being co-ordinated by the *ad hoc* group in charge of the meetings relating to the *Guide*. He proposed a list of topics for further working seminars which shows a high degree of accord with the post-seminar proposals of delegates listed above. However, he went beyond these proposals in so far as he articulated a special concern for disadvantaged learners and learners whose language of schooling is not their first language.

He also referred to the work already done and presented on the *Platform*, to resources and member states' contributions and benchmark instruments which already cater for the needs of member states.

As to further instruments to be developed, Jean-Claude Beacco cautions to respect the Council of Europe's priorities, i.e. its concern for values, quality and equity in education. Essentially the LPD can not be a research centre for methodology and linguistic or educational sciences. He dismisses the notion of an authoritative "European framework of reference" for subject literacy and for language in non-language subjects which could be used as a tool for defining "European standards"; he convincingly explains why such an approach could endanger national approaches which fit particular educational, professional, socio-cultural and linguistic contexts and needs. He sees the major risk of a general "European reference framework for subject literacy" in creating a European orthodoxy which the CEFR may have occasioned. Instruments should therefore be devised which remain on the *macro* level, but have effective implications for the *mezzo* and *micro*, even for the *nano* levels. According to Beacco it is imperative to align future work with the already existing key documents and tools present on the *Platform* and to provide support for areas such as

- establish open inventories of relevant linguistic forms feasible for managing scientific classroom activities for primary and secondary education and explain the processes for arriving at these inventories
- compile or have compiled by member states classifications of the constituents of descriptors of communicative-cognitive competences relevant for teaching and learning in “non-language” classrooms
- make or commission analyses of textbooks so as to characterise the scientific vocabulary they have in common cutting across the disciplines and not specific to anyone
- conduct a survey of tests for assessing scientific competencies at the end of primary, lower secondary and upper secondary education.

In his résumé of the seminar entitled “Where are we now?” the rapporteur, Eike Thuermann, focussed on the following aspects:

- *Confirmation*: the format of the seminar - a meeting place for generalists (administrators), linguists and subject specialists – proved its effectiveness and should be repeated on future occasions extending the issue of subject literacy to a broader range of subjects, age levels and target groups.
- *Wake-up call*: There is an urgent need for making national authorities aware of the importance of academic language issues and subject literacy for quality and equity in education - especially for the benefit of linguistically vulnerable groups.
- *Intelligent communication*: New concepts (academic language competence, subject literacy) do not lend themselves to immediate and intuitive understanding (What exactly do you mean by ... What are their characteristic features? How does it relate to school success?). That is why information material is needed which is intelligible to a general public – and not only to experts – and coherent in terminology.
- *Structure, structure, structure!* The introduction of subject literacy to curriculum development needs some sort of a structured frame for cross-curricular coordination and – maybe even different structural options for different educational contexts and purposes.
- *Discourse*: Basic communicative-cognitive functions and genres (text-types) seem to be key categories for frameworks or a structured frame to organise descriptors.
- *Literacy taken literally*: Academic language competence is heavily dependent on familiarity with strategies and language features of written texts. Thus, a stronger focus on reading and writing activities in all “non-language” classrooms is needed.
- *Head in the clouds – feet back on the ground*: When dealing with subject literacy, there is an enormous gap between concepts for frameworks and structured frames on the one hand and classroom practices on the other – there is a great demand for qualified „interpreters“ to bridge the gap: researchers, didacticians, text-book authors, teacher educators, literacy coaches.
- *Equilibrium*: general conceptual and practical approaches to subject literacy on CoE’s larger events and seminars and also on its website should be well balanced.

- *No one-way approaches* to academic language frameworks and framework structures: Both avenues should be followed (a) specific subject areas as points of departure for working the way up to the level of a general cross-curricular frame(work); (b) general *a priori* reference documents as points of departure for working the way down to critical approval by a broad range of subject areas and “non-language” experts.
- *Parallel approaches*: For secondary education there is a strong professional loyalty of teachers and experts to the uniqueness of their discipline(s). Implementation (and also the Council’s *Platform*) should not only cater for administrators and policy decision makers, but also offer subject-specific doors for content-area experts, researchers and other educational professionals to approach issues of academic language and subject literacy.

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Appendix: Programme

Thursday 27 September 2012	
08.30 - 09.00	Registration
09.00-09.30 <i>Chair: Philia Thalgott</i>	OFFICIAL OPENING - Council of Europe This seminar in the context of the Language Policy Unit's programme - Philia Thalgott Introduction to the seminar: aims, main issues and working methods - Eike Thürmann, General Rapporteur
09.30-10.15 <i>Chair :</i> <i>Jean-Claude Beacco</i>	The Council of Europe and the languages of schooling - Jean-Claude Beacco Subject literacies and the role of language in knowledge building - Helmut Vollmer
10.15-10.45	Literacy development in language as subject - Mike Fleming
10.45-11.00	Plenary discussion: questions / comments
11.00-11.30	<i>Coffee Break</i>
11.30 - 12.15 <i>Chair: Mike Fleming</i>	Defining general and subject specific language competences for mainstream education: procedures, approaches, frameworks, educational standards ● Example from Norway: Generic (language) competence framework Jorunn Berntzen and Ragnhild Falch
12.15 - 12.30	Plenary discussion: questions / comments
12.30-14.00	<i>Lunch (provided)</i>
14.00-14.45 <i>Chair: Mike Fleming</i>	● Examples from Germany - Eike Thürmann and Helmut Vollmer a. The national curriculum for natural sciences b. Example from North Rhine-Westphalia: A framework of language competences across the curriculum. Introduction to group work
14.45-15.00	Plenary discussion: questions / comments
15.00-16.30	Group work
16.30-17.00	<i>Coffee break</i>
17.00-17.30 <i>Chair: Jorunn Berntzen</i>	Reports on group work

Friday 28 September 2012	
09.00-09.15 <i>Chair: Helmut Vollmer</i>	Introduction to contributions, perspectives and challenges in different subject areas - Jean-Claude Beacco
09.15-11.15	<ul style="list-style-type: none"> - Language development in language as subject - Mike Fleming - Social studies - History - Jean-Claude Beacco - Science education - Sonja M. Mork and Tanja Tajmel - Mathematics - Helmut Linneweber and Susanne Prediger
11.15-11.45	<i>Coffee break</i>
11.45-13.00	Group work
13.00-14.30	<i>Lunch</i>
14.30-15.00 <i>Chair: Jorunn Berntzen</i>	Reports from group work
15.00-16.00 <i>Chair: Philia Thalgott</i>	Closing session The next steps until September 2013 and beyond - Jean-Claude Beacco Summing up (Where are we now?) - General Rapporteur