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**Foreign -Language-Medium Instruction in Tertiary Education:
a Tool for Enhancing Language Learning**

Eeva Rauto and Lotta Saarikoski (eds.)

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Foreword

This publication ushers a new era in the publication activities of VAMK University of Applied Sciences. Over the years, the staff have published a variety of articles and reports in various contexts. However, there has been an increasing sense that the institution would benefit from a more systematic publication policy. After a thorough review of the situation, it was decided to set up three different publication series, A, B and C. The three series differ in terms of their purpose and audiences.

The Research Reports series (A), in which the publication at hand is the first one to appear, is devoted to reporting results, findings and views based on scientific investigations. The publications can be monographs or thematically related articles in edited volumes. All publications in the Research Series have to pass a peer review following common international procedures. This is also the case of the volume at hand. Publications can be published in several languages. The aim of this series is to make a contribution to scientific discussion in the relevant international research communities.

Jouko Paaso
Rector, VAMK University of Applied Sciences



Preface

With massive internationalization of higher education over the last decades, studying in a foreign language has become increasingly common on a global scale. Also the importance of informal language learning has currently been recognized in education. Both of these trends have increased the importance of foreign-language-medium instruction. It can be presumed that increased foreign-language-medium (FL-medium) instruction will result in advanced language command. Thus pressure has been building to reform the traditional language teaching, focused especially on English as a foreign language, the language most commonly used in international education. Keeping up with the trend by providing an increasing amount of FL-medium studies and introducing a structural change in language teaching is a challenge that higher education is currently meeting.

The following questions concern parties involved in FL-medium instruction in tertiary education (e.g. Finnish B.Sc. degree programs where the language of instruction is English) as well those interested in the learners' language development in tertiary education:

1. Do we know enough about what happens to the learner in the FL-medium instruction (degree programs, modules and courses) in terms of language attainment and academic success? Is there a need for developing new pedagogical arrangements to support and encourage the less-advanced language learners on one hand or to enhance the language learning for the more advanced language learners on the other hand?
2. In contrast to secondary education, the FL-medium instruction does not typically include a language learning target in tertiary-level education. Can tertiary-level educators learn from the experience gained in the field of secondary education, where content and language integrated learning, CLIL, with its dual focus on both content and language has proved to be an effective didactic language learning method ?

A number of related problems exist in the current situation, such as lack of exchange of information and experience across different educational levels related to FL-medium learning environments (eg. FL-medium instruction in tertiary education, CLIL teaching in secondary education and immersion teaching in primary education). Moreover, there is usually little co-operation between content teachers and language teachers. Also systematically collected data and research about teaching practices and learning processes related to FL-medium instruction in tertiary education on the European level is scarce.

This publication, including contributions from both language and content instructors, is intended to provide ideas and thoughts for a further and deepening discussion related to the issues above. It is based on the presentations given at an international seminar, *Foreign-Language-Medium Studies in Tertiary Education: Opportunity for Language Learning and Gateway to European Mobility* (<http://www.puv.fi/en/events/flmseminar2007/program/>), held in September 2007 at VAMK University of Applied Sciences in Vaasa, Finland. The event, in which visitors from a number of European countries participated, also gave a start to a follow-up process: establishment of a network of international co-operation related to research and implementation of FL-medium instruction in tertiary education. A shared continuing interest indicates a genuine demand for continuous

international discussion on this issue.

This book is divided into three thematic sections. Section one *Integrating Content and Language in Higher Education* contains both a framework for different implementation models – as well as a practical example – of integrating content and language (Saarikoski & Rauto). A theoretical framework related to the language acquisition process presumed to take place in the FL-medium learning environment is presented (Rauto). Against the backdrop of these frameworks, an empirical research project, carried out at two universities of applied sciences in Finland is reported (Johnson and Rauto). An experiment on integrating a science course and language teaching at a Finnish science university is presented (McAnsh et al.). This section also includes a content based language teaching (CBLT) experiment on teaching metacognitive skills at an Austrian university of applied sciences (Williams).

In section two *CLIL in Secondary Education: What can be Learned for Higher Education?* a comprehensive account of the implementation of CLIL in different European countries is given and a proposal for a language-teaching reform to promote multilingualism is made (Papakyriakou). An in-depth discussion related to the issue of integration and a connection between CLIL and a strongly ecologically oriented view of language learning/acquisition is presented (Järvinen).

In section three *Language Education Planning in Higher Education* the dimension of European language policy is discussed with an emphasis on European Higher Educational Area (Takala). Relating to the need to restructure current language education, systematic approaches are needed. A model for a systemic approach to the planning and designing of English language courses integrating content and language in the Finnish Army Academy is presented (Aho & Takala).

The articles in this publication have been anonymously refereed. The editors express their warmest thanks to the referees and their deepest gratitude to Professor Sauli Takala for acting as an advisor in the publication process. We also thank all the authors of this publication for their valuable contribution for making this publication, first in the series of our scientific publications, possible. Finally, we wish to give our thanks to Hanna Yli-Yrjänäinen for her invaluable help in the technical editing of this publication and to the staff of the international office of as well as the head of the mechanical engineering department, Mr. Jorma Tuominen at VAMK University of Applied Sciences. Without their support, neither organizing the seminar on FL-medium studies in tertiary education – nor producing this publication – would have been possible.

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VAASAN AMMATTIKORKEAKOULU
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Section I

Integrating Content and Language in Higher Education



1

Lotta Saarikoski, VAMK University of Applied Sciences
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Breaking the Barrier between Content and Language in Tertiary Education

Abstract

This paper explores the relation between foreign-language (FL)-medium instruction and language instruction in the Finnish universities of applied sciences. It discusses the overall spectrum between content and language in tertiary education, with references to the so called CLIL-instruction in secondary education. Different options for an interface between the FL-medium courses and language instruction are discussed and alternative solutions are proposed. On a more practical level, an experiment carried out by the current writers is reported as a potential model of integrating language and content.

Key words: FL-medium instruction, CLIL, tertiary education, integration of content and language

Introduction

Students' possibilities of language learning in today's tertiary education are no longer limited to the field-specific language courses – usually referred to as LSP (Language for Specific Purposes) offered by the respective institutions. Participating in foreign-language-medium (hence referred to as FL-medium) instruction can also be an effective way of language learning. There is currently very little interface between the language teaching and the FL-medium instruction in higher education, apart from the language modules provided in the beginning of the FL-medium degree programs. Although our paper focuses mainly on the conditions in Finnish universities of applied sciences, it can also be applied to learners in the Finnish science universities – and to a certain extent to learners in higher education in any country.

Language learning options in tertiary education

Second language acquisition literature generally divides the nature of language acquisition into two categories related to the learning conditions: naturalistic (often referred to as *nature*) and instructed (respectively referred to as *nurture*; eg. Mitchell & Myles 1998). Relating to this division we will present the contexts in which the learner in tertiary education faces a foreign language in the following figure:

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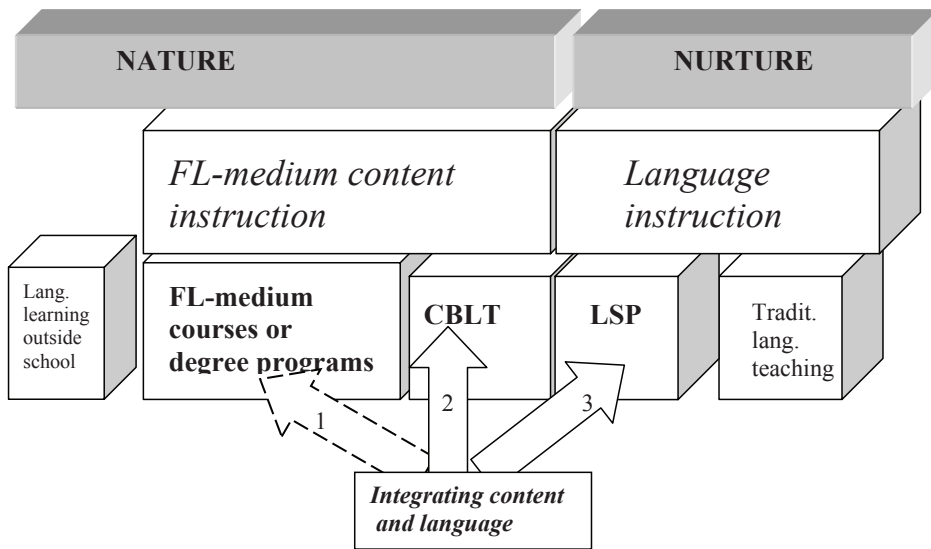


Figure 1. The spectrum of content and language in tertiary education.

We will clarify the acronyms used in the chart relating to the context of Finnish universities of applied sciences in the following passages.

By *FL-medium courses or degree programs* we mean instruction given totally (most typical arrangement) or partially (occasionally) in a foreign language in a professional subject. The starting point in tertiary education when introducing FL-medium courses or degree programs has not usually been primarily to improve the learners' language learning but to boost the international profile of the respective institution, with an aspiration to become part of the international discourse community and to be able to attract more international learners.

CBLT (Content-Based Language Teaching) means typically that a language specialist is also a specialist on a subject-specific topic. The teacher utilizes his/her expert knowledge (eg. art history) to teach the language – or builds the language course around this expert knowledge. The learners focus on the content and learn the language incidentally, being mainly directed towards learning the content. In higher education the following problem presents itself: a very limited number of language specialists are experts in some other professional content. Perhaps a more realistic option when implementing the CBLT model would be a content teacher who takes a special interest in language development and becomes trained as a specialist in it to some extent. However, the more expertise the knowledge in the chosen subject specific topic requires, the less likely it is that the one and the same person could manage both content and language. This is typically the case in higher education.

LSP (language for specific purposes) is a term introduced already in the seventies. It means language classes whose syllabus is closely related to the needs of the learners' future profession – partly intersecting with the concept of CBLT. As an example of this is teaching English to engineering students using engineering journals, other engineering texts and eg. videos (from the internet) with experts in the field giving presentations. In practice, the use of authentic materials and examples as course materials requires certain co-operation between the content teacher and the language teacher. The element of integrating content with language is thus already built in the structure of LSP courses.

The LSP teachers, however, have been faced with the following problem: with the absence of materials and examples from FL-medium content instruction - as not enough such instruction has been available because most content teaching is done in the native language - the language teachers have often had to use simulations and authentic materials from random sources. The idea of integration has been around for the last three decades but surprisingly little seems to be happening even now when more FL-medium content teaching is provided.

Integrating content and language can be implemented in three different ways (arrows 1, 2 and 3). Arrow 1 relates to the possibilities of integrating language to content (eg. the language teacher providing vocabulary help in an FL-medium content course). An example of this model is given later in our article. Arrow 2 relates to CBLT. This arrangement would be an optimal – although in most cases theoretical – example of content and language integration. Arrow 3 means integrating content to language (eg. the physics lab reports are written in English as part of homework for the English language course).

Integrating content and language on different levels of education

The reasons for using foreign language in instruction in secondary education are somewhat different from those in tertiary education. Also the responsibility of the content teacher to act as a language model and the level of instructed knowledge varies between the levels of education (Table 1):

Table 1. Teaching content in a foreign language in secondary and tertiary education.

<i>Level of education</i>	<i>Primary purpose of using foreign language in instruction</i>	<i>Responsibility of content teacher to act as a language model</i>	<i>Level of instructed knowledge</i>
Secondary education	Didactic method for eg. learning a language (CLIL) ¹	The content teacher is aware of his/her responsibility to act as a language model	General
Tertiary education	Becoming part of different international professional communities (FL-medium content instruction)	The content teacher has usually not been given the responsibility to act as a language model	Deep

The major difference between the secondary and tertiary education is that instruction in the foreign language in the former (referred to as content and language integrated learning - CLIL²) always includes a language learning target whereas instruction in the foreign language in the latter does not mostly include a language learning target. It is interesting that despite the lack of language learning target in the tertiary level FL-medium instruction, we have experienced that certain students³ participating in FL-medium programs claim to enroll in these programs for the particular reason to use studying through English as an appropriate method for them for improv-

¹For other purposes of using CLIL, see the five dimensions mentioned in Marsh, Maljers & Hartiala 2001.

²It seems that the term CLIL has been over-generalized in popular use to cover any instruction given in a non-native language.

³According to our knowledge, these students have identified themselves as less successful language learners in their high-school language classes.

ing in their skills in English. They have set the language learning target in their mental syllabus where official institutional syllabus does not include one.

Could a compromise be made in tertiary education towards CLIL so that the language learning target could be included also in the FL-medium content instruction in tertiary education? If so, could the content teachers be made responsible also for the language learning target or would a systematic, syllable-based co-operation between the content and language teacher be the appropriate solution? In the following sections we will discuss different models of integrating language to FL-medium content instruction in tertiary education. We will also report our experiment related to one possible option in which the content teacher and the language teacher co-operated.

Different co-operation models for integrating language to FL-medium content instruction in tertiary education

As mentioned in the previous chapter, the possibilities of CBLT in tertiary-level context are limited. A more realistic model in higher education consists of co-operation between the expert in the professional content and the language expert. In Figure 2 we present two different models, language-supported content course (model 1) and twin-course (model 2), in both of which a content teacher and a language teacher co-operate:

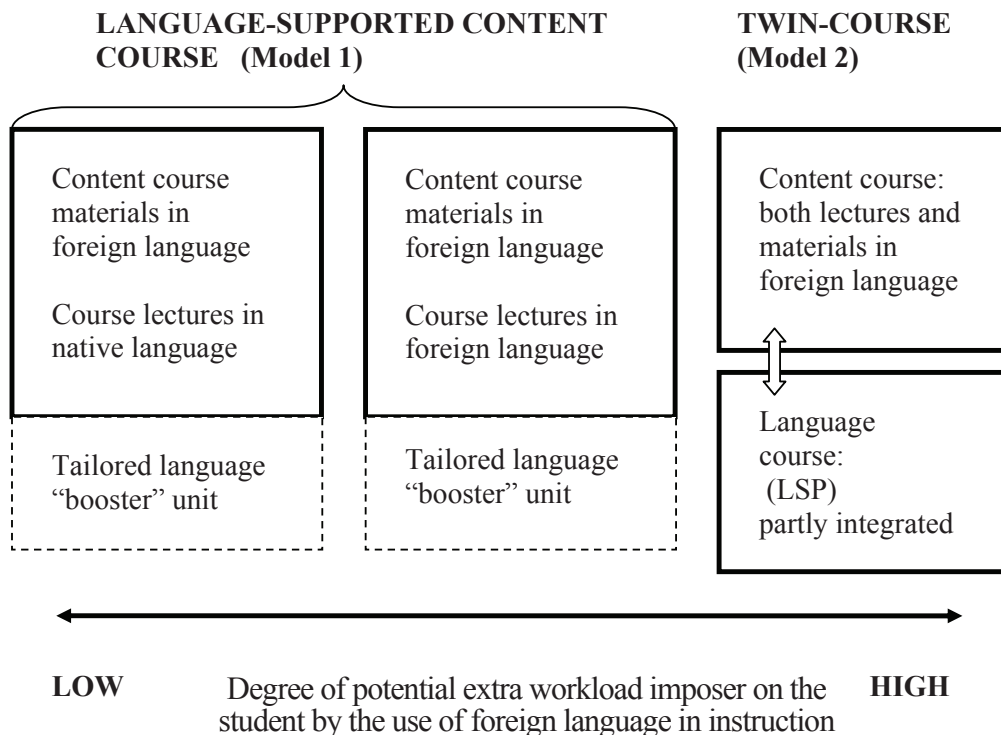


Figure 2. Co-operation models in instruction for integrating content and language.

The language-supported content course (model 1) means that the content course (instructed totally or partially in foreign language) is supported by a separate language "booster module", instructed by a language teacher. A detailed example designed and implemented by the current writers, will be presented in the next section.

The twin-course (model 2) means a content course which is integrated with an LSP course. According to our knowledge twin-course models are currently being carried out in some Finnish universities of applied sciences (see eg. Johnson & Rukajärvi-Saarela 2007). A large-scale implementation of this model requires that an increasing number of courses be taught in the foreign language (English) on an institutional level.

Language supported content course model: the VAMK case

We will present our language supported content course model where the current writers worked as teachers. In it a special language module was tailored to the content course. We claim that corresponding models could easily be implemented without complex administrative arrangements. The project included class room teaching and follow-up research, with learner feedback (Table 2).

Table 2. Outline of the implementation of the VAMK language-supported content course.

Course	Corporate Planning 42 class-room hours credit: 3 ECTS points	Language Support for Corporate Planning 16 class-room hours credit: 1.5 ECTS points
Teachers	Content teacher	Language teacher
Learners	3rd or 4th year mechanical engineering students between 2005 - 2007: 40 learners	
Learners' language proficiency level	Heterogeneous group, proficiency level ranged between A2 to C1 ⁴	
Responsibility for course materials	Content teacher	
Responsibility for scheduling and assignments	Content teacher	Language teacher
Teaching responsibility	Providing information on theory and practice of Corporate Planning	Providing language support and supervising learners' language production
Language used in teaching	Lectures in Finnish, materials in English	Class room language mainly English, materials in English
Research included in the project	In the beginning of the course: on-line survey and language tests	At the end of the course: on-line survey and language tests

Our follow-up research consisted of an on-line survey where the learners eg. self-rated their language skills and possible changes in these skills and gave feedback on the course. The survey was done in co-operation with Central Ostrobothnia University of Applied Sciences (KPAMK). Besides the survey, we also conducted language tests to collect data on possible changes in reading comprehension, target language syntax and vocabulary. More detailed information on the research targets, research instrument and results is available in Johnson & Rauto (chapter 3, in this volume).

⁴It turned out that the few A2-level learners found the course beyond their capacity and consequently did not benefit either from the language input.

Co-operation between the content teacher and the language teacher in the VAMK case

The co-operation between the content teacher and the language teacher covered the following teaching activities:

- The course material was divided into suitable sections from the view point of coverage of the language support module (six sections to correspond with six class room sessions, the key themes in the course package). The main issues in the course package were treated in the language support module.
- Assignments suitable for each theme or topic were planned together.
- Follow-up meetings were held at regular intervals.

Both teachers also participated in the research project (see Table 2). The joint course design gave a certain rhythm and provided a systematic working-base for the learners. The language support module lessons were scheduled prior to the content lessons. This made it easier for the content teacher to tackle the material and substance, which was partly made familiar to the learners, eg. vocabulary help and the explanation of new concepts by the language teacher. Also certain topic-related issues were discussed in the support module.

The targets of the support module in the VAMK case

The purpose of the support module was two-fold: to support the learners in reading the FL-medium course material and to utilize the material for also enhancing their productive language skills.

We expected to reduce the anticipated anxiety level of the learners facing a sizeable amount of course materials on a challenging level of the target language, for many students for the first time in their studies. The language teacher acted as a coach working on the students' self-concept as language learners. The intended increase in ease and speed of reading was also presumed to release more of the learners' resources for language intake to take place (the learners had a rather low initial proficiency level, see Table 2). This would accelerate the mechanism between input and output in the language learning process, to enable potential language intake to take place (eg. Gass 1997, also discussed in Rauto (chapter 2, in this volume).

The activities related to reading comprehension consisted of exercises in skimming (picking up key-information) and scanning (focus on systemic or linguistic knowledge: coherence markers, linguistic cues). As to the exercises related to scanning, we were conscious of a certain contradiction: reference to any metalinguistic terms (which could not always be avoided) might have the reverse effect of what was our original intention, ie. making the texts easier and more pleasant for the learners. Focusing on too much metalinguistic knowledge might raise the anxiety level of the learners and spoil the "naturalistic" experience that our learners praised in their survey responses (cf. Johnson & Rauto, chapter 3, in this volume).

The survey responses concerning our learners' preferred comprehension strategies [see Skehan's (1998) categories for knowledge sources for information] also revealed some interesting information. It turned out that our learners mainly relied on schematic knowledge (learners' background knowledge, knowledge of the world) and contextual knowledge (inferring information from the

physical situation, context) instead of systemic knowledge (using eg. knowledge about target language syntax, semantic knowledge, text linguistic cues). On the other hand, we were conscious of the possibility that some of these learners might benefit from being pushed towards engaging also the systemic (linguistic) knowledge to their repertoire of comprehension strategies as an additional resource. Should we thus include related activities in language-booster units - or any language courses integrated with content courses - also bearing in mind that raising the learners' linguistic awareness is claimed to be necessary for learners' own language development to be pushed forward.⁵ Knowing where to set the limit related to the amount of metalinguistic element included in the course sets thus a real pedagogical challenge for the language teacher.

As to the enhancement of the learners' productive skills, we provided a certain amount of opportunities for output (cf. comprehensible output hypothesis; eg. Swain 1985, also discussed in Rauto, chapter 2 in this volume). The learners were given various types of writing assignments related to the themes in the course material - ranging from answering questions directly related to the text to writing essays.

Learner feedback from the latest group in the VAMK case

Learner feedback is being continuously taken into consideration in developing our courses. We have observed a consequent increase in learner satisfaction, examples of which are given below in Table 3, obtained in our survey from our latest group (2007):⁶

Table 3. Learners' opinions about the 2007 course.

Statement	number of yes answers	total number of answers
<i>Reading the materials was useful from the view point of language learning</i>	13	14
<i>My active vocabulary became somewhat larger</i>	14	14
<i>Reading English texts became somewhat faster</i>	13	14
<i>I would recommend this course to next- year students</i>	14	14

The results of our development work can thus be seen in increasingly positive learner feedback.

⁵According to Skehan (1998) relying too excessively on the first two, non-linguistic strategies will leave the learners' interlanguage untouched. Also the Input Processing theory, according to which learners may rely exclusively on lexical forms for information and never process lexical markers, seems to justify form-focused intervention (Van Patten 2007: 118, 132).

⁶Results obtained from our earlier groups have been reported in Johnson & Rauto in this book.

More content in English: towards “bilingual” degree programs

More content teaching in a foreign language as a means of an effective language learning method – even on its own right – should be promoted. One way of such promotion could be the so called bilingual degree programs.⁷ In these programs students studying in native-language mainstream programs could have a certain amount of compulsory FL-medium courses built in their individual syllabuses (eg. worth 15 ECTS points). It can be mentioned that the VAMK University of Applied sciences provides the following bilingual program: the degree program of Hotel and Restaurant Business is offered in the two local languages, which enables learners to learn content both in Finnish or Swedish.

Conclusion

We have presented our example of the language-supported content course model to demonstrate that co-operation between the subject teacher and the language teacher will produce positive results, which benefit all parties. As stated before, the higher the level of education, the more likely it is that the two-teacher model (either the language-supported content course or the twin course) seems to be the realistic model of integrating content and language in most cases. This gives rise to the question whether the concept of integrating language and content courses should be extended to cover all LSP teaching, by eg. transforming an LSP course to one module included in and integrated to an FL-medium content course. Is there a risk that this would decrease the amount of LSP teaching? Will the status of the LSP teacher be upset if he/she will end up eg. in being a mere supervisor of learners' written work? Moreover, if naturalistic language learning methods take increasingly more wind in education, will mainstream language teaching be (partly) replaced by merely implementing more and more FL-medium instruction in the future? On the other hand, it would be more sensible for the language teachers to utilize the materials of the content course than collecting the materials themselves.

It seems inevitable that the trend in higher education – and all other levels of education – will be towards more FL-medium instruction. Moreover, the provision of certain amount of FL-medium education is required by the Bologna process (<http://www.ond.vlaanderen.be/hogeronderwijs/bologna>). The challenge for the institutions is to keep up with this trend to maintain their status. The challenge for the language teacher is to accept the possibility of a structural reform of language teaching towards the integration of a language course to content instruction – and for the content teacher to be ready to co-operate with the language teacher – or ideally adopt an additional role as language model or supervisor. The challenge for the educators and decision-makers in institutions of tertiary education is to optimize the new possibilities for maximal language outcome.

The future trend in learning also stresses the importance of context (cf. also Järvinen, chapter 7, in this volume). This accelerates the integration of language and content teaching. We thus believe that within the next few years there will be fewer LSP courses as language will be integrated to content to an increasing extent.

⁷See e.g. *the syllabus of Groeningen University of Applied Sciences in Netherlands* <http://www.hanze.nl/home/International/Home.htm>

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Language Learning Process in Foreign-Language-Medium Learning Environments in Tertiary Education: Theoretical Perspectives

Abstract

This paper discusses views presented in research literature related to learners' language development in tertiary-level foreign-language-medium (FL-medium) learning environments. It covers the following issues: the implicit learning process of fairly advanced language learners studying in FL-medium in higher education and the need of intervention by means of the language teacher supervision. The objective is to provide information for further discussion on the extent of enhancing language learning in FL-medium contexts.

This article will also serve as the theoretical framework for interpreting the research results in two research projects (Johnson & Rauto and Saarikoski & Rauto) reported in this publication.

Key words: FL-medium instruction, explicit learning, implicit learning, input-output hypothesis

Implicit language learning process

In second language acquisition (SLA) literature the nature of language acquisition is generally related to two distinct learning conditions: naturalistic or guided (cf. terms *nature – nurture*; in eg. Mitchell and Myles 1998). Learning the target language in FL-medium learning environment, ie. in studying the content through a non-native language, represents the first category. I will discuss the difference between the two categories in terms of the language learning process related to them. SLA literature uses terms *implicit* for the former and *explicit* for the latter category. From the view point of our context, FL-medium learning environment, it is thus the implicit learning process which needs to be addressed more closely.

The implicit language learning process can best be described in terms of what is *not* implicit language learning, ie. in a dichotomy with its opposite, explicit language learning. I will do this by comparing the conditions in which these processes are expected to take place as presented in the following table.

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Table 1. Conditions for implicit vs. explicit language learning processes and the related mode of learning.

Conditions related to <i>implicit language learning process</i>	Conditions related to <i>explicit language learning process</i>
1. unguided	1. usually guided
2. informal	2. formal (language classes)
3. learner is unaware of learning event	3. learner is aware of learning event
4. learning takes place through authentic, non-modified language input	4. learning is systemic, provided input is targeted for language development

In terms of the language learning mode, we can add a fifth section to the dichotomy:

5. <i>incidental</i>	5. <i>intentional</i> (Schmidt 1990)
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The barrier between the two separate categories can, however, be crossed so that we can have combinations described by the arrows in Table 2:

Table 2. Instances where implicit and explicit language learning processes intersect and the explicit language learning mode relates to implicit learning processes.

<i>Implicit language learning process</i>	<i>Explicit language learning process (1)</i>
1. Unguided learning conditions	1. Usually guided learning conditions
2. Informal learning conditions	2. Formal (language classes) learning conditions
3. Learner is unaware of learning event	3. Learner is aware of learning event
4. Learning through authentic, non-modified language input	4. Systemic learning, input targeted for language development
<i>Language learning mode: incidental</i>	<i>Language learning mode: intentional (2)</i>

An instance of a combination of explicit language learning process and informal language learning conditions would be the following: a linguist decides to learn a language using the naturalistic method, eg. going to the environment where the target language is spoken (arrows originating from point 1) and utilizes his/her metalinguistic expertise in the process. On the other hand, we can have a combination of intentional learning in unguided, naturalistic conditions when a learner decides to enrol in an FL-medium study program with the intention of improving his/her language skills (arrows originating from point 2). This would also apply whenever the language learner utilizes the surrounding authentic language material for intentional language learning. In the examples above, the result is a combination of implicitly and explicitly acquired language knowledge, between which most major current SLA theories see an interface [see Van Patten & Williams (eds.) 2007].

From the question how language is acquired let us move on to question what is acquired. ie. what makes up the command of a language. The concept of language as communication system has been described as consisting of different activities [see eg. Common European Framework 2001 (CEFR)], based on the classic dichotomy between receptive (reading and listening) vs. productive (writing and speaking) skills.

Language activities related to tertiary-level learning environments

We can easily assume that the tertiary-level students studying in FL-medium environments will be more engaged in receptive as opposed to productive language activities: they will mainly be the recipients of the language input and are required to produce the language themselves to a much smaller extent (cf. also Järvinen 2007). The interesting question therefore is: will the learner, by mainly reading and listening to the target language, also improve in his/her productive (ie. speaking and writing) skills ie. by being mainly in the role of the recipient?

To answer the question, I will rely on the central role of input in language acquisition, a view based on Krashen's (1982) input-hypothesis and currently accepted in most of the prominent SLA-theories (for a summary of views presented in different theories, see Ortega 2007: 235-237). According to this hypothesis, the language offered in FL-medium environments should be transferred to the learner's own production. In the context of FL-medium higher education it means that the language the student is exposed to – professional texts and lectures given by content teachers – should thus be reflected onto the learners' own writing.

Conversion of input to output and the tertiary-level learner

Krashen launched his input hypothesis a few decades ago and since this time it has been updated so that many researchers today (eg. Ellis 1994, 2005, Gass 1997; Schmidt 1990) hold the view according to which there will be different phases between *input* and *output*. The phases are regarded to compose the following sequence:

- *Comprehension*. The learner understands the language in the input. If the learner's resources are exhausted at this stage, he/she is unlikely to proceed any further in the sequence. This situation is discussed in sections *Cognitive load imposed by studying in a non-native language and Pedagogic and didactic consequences* in this article.
- *Noticing*. Certain linguistic features in the input catch the learner's attention.
- *Intake*. The linguistic features noticed in the input are compared with the gap in the learner's mental grammar (Ellis 1994; 2005).
- *Integration*. The newly noticed features become part of the learner's language system.
- *Output*. The learner is capable of producing the language himself/ herself.

Gass (1997), who calls her research paradigm "Input and Interaction Approach", particularly emphasizes the importance of the second of the phases, *noticing*. The learner will best notice a particular feature in the language he/she is exposed to when the feature has been introduced to him/her at least in some form before. Prior knowledge – eg. the rules of the language system given in high-school or tertiary-level language instruction – plays a certain role in triggering the rest of the process (from *noticing* to *output*). Thus we can say that there will be interplay between the language features in the language the learner is exposed to and the previous knowledge offered in formal language education – in other words, interaction between formal and informal learning.

Compared to very young learners in immersion education, who are immersed as basically "blank slates" into the target language bath, prior knowledge, possessed by the tertiary-level learner studying in FL-medium instruction, is a definite advantage¹. The tertiary-level learners can be regarded as efficient receivers of language input right from the beginning of the exposure.

¹On the other hand, young learners have other advantages, such as those related to age dynamism and use of attentional resources (see eg. Schmidt 1990).

The last phase of the sequence, output, will be discussed in the next passage.

The role of output

According to many researchers (Swain 1985; Ellis 2005), output is not regarded to take place automatically: the learner in FL-medium contexts should not only collect items to be added to his language database but in effective learning produce it himself/herself. The active language usage could thus be seen to serve in the functions of maintaining and reinforcing the data. Moreover, the route from the database to the learner's performance will be activated (*on-line performance* if we are dealing with oral competence²) and thus the degree of automation will be raised by practice. At the same time, more resources will be released for receiving new knowledge (Skehan 1998; Ellis 2005).

The following dichotomies between passive knowledge and active use of language has been presented in research literature (Table 3):

Table 3. Terminology related to passive knowledge and active use of language, presented by different researchers.

Chomsky (1967)	Competence	Vs.	Performance
Anderson (1980)	Declarative knowledge	Vs.	Procedural knowledge

The above dichotomies illustrate the generally acknowledged fact that possessing knowledge of the (language) system is not the same as the actual use of the knowledge. It is interesting to notice that the views of the researchers were supported by the learners in the research projects reported in this publication (see Johnson & Rauto, chapter 3 in this volume): many of the learners in these projects recommended more opportunities for practicing oral production in FL-medium programs in which they had participated.

Canadian immersion researches (eg. Lyster 2006) claim that even if the learners are given opportunities for practice, this will not be enough for optimal language outcome, and hold the view that supervision of the produced output is required (the *comprehensible output* view). They emphasize the role of teacher intervention³ to:

- To unroot the learners' faulty hypotheses
- To prevent these hypotheses from becoming norms for the learner.

The context in the mainstream Canadian immersion research literature is, however, different from that of the tertiary-level learner. The Canadian researches are mainly involved in younger learners who typically do not have formal language learning backgrounds. However, the explanation model above can be also regarded to apply to tertiary-level learners. In our local context, we have experienced instances where learners in FL-medium instruction have seemed to be clearly conscious of the fact that they are using their own norms, particularly in their written production, in-

²In literature related to language testing the term *performance* seems to be mainly associated with oral activity (see eg. McNamara 1996: 48).

³The term *intervention* refers to the fact that there is no separate language guidance but the content teacher is also responsible for language development.

stead of the target-language norms. One engineering student participating in an English-medium degree program expressed the need for supervision as follows:

Nobody paid any attention to how I wrote my reports so I decided to carry on with my own system.

In the implicit learning process the faulty hypotheses referred to above can be assumed to develop as follows: the learner will start regarding the intake data (ie. data filtered by the learner) as a language model instead of the original input data. In other words, such learner's intake data will be his/her hypothetical view of the actual input data.

Lyster (2006: 41) states that intervention will be needed to make sure that the unsupervised language produced by the learner himself / herself will not start accumulating as part of the storage in his language databank: "*The learners' interlanguage will not become automatized procedures stored in long-term memory*". Referring to the language outcome of such a development, the Canadian immersion researchers use the interesting term "language immersion language" in this context, (see eg. Björklund 1994). Although the learners in these research projects do not have a formal language learning background as opposed to tertiary-level learners, the same process can be thought to also apply to learners with prior knowledge of the language, especially relating to such tertiary-level learners who are less advanced in the interlanguage continuum.

If the learner's production remains unsupervised, it might involve a risk of the learner's interlanguage becoming fossilized on a certain level ("plateau", eg. Lyster 2006). At the same time, raising the level of automation of the language performance will accelerate the pace of language acquisition (Ellis 2005).

The role of instruction in optimizing natural learning processes especially when the goal is truly advanced levels of proficiency is also addressed in a recent synthesis of major contemporary theories of SLA by Ortega (2007: 242 - 244). She points out that the Skills Acquisition Theory, the Input Processing Theory and the Interaction Framework take a particularly firm position in the issue.

Cognitive load imposed by studying in a non-native language

When a learner starts studying in an FL-medium learning environment, he/she faces a new situation: the medium of learning is a language other than his/her native language. Can struggling with the load be too heavy for language acquisition to take place, especially for some less advanced learners – or in certain learning environments?⁴ To answer the question, I will refer to the third phase of the sequence between input and output: intake. One can readily agree with the claim that there will be an interrelation between the degree of cognitive load and the language intake: the heavier the cognitive load experienced when studying in a foreign language, the smaller the amount of intake (van Patten 1997: 27). The possible options concerning the tertiary-level learn-

⁴*Studying in an FL-medium environment has generally not been reported to have a harmful effect on the learners' academic success (see eg. Washburn 1997).*

ers, particularly if we have a mixed-ability group, can be represented in the following table:

Table 4. *The learners' level of comprehending the language input in FL-medium tertiary level education and the expected (language) outcome.*

Degree of cognitive load imposed by the use FL/SL in learning environment (as opposed to studying in native tongue) in terms of learner's receptive skills	Expected outcome
1. Comprehension involves major problems.	- Academic success will suffer - Language intake is very unlikely
2. Learner is capable of comprehension but at the cost of exhausting all his/her cognitive resources	The academic success will not suffer but <i>language intake</i> does not take place.
3. Comprehension causes no difficulties.	The learner has sufficient resources also for language intake

According to our experience from the learners in the universities of applied sciences, most tertiary-level students can be regarded to represent the upper intermediate or advanced language learner (CEFR proficiency level B 2 or C1 in receptive skills), and we can assume that they fall into categories 2 or 3.

The following section will describe the relation between the strategies used in comprehension and their effect on language learning.

Comprehension strategies and language intake

In explaining the comprehension event (stage 1. of the sequence between input and output), the role of non-linguistic factors contributing to the process also needs to be addressed.

According to Skehan (1998),⁵ comprehension can rely on the following non-linguistic knowledge sources:

1. The learner's prior knowledge of the subject (*schematic knowledge*)
2. The learner's ability to infer the meaning from the context (*contextual knowledge*)

The more the learner relies on these non-linguistic cues, the higher the probability is that his own interlanguage (his current language competence) will not be affected by the models provided in the input. Based on our empirical experience and the research results obtained from engineering education (see Johnson & Rauto, chapter 3 in this volume), many learners seem to process understanding in the non-linguistic way, ie. they will not necessarily learn from the language models if they do not pay closer attention to the language itself - and will not thus proceed further from the comprehension stage along the processing sequence. Pedagogical issues related to this finding are discussed in Saarikoski & Rauto, chapter 1 in this volume.

⁵Skehan presented this claim in relation to comprehending (on-line) production, ie. listening skills. I am here extending this claim to cover also reading skills.

Pedagogic and didactic consequences

Given that we agree on the importance of supervision in FL-medium learning contexts, what should the language supervision be like and how should it be given? In the light of the discussion above it seems that the duration of the instruction and the intensity of target language exposure are factors that need to be taken into consideration when planning the implementation of a language-focused element in FL-medium instruction. Different models of integrating content and language are discussed elsewhere in this publication (see Saarikoski & Rauto, chapter 1, in this volume). In the following, our starting point is that the language focus is provided by a language teacher, co-operating with a content teacher. As opposed to primary and secondary education, the probability of intervention by the content teacher does not seem to be very realistic in many cases.

For short courses of low intensity, the language teacher's task could be to release the learners' resources towards language intake: help the learner in the reading process and make it faster for him/her. The same could apply to certain lower proficiency level learners participating in longer FL-medium teaching units.

On the other hand, it seems reasonable to hypothesize that the learners' comprehension skills will develop with time in longer FL-medium courses of high intensity (eg. English-medium degree programs). Thus supervising the learners' output should be the target of language teacher intervention or supervision, by eg. creating more opportunities for practicing the output and giving feedback on written performance. Another option would be a method where the learner will actively participate in acquiring the content and would be expected to pay attention to forms and negotiate their meaning to solve communication problems (eg. Long's [1981] interaction hypothesis)⁶. This would mean active interaction between the learner and also the content teacher.

To sum up, the need for intervention or language teacher supervision receives support from a number of eminent researches. According to Skehan (1998), there are learners who can process foreign language input in a non-linguistic way. We can presume that they can be guided towards paying attention to the language eg. by noticing activities. According to Lyster (2006), intervention prevents the incorrect learner intake from becoming a fossilized model for the learner. Moreover, according to Long's (1981) Interaction Hypothesis and Gass's (1997) Input and Interaction Approach (see also Gass and Mackey 2007), negotiating the meaning of linguistic forms, (i.e. guiding the learner to use the correct linguistic form through interaction) is needed.

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⁶On the other hand e.g. Lyster (2006: 50; 52) emphasizes that interaction increases the learners' metalinguistic awareness.

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Short Foreign-Language-Medium Courses: a Research Project in two Finnish Universities of Applied Sciences

Abstract

This article describes the results obtained at an interim stage of an on-going research project related to short English-medium courses in mainstream native-language medium engineering degree programs. The aim was to study the effect of short-term exposure to the target language on the participating learners' language learning as well as to identify possible learning problems. The results at the current stage provide support for continuing the experiment as some indication of development in language performance was found. Moreover, the experience also appeared to boost the learners' language-learning motivation and self-concept as language learners. Using the non-native language as the language of instruction did not impose any serious problems. However, it seemed that for learners whose language proficiency level was less advanced, the language teacher's supervision was found useful. The project incorporates quality monitoring as the courses are continuously updated in response to learner feedback.

Key words: FL-medium instruction, language exposure, language input, self-concept as language learner

Background of the current project

The foreign-language medium (FL-medium) environment in which the current study was conducted relates to two Finnish universities of applied sciences, the Central Ostrobothnia University of Applied Sciences (Kokkola) and VAMK University of Applied Sciences (Vaasa); hence referred to as KPAMK and VAMK. Besides degree programs taught in English, both institutions also offer a small number of single courses in English in the mainstream Finnish degree programs. Our previous studies, described more in detail in the following section, were related to the degree programs whereas the target of our current study is the short-term FL-medium courses.

We see two research gaps, which the current project is intended to address. More research on tertiary-level learners needs to be carried out and the effect of short-term FL-medium instruction needs to be explored. So far, FL-medium related research has focussed mainly on younger learners (so called immersion studies). The time of exposure in such studies is longer, typically at least a year.

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RESEARCH REPORTS A1*

Prior projects on FL-medium studies at VAMK and KPAMK

The current research activity in VAMK and KPAMK was preceded by two projects related to FL-medium studies by learners in our institutions, completed in the years 2003 and 2004. We will briefly describe them below.

The objective in the VAMK 2003 research project (see Rauto 2003) was to find out whether the number of the learners' grammatical and vocabulary errors would decrease through studying in an English-medium degree program. The outline of the research project is shown in Table 1:

Table 1. Outline of the prior VAMK research project.

Research group	19 engineering students. Initial proficiency level is estimated to have ranged between European Framework proficiency levels B1 and C1
Program attended	Information Technology, 4-year course
Time-span between the pre- and post-tests	1.5 years
Method	Follow-up research. Test instrument used: error analysis
Research focus	Effect of FL-medium instruction on learners' interlanguage grammar and vocabulary
Overall results	- Average decrease of errors was 26% for grammar and 30% for vocabulary - Lowest proficiency-level learners improved most

The results showed that the differences between the proficiency levels of the initially very heterogeneous group had evened out to some extent. This discovery gave rise to the following question: could studying content in the target language be a more effective language learning method especially for the slower learners than conditions provided in the formal language /ESP/ classroom?

In the KPAMK 2004 study, a survey was carried out on the students' views of teaching arrangements and internationalisation of education. The participants were foreign and Finnish students. The following results were obtained in the survey:

- Finnish students stressed the benefits of English-medium education and measures for internationalizing education at the home institution in various ways.
- Most students taking part in English-medium education (courses and programs) reported that they had learned even more English than they had expected and were satisfied with their instruction.
- A need to improve English-medium education was expressed. Some students had found instruction difficult to follow, which could be explained in terms of the cognitive load becoming too heavy when both the content and the comprehension of a non-native language had to be processed simultaneously. Other difficulties were problems with abstract concepts and teachers' difficult-to-follow methods of presenting subject-matter to the learners (cf. Ellis 2003:205-240). Also some teachers' English proficiency was considered unsatisfactory by some of the research participants (Johnson & Finell 2005).

Summing up, the results were encouraging in both projects from the viewpoint of language outcome and implementation of FL-medium courses in the future. The VAMK results showed an improvement in the learners' interlanguage system towards the target language norms. The KPAMK results indicated some increase in language learning motivation and learners' self-concept as language learners. Encouraged by these positive results the authors wanted to find out to what extent the results would be the same or different if implemented in short-term and also less intensive FL-medium learning conditions described below.

Outline of the current research project

The new research project, launched in 2005, focused on learners studying in less intensive FL-medium environment with a short-term exposure to English: only one course was taught in English. We were interested in finding out answers to the following questions: (1) Would the models provided in the language input¹ have any effect on the learners' language outcome or would all the resources be spent on processing the comprehension of the content? (2) Would the short-term experience of studying in English have a boosting effect on the learners' motivation and self-concept as language learners?

The current research project was carried out as a joint project of the two institutions. Our learners were studying in mainstream Finnish-medium degree programs participating in single courses taught in English. The design of the experiment in the current project is shown in Table 2:

Table 2. Design of the experiment in the current KPAMK and VAMK projects.

<i>Institution</i>	<i>Subject and intensity of exposure to English</i>	<i>Number and description of learners</i>	<i>Language-support module integrated</i>	<i>Duration of course</i>
KPAMK	Operations Management Lectures and material in English	N= 23, mostly female. Matriculation exam background	No	2 periods (42 h)
VAMK	Corporate Planning Lectures in Finnish, materials in English	N= 22, mostly male. Vocational school background	Yes (14 h)	2 periods (42 h)

The total number of research participants was 45.² The VAMK and KPAMK groups were of approximately the same size, with three facets being different:

- *Gender.* The majority of learners in the VAMK group were male while the learners in KPAMK group were mainly female.
- *Proficiency level.* The VAMK group, in which the majority came from the vocational school background, presumably found the level English material more challenging than the KPAMK group with a more academic (lukio, senior secondary school) background.
- *Intensity of exposure.* The VAMK group had only materials in English but the lectures were given in the native language whereas the KPAMK group had both lecturers and materials in English.

¹The conversion of language input to language production has been discussed in detail in Rauto (chapter 2 in this volume).

²The results of our latest research group, VAMK 2007, consisting of 14 learners, have not yet been available for the current report. References to this group are made in Saarikoski & Rauto, (chapter 1 in this volume.)

Investigating the linguistic benefits of FL-medium instruction

From the viewpoint of possible linguistic benefits of the FL-medium instruction we set the following research questions:

1. What kind of changes related to the learners' language skills can be discovered after a short exposure to English-medium instruction and how can the differences in these changes be explained?

- 1.1 What are the learners' views of their language command before and after the course?
- 1.2 What changes do the learners recognize in their language command?
- 1.3 What changes can be discovered in the learners' language command by measurements (language tests)?
- 1.4 What are the learners' views of their cognitive learning styles?
- 1.5 Is there a correlation between the possible changes and the learners' cognitive learning style?

2. To what extent do differences occur in the learners' way of treating the texts?

- 2.1 Can the possible changes be interpreted in terms of the use of linguistic versus contextual reading style?
- 2.2 What kind of correlation is there between the possible linguistic changes and the reading style?

3. What kind of changes can be seen, on the one hand, in the learners' motivation towards using the target language and, on the other hand, in the learners' self-concept as language learners?

Two separate sets of instruments were used to map the changes in language command: an on-line survey and a battery of language tests measuring the learners' performance related to target language syntax, vocabulary and reading skills (question 1.3).

In the on-line survey we provided Likert-type statements as well as open-ended questions related to the above research questions (excluding question 1.3). The VAMK project used a longitudinal method and consequently both initial and final surveys were provided, with most of the questions being the same in both tests. The KPAMK project included only the final survey. A sample is available at <https://www.webropol.com/P.aspx?id=205589&cid=54157425> (Note: please key in all characters and numbers.)

The language tests were carried out exclusively in the VAMK project. The learners took the language tests before the course had started and at the end of the course. The texts in the reading comprehension tests were extracted directly from the course package. The pre- and post-tests differed from each other but were on the same level of difficulty. The test on syntax consisted of a dictation test, in which a set of course-related sentences were dictated to the learners in an order of increasing syntactical complexity. The vocabulary tests, testing both active and passive vocabulary command, were exactly the same in both pre- and post-tests. The test conditions for the first VAMK group were not satisfactory because of wrong timing and therefore the results were not found sufficiently reliable. Therefore we will only refer to the second VAMK group in our language test examples.

Problems encountered and learner recommendations

The anticipated problem in FL-medium instruction was whether studying in a non-native language would impose an extra workload on the learners and thus eventually present a risk: a potential failure in learning the content of the respective courses. The related research question in our survey was formulated as follows:

4. *To what extent does exposure to non-native language as the language of instruction present problems to the learners?*

To find out the learners' proposals for improvement in the practical implementation of FL-medium courses we asked the following questions.

5. *What are the learners' views about the course based on their experiences?*

5.1 In which learning context related to FLM instruction is teacher intervention necessary?

5.2 How should language teacher's support be implemented in different conditions?

As the learners in our project are mainly native Finnish speakers studying in a foreign language on their 'home base', cross-cultural issues are not included in the current study.

The language learning outcome in the current project

In this section we will discuss the results of the language learning outcome against the backdrop of the input–output hypothesis³. Clear evidence has been presented that after a sufficient amount of target-language input obtained in FL-medium studies in higher education; the learners' comprehension skills have developed (e.g. Järvinen 2007). As to the development of the productive skills, previous studies on VAMK learners (described above) showed a change towards target language norms within a long term exposure to the target language. It was to be anticipated that the 'automatic' language acquisition mechanisms (eg. Gass 1997) would not necessarily work exponentially, when the time of exposure to the target language would be considerably shorter (e.g. 42 hours as in the VAMK project) and the conditions less intense.

Changes in reading comprehension skills

The results of the reading comprehension test performed by VAMK learners show a marginally positive trend: the mean in the pre-test was 19.7 and post-test 20.5. An interesting discovery was that the learners whose score was low in the pre-test had improved more than the others. The mean score obtained from the self-rating questions support the positive outcome. The score for the KPAMK learners was 3,7 on the following scale:

1 = there is no change compared to how I read English texts before

6= reading the course-related texts seems much faster and easier than before.

³The process between the interim stages between input and output (as proposed by eg. Gass 1997) is discussed in more detail in (see Rauto, chapter 2, in this volume).

The result indicates that the texts had become easier for the learners. The learners' open-ended answers also support this finding. With the VAMK group the open-ended answers indicate a clearly more positive evidence of the development of reading skills than the answers to the structured survey questions. This result is interesting in the light of the vocational school background of this group. The learners' answers reflect clearly that a change has been taking place (our emphasis):

It was nice to notice that reading English texts **no longer** is a problem. (VAMK learner)⁴

I **now** read more fluently and don't need to stop to translate the text. (VAMK learner)

Reading texts **became** easier and dealing with English materials presented no problem. (VAMK learner)

One learned English without noticing it – although **at first it seemed difficult**. (VAMK learner)

The VAMK learners were also given language teacher's support and guidance in reading comprehension skills (for details, see Saarikoski & Rauto, chapter 1, in this volume), which according to learner feedback might have speeded up the process of comprehending the challenging texts.

Although the answers from the KPAMK group lack the element of change, it can be assumed that the experience of processing the content in a non-native language has been a positive experience for the learners and thus boosted the learners' self-concept as language learners (as discussed later), as can be seen in the following answer:

I understood more English than I had originally thought. (KPAMK learner)

Summing up, the VAMK and the KPAMK learners' views on the reading experience were positive. No negative experience was reported. It can be concluded that a short-term course can serve as an encouraging experience especially for the less advanced learners, represented in our study by the VAMK group⁵.

Changes in target language syntax and the learners' cognitive language learning preferences

The results related to the learners' self-assessment of the development of their target language grammar, obtained by the structured survey questions in the VAMK learners' longitudinal study, reveal no change. However, the data obtained in the language test measuring the target language syntax shows a slight positive change⁶: the mean score in the pre-test was 13.9 and the mean score in the post-test 14.68. Although the changes are marginal, yet any positive development towards target language norms can be considered to be of interest - taking into account the short duration and the reduced intensity of the target-language exposure (the VAMK group had only materials in English).

On the other hand, the self-assessment of the KPAMK learners, whose exposure to the target language was more intense and who, besides, had a more academic background (see Table 2), reveals a negative trend. This result compared to that of the slight positive change in VAMK group seems contrary to the expectations: the input – output hypothesis would suggest that the more advanced group would not spend so much of its resources on processing reading and that enough resources

⁴The learners' cited answers have been translated from Finnish.

⁵The reading skills of some of the learners in this group appeared to be only on the CEFR proficiency level B1 (Common European Framework of Reference for Languages 2001) at the beginning of the course.

⁶A dictation test was used for this purpose (for more information, see section "Investigating the linguistic benefits of FL-medium instruction").

would have been left for language intake to take place.

The possibility that the explanation for the result is to be found in the learners' cognitive language learning preferences is worth exploring (for closer details on learning groups: the VAMK learners show a tendency towards a more implicit – naturalistic or informal – preferences, see Rauto, chapter 2 in this volume). A difference seems to exist between the two learning style, whereas for the KPAMK learners the tendency is the reverse: the explicit – systemic or formal – language learning preferences can be seen in Figure 1:

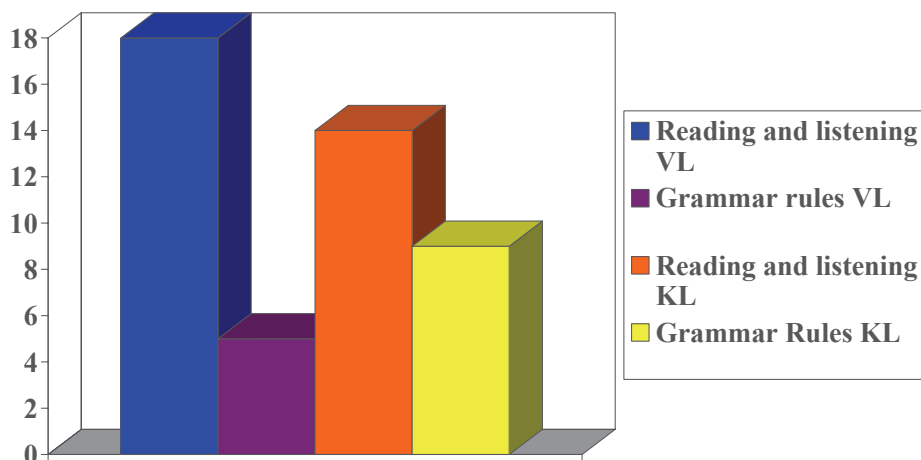


Figure 1. Frequency distribution of VAMK and KPAMK learners' cognitive language learning preferences. The letters VL are short for VAMK learners and the letters KL are short for KPAMK learners.

In Table 3 below, we propose the following relationship between the learning preference and learning outcome:

Table 3. Relationship between the learners' cognitive language learning preference and the language learning outcome.

Learner group	Language learning preference	Change towards target-language accuracy
KPAMK learners	Explicit	No improvement
VAMK learners	Implicit	Slight improvement

It is obvious that the VAMK learners, who come from a background with a considerably smaller amount of formal language teaching, would have more deficiencies in their interlanguage than the KPAMK group and therefore there was more scope for improvement with the VAMK group. However, we can hypothesize that this group was more receptive to the effect of the target language models provided in the input, representing the implicit language learning preference type. Conversely, the KPAMK learners' self-rating indicates that the "real-life" use has made these metalinguistically aware (female) learners more critical and conscious of their interlanguage deficiencies. Interestingly, the explicit-type learners, which this group represents, might not even allow for the possibility of learning grammar in purely informal language learning conditions, as can be seen in the following open-ended answer:

There was no change in my grammar because no grammar instruction was included in the course.
(KPAMK learner)

Summing up, the results discussed in this section imply that FL-medium instruction is particularly suitable for learners whose language learning preference is implicit learning⁷.

Changes in the target-language vocabulary

The results related to the changes in the command of target language vocabulary varied, depending on which measuring instrument was used. Answers to the structured survey questions show no change in either of the groups, whereas the open-ended answers exhibit a number of instances of vocabulary increase in both learner groups, as can be seen in the examples quoted below (our emphasis).

Some learners emphasize the subject-specific nature of the newly acquired words:

I learned a lot of **subject-related** vocabulary. (4 KPAMK learners)
One gets to know more **subject-related vocabulary**. (VAMK learner)

Others specify the method of learning, the answers indicating metacognitive awareness:

I learned a lot of vocabulary **by reading** (KPAMK learner) /**by assisting in lessons**. (KPAMK learner) / **doing tasks**. (3 KPAMK learners)
One **learns best by reading**. (KPAMK learner)

The positive trend seen in the open-ended answers is supported also in the vocabulary test, taken only by Vaasa learners.

Learning vocabulary implicitly does not seem to be enough for all learners. Quite a few express a need of explicit guidance or teacher intervention:

- By providing some **vocabulary related support**, because finding professionally related vocabulary was difficult so a lot turned out to be guess-work. (KPAMK learner)
- If a **vocabulary list was provided** in the beginning of the course it would help a lot. (KPAMK learner)
- **More vocabularies** should be provided. (3 VAMK learners)
- **Vocabulary** should be **explained** in the classes. (VAMK learner)

These comments lend further support to the importance of teacher intervention, discussed more in section “Learners’ feedback on FL-medium courses”.

Changes in learners’ motivation and self-concept as language learners

We were interested in investigating possible changes in the learners’ language learning motivation self-concept as language learners for the following reason. If participation in FL-medium instruction results in an increase in the learners’ language motivation and learners’ self-concept as language learners, this result could also be regarded as a valuable outcome of studying in an FL-medium learning environment: a likely basis for a positive ongoing language learning process.⁸

⁷CLIL-literature (Marsh, Maljers & Hartiala 2001) mentions five categories for dimensions involved in the implementation of CLIL. Our findings relate to the fifth, the learning dimension (LEARNTIX), which deals with individual learning strategies.

⁸Cf. the current view of language command as a continuum (e.g. Takala & Järvinen 2008).

Language motivation and the language learner's self-concept have been defined in SLA literature as follows:

- Language learning motivation is multidimensional and situational, and it has various orientations: intrinsic, integrative and instrumental motivation. The students' motivational orientations, their experiences of learning, and affective/emotional and efficacy aspects have an important role in foreign language learning (e.g. Dörnyei 1998; Kantelinen 1995; Noels 2001).
- The language learner's self-concept and self-efficacy (in Finnish: "kieliminä") constitute his or her self-perception and identity as a language learner, which cover general, language-specific, and task-specific beliefs and perceptions constructed over time (Kantelinen 1995; Laine & Pihko 1991).

We obtained indication of increase in the learners' self-motivation as language learners in both the open ended answers and structured survey questions.

The open-ended answers show an element of surprise and learner satisfaction: the learner did better than he/she expected (our emphasis):

I understood more English **than I had originally thought**. (KPAMK learner)

It was **nice to notice** that reading English texts presented no problem. (VAMK learner)

I understood **surprisingly well** what the text dealt with although I don't think very highly of my language proficiency. (KPAMK learner)

The structured survey responses of the VAMK group also support the positive trend (no longitudinal research was included in the KPMK project). The learners' responses to the statement *I like to use English in different everyday situations* were slightly more positive in the final survey as opposed to the initial survey. In the control question, *I don't like to use English outside language classes*, the mean for VAMK learners was 3.7 before and 3.9 after, also showing a slight increase.

The fact that the learners' use of English increased in the course of attending the English-medium instruction might not only indicate an increase in motivation but also reflect an increase in the learners' self concepts as language learners. The responses to the statement *Generally speaking I am good at learning languages* show a slight increase particularly with the VAMK learners. This finding seems to be in line with the results related to changes in language performance discussed earlier: the VAMK group ratings showed a slightly more positive development. It seems that at least for the lower proficiency level group, the experience of dealing in non-native learning environment had been a positive experience. On the other hand, no initial survey was carried out with the KPAMK group and thus the results are not fully comparable between the two groups.

It is difficult to say if an enhanced motivation or learners' self-concept as language learners is the cause or effect of a successful experience of participating in FL-medium instruction. It seems likely that the two factors play a role in language learning and successful participation in FL-medium studies. More evidence is needed to explore the relationship between the two factors. Reference can be made here to the learner's private cognitive ecosystem, represented in the ecologically oriented view of language learning/acquisition (for more details on this view, see Järvinen, chapter 7 in this volume).

Results related to extra work load

From the benefits of FL-medium instruction we will now proceed to investigating the amount of student workload imposed by the use of a non-native language as the language of instruction (cf. research question 4).

Some KPAMK learners specified the nature of problems related to the use of non-native language as the language of instruction as follows: the learners had to face too many new words at too high a rate and new concepts and themes should have been introduced better, all of which made the instruction difficult to follow. One of the KPAMK learners suggested the following:

The learners could have been informed about the topics to be discussed in the following lessons ...thus those learners whose language skills are less advanced could go through them at home eg. by translating them for themselves. Then it would be easier to listen to the teacher discussing these issues in the classroom. (KPAMK learner)

In both VAMK and KPAMK projects, only a small minority seemed to consider the extra workload heavy as can be seen in the Figure 2:

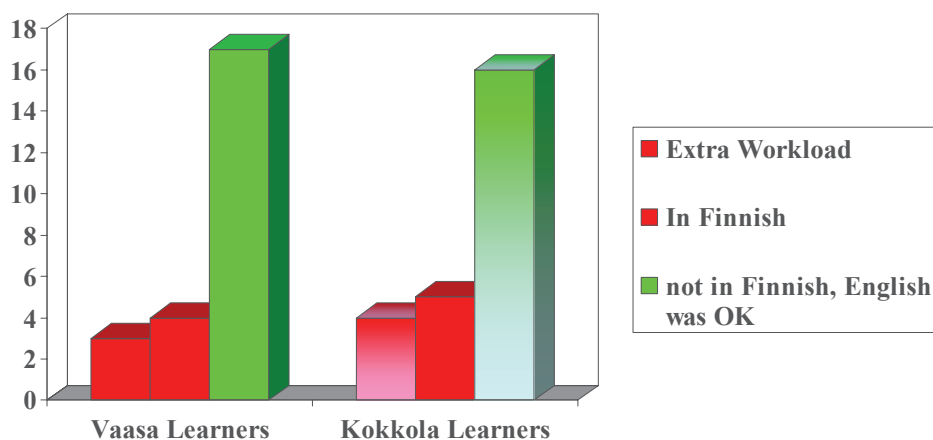


Figure 2. Frequency distribution of VAMK and KPAMK learners' views of workload imposed through studying in English / using English materials.

The first two columns show the learners' responses to the statements: *English as language of instruction imposes a heavy workload and this course should have been taught in Finnish/using Finnish course materials*. The columns indicate a very slight difference between the KPAMK and the VAMK learners: the VAMK learners found the FL-medium learning experience less labour-intensive than the KPAMK learners and were slightly more ready to accept the use of English as the language of instruction (column 3).

On the other hand, if a change in the speed of reading can be considered an indication of decrease in workload, the KPAMK learners' responses to the statement related to the ease and speed of reading show a slight positive trend as reported in subsection "Changes in reading comprehension skills" above.

It is interesting that the results concerning the extra workload do not differ much between the VAMK and the KPAMK groups despite the different conditions in which the learners in these groups were studying. The VAMK learners had a support module providing help in dealing with

the texts and also the intensity of exposure to English was lower as the lectures were in the native language. Thus the amount of exposure to foreign language experienced by the KPAMK group was factually much greater. On the other hand, the initial proficiency level of the learners in this group was presumably considerably higher (see Table 2).

On the whole it can be concluded from our data that the learners did not experience any particular stress due to the use of a foreign language. On the contrary: it seemed that studying in English/using English materials can be a positive experience as expressed by one of the learners:

It was nice to notice that reading English materials presented no problem. (VAMK learner)

Learners' feedback on the FL-medium courses

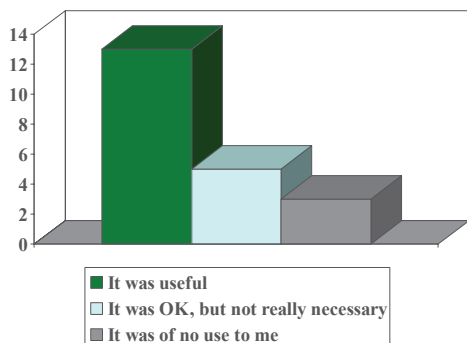
We have divided the learners' views of the experience of having attended an FL-medium course under two subheadings: (1) those related to teacher intervention and (2) proposals for improvements.

Learners' views on language teacher's support

The question of teacher invention was of particular interest in the light of the widely accepted claim in research literature that *input*, in our case the language models provided in the FL-medium instruction, is not enough for language *intake*⁹ to take place.

A clear majority in both groups seemed to prefer language (teacher's) support or supervision as can be seen in Figure 3:

VAMK learners:



KPAMK learners:

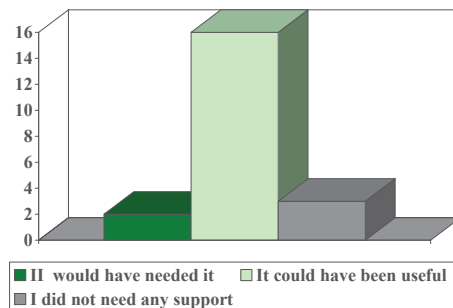


Figure 3. Frequency distribution of VAMK and KPAMK learners' views of the integration of language support module into an FL-medium course.

Given that it is possible to provide language related guidance or intervention in an FL-medium course, module or program, on what language skills should it be targeted and how should it best be implemented? In the light of the view of the importance of language input in language acquisition, generally accepted in second language acquisition literature (e.g. Van Patten & Williams, eds. 2007) and the experience of our case study, the length of the FL-medium course or program and

⁹For details related to these terms, see Rautio, chapter 2 in this volume.

the proficiency level of the learner should be the key factors to be considered. As a basis for planning we propose the following table:

Table 4. Proposal for language-related guidance in relation to FL-medium learning conditions in tertiary education.

<i>FL-medium conditions</i>	<i>Proposed type of language-related guidance</i>
Low proficiency level & low intensity of exposure (e.g. one single FL-medium course in mainstream native-language degree program)	Support in reading comprehension, opportunities for practising output to some extent, boosting awareness of different reading styles ¹⁰
High proficiency level & high intensity of exposure (e.g. full FL-medium degree program)	Supervising learner output Provision of practice opportunities (tasks, exercises)

Improvements suggested by learners

The most typical learner recommendations by the learners from both groups seem to fall into three major categories:

- New concepts related to the professional subject should be explained, and vocabulary support should be given (see section “Changes in the target-language vocabulary”).
- More possibilities for practising output should be given. One learner expressed this as follows:

One learns by speaking, more opportunities for practice should be given. (VAMK learner)

- More extensive use of English as a language of instruction was proposed.

Two learners made the following proposal, containing a piece of didactic advice:

If more courses were given in English, the exchange students could participate in them. Then we would have no other options but use English. (VAMK learner)

More FL-medium teaching should be included in the degree program because that is the way to learn the language better. (KPAMK learner)

It is interesting to notice that the learners’ views are in line with the output hypothesis (Swain 1985), which emphasizes the importance of the provision of opportunities for learners to practice their productive skills (for details, see Rauto, chapter 2 in this volume).

Positive feedback from the learners

As evidence of the implementation models piloted in VAMK and KPAMK projects, a clear majority of the learners supported the following views:

- Reading the materials was useful.
- My active vocabulary became somewhat larger.
- The English-language material used in the course was also useful for language learning.
- I would recommend this course for next year students.

¹⁰Particularly the VAMK learners seemed to prefer contextual or schematic reading strategies to systemic (linguistic) knowledge (see Skehan 1998). These learners might thus benefit from guidance directed to increasing their awareness of linguistic strategies (see Saarikoski & Rauto, chapter 1 in this volume).

Also the open end answers – discussed earlier in this article – reflect learner satisfaction with the course¹¹.

Summary and conclusions

The results provide evidence of certain *changes in target language development* (see research questions 1–2). The experience of participating in FL-medium instruction has had a beneficial effect on the learners' reading skills. Changes – although minor – in a number of the learners' productive skills were also found, with a certain relation to the learners' lower initial proficiency level and implicit language learning preferences. Some learners' views of participating in the course 'because it facilitates learning the foreign language' support this finding.

The more positive increase in the receptive as opposed to productive language skills can be explained as follows. The process along the continuum from the language exposure to language intake leading eventually to output would require a longer time than the duration of the current courses. By the time the courses came to an end, the learners' resources were spent mainly on processing the content for comprehension. Thus the current courses can be regarded to have come to an end "prematurely" from the viewpoint of language intake. During short-term FL-medium courses, the provision of method of activating the process – i.e. language support or teacher intervention – could make the language intake more effective.

The FL-medium course was *not considered too heavy by the learners* (research question 4). This result was obtained for both KPAMK and VAMK groups, i.e. regardless of the difference in the initial proficiency levels between the groups.

Language teacher's support was considered useful (research question 5.1). This evidence was obtained from both learner groups regardless whether the language support module was provided or not.

Learners recommended *more opportunities for practicing their own language production* (research question 5.2). Particularly activities where spoken skills could be activated were emphasized in the responses.

To sum up, the results speak in favour of implementing more FL-medium courses. Clear evidence on satisfaction related to the FL-medium learning experience was obtained, which can probably be explained by enhancement of the learners' self-concept as language learners, through the experience of coping quite well in the FL-medium learning environment rather than by the actual improvement of language knowledge. Including more FL-medium courses in the tertiary education syllabus seems justified. The courses help the development of reading skills, lower the threshold of tackling texts in a foreign language ("I wonder if I can > I can!") and boost the motivation and self-concept of the learners. Moreover, based on our findings, we conclude that FL-medium courses do not impose a threat of failure in engineering education¹².

¹¹It was an interesting discovery that the open-ended answers indicate a more positive trend than answers to the structured survey questions throughout our survey.

¹²The content teachers' views were not systematically researched at the current stage. However, when interviewed, these teachers did not report anything alarming as to the learners' academic success.

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4

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Rites of Passage: from Novice to Biochemist

Supporting the Development of Professional Competencies through the Integration of Language and Biochemistry Studies

Abstract

The degree structure reform came into effect in Finland in 2005 and stimulated efforts to create study programmes which better support students in acquiring the professional competencies they require for working life. In this paper, we describe an initiative intended to realise these aims, which was carried out between the Language Centre and the Department of Biochemistry at the University of Oulu. Through the creation of a complex of courses for second year students, biochemistry content and English language studies were integrated, with the goal of helping students increase their awareness of the conventions and expectations of the relevant scientific community, as well as harness this awareness to develop necessary skills for their later academic or professional careers as biochemists. Feedback received suggests that learning outcomes in presentation skills and scientific writing were high, with additional skills being acquired in a variety of other competency areas not directly related to English language studies.

Key words: Presentation skills, scientific writing, language and content, scientific community

Background

In 2006, the Language Centre of the University of Oulu was approached by the Department of Biochemistry to develop English courses in scientific writing and presentation skills to complement the subject courses for second year students. The initiative was driven by the recent degree reform brought about by the 1999 Bologna Declaration, leading to efforts to support our students better in developing the professional expertise required for working life.

More precisely, this entailed designing a course complex with clearly defined learning objectives and highly visible relevance to future needs, as well as effective time use. In addition, the degree reform emphasised the development of a range of key competencies (field-related, professional, research) involving critical academic thinking, problem-solving skills, and communication/social

*E. Rauto and L. Saarikoski (eds.): Foreign-Language-Medium
Instruction in Tertiary Education: a Tool for Enhancing Language
Learning. Vaasan ammattikorkeakoulu, University of Applied Sciences Publications
RESEARCH REPORTS A1*

skills. Therefore, with these goals in mind, we set out to create an appropriate and integrated combination of courses in which both “content” studies in biochemistry and language courses would support students in advancing the skills they required for their later careers in academia or professional life as biochemists.

Driving forces

In planning the integrated language courses, we drew on work from a variety of areas within language pedagogy and social science. Social studies of knowledge and learning provided the concept of “communities of practice” and the perception of the scientific community as a culture in which newcomers graduate from novice status through peripheral participation to full membership, acquiring skills and knowledge by interaction with other participants, skilled and less skilled (Lave & Wenger 1991; Wenger 1999). Here, we viewed our task as the facilitation of the students’ acculturation into the community of biochemists, by helping them notice the devices used by more expert members of their community and use these to their own advantage in their professional communication in English. As Thody (2006: 8) remarks, an understanding of the practices of the community is a key to becoming approved as a full member, “To gain acceptance, establishment mores must be followed. For new researchers, success with conventional formats is a compulsory rite of passage”.

Another view emerged from studies on the shaping of knowledge, which view the scientific work of creating knowledge as inextricably entwined with the praxis, including communication practices, through which new knowledge is produced and disseminated. In the words of Bazerman (1988: 292), “we cannot separate our view of the work of science from our view of the praxis by which the work is realized”. This position is reinforced in the academic writing literature, in the work of authors such as Meadows (1998):

Communication lies at the heart of research. It is as vital for research as the actual investigation itself, for research cannot properly claim that name until it has been scrutinized and accepted by colleagues.
(Meadows, 1998)

Similar trends have evolved in the literature dealing with the integration of language studies with subject classes. The earlier “conduit metaphor” (Brinton et al. 1989; Barfield 2005), which took the view of language as a tool for accessing a static body of subject knowledge, has largely been overtaken by a view of language as a resource for participation in human activity (Barfield 2005; Linell 1998), implying that learners are engaged in the advancement of social practice, and that language and content skills develop together and inseparably through participation in a social context.

Thus, we felt it to be important that our students came to perceive the English language not merely as a tool for translating their already well-formed ideas from Finnish into a language understood by a wider audience, but as a medium for creating and disseminating knowledge in a manner acceptable to the social community to which they belonged.

Realisation

The course schedule for the students’ fourth term of studies was designed so that the outputs of the English modules for second year students, Presentation Skills and Scientific Writing, were

shared products with the Protein Chemistry course. The oral presentation element comprised a 15-minute teaching presentation, during which students gave an informative presentation on a topic from protein chemistry. These presentations supplemented the lectures by the biochemistry professor and provided peers with input on salient aspects of protein chemistry. The presentations also served to demonstrate the students' own understanding of the topic to their professor. The scientific writing element took the form of a protein chemistry research article which was written up by students using authentic scientific data collected for earlier research purposes by the subject teacher and analysed by students as part of the Protein Chemistry course. Thus, the Presentation Skills module focused on the oral reporting of established knowledge to peers for teaching purposes, while the Scientific Writing module was concerned with the creation and dissemination of "new knowledge" to be offered to an imagined wider research community in the form of a scientific article.

Our approach placed a strong focus on the tutoring of individuals by the teacher/mentor and peers. The courses were taught in spring term 2007 (Figure 1), providing timely support in article-writing skills needed in the Biochemical Methods II course, which took place later in the same term.

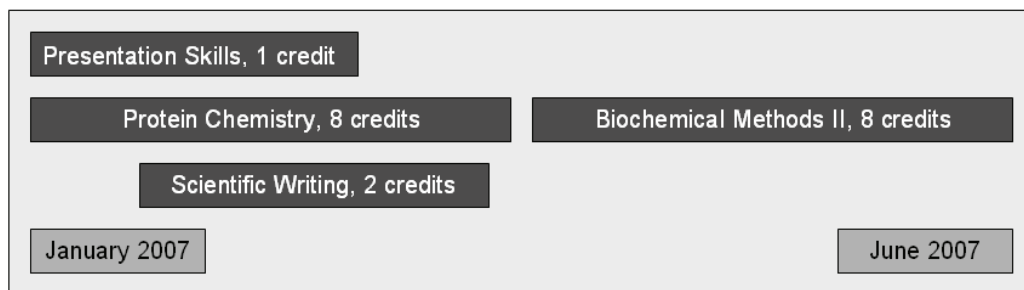


Figure 1. Fourth-term courses for students of Biochemistry at Oulu University.

The Presentation Skills module included seven classroom lessons, which discussed the features listeners considered essential to an effective teaching presentation, offered practice in presentation sub-skills and giving/receiving feedback, and provided a structure for independent information-search activities. One key goal of classroom activities was to help speakers ensure that listeners grasped the essential facts and understood their significance in protein chemistry. To this end, the module covered such topics as the inclusion of an appropriate amount of content at an appropriate level, logical structuring and clear signalling of transitions, speed of delivery and use of pauses, and the dynamism between speech and visual aids. The module also focused on the relationships between the speaker and the other members of the relevant community. This concern was addressed through an exchange of ideas on issues such as the creation of solidarity with the audience of peers by, for example, use of the inclusive personal pronoun "we", strategies for encouraging interaction and maintaining interest, devices for establishing a relaxed atmosphere conducive to dialogue, and creating a socially appropriate professional academic persona through properly cited references to sources used to inform the presentation.

Presentations were rehearsed, and peer and teacher feedback given according to pre-negotiated criteria. The final presentations were evaluated by both biochemistry and language experts.

For the Scientific Writing module, students collected a mini-corpus of articles from journals in biochemistry. The module incorporated six lectures mainly corresponding to the sections of a bio-

chemical research article. The lectures explored the content of a section of a biochemistry article from a genre-analysis perspective, making use of findings from linguistics research (for example, Kanoksilapatham 2005; Swales & Feak 2004; Thompson 1993; Haggan 2004; Soler 2007) to explore conventional features of articles. A triangulation of perspectives on community practices was afforded by comments from the biochemistry professor who attended the lectures, as well as through comparison with the mini-corpus of biochemical articles compiled by students. Another main topic in lectures was stance (Hyland 2001; Kuo 1999; Charles 2003; Charles 2007). As an example, the voice of the “novice” in biochemistry was discussed in relation to Hyland’s (2001) notions of “disciplinary servant” versus “persuasive originator”. Lecture material demonstrated how writers can opt to highlight a personal contribution through linguistic means such as strategic use of the first person pronouns in the formulation of claims, thus promoting their own role in advancing the science. Furthermore, the effect on the readers of such linguistic choices were pointed out: self-mentions can enhance the standing of a researcher, but can carry the risk of loss of credibility amongst other researchers, particularly for novices, whose reputation in the science has not yet been established.

In addition, the lectures were supplemented with analysis tasks using the student corpora, intended to raise awareness of community practices and promote discussion of why authors chose to include certain content or opt for a particular linguistic formulation. Between lectures, students wrote up the corresponding sections of their own protein chemistry research article using data provided in the Protein Chemistry course. Each section was revised in a series of three drafts based on feedback received. Peer feedback, supported by guidelines supplied, was provided on the content of the article, both in terms of scientific content and compliance with traditional genre conventions. Teacher feedback was prepared using Markin software (Holmes 1996-2004), and focused on the probable impact of the messages conveyed on readers through such features as adherence to or flaunting of genre conventions, the writer’s stance in relation to the readers and other authors cited, and the appropriacy of stylistic choices at the sentence or lexical level. Feedback was also given by the teacher on surface language features such as grammar, punctuation and the correct use of lexis. Successive drafts of the students’ articles were stored in the Optima learning environment, together with peer and teacher feedback, and learning-support resources. The final draft of each student’s article was evaluated by both biochemistry and language experts.

Evaluation

Evaluation of the integrated language courses was based on individual student feedback, summative feedback presented at the feedback day at the Department of Biochemistry, and discussions between the biochemistry and language teachers.

High learning outcomes in presentation skills, and scientific writing were both reported by the students and observed by teachers during the assessment of student output. In addition, the evidence compiled suggested that multiple competencies were developed during the English modules, including academic reading skills and other skills not directly related to English language studies, such as knowledge and skills in protein chemistry, academic/scientific reporting skills, knowledge of community conventions, information-search skills, ICT skills, and social interaction skills. Increased confidence in reporting to an audience or community of readers was also mentioned as an outcome of the modules. These observations tally with findings by Perpignan et al. (2007) that academic (writing) courses can offer “added value” through the development of

incidental “by-products” alongside the target skills which are outlined in the course description. In future years, we hope to redefine the course aims to include more explicit reference to the observed “by-products” of our modules, and invest more deliberate effort in their fulfilment as core constituents of the modules.

Thus, we set out to offer two English modules in Presentation Skills and Scientific Writing intended to complement the students’ subject studies in biochemistry. Moreover, with the starting point as an exercise in constructing texts, oral and written, we consider that we were also successful in at least a small way in helping our students to reconstruct their own identities as evolving professionals in biochemistry with new competencies and an awareness of the expectations of the community to which they aspire. In this, we support the principles of good teaching and learning outlined in the guidelines for teaching development at the University of Oulu:

Good teaching helps the student to work in such a way that his or her scientific thinking and capacity develops. The process of deep learning unites the work of researcher and student. The crux of the researcher’s work is learning which creates new knowledge for society. At the early stage, the student’s efforts to learn result in new knowledge only for himself or herself. Good learning at university leads to the rapid fusion of the roles of researcher and student. Good learning entails the understanding of notions and phenomena. It develops one’s way of thinking and expertise, and enables the student to develop as a whole person. As a consequence of good learning, the student continuously reinforces his or her capacity to participate in the international scientific community. (University of Oulu Teaching Development Committee 2007 – translation into English by the authors)

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The Need for Tertiary-Level Students to Have Metacognitive Skills

Abstract

Because the world we live in is constantly developing in new ways, we as educators have the responsibility of equipping our students with the transferable skills that will aid them in navigating this reality. This does not mean merely focusing on their academic achievement but also their professional as well as personal development. But what skills should we specifically focus on?

This article will attempt to answer this question by explaining what is meant by metacognitive skills in relation to critical thinking, the three areas (colleges, corporations & communities) where they are needed, and the ways of promoting metacognition in the tertiary-level classroom through content-based instruction. From various cited sources, reflectivity seems to be the key ingredient in achieving this.

Key words: Business, content-based instruction, metacognitive skills, reflectivity

Introduction

Individuals with well-developed metacognitive skills are in control of their own beliefs in the sense of exercising conscious control over their evolution in the face of external influences. They know what they think and justify why. Their skills in the conscious coordination of theory and evidence also put them in a position to evaluate the assertions of others.

Kuhn (1999: 23)

As the above quotation suggests, having “well-developed metacognitive skills” aids in empowering oneself. As educators this should be one of our central aims when teaching our students especially at the tertiary level. This conviction also fully relates to *language learning* and *European mobility*, because this is the one avenue in which we can enrich the students’ language acquisition but also broaden their horizons when it comes to their prospects within Europe (and the world).

However, to stop there would not be sufficient preparation for our students in today’s world. The need for metacognitive skills goes beyond CBI (*Content-Based Instruction*) for our students; it shapes their very *careers* in addition to enabling them to play their part in their *communities*. As it concerns my business administration bachelor degree students, I have strived to accomplish this in my English courses in part by preparing them to deliver *presentations*, *critiquing their papers* and having them *conduct research projects* which have been proven through various reviewed studies (Terenzini, Springer, Pascarella & Nora 1995; Tsui 1999; Astin 1993) to enhance critical thinking skills (as quoted in ten Dam & Volman 2004: 336-367).

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Metacognitive skills

When considering metacognitive skills¹ one needs to see them in relation to critical thinking. Basically, critical thinking can be seen as an overarching term, which covers numerous situations. According to Parscarella and Terenzini (1991: 118, as quoted in Prins, Veenman & Elshout 2006: 362; cf. also Aho & Takala in this publication):

Critical thinking has been defined and measured in a number of ways but typically involves the individual's ability to do some of all of the following: Identify control issues and assumptions in an argument, recognize important relationships, make correct inferences from data, deduce conclusions from information or data provided, interpret whether conclusions are warranted on the basis of the data given, and evaluate evidence or authority².

To say the least, this definition is a bit overwhelming to be deemed workable. But in order to accomplish the above activities one in actuality needs to *reflect*.

Critical thinking

This very point has been emphasized by the internationally recognized authority on critical thinking Richard Paul when he defined critical thinking simply as “the art of thinking about your thinking” (Kuhn 1999: 32). But even Paul considers critical thinking (i.e. reflection) “spurious when students are not being taught standards and criteria for assessing their own thinking” (ten Dam & Volman 2004: 363). So it is apparent that “having deep thoughts” is not enough and this is where we as instructors need to give our students clear guidance and assistance.

Cognitive and metacognitive skills

As with many researchers, critical thinking can be broken down into its cognitive and metacognitive parts. *Cognitive skills* (or first order skills) “enable one to know about the world” (Kuhn 1999: 17), whereas *metacognitive skills* (second order skills) relate to “knowing what one knows and how one knows it and effectively managing and deploying one’s cognitive resources [which is] *the foundation of critical thinking*” (my emphasis, 21). Therefore, it is in metacognition that our students gain the most, not just from acquiring this (and other) knowledge at university but also utilizing it in their careers and lives.

The three areas of importance

Because of the increase in courses/degrees being offered in English at the tertiary level throughout Europe, the need for educated workers within its economy, as well as a well-informed citizenship to ensure a democratic EU, it is a necessity that students have the skills to excel in these circumstances (content, career and community). And it seems that the roles of where these *educational processes* mentioned above take place (universities, companies, society) have been somewhat blurred of late.

¹ *Metacognitive skills will be defined in comparison with cognitive skills below in the section Cognitive and Metacognitive Skills.*

Content (based instruction) – tertiary-level institutions

Just as there is a close association between critical thinking and metacognitive skills, there is a natural relationship between the latter and CBI (Content-Based Instruction). According to McPeck (1981: 4-5), in his work *Critical Thinking and Education* it is “a matter of conceptual truth that thinking is always *thinking about X*, and that *X* can never be ‘everything in general’ but must always be something in particular”. So teaching solely *critical thinking* in isolation is truly not fruitful, thus there is a need for us to augment it by the use of *content* within our classrooms and institutions.

But as many of us know, tertiary-level institutions have in recent years become more utilitarian in their mindset: more like companies than schools. As Alexander (2001: xi, as quoted in Gray 2006: 316) has pointed out “education has increasingly become an instrument of the global economy, concerned solely with ‘transmitting the knowledge and skills needed to prepare for economic productivity’”. Now this is not all bad, but then again it is not all good, because this “cognitive focus” in reality does not serve well our students now or their future employers later. In my case, not integrating metacognitive skills into my English curriculum would hinder my students’ performance in English when it comes to studying abroad, their internships, and finally for possible master degree studies. In fact, to further this point, Veenman and Spans (2005: 159-160) stated that “metacognitive skillfulness outweighs intelligence as [a] predictor of learning performance”. So obviously with the little time we have with our students, we should also be concentrating more upon this skill.

Careers – learning organizations

Even after leaving school our students will still be constantly confronted with the need to learn whether it is through the EU’s LLL (Lifelong Learning) programs or within in the companies they work for. In their *Harvard Business Review* article “The Coming of Knowledge-Based Business” Davis and Botkin (1994: 165) predicted that companies will be “turning into educators” because “[w]hen their customers use [their] products, they will be engaging in an educational process”. Moreover, most of these “processes” will be conducted by our former students as *highly paid workers*. According to Reich (as cited in Paul 1995: 7), this means that they will need to possess the reflective characteristics that metacognition provides them, such as *abstraction, systems thinking, experimentation and testing, and collaboration*.

Even prior to entering the workforce our students need the ability to reflect upon their talents in order to “sell” them in an interview. As the late eminent management guru Peter Drucker (1999: 67) once wrote, knowing “How do I perform? may be an even more important question than “What are my strengths?”. Once our students have been hired by a company they will need to contribute to its “continuous improvement” (a term often used nowadays) so that the company can stay competitive. In order to achieve this, a business will have to “foster an environment that is conducive to learning”, in other words “[t]here must be time for reflection and analysis” (Garvin 1993: 78 & 91).

Community – communities of practice

In realizing the continuous improvement discussed above, our students will probably be working in an alternative to artificial project teams, i.e. *communities of practice*. These are basically people in the company (*learning organization*) who “share experiences and knowledge in free-flowing, creative ways that foster new approaches to problems” (Wenger & Snyder 2000: 140). But in connection with critical thinking this term takes on a much broader and richer context. Besides including a *pedagogical* element, it also addresses a *societal* one as well.

Pedagogically, “social constructivist educational theories interpret learning as increasingly competent participation in the discourse, norms and practices associated with particular communities of practice” (ten Dam & Volman 2004: 371). As it concerns our students in the content-based instruction classroom, this is the very goal we are trying to achieve with enriching material focusing on their particular degree but also by introducing them to the norms of communication in English and further in their particular professional field.

As referred to earlier, this would be insufficient, for we are not only helping to shape students or future professionals, but also citizens of Europe (and the world). This societal aspect calls upon our students to reflect metacognitively on themselves as individuals who possess certain abilities, not purely as an academic exercise or a business process but as a way of life. According to ten Dam & Volman (2004: 371):

Learning [is] extricably bound up with identity formation. Becoming a more central participant in society is not a matter of acquiring knowledge and skills. It also implies becoming a member of a community of practice. This requires people to see themselves as members, taking responsibility for the own actions (including the use of knowledge and skills in that position).

So whether within an academic, business or community setting, these skills have become a necessity for our students and it is up to us through content-based instruction to assist them in *producing* quality communication in English and also analyzing the *processes* that go into such an act.

Ways of promoting metacognitive skills

Before exploring how critical thinking is applied in an English curriculum for business administration students in our institution, it should be clearly stated that there is more than sufficient evidence to suggest that metacognitive skills can be taught successfully (Brown & Palincsar 1989; Campione et al. 1982; Chinnappan & Lawson 1996; Cross & Paris 1988; De Corte & Vershaffel 1980; Kapa 2001; King 1992; Kramarski & Mevarech 2003; Masui & De Corte 1999; Veenman, Elshout, & Busato 1994; Volet, 1991; White & Frederiksen 1998; as cited in Veenman & Spaans 2005: 172-173). In addition, there are many ways of enhancing critical thinking according to ten Dam and Volman (2004: 366-367): focused discussions, student-led seminars, problem-based learning, role-plays, taking essay exams, student presentations, having papers critiqued by instructors and conducting individual/group research projects.

In the following, the last three activities (student presentations, papers critiqued by instructors and conducting individual/group research projects) will be looked at more closely in content-based courses within a three-year business administration bachelor degree program focusing on presentation techniques, academic writing and intercultural awareness. First, from the *critical*

thinking perspective concentrating on the *content* aspects of each course and then the *metacognitive skills* will be explained by means of *reflection*.

Content

Since most first semester business administration students have relatively high oral proficiency (CEFR/ALTE B2-C1), their first English course (*English for Presentations*) serves as a bridge from secondary school level instruction towards a university one. In order to promote critical thinking students have to research and present (without notes) in pairs one major *management guru*, e.g. Peter Drucker, Rosabeth Ross Kanter, Tom Peters, etc. This does not mean that they simply regurgitate the seminal works of these thinkers, but that they also have to critique their ideas against the test of time and/or against other gurus/experts. Another reason for using such content is that these are the very management theories that these students are exposed to while at university and will have to work with during their careers (see the quotation at the beginning of the article).

In the third semester (*English for Academic Purposes*), students are challenged by researching and writing (continuously revising) an academic essay focusing on a business-oriented question, such as:

- What are the three main philosophical purposes of work?
- What three key responsibilities do businesses have towards society?
- What three aspects concerning ethics should today's managers be aware of?

The above questions would obviously encourage thought but not necessarily critical thinking unless we as instructors *critique the students' work*. However, writing is an effective tool in advancing critical thinking. This is reflected in a quote by Richard Paul: "Disciplined writing requires disciplined thinking; disciplined thinking is achieved through disciplined writing" (1995: 526). The value of critical comments in enhancing student thinking is worth remembering when we as teachers are involved in the tedious work of grading student essays. There is really no shortcut around it.

Given that the fifth semester (*English for Intercultural Awareness*) is an international semester, most of what has been built up in the way of critical thinking cannot be capitalized on due to the fact that most of the students having had the content-based instruction have gone abroad to study and the ones coming into the course are of various English proficiencies (CEFR/ALTE B1-B2). However, an analytic focus still remains.

In this semester, students have to conduct a project in their *international* teams utilizing seminal intercultural theories (e.g. Hall 1976; Hofstede 1991 and/or Trompenaars and Hampden-Turner 1997) as a basis in researching, analyzing and presenting their findings concerning a certain *local culture*. This does not mean that these exchange students simply compare the local culture to their own home culture, but they have to be able *to read* the cultures around them using one or more of the following *aspects*:

- Hierarchical structure or system
- Communication
- Beliefs and ideals
- Customs (proper etiquette)
- Values.

With the above, students begin to fulfill what Reich characterized earlier as “systems thinking”. And with this distinct focus, some past research titles have been:

- The Cultural Norms in the University’s Computer Pool
- Elevator/Lift Culture
- Cultural Clashes on Public Transportation.

Working with others from around the world as well as investigating other cultures and communicating with other non-native speakers of English not only furthers their *language abilities*; communicating with other non-native speakers of English but also enhances their abilities to deal with different situations (i.e. cultures) when they are *mobile* throughout Europe.

Reflection

Throughout the previous course examples, journals are usually kept by students in order to aid them in promoting their metacognitive skills. Through suggested questions, these *reflective journals* serve to focus their attention on the processes they are going through in each assignment (whether before, during or after) as well as helping them negotiate their final mark for that particular piece of work. Of course, as mentioned above, this is all accomplished by keeping clear quality standards in mind.

In *English for Presentations*, besides preparing and successfully delivering their presentations, students need to be able to reflect upon the process they went through in achieving this (*What steps will/have you take/taken to insure that this will be/was a successful informative presentation?*). Since most of their other courses are solely or partly evaluated through presentations, this type of knowledge is invaluable. In *English for Academic Purposes* in parallel with completing their writing assignment, students need to scrutinize their research and writing process (*Tell me something about your research/writing/working process?*) in addition to defending their essay ideas in an oral examination. This serves two purposes: first, to help them see this activity as part of their overall *process management* degree concentration in which one can “optimize” one’s performance. But also for weaker students this gives a final chance to convey or revise their original essay arguments. With *English for Intercultural Awareness* students hone their observation skills seeing culture in a new light while working in an international project team. But with this insight students can also look inward toward their teams (*What cultural dimensions/theories helped you understand your observations/team work?*). This again leads students to consider the steps within a team project as well as dealing with intercultural dynamics in such a group. When presenting such suggestions one tends to believe that this would only work with intrinsically motivated students, which are unfortunately in the minority in most of our classes. But as Veenman and Spans (2005: 173, my emphasis) have found “building up a repertoire of metacognitive skills is beneficial to all students, even the less gifted ones”.

Conclusion

It is apparent that there is a connection between our students' English language proficiency and their ability to be mobile throughout Europe (and the world). And it is in critical thinking, namely metacognitive skills augmented by content-based instruction, which can truly further this. As seen above, this goal is not exclusively concerned with our students' academic success but also their careers and their lives as well.

What is asked of our students in the *European Language Portfolio* (ELP) is by its very nature metacognitive/reflective. According to Little (2006: 21) concerning implementing the portfolio, instructors need to "involve their learners in their own learning, giving them ownership of learning objectives and the learning process" and within this "[s]elf-assessment plays a central role... against stated criteria". It is hoped that this is being achieved in the previously described courses. In their careers, making use of a reflective journal is similar to what skilled managers do when they keep a diary in order to learn "from experience...review their successes and failures, access them systematically and record the lessons [but by] failing to reflect on it, they let valuable knowledge escape" (Garvin 1993: 85). With the lack of permanency in one's working life today, reflectivity could be one of the skills that helps in navigating this uncertainty. As it relates to contributing and sustaining a diverse and democratic Europe, developing students' critical thinking skills is an imperative. Thomas Jefferson once proclaimed "I know of no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education" (as quoted in Dean & Kuhn 2003: 1). These are perhaps lofty goals, but with metacognitive skills, they are attainable.

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Section II

CLIL and Secondary Education: What can be Learned for Higher Education?



Content and Language Integrated Learning in the Context of Promoting Plurilingualism

Abstract

Content and Language Integrated Learning (CLIL) has become a focus of attention in recent years and is meanwhile a subject of ongoing debate in many countries in Europe. Too many pupils leave school being able to use very little of the language(s) which they spent so many years learning. The percentage of the people who find it very difficult, even after many years of language learning, to use the language actively, as a tool for real-life communication in everyday situations is quite high. CLIL is seen in this work as a strong tool, which can be used in an educational context to promote the linguistic competence of learners. After some terminological considerations where the settings for real CLIL practice will be defined, we will look at the inherent features of CLIL as a pedagogical concept, which differentiate it from other related models. The added-value will become obvious. We will then focus on consequences of CLIL for the curriculum development and finally we will define the conditions for successful CLIL applications, which will embrace all stakeholders (educators, school administrators and pupils/students).

Key words: Language didactics, content-based language learning, immersion, cross-curricular teaching

Introduction and terminological considerations

The European Union recognizes language learning as a lifelong activity and language teaching as a very important tool towards fulfilling the socio-economic aims of the Community. The current European Union language policy outlines trilingualism as a minimum language requirement for all of its citizens.¹

This policy means that all European citizens will be required to have a communicative competence in two European languages in addition to their mother tongue. This will be the new basic requirement for mobility and job security throughout Europe. Many people might still regard this as utopian, but the advantages are rather obvious, especially in a globalised world.

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¹This was first stated in *White Paper on Education and Training (Commission of the European Communities 1995: 47)* and was elaborated in *Barcelona European Council in 2002. A New Framework Strategy for Multilingualism (Commission of the European Communities 2005)* sets out the European Commission's strategy for promoting plurilingualism in European society and proposes a number of specific actions.

It is exactly in this framework that the concept of plurilingualism is becoming more and more important, and this is a challenge for linguists who are asked to support this effort. We see increasing focus on the value of methods which enhance the learning of languages and as a result existing methods are being reconsidered and re-evaluated. Content and Language Integrated Learning is considered by many to be an innovative new approach which can promote plurilingualism. In many countries in Europe, there has been discussion about CLIL for about a decade now.²

There exist several terms related to CLIL with *bilingual education*, *content-based language learning* and *teaching content through a foreign language* (e.g. *teaching geography through English*) being the most widely used ones. It is necessary for practitioners, researchers and administrators alike, to be clear in their understanding of the usage, overlap and distinctiveness of the various terms. What makes CLIL different from other existing terms and why was the introduction of a new term necessary? *Bilingual education* is easily associated with bilingualism and hence with children brought up in bilingual family environments. Nikula and Marsh (1998) argue that yet another reason makes the usage of this term problematic since the term is fairly established when the focus is on teaching linguistic minority groups with the eventual aim to facilitate the learners' integration into the surrounding community. The terms *content-based language learning* and *teaching content through a foreign language* are not neutral either. The first entails a predominance of the non-language subject whereas the latter entails a predominance of the language subject and hence emphasises language learning and teaching.

The term *immersion* is often used to refer to teaching a non-language subject using a second language (L2), particularly when young learners are concerned. In immersion education, originated in Canada, at least 50% of instruction is conducted through a non-native language. In many cases, the percentage is even higher (also total immersion) and already this factor sets it apart from European CLIL. In addition, every teacher has only one linguistic relationship with his or her pupils, i.e. there is no code-switching.³

The term CLIL was originally defined in 1994, and launched in 1996, by UNICOM⁴ to describe pedagogical methods where 'subjects are taught through a foreign language with dual-focused aims, namely the learning of content, and the simultaneous learning of a foreign language'. It refers to any educational situation in which a second/foreign language is used as a tool for the teaching and learning of non-language subjects, so as to provide value-added educational outcomes. In class there are two main aims, one related to the non-language subject and one linked to the language itself (dual focus). In fact, we could say that learners are learning to use languages and in the same time they are using language to learn.

CLIL embraces all sectors of education, from a few hours per week to intensive modules or even a respectful percentage of the whole curriculum. This relatively new term is broad enough to cover both immersion education and other types of foreign language enhanced education where students only receive certain parts of their education through the medium of a foreign language. Also, and above all, this is a neutral term, which does not entail a predominance of the language

²EMILE (*Enseignement d'une Matière par l'Intégration d'une Langue Etrangère*) is the dominant French term, whereas in German the new term FAUA (*Fremdsprache als Unterrichts- und Arbeitssprache*) exists alongside *Integrierter Unterricht von Sprache und Inhalt*.

³The definition of the terms *immersion* and *CLIL* is also discussed in Saarikoski & Rauto (chapter 1, in this volume).

⁴UNICOM is based within the University of Jyväskylä, Finland, and incorporates the European Platform for Dutch Education.

or the non-language subject and hence could pave the way for cooperation between teachers of the language and the non-language subject more easily. A very informative comparison of the various terms used by linguists can be found in Nikula & Marsh (1998). The advantages of the new term are also emphasized in a recent publication (Eurydice Survey) of the Commission of the European Communities (2006):

...it seeks to develop proficiency in both the non-language subject and the language in which this is taught, attaching the same importance to each.

Although CLIL as a term is recent, the concept behind it is not new and models of dual-focused learning have been developed and used in certain parts of Europe and beyond for several decades now (cf. similar approaches in international and European schools). Foreign languages have been used for teaching non-language subjects in one form or another for centuries. Sometimes, there is misconception about CLIL and people refer to CLIL in a context where it is not existent. In Europe, this is often the case when English for example is used as the language of instruction mainly in order for institutions to get more students/pupils from abroad. In another context, English (or another language) can be used as a language of instruction for other reasons. Marsh (2006: 31) states for example that English has been introduced in Ethiopia as a medium of instruction partly to offset the problem of children arriving to school with different first languages.

It should be clear that we cannot talk about CLIL if there is no reflection about the language component in class. What is at heart of this work is teaching a subject *through* a language and not teaching a subject *in* a language. Many linguists talked about failures related to using a second/foreign language as a medium of instruction, if educational conditions and settings have not been adjusted as well. This has been stated clearly also by Marsh:

There have been marked successes in using a second/foreign language as the medium of instruction, just as there have been examples of long-term failure. There has also been a distinct lack of discussion between educators responsible for diverse contexts where the medium of instruction acts as a barrier, or as some form of challenge, in the classroom. [...] When we look at the overall educational achievement in any country, it is necessary to consider if the medium of instruction acts as a barrier to learning. This is particularly important when fluency in the 'adopted' teaching language may be low amongst learners, and possibly even teachers. (Marsh 2006: 30-31)

Educational failures in this context have been reported also by Heugh (2000) who states that in South Africa alone it is estimated that some three-quarters of children fail school. All this does not mean of course that we should forbid the use of a second/foreign language as a medium of instruction all together. It means rather that educators should find solutions, which are workable in the classroom. It means rather that the system should also make provisions on how classroom reality can help students/pupils bridge the 'L2/FL proficiency gap' and usually just teaching the second/foreign language as a subject matter is not enough. Further exploration of this aspect may be found in many sources (e.g. Johnson & Swain 1994, Swain 1996, and Dalton-Puffer 2002).

Just changing the medium of instruction from one language to another in an educational setting does not automatically qualify as a CLIL case. In conclusion, the existence of dual-focused language-sensitive methodologies is necessary in addition to the use of a second/foreign language as a medium of instruction and as long as educators do not have a clear picture of these methodologies, the intended results cannot be achieved.

CLIL as a pedagogical concept and the added-value

Theories, which claim that both linguistic and content subject competence can be promoted within the integrated concept more effectively than when content and language are taught in isolation, are gaining ground. Which are the advantages of this pedagogical concept for language learning? Which are the advantages of this pedagogical concept for the learning of the content subject and which are the advantages for the overall learning?

The main advantage that CLIL practitioners see is that a CLIL environment can increase the general learning capacities and also the motivation and interest of the learners. Interestingly enough, this happens even with pupils who in general do not perform well in class (Abuja 1999). Language teachers know that motivation and interest are very important factors in the learning process. What triggers this development in a CLIL environment? I think we can find key elements for the answer in Coyle (2006). Coyle interviewed CLIL teachers and CLIL trainers and included those interviews in her work. One of the interviewees (teacher) reports that:

Everything is contextualised [...]. The language is for a purpose rather than language for the sake of language. [...] I think it makes the language a bit more practical in some senses. (Coyle 2006: 7)

CLIL can offer a natural situation for language development, which brings language learning close to the language acquisition of the mother tongue (language learning vs. language acquisition/conscious vs. unconscious). Learners use another language naturally, in such a way that they soon forget about the language and only focus on the learning topic (cf. interviews in Coyle 2006). CLIL can put language in a meaningful context and if this is correct, then it also means that we create stronger links between the classroom reality and the world outside. In other words, it can provide a more naturalistic way of learning. But is this not exactly what language teachers have been doing over the last few decades following the communicative approach? There is no doubt that motivation can increase if language learning were put in a meaningful context, but obviously the term meaningful context is relative and should be seen in relation to the age, maturity and in general cognitive development of the learner. The content of the non-language subject covers usually material, which is appropriate to the state of cognitive development of the learners and the motivational increase in language engagement, seems to be a positive side effect of the latter. Group work, problem-solving and engagement in collaborative enquiry become more effective.

Another positive feature that is in favor of CLIL is that a CLIL environment can lead to an increase in linguistic competence of learners. We have clear evidence from data collected in England. Coyle (2006) argues that in several schools, students after one year of learning the foreign language in a traditional language class and having CLIL experiences were at least three levels in advance of other students of the same age and also that early fast track entry to GCSE by one or two years has been recorded in several schools with CLIL classes. The key issue here seems to be that since linguistic competence is developed through scientific content (non-language subject), learners develop automatically an academic competence in the foreign language. This corresponds to what Cummins (1987) called *cognitive academic language proficiency* (CALP). CALP, which is to be differentiated from *basic interpersonal communicative skills* (BICS, Cummins 1987), can be developed more easily in a CLIL environment. The newly acquired linguistic competencies, which are of cognitive academic nature, will pave the way for professional life and also for possible employment abroad.

Often CLIL teachers report that the introduction of CLIL in their school environment encouraged them to reflect on their teaching practices and to redefine methodologies, in order to cater better for the needs of the learners (Coyle 2006). Of course, every innovation in teaching, not just CLIL, can lead to reflection on teaching practices where teachers dare to question what they have been doing in the past. Through reflection, teachers are expected to become better teachers.

Scepticism remains as to whether learners can acquire knowledge of the non-language subject as efficiently as their peers in a parallel class taught in the mother tongue. Most existing studies on this topic are concerned with subjects like mathematics or social sciences and already this indicates the need for further investigation. A recent survey conducted by Stohler (2006) could illuminate certain aspects. Through interviews, Stohler tested whether pupils could reconstruct specific conceptual fields taught in class. The pupils who participated in the survey, attended classes which were taught in L2 and also classes taught in L1. The conceptual fields taught in these lessons included the following subjects: history, biology, chemistry and geography. The interviews were videotaped and the respective dialogues transcribed.

In classes that were taught in L2, pupils were allowed to use the L1 as well to demonstrate the acquired knowledge. That was a wise decision since methodologically a CLIL environment should not be characterized by monolingualism but rather by functional bilingualism (Marsh 2005). Even translation is an acceptable tool and might be very useful in CLIL. Learners might compare text versions in both languages (mother tongue and foreign language). In some cases, as in the survey discussed here, the input (reading or listening) might be in one language and the output (speaking or writing) in the other (translanguaging).

Every pupil participated in a series of interviews over several months. The survey results did not support the claim that CLIL has negative consequences on the acquisition of knowledge. The results suggested that no significant differences exist in the acquisition of knowledge when pupils are taught in an L1 and when they are taught in an L2, even if pupils have only partially mastered the L2. The results of this survey are encouraging. If the results for the acquisition of knowledge of the non-language subject are equally good in CLIL settings, then CLIL should be given preference since it helps the learner to develop also the L2.

The advantages of CLIL for the curriculum as a whole should not be disregarded. What does the introduction of CLIL mean for the curriculum as a whole? Could that mean that if a certain subject is taught in English (e.g. law in English), the time devoted to English language teaching will be reduced, in order to make space for another foreign language or in order to introduce the next foreign language at an earlier stage? In terms of curriculum design, CLIL application can save a lot of time devoted to language learning compared to more traditional models with traditional language teaching. This could provide administrators with the basis needed for a restructuring of foreign language programmes. It could create space for the introduction of another language. When CLIL theoreticians and language decision makers from Europe exchange views, it becomes obvious that this is (still) not a common perception.⁵ That means to me that, unfortunately, the

⁵This was obvious also at the meetings of the ARION action CLIL a New Way towards the Integration of Foreign Language and Other School Subjects (ARION action 12, 11 Salerno/Italy 2007) that the author of this article participated in. Decision makers in the area of language policy from eight countries were involved in this ARION action and many of them reported that in their country CLIL had not been identified yet as a possibility for creating space for the introduction of an additional language in the curriculum. The final report which was submitted to the European Commission can be provided by the author of this article who acted as a Rapporteur of the group.

application of CLIL has not been identified by all countries as a powerful tool towards plurilingualism in its full potential.

Finally, it needs to be studied further whether learners who are engaged in a CLIL environment also start processing complex concepts earlier than might have been possible if they had been offered traditional languages classes. This would add another huge advantage to the advantages we mentioned above. The advantages of cognitive processing in bilinguals are discussed in Mechelli, Crinion & Noppeney (2004).

CLIL practice in Europe and teachers' qualifications and training

CLIL type provision is part of mainstream school education in most European countries at primary and secondary level. In Belgium (the Flemish Community) and Lithuania CLIL exists just within pilot projects. Just very few European countries are characterized by the absence of any CLIL initiative (not in mainstream school education, not in pilot projects) and these are: Denmark, Greece, Cyprus, Portugal, Iceland, and Lichtenstein.⁶

There are two main parameters that make up the variants of CLIL found in Europe: the number of subjects, which are taught in the foreign language and the time learners, are exposed to CLIL. CLIL teaching time per week might vary from 50 minutes (modular CLIL) to half of the curriculum (programme-based CLIL, e.g. the German schools called *Europaschulen*).

The way different European countries approach CLIL differs tremendously and this seems to be directly related to the educational system of the respective country (centralised with no school autonomy vs. a system that gives schools also a certain autonomy and the freedom to try out new approaches, for example CLIL). As a result, countries with a centralistic system (e.g. Cyprus) very often apply new approaches later than other countries, and certain regions of big countries which have a higher degree of autonomy might implement new innovative approaches earlier than other parts of that country (e.g. Lombardy in Italy).

There seems to be no unified model regarding CLIL teachers' qualifications. Which model of delivery is better and why? The one with co-teaching (a subject teacher and a language teacher sharing the same group at the same time) or the one with just one teacher in class? What should we aim at in future? In cases where we find CLIL applications with two teachers in class, teachers usually experience CLIL environment very positively and provide us with positive feedback. Those teachers believe that this is how we can get the best results and also that they learn from each other. Efficient coordination between the two teachers is here of paramount importance for this model to be successful and for this teachers need time. At a first glance, this model guarantees for the existence of both necessary components that should exist in a CLIL lesson: reflection on the subject and reflection on the language.

On the other hand, in a CLIL class that is offered exclusively by the non-language subject teacher who has fair/good knowledge of the foreign language it might happen that the teacher in charge

⁶*In Lichtenstein, CLIL provision is available during the third year of primary education but on a very limited basis. Further details regarding CLIL in Europe (statistics from various European countries etc.) may be found in the EURYDICE survey Content and Language Integrated Learning (CLIL) at School in Europe (Commission of the European Communities 2006).*

cannot help the learners to develop also knowledge of the language subject. The CLIL teacher should be equipped with basic skills in language teaching as well.

Which are the consequences of every model? The system with co-teaching might seem attractive, but I am afraid that in a long term perspective this is not sustainable mainly due to financial implications and can be seen just as a transitory stage. Already the fact that we find both models, co-teaching or just one teacher in class, shows that there is no unified or clear conception of what the qualification of a CLIL teacher should be. University programmes should be updated and adjusted to the new insights and needs in order to provide their students with the knowledge and skills needed for their work as CLIL teachers. Also, quality assurance criteria for CLIL teachers' education should be developed.⁷

In most countries, teachers are specialists in just one subject. In Germany, Austria and Norway we have clear cases of dual qualification (at least for secondary schools) and education programmes offer students the chance to become a teacher of geography and a teacher of English or a teacher of music and a teacher of English (possible but not mandatory combination of a language and a non-language subject). In most countries, the basic skills currently required for a CLIL teacher are those possessed by teachers of the non-language subjects.⁸

According to the recent EURYDICE survey only in few countries teachers in CLIL type provision are expected to have certified evidence of further particular skills in addition to their teaching qualification (elementary and general secondary education). Even in those few countries, all forms of additional certified evidence are concerned with languages skills (see Table 1 below).

Table 1. Countries which require forms of certified evidence for teaching in CLIL provision (EURYDICE Survey in Commission of the European Communities; 2006).

Type of further qualification required	Country ⁹
Certificate/diploma testifying to knowledge of two languages of instruction	SI
Basic qualification obtained in the target language, and/or certificate of upper secondary education obtained in the target language	BE fr, BE de
Certificate of (advanced) knowledge of the target language	BE fr, BE de, ES, HU, FI
Certificate testifying to the completion of 55 credits (80 marks) in the target language	FI
Regional language CAPES or a university qualification in the regional language	FR
Qualification in two subjects incl. a language subject	HU

⁷One of the five subprojects of LANQUA (Langue Network for Quality Assurance), a new project in the framework of Lifelong Learning Programme which the author of this article participates in, is concerned exactly with this problematic and will work out a proposal. LANQUA started in November 2007 and will have duration of three years. This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

⁸Interestingly enough, according to an empirical survey conducted, no teacher working in CLIL type provision could be identified in Norway who was only qualified to teach languages. All of them have a dual qualification or a qualification to teach a non-language subject only (EURYDICE Survey in Commission of the European Communities; 2006).

⁹Country codes: SI (Slovenia), BE fr (Belgium – French Community), BE de (Belgium – German-speaking Community) ES (Spain), HU (Hungary), FI (Finland), FR (France).

The fact that all forms of additional certified evidence are concerned with languages skills is not surprising since the basic skills currently required for a CLIL teacher are those possessed by teachers of the non-language subjects (e.g. geography). It should be noted though, that for CLIL teachers to be successful, they should have obtained education which considered more than just language skills and the knowledge of the non-language subject (Wolff 2002, Marsh 2005). Namely, they need to learn how to teach the two subjects in an integrated environment and this is exactly what is usually missing in education programmes (also in the few countries with dual qualification of teachers). This component should be understood as a core requirement and hence should not be overlooked even in cases where schools invite native speakers of the foreign language to teach a non-language subject (usually through exchange programmes).

We still need to develop high quality CLIL materials, especially for languages other than English. Since at this stage there are not many materials available, networking and cooperation among CLIL practitioners are crucial. Willingness to share materials and jointly identify, describe and explore examples of good practice in CLIL methodology is becoming more and more important. Teachers also need time, in order to prepare materials, but in many cases they are not given the time (possibly reduction in the teaching hours).

Conclusion

In summary, teaching and learning in a second/foreign language provides an educational experience which may be advantageous, provided that provision has been made for the settings needed for successful CLIL application (good teachers' qualifications at entrance, continuous professional development of the teachers, adapted books, support from the administrators, time provided to teachers for preparing the material and for preparing for class). CLIL research is still in its infancy and remains a multifaceted and many-layered phenomenon, which still needs to be explored.

In this article, several advantages of CLIL were discussed. Some of them are stronger than others, but none of them should be looked at in isolation. Education authorities are rather advised to consider all data, which at the current stage of our knowledge seem to be in favor of CLIL. Evaluation of CLIL practices should be carried out on a broader scale and the results should be communicated to all stakeholders. So far, there has been just very little evaluation. More questions need to be answered. How is it possible that no significant differences exist in the acquisition of knowledge when pupils are taught in an L1 and when they are taught in an L2/FL? Can we be sure that this is always the case or is it the case just under certain circumstances? Which factors can compensate for the linguistic obstacles in a CLIL environment? Although many aspects still need to be investigated, we hope that more countries will introduce CLIL, at least in pilot projects.

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Web sites

CLIL Compendium

<http://www.cilcompendium.com/clilexpertise.htm>

EUROCLIL – The European Network for Content and Language Integrated Classrooms

<http://euroclil.net>

Learning Contextualized Language: Implications for Tertiary Foreign-Language-Medium Education

Abstract

Teaching non-language subjects using a foreign language as a medium of teaching has a long tradition, but the popularity of this approach in the uniting Europe (known as Content and Language Integrated Learning, CLIL) has increased during the last decade or two as a result of attempts to diversify the language repertoire and improve the language skills of Europeans. With its dual goals of content and language learning, CLIL is particularly suited for primary and secondary education, whereas in higher education, this approach is less well-known. This paper discusses the implications of CLIL in foreign-medium teaching in tertiary education in the context of the ecological theory of language, looking at *content*, *language* and the *integration* of these two through a lens of contextual, situated learning and Dynamic Systems Theory. My main argument is that discipline-specific context with its affordances may play an important role in learning language in foreign-medium teaching in higher education. Therefore, language learning in foreign-medium teaching in tertiary education might be seen as contextualized, context-embedded or context-enriched, and as distinct from explicitly content integrated language learning.

Key words: CLIL, CBI, ecological theory of language, affordances

Introduction

There are numerous models and definitions of bilingual education all over the world ranging from the relatively rigid Canadian immersion models to models in which the use of two languages in teaching content is the only feature characteristic of bilingual education. In spite of this multitude, lack of clear, research-based definitions is obvious. Some of the definitions of CLIL are as follows (bolds are mine).

- (1) Content and language integrated learning (CLIL) is a **generic** term and refers to **any educational situation** in which an additional language and therefore not the most widely used language of the environment **is used for** the **teaching** and **learning** of subjects other than the language itself (Marsh & Langé 2000)
- (2) It is an educational approach in which **languages** and skills of **communication** are given a **prominent role** within a curriculum. It is often carried out by professionals who teach on courses other than languages. (Marsh et al. 2001).
- (3) CLIL is a multifaceted approach which is implemented to reach **specific outcomes** which enhance the **learning of field specific education alongside**. (Marsh et al. 2001).

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It appears from the definitions above that CLIL is indeed a “multifaceted approach” that can be used in any educational situations with varying foci depending on the mutual emphasis of content and language. Definition (3) is probably the most general and the most problematic one for someone who is keen on finding accurate definitions for phenomena, such as CLIL. One may ask what is meant by “specific outcomes which enhance the learning of field specific education alongside”? Furthermore, what is meant by “integrated” in “content and language integrated”? How are “content” and “language” to be defined as part of CLIL?

To the best of my knowledge, there are no clear-cut answers to the above questions, especially if they are asked in the context of tertiary education. At the practical level and in the context of primary and secondary education, where the central role of national and local curricula is acknowledged, some of these questions get their answers from the curricula. In general, the content to be taught and learnt largely determines the language to be used. At the theoretical level and in terms of learning language and content, there are a number of issues that have not been answered adequately. In addition to the key question, i.e., why language learning as part of content learning is effective, there are other, related questions. One of them is the relation of content and language. How are content and language related and does this have an effect on the learning of language or content or both? In other words, what does “integrated” refer to (in content and language integrated learning)? Does it refer to the vehicular role of the foreign language, a *lingua franca* (Holdsworth 2004: 24) used in the delivery of ‘authentic’ content? Or does it refer to the teaching of simplified, perhaps “watered down” content through a language matching the learners’ current level of language learning? Or does it refer to focusing on content-specific knowledge hierarchies, related thinking skills and corresponding language skills? Or does it refer to some other combination of content and language?

The above questions are important and timely for increased awareness of foreign-medium teaching and in particular, the role of learning in foreign-medium teaching. There are numerous approaches, such as Language for Specific Purposes, Content-Based Instruction, Content-Based Language Teaching, immersion teaching and CLIL, but it is difficult to make a distinction between these approaches in terms of learning outcomes. For example, CLIL with its double learning outcome of content and language is not a typical model of foreign-language-medium teaching in tertiary education. Instead, foreign-medium content teaching in higher education tends to refer to teaching with content learning objectives. This means that the language of instruction has a more or less vehicular role and there are no explicit language learning goals. This type of foreign-language-medium teaching is the starting point of the present paper. The purpose of the rest of this paper is to discuss the possibilities of content teaching as inducing (implicit) language learning.

Content and language integrated learning (CLIL), content-based instruction (CBI) and language for specific purposes (LSP)

CLIL is a European educational model and a relatively new approach to learning and teaching of language and content, although learning content through a foreign language is nothing new as such and many forms of foreign-language-medium instruction or bilingual education, such as immersion and content-based instruction have been around for decades.

Another, more fruitful, source for useful applications for Finnish CLIL implementations for higher education is to be found in different forms of content-based instruction, which is a form of lan-

guage and content instruction targeted at immigrant speakers of languages other than (American) English in the United States. The literature is ample, and it involves research as well as instructional models and teaching materials. The definition comes close to that of CLIL: “Content-based language instruction (CBI) refers to the integration of school or academic content with language-teaching objectives” (Wesche & Skehan 2002: 220).

According to Wesche and Skehan (2002: 221), all programmes of content-based language teaching share the same contextual and pedagogical features. In higher professional education, the teaching of professional language skills, known as Language for Specific Purposes (LSP), has added an explicit emphasis on formal language skills. The common features are as follows:

- The premise that learners in some sense receive “two for one”, that is, content knowledge and increased language proficiency.
- A language curriculum in which expository texts and discourse are central.
- Orientation into a new culture or “discourse community” (e.g. an institution providing higher education).
- Adaptation of language input, interactional moves, and context to accommodate learners’ limited language proficiency.
- Focus on academic language proficiency. (Wesche and Skehan 2002: 221)

It seems that there are very few differences between CLIL and CBI that would matter at the level of implementation. I will use both terms to refer to the instruction that combines the teaching and learning of content and language.

Table 1 compares two approaches to content-based instruction in terms of the role of context, interaction and learning. For the clarity of presentation only, these views have been titled as *traditional* and *environmentalist* views.

Table 1. Two views on context, interaction and learning of language and conceptual content in CLIL.

Traditional view	Environmentalist view
Context is the source of input. Language learning is receiving comprehensible input. Challenging spoken and written output may be necessary for further development of language proficiency (Swain 1993).	Context is the source of language learning (ecological theory, the sociocognitive approach). Usage-based language learning
Interaction is negotiating meaning & form Appropriate questions (referential questions cause more interaction than direct questions, (Shomoossi 2004: 99) and feedback (extended IRF, elicitation, recasts, promote interaction.)	Interaction takes place on many levels: dynamic (sub) systems (DST), learner and context. Interaction in the zone of proximal (ZPD) development results in internalization (=learning)
Thinking skills & related language, content-specific discourses (ESP) Content-specific language (concepts) is necessary for content learning (CALP). Scaffolding is used to add support (context) to conceptual, context-free objects of learning.	In adult learning, when there are no maturational stages, <i>scientific concept learning</i> is the starting point, then these internalized concepts are used to form new ZPDs at a practical level.

The 'traditional' view is mainly based on research and models of immersion language learning and teaching, constructivism, and language learning theories, such as Krashen's and Swain's theories. The environmentalist perspective to learning has its starting point in the context and the interaction of an organism with the context in which it finds itself. Sometimes this interaction is necessary for the survival of the organism. In language learning, the mutual relation of context and the individual's mental faculties varies from one approach to another, but in all of them, context is primary and the individual's mental resources a secondary source of learning.

Why an ecological perspective?

As mentioned above, CLIL as well as content-based language teaching (CBLT) lacks a coherent theoretical framework, which among other things would specify what *language*, *content* and *integrated* (Holdsworth 2004) mean in the context of content and integrated learning, and in particular, what – if any – specific features *learning* in such a context has, and where the added value comes from that results in the form of enhanced language and content learning. Part of the answer is likely to consist in the ample time-on-task that long-term CLIL programmes offer compared to conventional language teaching. Another part may be due to the rich input and affordances that are available to the learner in this environment. Context has an important role in content and language integrated learning, and even more so in the non-mainstream approaches to language learning, such as the sociocultural view, which is heavily influenced by neo-Vygotskian ideas of learning as a primarily social (and secondarily mental and individual) phenomenon (e.g. Kozulin et al. 2003). In this view, content and context are seen as closely related even so that content can only be understood in context, where it receives its full meaning. In line with the sociocultural and sociocognitive approaches on language learning (see also Bruner 1996), what we know of as CLIL, content and language integrated learning, is here viewed from the ecological perspective. CLIL might in this context perhaps serve as an acronym for Context and Language Integrated Learning. Below, I will first look at input and affordances and discuss these concepts in more detail (cf. Table 1 above). I will then move on to discussing the ecological perspective to content and language integrated learning.

Input vs. affordances

Comprehensible input refers to language input that is targeted at the learner's current level of language proficiency (i) but contains an element ($+1$) that exceeds this level ($i+1$), involving potential for further language learning. The concept of comprehensible input is part of Krashen's Input Hypothesis, a theory of SLA, which in spite of substantial criticism has been and still is widely referred to in so called naturalistic approaches to language, such as immersion and more recently, CLIL. This is understandable, as naturalistic language learning, by definition, takes place in contexts where ample ambient input is available. The influence of input $+ 1$ on language acquisition is less clear, however. It seems that comprehensible input may suffice for language comprehension to develop, but it is not enough for error-free, native-like language production to emerge.

The role of input is viewed from a different angle in recent non-mainstream views of language use, such as sociocognitivism. As a matter of fact, the terms 'input' and 'acquisition', for example, are seen as reflections of a metaphor of language as an endowed capacity, regulated by a language acquisition device, existing in the form of relatively stable, passive 'input', which is picked up and

internalized by the language user and stored in the form of abstract rules for later language use. In stark contrast is Atkinson's (2002: 535) view of (linguistic) knowledge organized in the form of "actional wholes", which means that language is embodied in the carrying out of action in the world. According to Atkinson, it is not possible that such knowledge could develop via decontextualized internationalization. The non-mainstream approaches, such as sociocultural, sociocognitive and ecological approaches, view language as activity which is in dynamic interaction with its context.

Another view on input, closely related to the above mentioned non-mainstream approaches, is the view of input as affordances. The following quote provides a definition of affordances in the words of Gibson, the creator of the Theory of Affordances:

Roughly, the affordances of things are what they furnish, for good or ill, that is, what they **afford** the observer. Not only objects but also substances, places, events, other animals, and artifacts have affordances. We might begin with the easy-to-perceive components of the environment consisting of surfaces and surface layouts. And we should assume a human animal as observer, to start with, since the list of affordances will be somewhat different for different animals.

I assume that affordances are not simply phenomenal qualities of subjective experience (tertiary qualities, dynamic and physiognomic properties, etc.). I also assume that they are not simply the physical properties of things as now conceived by physical science. Instead, they are **ecological**, in the sense that they are properties of the environment **relative** to an animal. These assumptions are novel, and need to be discussed." (Gibson 1971)

Some examples of affordances (Gibson 1971):

- a sit-on-able surface (affording sitting).
- a stand-on-able object, stool, affording a high reach.
- a substance that affords pouring, dripping, dabbling. A **liquid**.
- a substance that affords smearing, painting, trace-making. A **viscous** substance.

Singleton and Aronin (2007) discuss multiple languages as affordances and view language awareness of key importance in utilizing the linguistic affordances: "Clearly, the higher the level of language awareness is, the more effectively language-related possibilities are likely to be perceived and capitalised upon." (Singleton & Aronin 2007: 85; cf also van Lier 1996, 2004)

The concept of affordances might offer a good candidate for a focused definition of *integrated* in CLIL for tertiary level. The affordances provided by the content area and related language would seem to open up new possibilities of both learning contextualized language and developing content-based thinking in creative ways.

Ecological perspective and the Dynamic Systems Theory (DST)

A narrow, biological definition of ecology is the study of the relationships between biological organisms and their environment. More widely, ecology is used to describe phenomena in their context and to understand both the context and the interactions that create that context. According to Marc Garner and Erik Borg (2005), language ecology provides an appropriate framework to view content-based instruction (CBI), as it places situatedness, interaction and variability at the centre of language theory (Table 2). The key elements of an ecological view to language are the following: Language is holistic, dynamic and interactive, and situated (Garner & Borg 2005).

Table 2. Relevant features of the ecological perspective on language (modified on the basis of Garner & Borg 2005)

Ecological perspective on language	Contrasting views on language
<i>Holistic:</i> complex wholes and systems	<i>Traditional view of language, cognitivism:</i> Language is essentially an abstract rule-based system.
<i>Dynamic and interactive:</i> communication is recursive, dialogic. The response (in the interaction) is primary for the understanding of the interaction in its entirety.	<i>Communication theory:</i> communication consists of transferring messages (sender>message>receiver)
<i>Situated:</i> Language is a form of being and behaving in the world.	<i>“Segregationism”:</i> Language is an abstract rule-based system, isolated from its purposes and uses.

In an ecological view, communication occurs at several levels of complexity simultaneously. It does not consist of discrete messages, but of a series of overlapping and interrelated meanings. The three levels of complexity are the *communicative act*, the *communicative event* and the *communicative link*. Communicative acts may be utterances (essay, a brief exchange) that are included in series of acts to make up larger entities, such as books, lectures, and conversations. A communicative event is made up of communicative acts; it has its independent function, clear beginning and end. Finally, the communicative link is at the highest level of complexity. The function of a link is to connect the other two levels of communication and integrate them. Links, such as friendship, institutional structure, and classroom instruction provide a connection between the individuals involved, which may be very brief or last a lifetime (Garner & Borg 2005: 124 – 125).

According to the Dynamic Systems Theory (De Bot et al. 2007), a language learner is viewed as a dynamic subsystem operating within a social system. All three levels of communicative complexity described above are linked to the *social ecosystem*, which provides for the environment and e.g. language exposure which is necessary for the realization of communicative acts and events. Further resources that are necessary for the realization of the communicative act in question, such as cognition, intelligence, aptitude and motivation, are contained in the learner’s own *cognitive ecosystem*. There is a minimal amount of force or resources that is necessary for any system to grow, but the resources are compensatory, so a low aptitude may be compensated by high motivation or vice versa. From a DST perspective, the language learner is one of the dynamic subsystems within a large social system, which in turn has a great number of interacting internal dynamic sub-systems. All these subsystems are linked to and function within numerous other external dynamic systems.

Typical of all dynamic systems is that they are always in change. The system evolves stage by stage, the current stage building on the previous one. It is possible that a very small change has an enormous effect (cf. the butterfly effect) and equally possible that an enormous force leads to seemingly modest result. The dynamism of the system can be compared to a surface with holes and bumps. The holes represent what are called *attractor states*, i.e. stages where the development seems to have come to a halt, and the bumps represent so called *repeller states*. An attractor state might be reflected by the stagnation of the language proficiency of immersion learners at an intermediate stage. To trigger the development of the production skills of these learners, Merrill Swain (1993) suggested challenging output, which in the DST translates as the use of a strong force to release

the development from the attractor state. It is typical of dynamic systems that they have no end state. Therefore, even fossilization can be seen as reflecting an attractor state. Although there is some predictability in what causes certain systems to settle in certain states, such as first language influence or overgeneralizations from other languages, there are states that cannot be predicted nor explained by such influences (De Bot et al. 2007).

In the developmental process certain sub-systems are *precursors* of other sub-systems. Not all sub-systems require an equal amount of energy, because there are also *connected growers*, as may be shown in the dispersion of growth in the lexicon and grammar. An example of one child's vocabulary and grammar development (a spurt in vocabulary growth was followed by the emergence of plural -s) (Ellis 2007) may reflect vocabulary and grammar as connected growers. It may also reflect an attractor state. However, Ellis says that although he holds "dear both the critical vocabulary mass theory of grammar development and resource limitation models, we are a long way yet from proof." (Ellis 2007: 25).

In sum: what does this all mean for CLIL and its potential in higher education?

Above, I have taken an ecological perspective on content and language integration with a view of advanced language learners in higher education. At the same time, I have attempted to take a new look at some of the features that are frequently considered key characteristics of content-based language teaching. As part of the ecological perspective and as a way of contrasting the traditional manner of looking at the content/context with another way – a relative novelty in language learning, but dating back to the seventies – I have discussed the concepts of *input* and *affordance* in more detail.

The views of language as situated activity with a strong sociocultural and sociocognitive emphasis were chosen to be discussed in this paper because of the emphasis they place on the active role of language and its intimate contact with context. After all, there is a difference between learning language in so called formal instruction, where the focus is by definition on the formal aspects of language no matter what language teaching method is used. The goal is language learning and the content is less important. In content teaching the importance of content (again by definition) is primary. In foreign- language-medium teaching in tertiary education, the language of instruction traditionally has a vehicular role in the delivery of the content, and the learning of language is not a separate goal.

The ecological perspective seems to offer *context* as a definition for *content*. Context has two contrasting references: it has the flavour of *generic* (as contrasted with biological, historical etc. content matter), but at the same time it refers to something that is intricately linked to the present *situated meaning*. In addition, the *affordances* view of input – what the context can 'afford' in terms of learning language – adds another component to the definition of content as context.

The dynamic systems view was selected to give an account of *language as a dynamic system*, always in flux and in interaction with numerous subsystems both internal and external, falling in attractor holes and bouncing over repellers, vocabulary heaping up in critical masses and triggering grammar on the way, unpredictable and capricious in its development. This was also done for the connection that language has to the context. Language development is related to context, the context has an influence on the language. Context and language interact and collaborate in grow-

ing in complexity. The metaphor of dance is sometimes used for this relationship. For a language teacher, the idea of language not adhering to prescribed rules and explicit teaching seems strange and frightening, but for a content teacher the idea of not having to teach the formal aspects of language may be a relief.

The definition of *integrated* has already been referred to above. It is ingrained in the new angle provided by the relationship of language as a dynamic system, closely linked to the context and the context with all of its affordances to bring to the relationship of language and content.

The views presented above are meant to inspire those who work in content and language integrated programs to look more closely at the content/context of the subject they teach and try to find out what they afford in terms of discourses, hierarchies and new angles; what is the language syllabus in the content area; what the meanings to be negotiated, what the scientific concepts to be related to the context on the two levels are, theoretical and practical; what the levels of interaction are; and how interaction can be promoted at all levels. In spite of the ecological perspective adopted here, the ‘traditional’ view and its practices (Table 1) are neither inferior nor superior to it, just different and at best, complementary.

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Section III

Language Education Planning in Higher Education



European Language Education Policy and the Finnish Context

Abstract

This article describes the main features of the language education policies of the two most important intergovernmental organizations in Europe: the Council of Europe and the European Union. The former has been engaged in language education about thirty years longer than the latter. The policies complement each other and differ since the CoE can only recommend and arrange projects if the member countries agree to co-operate whereas the EU has increasingly assumed a bigger role also in education and language education. The CoE has been very successful in developing what has become to be referred to as “the Council of Europe approach” to teaching and using language for communication, embodied in the Common European Framework of Reference for Languages. The EU has conducted and funded a large number of projects including the computer-based diagnostic language assessment tool DIALANG. A major current challenge is the implementation of the European Indicator of Language Competence (a sort of language-PISA). The article concludes with a short and selective account of Finnish language education in relation to the European scene.

Key words: Language education, language policy, Council of Europe, European Union

Introduction

In this article I will describe some major features of European language education policy. Rather than trying to make a survey of what language education policies have been pursued in different European countries I will cover the activities of the two main international (intergovernmental) actors in Europe: the Council of Europe and the European Union.

The Council of Europe (CoE), whose headquarters is located in Strasbourg, are the oldest of such actors (established in 1949) and best known for its work to promote human rights and pluralistic democracy in Europe. The convention that embodies these ideals was adopted in 1950 and it is the cornerstone of all subsequent activities. Cultural activities (including education and sport) were introduced with the European Cultural Convention (1954). One of its articles requires signatories to “endeavour to promote the study of its language or languages, history and civilization in the territory of the other Contracting Parties and grant facilities to the nationals of those Parties to pursue such studies in its territory”. The Cultural Convention made it possible for Finland to participate in cultural programmes even if Finland was able to become a member of the Council of Europe only in 1989.¹

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¹It was within this convention that I first was engaged in the Council of Europe’s programmes in the mid 1970s- not in language education but in educational information and documentation (EUDISED). My formal engagement with the CoE’s language projects came in the early 1990s.

The European Union (EU) is a political and economic community of (at present) 27 member states. While the Council of Europe can only basically recommend activities the EU has supra-national and intergovernmental features and powers. It traces its origins to 1957 (Treaty of Rome among six European countries). Since then the EU has grown in size through the accession of new member states and has increased its powers by the addition of new policy areas to its remit. In 1993, the Maastricht Treaty established the current legal framework. The Lisbon Treaty signed in December 2007 initiates a ratification process in 2008 and is amending the existing treaties. It is intended to come into force on 1 January 2009.

The EU creates a single market by a system of laws which guarantee the freedom of movement of people, goods, services and capital. In 1999 the EU introduced a common currency, the euro, which has been adopted by 15 member states. It has also developed a role in foreign policy, and in justice and home affairs. Passport control between many member states has been abolished under the Schengen Agreement.

With almost 500 million citizens, the EU generates an estimated 31% share of the world's nominal Gross Domestic Product. Important institutions of the EU include the European Commission, the European Parliament, the Council of the European Union, the European Council, the European Court of Justice and the European Central Bank. EU citizens elect the Parliament every five years.

Although education was (and is) considered a basically national concern, the EU has recognised education as an increasingly important priority where co-operation is useful and needed. EU's language education programmes, which started with LINGUA, stem from 1989.

In the latter part of the article I will relate the Finnish language education developments to the broader European context.

European language and language-in-education policy initiatives

Council of Europe

The unique contribution of the Council of Europe (www.coe.int) to language education is the development of approaches and tools, based on a systematic utilisation of innovations in education and applied linguistics. The approaches and tools have been subject to widespread international review and experimentation. Concepts promoted by the CoE are, for instance, recognition of learner needs, learner autonomy, learner reflection, life-long language learning, action orientation, functional-notional-communicative syllabus, self-assessment, portfolio, plurilingualism, pluriculturalism and partial competences. Tools include the set of objectives definitions (Breakthrough, Waystage, Threshold, Vantage), the Common European Framework of Reference for Languages (CEFR), the Portfolio, the Manual for Relating Examinations to the CEFR, its accompanying Reference Supplement and CDs that illustrate items and performances at different CEFR levels.

The successive Projects of the Council of Europe - or more precisely, of its somewhat wider Coun-

cil for Cultural Co-operation (CDCC) - in the field of modern languages have been designed to identify the kinds of language proficiency needed by European citizens to interact and co-operate most effectively, and to describe these kinds of proficiency as accurately and usefully as possible.²

The first decade of the Council of Europe's activity (1954-1963) laid the foundation for the approach that characterized its subsequent action: medium-term project with a thematic focus. A number of seminars was first arranged to map out the field. This led to a resolution (No. 6) by the second European Ministers of Education in Hamburg (1961), which invited the Council of Europe to take initiative in promoting the improvement and expansion of modern-language teaching and the study of methodological and other problems of modern-language teaching. The medium-term projects have been the following:

1962 - 1974: The Major Project in Modern Languages was a period of a large amount of meetings, which promoted awareness of the new approaches and findings of applied linguistics, of audio-visual tools in teaching languages, and which helped to establish mechanisms of regular international cooperation. For instance, two conferences in 1966, in Ostia and Ankara, outlined modern objectives of language education, which were widely quoted and applied throughout Europe. The consensus reached by the intensive contacts was incorporated in the highly influential Resolution (69)2 by the Committee of Ministers entitled "On the intensified Modern-Language Teaching Programme for Europe".

1971 - 1977: An expert group, chaired by John Trim, was set up following the first Rüsclikon conference in 1971, to create a global conceptual framework for the development of language learning systems and the inter-institutional cooperation in the area of adult education (European unit-credit system for adult education). This led, among other things, to the publication of the very influential Threshold documents for specifying objectives of language teaching.

1978 - 1981: Project 4, led by John Trim, was set up to consolidate and develop the conceptual framework. The small group of experts was expanded to include experts from a large number of member countries. The project is described in detail in a report entitled "Modern Languages 1971-81".

1982 - 1988: Project 12, Learning and teaching languages for communication, was assigned the task of promoting the application of the new approaches in classrooms. This was a period of a very intensive programme of national and international workshops for teachers and teacher trainers. The Committee of Ministers issued a Recommendation R (82) 18 recommending to member governments the general reform of modern-language teaching. This meant a high-level endorsement of the "Council of Europe approach" to modern language teaching.

1990 - 1997: Language Learning for European Citizenship. The goal of the project was to develop further the principles and models of the Council of Europe approach. Priority was to be given to educational sectors not previously focused upon and to a number of themes of current interest. This meant that activities were to address: primary education; upper-secondary education and the interface between school and university; vocationally oriented education and training, particularly the transition from school to work (VOLL); advanced adult education; socio-cultural

²A very informative report on the Council of Europe's activities in modern languages is provided by the long-term project leader John L.M. Trim in "Modern Languages in the Council of Europe 1954-1997". Strasbourg: Council of Europe.

dimension in language education; use of new technologies; bilingual education; learning to learn; evaluation of language proficiency and learning programmes.

As for the present, the Council of Europe's Conference on modern languages in Rüşchlikon, 1991, is a milestone as it launched the systematic work on the Common European Framework of Reference (CEFR) and the Portfolio.

Summarizing, the Council of Europe has contributed to language education in Europe in a number of ways:

- Recommendations for national educational authorities
- Language Education Policy Profiles prepared by some member countries on the basis of a manual
- Common European Framework of Reference for Language (CEFR), which is the officially recognized foundation of all major CoE and EU language programmes. It was published in 2001 and there are more than 30 translations, including Finnish (2003); Manual for Relating Examination to the CEFR (prepared after a seminar on the topic was organized in Finland in 2002); a related Reference Supplement.³
- Portfolio – about 90 validated portfolios so far
- The above have been produced under the aegis of Language Policy Division in Strasbourg.
- European Centre for Modern Languages ECML, set up in 1994/1995, to provide training for language teachers.
- Websites: www.coe.int, www.ecml.at

European Union

The contributions of the European Union (www.eu.org) and of the Council of Europe have been complementary. Through its Lingua, Erasmus, Socrates, Leonardo and Comenius projects, the Union has supported those collaborative projects which have been successful in a competitive application for project funding in accordance with EU program priorities. The Council of Europe, with its much smaller resources, has concentrated on the co-ordination of voluntary co-operation among member governments acting in a framework of common values and common interests and objectives.

Language education as a possible form of co-operation was first discussed in 1976 but it was only in 1989 that the LINGUA programme was initiated. It was reasoned that the establishment of the internal market would be facilitated by the qualitative improvement of foreign language training within the Community to enable the Community's citizens to communicate with each other and to overcome linguistic difficulties which impede the free movement of persons, goods, services and capital. It had been agreed to promote all appropriate measures to enable the maximum number of pupils to acquire, before the end of compulsory education, a practical knowledge of two languages in addition to their mother tongue. This principle was reaffirmed in the White Paper (1995) but was extended to cover all EU citizens (the 1+2 formula).

³The present writer helped to organize the seminar, is a member of the Manual's Authoring Group and the editor of the Reference Supplement.

The largest language project sponsored by the EU to date is DIALANG, the computer based diagnostic tool which makes it possible to obtain an assessment of one's language proficiency in a number of languages (www.dialang.org): The first phase was co-ordinated by the Center for Applied Language Studies at the University of Jyväskylä (Alderson 2006).⁴

A Framework Strategy for Multilingualism was approved in 2005 and introduced from the beginning of 2007. It will be interesting to follow up how its provisions will be implemented in practice. Another major project is the European Indicator of Language Competence. According to plans, a representative sample of end-of-compulsory education pupils will be tested for their proficiency in two languages in 2009. The languages covered are English, French, German, Italian and Spanish. Listening, reading and writing will be tested and a plan for subsequent testing of speaking will be presented.⁵ The results of this "language PISA" are expected to be available in 2010.

As for higher education, the "Bologna process", initiated in 1999, is the dominant catalyst. In June 19 the Bologna Declaration was signed by 29 countries.

It meant:

- Adoption of a system of easily readable and comparable degrees;
- Adoption of a system essentially based on two main cycles, undergraduate and graduate;
- Establishment of a system of credits – such as in the ECTS;
- Promotion of mobility by overcoming obstacles to the free movement of students, teachers, researchers and administrative staff;
- Promotion of European co-operation in quality assurance;
- Promotion of the necessary European dimensions in higher education.

In May 2001, in Prague, a few new countries joined the Bologna process. The ministers adopted the so-called Prague Communiqué, which set guidelines for the next two years, until the Ministerial Conference on the Bologna Process met in Berlin in 2003.

The Berlin Communiqué indicated that:

- Research is an important part of higher education in Europe.
- The European Higher Education Area and the European Research Area are two pillars of the knowledge based society.
- It is necessary to go beyond the focus on two main cycles and the third cycle -doctoral studies - should be included in the Bologna process.

The Bergen meeting 2005:

- Confirmed the shift from future plans to practical implementation
- Adopted an overarching framework of qualifications for the European Higher Education Area
- A commitment to elaborating national qualifications frameworks by 2010
- Launch work by 2007.

⁴The present writer was the co-coordinator of the DIALANG project during 1996-1999.

⁵Two languages are scheduled to be tested in each member country.

There are several modes of international cooperation and several structures developing the Bologna Process. The Bologna Follow-up Group (BFUG) includes all signatory countries and the European Commission and the following Consultative members:

- Council of Europe
- EUA: European University Association
- ESU (ex-ESIB): The European Students' Union
- EURASHE: European Association of Institutions in Higher Education
- UNESCO-CEPES: European Centre for Higher Education
(Centre européen pour l'enseignement supérieur)
- ENQA: European Association for Quality Assurance in Higher Education
- Educational International Pan-European Structure
- UNICE: Union of Industrial and Employers' Confederations of Europe

To summarise: the European Union has emerged as an important actor in European education at all levels of education. It complements in important ways the action of the pioneer in language education, the Council of Europe.

Non-governmental actors

There are a great number of non-governmental organizations in Europe which deal with language and language-in-education policy initiatives and activities. To mention just a few:

- CercleS – 1991 – Confédération Européenne des Centres de l'enseignement Supérieur/
European Confederation of Language Centres in Higher Education, 22 countries,
c. 300 centres (www.cercles.org)
- European Language Council, 1999, (www.celelc.org)
- ALTE (Association of Language Testers in Europe) – 1990- 31 members,
26 languages (www.alte.org)
- EALTA (European Association for Language Testing and Assessment) - 2004,
750 members (free membership) in 42 countries, 81 associate members in 29
non-European countries, 12 expert members, 34 institutional members
(www.ealta.eu.org)⁶

What about Finland?

Finnish language and education context in a nutshell

Finnish language education cannot be understood without knowing something about its context. This is provided in a nutshell in the following paragraph.

Finland gained independence from Russia in 1917. Before it Finland had been an eastern province of the Swedish kingdom for several hundred years. This is the reason why the Finnish social struc-

⁶The present writer is one of the founding members of EALTA and was elected its second President for 2007-2010.

tures (eg. the legal system) is similar to other Nordic countries. The country is quite large in terms geographical territory but is sparsely populated with only 5, 2 million inhabitants.

The revised Constitution (731/1999) and the revised Language Act (423/2003) continue to provide for two national and official languages (Finnish c. 94%, Swedish c. 5%) Sami languages can be used in administration in some northern communities. There are relatively few people living in Finland who speak other languages as their L1 but their numbers are increasing.

A milestone in language education is the setting up of the comprehensive school in the 1970s. This is a 9-year school with no streaming (mixed-ability classes) and no external examinations. The comprehensive school meant that – unlike in the preceding binary school system - all pupils study two study languages (in addition to their mother tongue) and they can have optional language study as well. The usual pattern for the Finnish-speaking pupils is that English starts from grade 3 and Swedish from grade 7 and an optional language in grade 8. This means that, in principle, all Finns between ages 15 and 50 fulfill the EU 1+2 requirement.

Foreign language study continues in the senior secondary school and there is a more limited amount of language study also in vocational education. All students in tertiary education also continue studying languages (LSP).

CEFR-related activities in Finland

The Council of Europe's tools for developing language education, especially the CEFR, have been used extensively in language education in Finland in various contexts and projects. The main domains of applications have been examination frameworks, proficiency testing and curriculum and course development.

In 1976 we produced in Finland a draft for the comprehensive school language education, which followed the principles of the CoE functional-notional syllabus (Threshold). Subsequent frequent curriculum reforms have utilized new developments in the CoE language projects (Takala 2006, 2007b).⁷ The latest example of the application of the CoE approach is the inclusion of school-adapted proficiency scales in our new school curricula (2003, 2004).

Other instances of the application of the CEFR in Finland are related to language examinations. The EU DIALANG project, whose first period 1996-1999 was co-ordinated in Finland, was among the first to apply the CEFR proficiency level drafts. The National Foreign Language Certificates (launched in 1991 and offering tests in 8 languages) is based on the CEFR proficiency scales with a validated Finnish version. Other instances are the civil servants' language examination and harmonisation of grading practices in the polytechnics. There is also work done to relate the results of matriculation examination results to the CEFR (Kaftandjieva & Takala 2002) and to study the level of proficiency reached in English at the end of the comprehensive school (Tuokko 2007).

The results indicate that the target level for "good performance" for the comprehensive school was obtained. In terms of the receptive skills (listening and reading combined), about 40% of the

⁷*This kind of work - actively applying the CoE ideas in developing language education - was probably the reason for me being invited in 1993 to become a member of the CoE Working Party concerning the elaboration of the CEFR.*

9th-graders had obtained the target level B1 after seven years of English. About 30% had obtained a higher level and about 25% level A2 and 5% level A1. The corresponding figures for speaking were 39%, 23%, 34% and 4% and for writing 32%, 25%, 40% and 3%. The outcome can be considered quite positive: It will be very interesting to note how this result compares with the European Indicator result in 2010.

A similar standard setting project with the matriculation examination test in English (10 years of study) indicate (Kantadjieva & Takala 2002) that the great majority (60%) of the 18-19-year-olds had reached level B2, 15% level C1, 1% level C2. 22% level B1, 2% level A2. Performance below level B1 is fail. The level reached in other languages (10-year courses) is lower and the level reached in 3-5-year courses is much lower: A2/A2+ on the average.

It can be presented as a rough estimate that to reach an average level B1 in the Finnish language education system requires some 300 lessons (plus a varying amount of other exposure: homework, use of English for personal interests) and roughly a similar amount to reach an average B2 level. Thus, for an average Finnish young person with his/her non-Indo-European language background some 400 hours appear to be needed to reach level B1 and 800-900 hours to reach level B2.

I have claimed elsewhere (Takala 2007b) that CEFR has ushered in a qualitatively new era in language education. Professionals, educational decision makers, learners, examination providers, course developers, producers of learning materials etc. can use the Framework's horizontal dimension (the descriptive categories) and the vertical dimension (the common reference scales) to specify concisely and quite explicitly what they are referring to. The reference scales, in particular, provide very useful shorthand for a description. This is a great boon for international communication and transparency. Essential contextual information can be provided concisely and effectively, which is much appreciated. There is a new sense of excitement in the air.

However, the positive side has also a reverse side. Like in questionable advertisements, the CEFR quality label may be used without any publicly available evidence. The language education profession needs to be watchful and take whatever steps are needed to prevent the valuable reference tool from becoming a debased currency. The European Association for Language Testing and Assessment (EALTA) has, in fact, taken this need on board in its guidelines for good practice in language assessment and testing. Similar measures are needed.

Nothing is perfect. The Framework needs interpretation and this requires thoughtful practice. The CEFR and the related valuable tools have been produced through very extensive and thorough co-operation. They have made international co-operation and comparisons in language education much more effective and transparent than before. I hope that all parties in language education in Europe will promote their maintenance and improvement. It is not only their right but also their duty. The guarding of openness, dynamism and non-dogmatism in developing language education in Europe cannot be delegated but needs active support from all. I hope that Finland will be in the vanguard in this endeavor.

New approaches in language education in Finland

Language education has to compete with other subjects for class time, for learner interest and investment in learning. For this reason, language educators need to keep searching for new ways

of making “traditional” language education more effective and to be willing to introduce new ways of arranging opportunities for learning languages.

Using a non-native language as the language of instruction is becoming more and more popular on all educational levels. The fact that this model provides opportunities for “naturalistic” language acquisition has been given serious attention in the so called Canadian style immersion programs, popular eg. in the bilingual regions in the west of Finland for learners starting from kindergarten to first grade education. In the secondary level–education the IB programs, implemented in all major Finnish cities, have turned out to provide excellent results in the learners’ language outcome. As to the tertiary level, practically all Finnish universities today offer part of their education in English. However, a systematic approach to increase the implementation of integrating content and language remains to be taken. There are many options to do this. The article by Saarikoski and Rauto in this book provides a good introduction.

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Towards a Systematic Approach in Language Education Planning

Abstract

The project addresses language planning and focuses on exploring how language-in-education planning within the Finnish Defence Forces can be developed systematically. The project context comprises higher education, language-in-education planning and proposes a model for a systemic approach to the planning and designing of English language courses for commissioned officer trainees (cadets), on a content-based language teaching (CBLT) basis. Officers' language needs have been surveyed with a questionnaire. This is complemented with an interview of several top-ranking officers exploring their perceptions of challenges in negotiation and argumentation, a typical example of largely context-independent cognitive skills. Drawing on all the above a draft is presented for a CBLT module related to negotiation and argumentation.

Key words: Language-in-education planning, higher education, integrating content and language

Introduction

The project addresses language education planning and focuses on exploring how language-in-education planning within the Finnish Defence Forces can be developed systematically. The project context comprises higher education, language-in-education planning and proposes a model for a systemic approach to the planning, and designing of English language courses for commissioned officer trainees (cadets), and integrating content and language.

After the Defence Forces in Finland had introduced a new officers' uniform educational system in 2001, there arose a heightened interest in the military institutions in coordinating the language teaching provision so that it will (a) be better targeted on officers' performance on duty, (b) cover their entire career, and (c) show clear progression at all levels of education. The need for systematic planning was identified to be related to aligning the teaching objectives, methods and material and standardizing assessment in service schools and in their directing body in charge, the National Defence University.

E. Rauto and L. Saarikoski (eds.): Foreign-Language-Medium Instruction in Tertiary Education: a Tool for Enhancing Language Learning. Vaasan ammattikorkeakoulu, University of Applied Sciences Publications
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Previous studies in the project

Previous work in the current project includes two studies, a PhD Thesis, entitled *Systematic Language-in-Education Planning: The Finnish Defence Forces in Focus* (Aho 2003) and *The Operational English Proficiency of Commissioned Officers - A New Weapons System for the Finnish Defence Forces* (Aho 2006). The related Needs Survey Instrument was linked to the CEFR in 2006.

The first study is, as far as it can be judged, the first dissertation at micro level in Finland concerning systematic language-in-education planning applied in an operational (institutional) context. The main research question of this study was: How should language teaching in military institutions be planned so that (a) it would in the best possible way support achieving the language skills related to the officers' tasks and duties required from those in active service, and that (b) it would also meet the formal language requirements set for all higher education studies. Fulfilling this research task meant that a model was proposed for the systematic language-in-education planning in the Defence Forces. Systems analysis was accordingly consulted to provide a better insight into the research task.

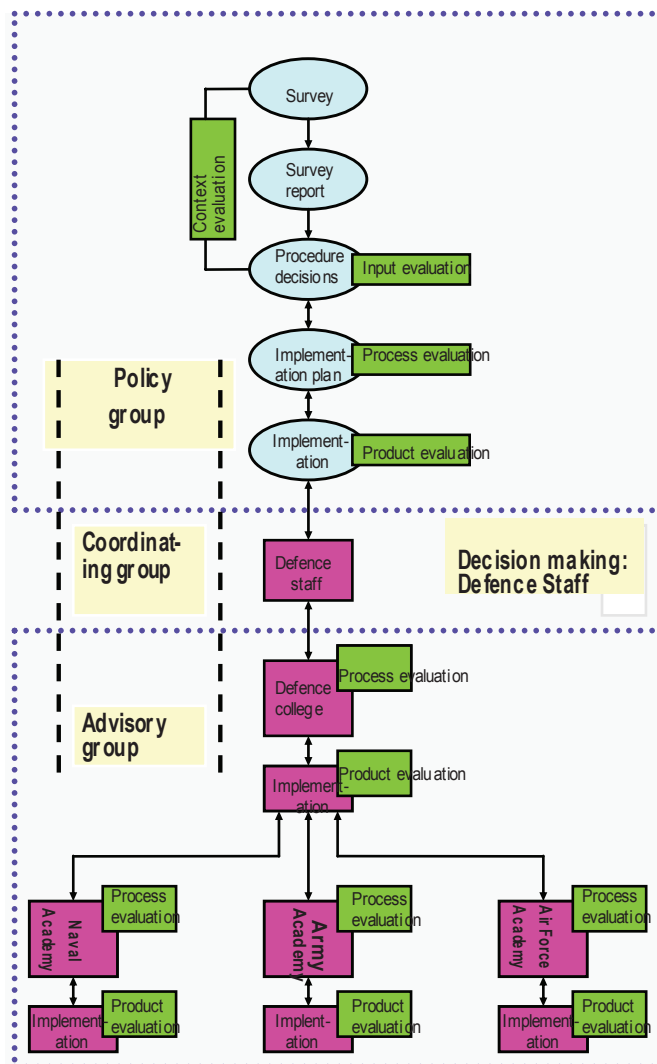


Figure 1. Model of systemic language education for officer trainees in Finland (Aho 2003).

The model consists of all the key elements comprising the systematic language-in-education planning viz. context evaluation, input evaluation, process evaluation and product evaluation and those informed sources who are responsible for the planning, decision making and implementation of the language-in-education planning. The model works in two ways so that feedback derived from process and product evaluations will be utilized when decisions concerning procedures by means of input evaluation are made. According to the model, the ultimate responsibility lies with the Defence Staff commanding the Language Centre and the military academies and eventually making the conclusive decisions. The most essential feature in the language-in-education planning, drawing on systemic thinking, is to understand the symbiosis between planning and evaluation. Figure 1 shows the proposed model for systematic planning.

Just looking at the configuration of the model shows that it is rather a complex model containing a number of components. The Policy Group might consist of language teachers and military instructors. The Advisory Group might involve language experts and substance experts. And the Coordinating Group might consist of education planners. Their task would be to monitor the uniformity of common standards and requirements, of common assessment standards, and it would offer a common platform for the meetings of the Policy Group and the Advisory Group experts to be able to exchange views, gather feedback and take initiatives. It would also monitor that the decisions will be implemented.

The model should be evaluated to see how valid it is for the intended purpose. It must be descriptively adequate: it should help in describing and understanding the present language teaching provision. It should also provide a clear blueprint for revised activities and for evaluating their effectiveness, efficiency and impact. The model was presented to the relevant authorities of the Defence Staff in 2004. To our knowledge, it has not led to concrete implementation as yet.

The second study, *The Operational English Proficiency of Commissioned Officers - A New Weapons System for the Finnish Defence Forces* (Aho 2006) is an extension of the thesis mentioned before. In order to provide a sound basis for developing language education (syllabus and assessment) in the Defence Forces in its increasingly international context, this study focused on the Finnish commissioned officers' English language needs assessment. The study reports the results of a survey designed to explore how officers' language education could be planned systematically so that it will cover the development and follow-up of the officers' English language proficiency through their entire military career.

The data were provided in spring 2005 by those officers who had used English at work either in Finland or while serving abroad. The population was composed of all commissioned officers serving the Finnish Defence Forces, but the target group ($n = 239$) was only a sample out of $N = 2477$ (operational strength December 31st, 2004).

The data were acquired with a questionnaire containing 104 questions and covering all four skills (listening comprehension, speaking, reading comprehension, and writing) most of them with 4 - 6 fixed options. There was also an opportunity to provide further information in open-ended questions. The aim of the investigation was (a) to explore how often the respondents had used English in 39 work-related situations, (b) on what level they should command the language in those situations, and (c) how important the respondents considered those situations.

The data were analysed and the results presented in terms of basic descriptive statistics: by means

of averages and standard deviations and differences between groups tested. All group comparisons were made on the basis of checking confidence intervals for means. Content analysis of open-ended answers provided a lot of useful information.

The reliability analysis of the scale and the skill-specific sub-scales showed that both the scale and the sub-scales possessed a good level of reliability in terms of internal consistency. As far as it concerns the level of the required language proficiency, Cronbach α varied between 0.87 and 0.93 for the four skills. As to the importance of language use situations, Cronbach α varied between 0.81 and 0.89 respectively. Thus the questionnaire proved to be a reliable instrument measuring the intended, relevant features.

The analyses showed that the instrument elicited valuable information for those responsible for providing teaching materials and teaching English to cadets and officers. The acquired data appeared credible, reflecting in a trustworthy manner the respondents' experiences and opinions. There was no need to doubt that the respondents had not taken the questionnaire seriously. The results were consistent and sensible. The conclusion is that the results can, with a fair degree of confidence, be generalized to most officers working in an international context.

Evaluating the research results

The main result indicated that speaking and listening are the most important skills required and writing is the least important. As expected, senior officers (majors through generals) have a better command of English, use English more often, estimate the required level higher and consider the situations more important on an average than the junior officers (lieutenants through captains). The results suggest that in military education more attention should be paid to listening and oral skills, particularly in those situations which are considered important at work and which require the highest level of proficiency. Another conclusion is that there is a need for a graduated provision of language education for officers that reflects the changing needs of language proficiency during the overall career.

The average level of the language proficiency for the total sample was at level B2 on the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR) scale, and it was valid for both the self-assessed level and the level obtained in an external examination. In fact, only 23% of the respondents assessed their level to be lower than B2 and it was confirmed by the external exam results according to which only 10% of those who had taken the external exam (130 persons) were below B2 (Figure 2).

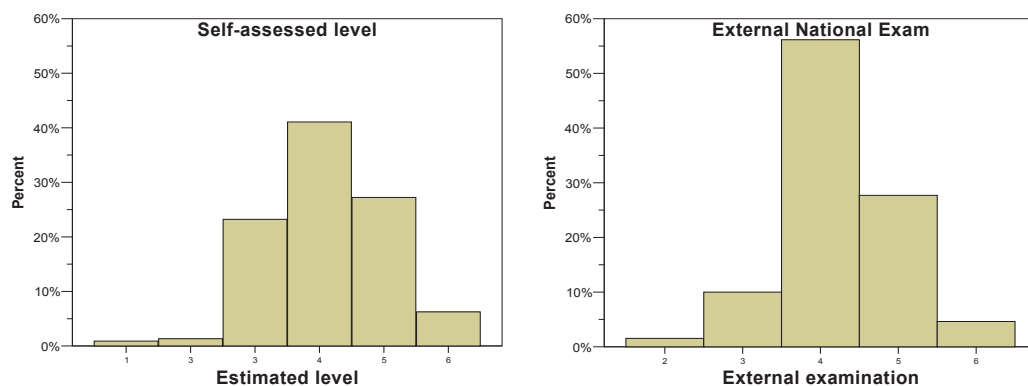


Figure 2. Commissioned officers' level of English proficiency on CEFR scale scale 1 = A1 – 6 = C2 (Aho, 2006) Note: this scale will be used also in subsequent figures.

The officers were also asked to answer a few open-ended questions. Answers indicated that most often they had participated in negotiations, meetings and more or less official discussions where good English proficiency was considered necessary.

The most awkward position for the officers seemed to be when trying to understand 'bad' English spoken in local accents and NATO slang with countless abbreviation monsters with varying meanings. These abbreviations often stand for different concepts for the British, Americans or Germans, and the old abbreviations are given new meanings again and again.

The respondents had actually enjoyed social situations and informal chatting. More in-depth discussions, instead, required more comprehensive language skills, which some officers thought to be too challenging for themselves. In addition, many respondents wished they had been trained to understand varieties of accents like Irish, Australian, southern U.S. or some African accents as well as cultural differences like Jewish and Muslim, for example.

Language proficiency needs to be evaluated. This can be done in a number of ways. *Tests* are an essential part in the process of developing curricula. Sensible tests can make the programme a coherent, functional whole and easy to control. According to the *Common European Framework of Reference for Languages: Learning, Teaching, Assessment* the best and most relevant way of measuring the language proficiency is to focus the test on the needs of working life. This kind of testing system would in the long run produce valuable information and bring about changes both in teaching and learning processes. Oral skills to be tested could thus involve the officers' ability to understand conversations in multinational meetings, ability to summarize contents dealt with, ability to understand media reports on political events, and mastering the language of protocol and diplomacy. Written skills to be tested might consist of e.g. the ability to understand documents and deeds and summing them up, writing a situation report or briefing.

European Language Portfolio. Besides the tests, the development of the language proficiency could be checked also by adopting the language portfolio, where the person's lifelong language learning history is documented. The portfolio has both a reporting and pedagogic function. In pedagogical use it will help make the language learning process transparent to the learners, develop their reflective and self-assessment skills, enhancing their responsibility for their own learning.

Self-assessment. Including self-assessment is crucial for the processes of planning, follow-up and assessment of learning. It is the core of autonomous learning, since autonomous learners know what they have learnt, how they learnt it and what is still to be learnt. When the skills are expressed as 'can do' statements, learners are generally able to assess their communicative skills quite adequately. The accuracy of self-assessment increases, when a) assessment is done by using unambiguous descriptors of language proficiency and b) when the assessment is related to a certain language use experience.

The two studies reported above would ideally be complemented by updating the current language curricula and by constructing related test specifications for Military Bachelor's and Military Master's degrees. The needs analysis partly reported here creates a good basis for designing the curricula and for assessing what has been learnt. Also the integration of content and language (CBLT, advanced LSP, see Saarikoski & Rauto, chapter 1 in this volume) deserves to be given serious consideration in further planning and development. The approach sketched later on resembles most Content-Based Language Teaching.

We strongly feel that the Defence Forces should also earmark funds for an external evaluation of its language-in-education, which could take place periodically, e.g. every five years. Then 2 - 3 experts in language-in-education, of whom at least one would be a foreigner, would evaluate the proficiency levels set for the language-in-education, the adequacy and innovativeness of curricula as well as their transparency and comparability. Implemented like this, language-in-education together with evaluation will tell us and others what proficiency level we reach and will produce an even more professionally skilled officer corps for the Finnish Defence Forces in the future.

Developing language education programmes: challenges of integration and alignment

Next we will focus on the development of language-in-education planning, drawing largely on the classical CIPP evaluation model (referring to Context, Input, Process, and Product, created by Daniel Stufflebeam in 1975 and updated in 2003). The purpose here is to show how to plan and develop English language courses, to suggest appropriate teaching and study procedures, and to construct related test specifications in a higher education context in the National Defence University in Finland. The alignment of content, teaching and assessment is a major concern in this context.

First we shall briefly explain the goal and the context of the development project, then discuss the general framework of the language-in-education planning and our general approach to developing the curriculum. The key concepts of *negotiation*, *argumentation* and *bargaining*, which are treated as synonyms here, have been chosen as examples to illustrate the rules of practical reasoning or *rational argumentation* and the integration of argumentation into art of war, which is one of the main subjects in military education. Finally we shall present a draft outline for a CBLT¹ (Content Based Language Teaching) module on argumentation.

The goal and the context of the language-in-education development project

The goal in the current, on-going, project is to explore procedures which help to plan and develop effective English language courses that address the relevant needs, in order to suggest appropriate teaching and study practices, and to construct related test specifications. The focus is on the alignment of content, teaching and assessment. It will also be explored how the integration of content and language (in the forms of CBLT) can provide added value to needs-relevant language teaching.

The institutional context comprises (a) the National Defence University located in Helsinki and (b) the three service schools the Naval Academy (situated in Helsinki), the Air Force Academy (in Tikkakoski in Central Finland), and the Army Academy (in Lappeenranta in the south-eastern part of the country).

The Finnish degrees in military sciences are presented in Table 1:

¹This term is discussed in more detail in Saarikoski & Rauto, chapter 1 in this volume.

Table 1. The degrees in military sciences in Finland.

Degree components	Credits	Credits in total	Duration	Rank after taking the degree	Task after taking the degree
Bachelor of Military Sciences	Min 180	Min 180	3 years	Lieutenant	Instructor (e.g. platoon leader)
Period of practical training			3 years		
Master of Military Sciences	Min 120	Min 300	2 years	Senior lieutenant	Company commander/ second-in-command

The degree components in the military sciences are the Bachelor’s degree, 180 credits, a 3-year-long period of practical training and the Master’s degree, 300 credits in total. After the Bachelor’s degree the cadets will be promoted to lieutenants and they will be working as instructors (e.g. as platoon leaders instructing conscripts). If they have been accepted into the training programme for the Master’s degree, they will have to accomplish their practical training before continuing their studies for the higher degree. After having completed their Master’s degree they will be promoted to senior lieutenants and they will start working as company commanders or second-in-command.

Before entering the university most cadets have taken the national Matriculation Examination and the histogram in Figure 3 shows the percentage of their grades in English. In 2005 over two thirds of the cadets had obtained cum laude or a higher grade.

The grading system consists of seven categories: fail (improbatur) and 6 passing grades from approbatur to laudatur. A modified normal curve was used to allocate the grades.

Kaftandjieva and Takala (2002) have related the English Matriculation Exam grades to the CEFR-scales, shown in Figure 4. Interestingly, the cadets’ English Matriculation Exam grades compare well with the CEFR scales: here too, the great majority, two thirds of the grades, are B2 or higher. The percentages are nearly identical in each grade in both figures (3 and 4).

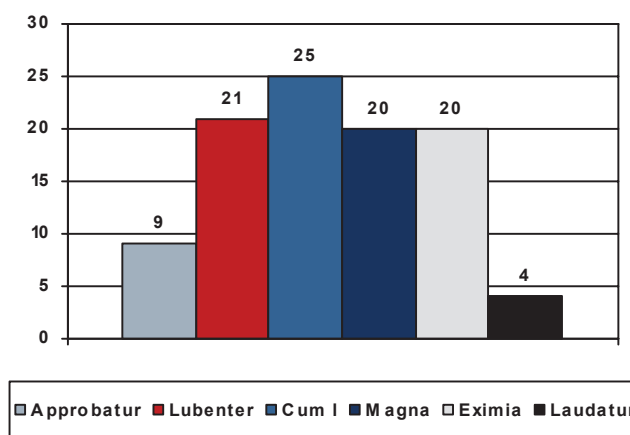


Figure 3. English Matriculation Exam grades (Cadet Course 92 in 2005).

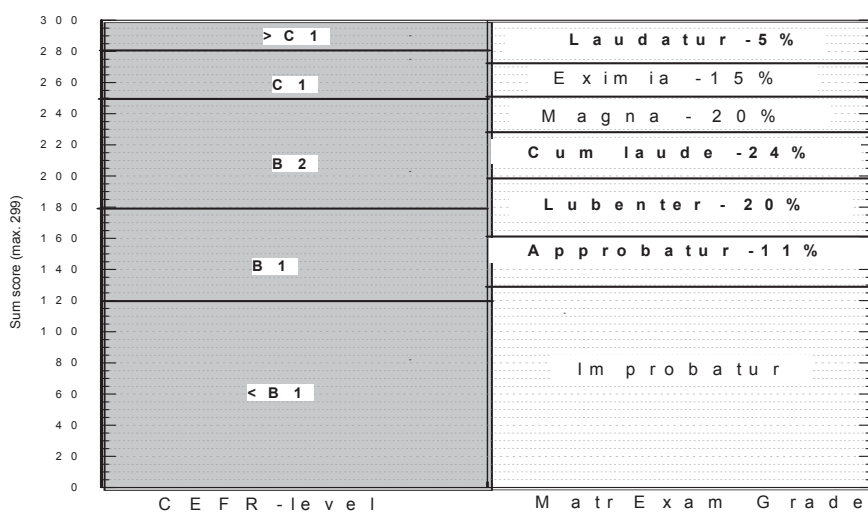


Figure 4. National English Matriculation Exam grades related to the CEFR (Source: Takala & Kaftandjieva 2002).

General framework in the project

The field of language policy and planning needs to draw on a range of disciplines in order to plan, implement, and evaluate language policies that respond to the needs of various types of stakeholders. One useful program evaluation model is the CIPP model which has been widely used. The reason for its continued use is probably the fact that it addresses very systematically the vital linkage between decision-making and evaluation.

Figure 5 shows the components of Stufflebeam's CIPP-model.

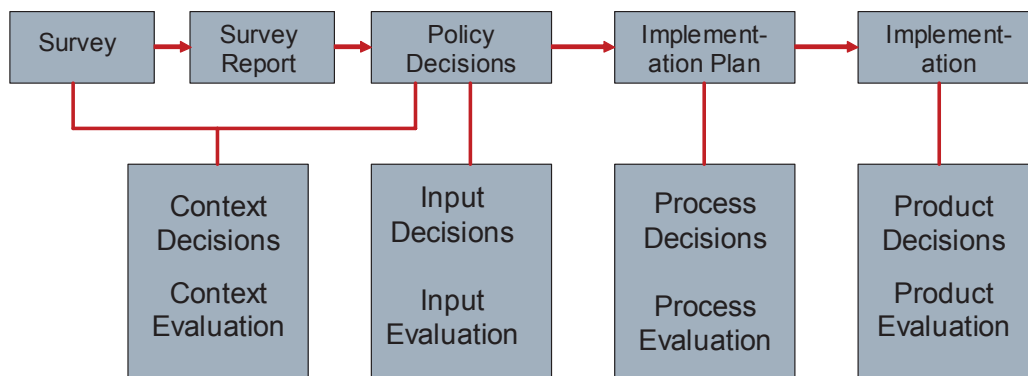


Figure 5. Model of evaluation (Stufflebeam 1975, 2003): Components of the CIPP-model.

The Context Evaluation portion of the project has been explored in several rounds of needs analyses, the last one being conducted in 2005. At present the *input*, *process*, and *product* aspects are being addressed.

The challenge: alignment - general approach and key components

Aligning *content, teaching and assessment* in language education, actually in all education, is needed for coherent action but it is rather problematic. Even for a specific subject matter at one grade level, true alignment (that is working out the explicit relationships leading to the management of instruction and testing), is a major undertaking. Besides, the notion of “aligned system” is only a time-bound one, and it will change with changing emphases, resources and time. Challenges of alignment are illustrated in Figure 6.

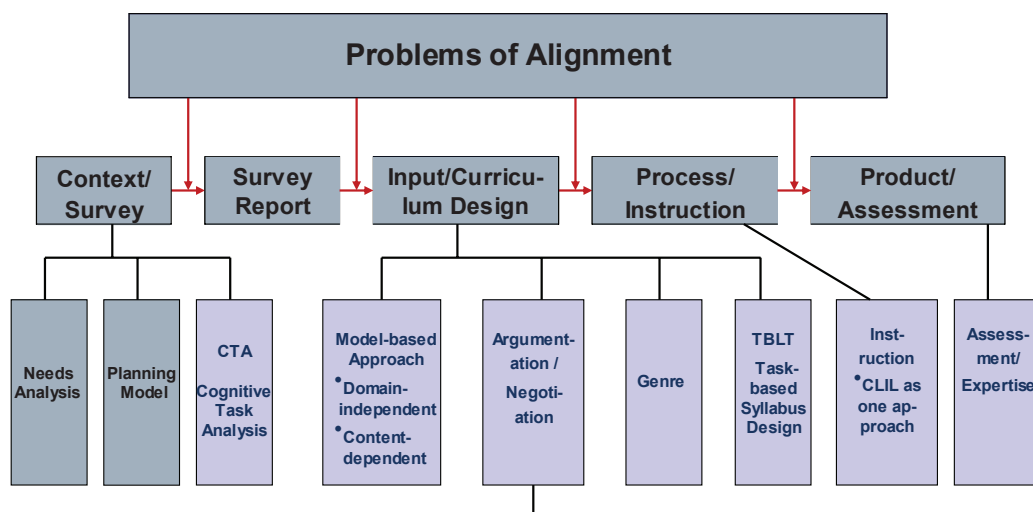


Figure 6. Challenges of alignment.

The challenge to be addressed here is how the information based on the reported needs analyses can be translated into a well-aligned progression of study and a related assessment system. In this work we plan to explore, step by step, what contributions can be derived from:

- Methods of cognitive task analysis or genre analysis
- Integration of potentially domain-independent cognitive demands and content-dependent conceptual structures and models of learning
- Argumentation / negotiation / bargaining
- Principles related to task-based language teaching (TBLT) and assessment
- The integration of content and language (in the form of CBLT)
- The linkage to the *Common European Framework of Reference for Languages* (CEFR).

Next some of the previous points will be taken up very briefly and we begin with the Cognitive Task Analysis - CTA for short (see Figure 6). The purpose of the CTA is to capture the way the mind works, to capture/elicit cognition. The study of cognition implies researching the mechanisms of thought - the way people think. This process concerns the methods for studying thinking and reasoning while performing real-world tasks in complex and dynamic work settings, in our case officers' working contexts. A variety of methods can be used to try to get a handle on how people see the work.

Selected knowledge elicitation methods

Traditional needs analysis questionnaires have been used for quite some time to explore what people need to learn to cope with their future tasks/jobs. However, such information can be elicited by several other and very promising methods. This will be addressed in the following.

Knowledge elicitation comprises a set of methods used to obtain information about what people know and how they know it: the judgments, strategies, knowledge, and skills that underlie performance. All Cognitive Task Analysis (CTA) procedures have the general goal of helping researchers understand how cognition makes it possible for people to get things done better. CTA studies try to capture how the participants view the work they are doing, how they make sense of events, the strategies they are using to make decisions or detect problems, what they are trying to accomplish. Cognitive Task Analysis can show what makes the workplace work and what keeps it from working as well as it might.

The sheer number and variety of knowledge elicitation methods and tools is notable. Four knowledge elicitation categories include in a recent handbook as many as 75 different methods: *interview* (33), *observation* (17), *textual* (2) and *psychometric* (23) methods (Crandall, B., Klein, G. & Hoffman, R.R., 2006). The list mentioned is by no means exhaustive. We will not discuss the methods further as it would take us too far from the main theme of the article.

Knowledge elicitation is only the first step in performing CTA. The two other primary aspects of CTA are *data analysis* and *knowledge representation*. The analysis phase of CTA is the process of structuring data, identifying findings, and discovering meaning. Knowledge representation includes the critical tasks of displaying data, presenting findings, and communicating meaning.

Critical Decision Method and *Critical Incident Technique* are some examples of the methods of knowledge elicitation, which might be viable here. We are currently conducting interviews with some high ranking officers about problems related to negotiation/argumentation in intercultural contexts and about teaching argumentation and integrating argumentation to art of war or security policy for example. In a Critical Decision Method interview, the researcher tries to elicit information about cognitive functions such as decision making and planning and sense making within a specific challenging incident in order to understand the cognitive demands of the task and setting. The Critical Incident Technique is a retrospective method in which people are asked to tell about previous non-routine, challenging events because these tough cases have the greatest potential for uncovering elements of expertise and related cognitive phenomena.

Learning to recognize cognition in real-world tasks often means understanding expertise and how experts and novices differ. The CTA study is designed to elicit the knowledge and wisdom that the experts have acquired because the best experts will set the standards of ideal performance for a domain.

Cognition does not happen in a vacuum. To understand cognitive functions we have to understand the context in which they are carried out. Most CTA studies are conducted with subject-matter experts / highly trained domain specialists, whose knowledge and understanding distinguish them from peers and co-workers.

Domain-independent skills – an important concept in planning education

Next we plan to specify some of the crucial *domain-independent* transferable *skills* (see Figure 6) and itemize the “big” content ideas. There are certain cognitive elements that transfer across subject matters and then there are certain things that have to be embedded in the subject matter domain. Obviously, the more domain-independent the cognitive elements, the more transferable/reusable they are.

Domain-independent skills are general, transferable skills like problem solving and task management, communication skills, intercultural competence, collaborative work skills, argumentation skills, compensation-, negotiation-, and other strategies. Transferable skills are known by a variety of terms e.g. *key skills*, *core skills*, *soft skills*, *generic competences*. The nature of such skills is that they are equally useful in all areas of our lives whether academic, work, social or personal. The Education Council of the European Union has stated that “*the basic skills, which society requires education and training to deliver, are those which give an individual a secure foundation for life and work. They thus cover vocational and technical skills, as well as social and personal competencies*”.

These elements form a “model family” of domain-independent, generalizable skills, like Academic and Professional Skills for language learning. There is no general agreement on what ‘Academic and Professional Skills’ (APS) for language learning should consist of. However there does seem to be some consensus on classifying skills into: *a) key/generic academic skills*, *b) subject specific academic skills*, and *c) vocational/professional skills*, even though the boundaries between them can be fuzzy.

Negotiation, argumentation, bargaining as illustrative examples of domain independent skills

Negotiation procedure (see Figure 7) is taken as an example of domain-independent cognitive skills because argumentation skill is a vital part of officers’ professionalism and language education should provide the cadets (officer trainees) with that skill. The terms ‘negotiation’, ‘argumentation’, ‘bargaining’ are used interchangeably in this paper because efforts to distinguish the three terms do not enhance the understanding of the process.

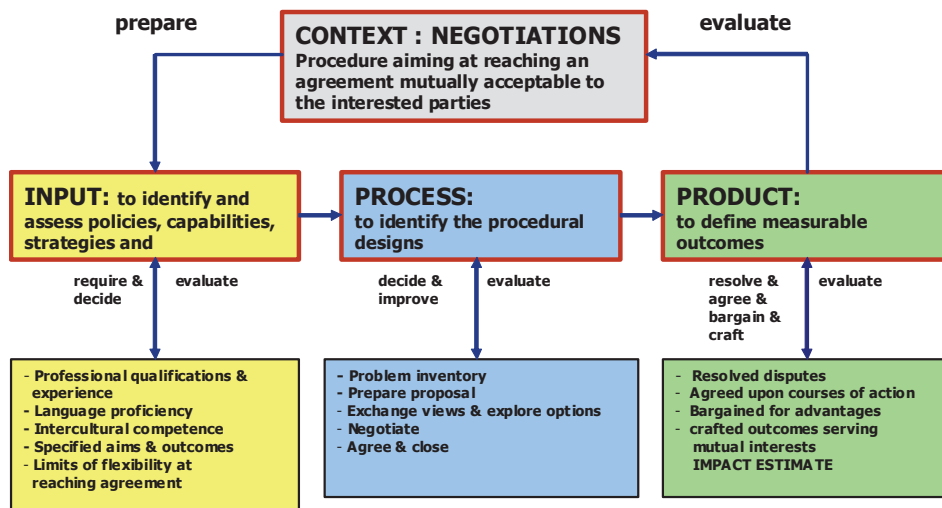


Figure 7. General scheme of negotiation procedure developed for the project (based indirectly on Stufflebeam 2003 and Goldman & Rojot 2003).

The general scheme in Figure 7 is an adaptation of Stufflebeam's CIPP-model to decision making and evaluation. So the *context* here is negotiation, which can be defined as 'a procedure aiming at reaching an agreement which is mutually acceptable to the interested parties.' The negotiation is prepared through *input* when policies, resources and strategies are decided upon and assessed. After this the negotiators deal with the decisions and assessments of the negotiation *process*. Next follows the actual *negotiation*. Finally the *product* (i.e. the result) is *evaluated*.

Toulmin model applied to argumentation

We are also trying to apply in our project the model that Stephen Toulmin developed in the 1950s, *practical reasoning*, which deals with rules of rational argumentation (see Figure 8).

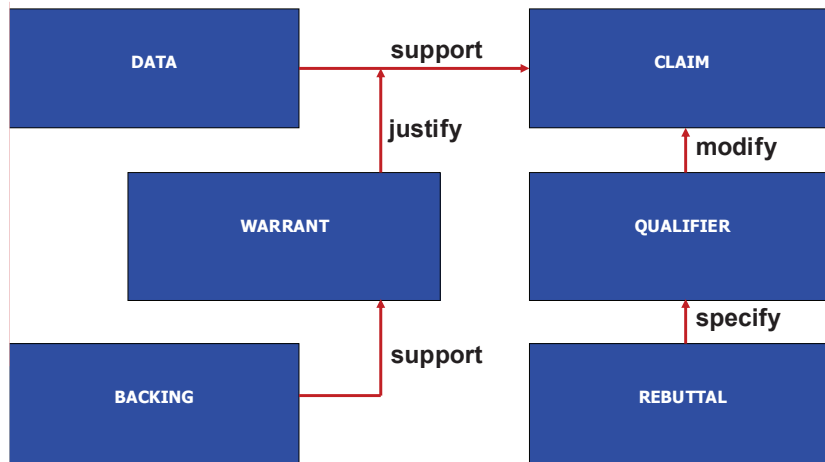


Figure 8. Toulmin model (1958, 1984) for analyzing and constructing arguments.

The model is a six-step system of argument:

- The *Claim* is the point an arguer is trying to make.
- The *Data* supports the *Claim*.
- The *Warrant* justifies the *Data* which supports the *Claim*.
- The *Backing* gives support to the *Warrant* which justifies the *Data* which supports the *Claim*.
- The *Rebuttal* specifies those situations where the claim might not be true.
- The *Qualifier* attempts to modify the strength or certainty of the claim. Q

Toulmin believes that a good argument can succeed in providing good justification to a claim, which will stand up to criticism and earn a favourable verdict.

Because argumentation is based on these elements, language education should also concentrate on polishing these skills. In other words, language will be taught through argumentation techniques so that it will also support the development of the cadets' domain-independent skills. A possible model for analyzing and constructing arguments in international military negotiation contexts is shown in Figure 9.

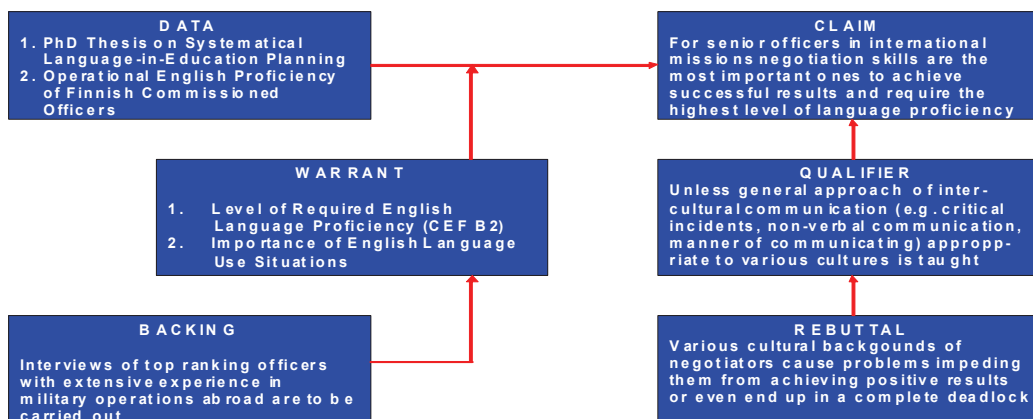


Figure 9. A model for analyzing and constructing arguments in international military negotiation contexts, an adaptation of the Toulmin model.

This adaptation of the Toulmin model is an example and demonstration of the own personal context of one of the authors (Aho), the Finnish Defence Forces. The *Claim* is: For senior officers in international missions *negotiation skills* are the most important ones to achieve successful results and they require the highest level of language proficiency of all the 39 situations presented in the questionnaire for the needs survey. The *Data* consist of the results of Aho's previously mentioned PhD Thesis and of the needs analyses. The *Warrant* consists of the studied variables (1) the level of required English language proficiency in terms of the CEFR levels (1/A1- 6/C2) and (2) the importance of English language use situations (the importance scale: 1-4 from low to high). An example of possible Warrants is shown in the next two figures (10 and 11).

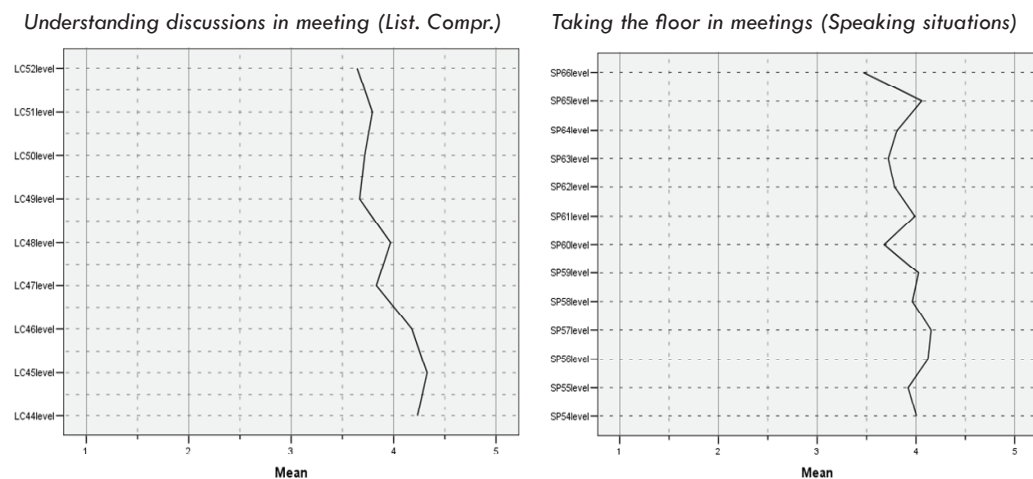


Figure 10. Officers' estimation of levels of English language proficiency (X-axis scale 1/A1 – 6/C2) required in various language use situations (Y-axis) (Aho 2006).

By ways of concretisation, the arrows point to the means in situations *Understanding speech* and *Speaking* in meetings. Figure 10 shows the level of the required English proficiency in both situations. *Understanding speech* was thought to require a little higher level than *Speaking*. They were both at level B2 (4) on the CEFR scale.

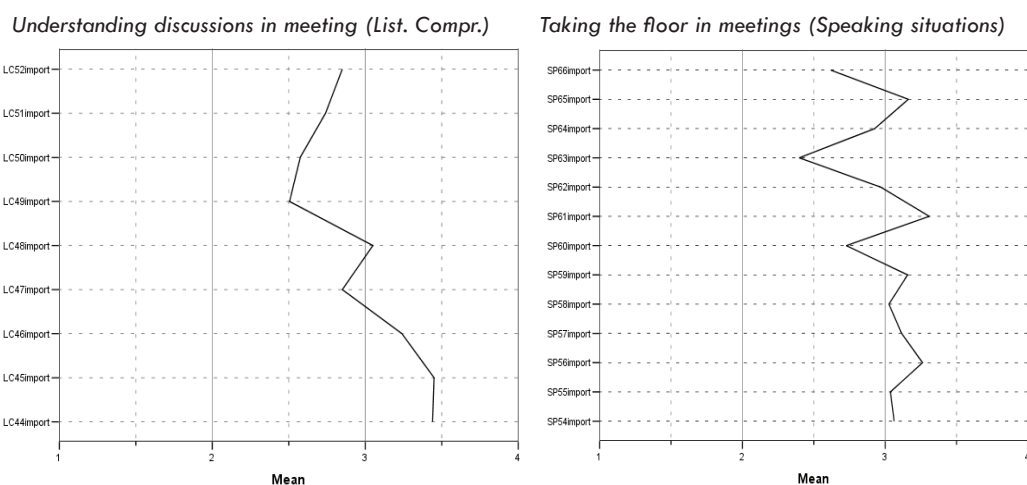


Figure 11. Officers' estimation of the importance of the English language use situations (importance scale 1-4, Aho 2006).

The importance of the situations (Figure 11) was estimated at level 3 on a four point scale (negligible – very important). Again *Understanding speech* was considered somewhat more important than *Speaking*.

The other components of the model are: (a) *Backing*: interviews with some top ranking officers who have had extensive experience in international military operations, (b) *Rebuttal*: Various cultural backgrounds of negotiators cause problems preventing them from achieving positive results or even end up in a complete deadlock, (c) *Qualifier*: unless the language lessons, in fact, also deal with inter-cultural communication appropriate to the cultures concerned (e.g. using methods of critical incidents, non-verbal communication, manner of communicating and so on).

An application of the Toulmin model

We have also attempted to apply Goldman and Rojot's (2003) ideas to the Toulmin model. At a higher level of education we expect that the cadets have already learnt the central points of grammar and vocabulary as the matriculation exam grades indicate. So the goal of language education might, with benefit, focus on teaching ways of managing different situations, argumentation process in this case, by means of the foreign language.

Data. It would be crucial to construct situations in which language can be taught and practised so that the learners, as Goldman and Rojot note, learn to recognise and become aware of the situation, the environment and the context, divergent interests and relationships of the parties, and the legal constraints of the bargaining activity. Goldman and Rojot believe that it is possible to proceed in a systematic and principled manner to understand the sources of conflict and discover and achieve desirable solutions.

Warrant. A skilled negotiator understands that what counts in bargaining is not reality; what counts is the parties' *perception of reality* or the legitimacy of divergent needs - one's own and the other's. The parties to the same transaction may have very different perceptions of the same bargaining situation. Negotiation is a sequence of transactions through which the parties try to alter each other's perceptions.

Offer to Meet the Other's Needs. In a negotiation each party is looking to obtain something from the other side. In order to succeed, each side must offer something to meet its opponent's needs. This kind of situations can be practised in small groups using appropriate opening gambits.

Backing. Reflecting on the relationships between each side's needs: common, compatible, conflicting, and incompatible needs; Considering options of integrative, distributive, and mixed transactions; Offering to meet the Other's Needs; Being aware of basic needs – functional and emotional (Security, Love, Amusement, Personal achievement, Social status = SLAPS), conscious and sub-conscious needs.

Rebuttals: The following are alternative methods of conflict resolution:

- *Acquiescence* in unilateral action - such as surrender or flight in combat (including legal clashes)
- *Governmental fiat* – such as administrative rule or a statute.
- *Alliance discipline* – such as adhering to unofficial group norms.
- *Adjudication* – whether by public court or administrative tribunal
- *Voting* – whether selecting the decision maker or accepting or rejecting a proposal in a referendum
- *Chance* – such as awaiting the intervention of an event beyond the parties' control
- *Prestigious exhortation* – such as mutual acceptance of a science academy's plea for conservation of a scarce resource
- *Negotiation.*

Qualifier: Most conflict resolution systems incorporate negotiation as an adjunct to the selected method for settling the dispute either in selecting, advancing or modifying the procedure. Thus negotiation and conflict cannot be separated. Negotiation is a tool to resolve conflict. Most conflict resolution systems incorporate negotiation in some phase of the conflict. For example if it is a question of a chance, the negotiators have to agree whether they toss a coin or draw a card from a pack. Thus, if negotiations are not even initiated, no solution can be achieved.

So, once again: the goal of teaching argumentation is that it supports the students' ability to acquire data, make claims, justify their data etc. that is to learn new skills through language as well as to use language appropriately.

A draft outline for a CBLT module on argumentation

The planned application of the above-mentioned ideas is an English language-medium study module (0,5 credits). There are three parts to it (see Figure 12). The first one (**A**) is a teacher-led (in practice usually the language teacher, although a dual teacher model could, of course, also be applied) familiarization which comprises lessons and reading related to theories of negotiation / argumentation / bargaining all of which, as mentioned before, are treated here interchangeably (4h + 3h). The second part (**B**) would contain examples of argumentation situations which demonstrate the elements of the model (2h). The third part (**C**) would contain exercises on relevant current conflicting issues where the students simulate argumentation in small groups and finally

put up a debate on the chosen topic (6h). They would eventually hand in a written report focusing on the essential (pro – con) points of view based on an argumentation model.

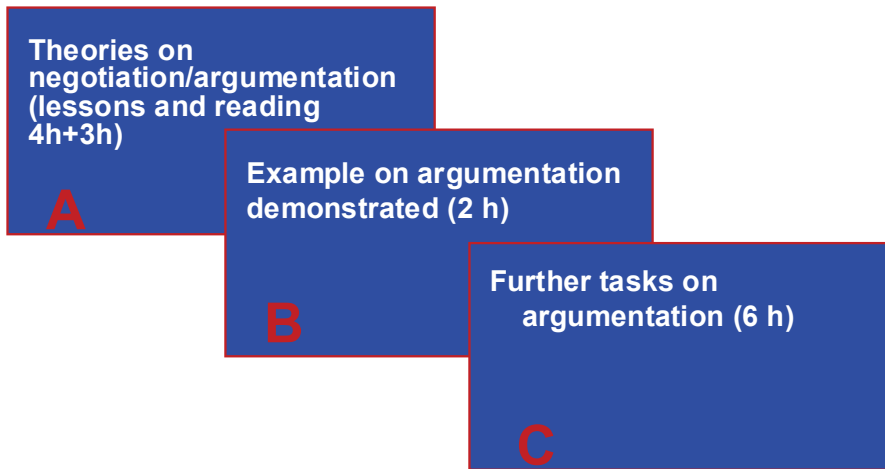


Figure 12. Outline of a study module structure.

In the following we suggest some examples of possible approaches for the teacher-led theoretical part (A) of the module (adapted from Goldman & Rojot 2003):

- Defining negotiations
- Understanding conflict
- The structure of negotiation
- The nature of bargaining power
- Choosing the most effective strategy
- A foundation for making tactical decisions
- The effect of cultural variables upon negotiated outcomes.

A task prototype (B), which demonstrates the argumentation model in more detail, is presented next.

The claim: Finland’s NATO membership is feasible and desirable.

Before starting the task, the students are briefed (see Table 2) on the details to be practised: the target function, target language, skill area, and activity type.

Table 2. Design brief.

B Design Brief

Learner and context related		Task related	
Age	20 – 25	Target function	Argumentation
Identity	Cadets	Target language	Warrants, Backings, Rebuttals, Qualifiers, Opening gambits
Level	Tertiary	Skill area	Speaking
Institution type	Army Academy	Time available	60 minutes
Course type	ESP	Activity type	Communicative
Language knowledge	B2	Authenticity	Natural real world behaviour
Mother tongue	Finnish, Swedish	Input	Model of argumentation List of opening gambits

The briefing is given in two parts, the first explains the general background and the second the different phases of the task (adapted from Johnson 2003; Willis 2003).

Brief 1:

- *Overview.* The task involves (a) a debate on the advantages and disadvantages of Finland's membership in NATO, (b) building warrants and backings for their arguments as well as rebuttals and qualifiers, and (c) practising relevant opening gambits to get the floor.
- *Situation.* Integration to security policy. All students have attended classes in Finland's security policy and are familiar with the contrary views.
- *Imaginary venue.* Nordic Cadet Meeting, after dinner get together party.
- *Preparation.* The platoon is divided into two opposing groups, for and against NATO.
 - Students are asked to prepare their views (either pro or con) as homework for the debate.
 - Students have access to an electronic dictionary with special military vocabulary.
 - Students are given a list of opening gambits for revision (how to agree/disagree politely or interrupt the opponent etc.) which they should practise while debating.

Brief 2:

- *Stage 1.* Students work first in pairs agreeing on how to present their prepared points of view (10 min).
- *Stage 2.* Students work in groups of four (2 pros & 2 cons) arguing, justifying, backing, presenting rebuttals and qualifiers. (10 min)

- *Stage 3.* Finally two opposing pairs are randomly chosen to take the floor in front of the platoon where tables and chairs are placed. One side starts introducing their stand. The opponents present their rebuttals and qualifiers. (duration depends on the number of relevant arguments)
- *Stage 4.* The platoon/class joins the debate asking either party questions and presenting further arguments etc. (20 min). The teacher may act as a chair person.
- *Stage 5.* One student of the original groups of four summarizes the main points of the debate. Eventually they present the main points of the debate in writing. This is the end product of the task cycle.

Furthermore, all the phases of the task are explained, and Briefs 1 and 2 are handed out to the students as well as the scheme of argumentation-model and a list of opening gambits to be practiced.

Exercise prototype: Data

Here are a few facts representing the data:

- Government bill on military crisis management came into force 1.4.2006.
- The nature/essence of crisis management has changed so that Finland can participate in full in crisis management within Nato's Partnership for Peace (PfP) operations.
- EU is developing Rapid Reaction Force in which also Finland will participate. The actions of the troops are similar to those of Nato.
- The Finnish Defence Forces (FDF) have already been developed for several years to be compatible with Nato.
- Nato has the best readiness to carry out military crisis management tasks.
- Both Nato members and the partnership countries have the opportunity to decide themselves, case by case, in which operation they will participate. Military operations based on UN charter 51 article are not applied to Finland.
- In operations led by UN, EU and Nato, regulations to employ force have been similar content wise.

Exercise prototype: Warrants

- The significance of Nato is highlighted particularly in the fact that from 27 Nato members 21 countries have joined Nato.
- EU is an important medium for crisis management in civil areas but it does not guarantee military security.
- As a country outside Nato Finland is not allowed to participate in planning nor decision making. Neither does she get the intelligence information obtained by Nato.
- The primary military significance of Nato lies in its superior force. The existence of adequate force is the best guarantee against having to resort to force.
- Nato membership is not a financial problem to Finland.

Exercise prototype: Backing

- According to experts Nato membership impedes enemy from launching an attack on Finland because the aggressor must deliberate whether it is worth attacking a member country of a powerful military alliance.
- Nato's communications systems (e.g. satellites) support our own military communications systems, which is necessary if Finland becomes a target of electronic warfare.
- In a critical situation Nato's AWACS (Airborne Warning and Control System) airplanes assist in controlling the air space and in leading air defence.
- Ordnance is expensive and gets fast out of date. As a Nato member Finland is able to obtain state-of-the-art technology at a reasonable price.
- There is not enough money for independent defence, international crisis management and for modernizing weapons whose prices are ever-increasing, unless the defence spending is not increased considerably.
- Nato Navy can keep Finland's sea routes clear in a crisis.

Exercise prototype: Rebuttals and qualifications

- According to surveys over 50 % of Finns are against Nato, because people associate the low support for the Bush administration and the Nato. (The case would be the opposite if people understood better the changed nature of Nato.)
- Nato will not be able to provide adequate numbers of land troops to defend Finland. (Unless Nato drops the plan to move to still fewer troops of professional soldiers.)
- A small country has a limited power to influence Nato decision making. (Unless, by means of correct decisions and efficient actions, it is possible to achieve a standing which is much more important than the status based on the size of the country.)
- According to president Putin Finland's joining Nato would not advance the mutual relationships between Finland and Russia. (Finland has the right to make her own decisions on her foreign and security policies.)
- Finland must not join Nato because the membership would connect Finland to possible conflicts between Russia and the Western world. (Finland must not forget that Russia has recognized Nato as an international security organization which by no means threatens Russia.)
- Willingness to defend the fatherland is high in Finland. It is partly due to the last wars in order to maintain independence. Thus Nato does not afford any extra value. (Finland stood all alone at the end of the year 1939 and tried to keep aside. It did not succeed. Finland must acknowledge the reality and admit that Nato has changed.)

Exercises (C)

There are some more topics the cadets might want to discuss in small groups presenting claims, etc. following the model of rational argumentation and practise opening gambits to get the floor.

- The Finnish Rapid Reaction Force should participate in peace-enforcement operations.
- Finland should abandon general conscription and establish mercenary (hired) troops.
- Weapons should be donated to the Afghanistan government.

Assessment could be continuous, including self-assessment, peer assessment and finally teacher assessment and feedback.

The following six CEFR scale descriptors (Tables 3 and 4) focus on *linguistic accuracy, understanding context and understanding conflict and illustrate the way how argumentation skills could be assessed.*

Table 3. The CEFR descriptors for linguistic accuracy, understanding context and understanding conflict (Proficient User). Note: Linguistic Accuracy is the label used in the CEFR itself, while Understanding Context refers to the scale “Overall spoken interaction” in the CEFR (p. 74) and Understanding Conflict refers to the scale “Formal discussion and meetings” in the CEFR (p. 78).

CEF scales	Linguistic Accuracy	Understanding Context (Goldman et al)	Understanding Conflict (Goldman et al & Toulmin)
Proficient User	C2 <i>Maintains consistent grammatical control of complex language, even while attention is otherwise engaged (e.g. in forward planning, in monitoring others' reactions).</i>	<i>Has a good command of idiomatic expressions and colloquialisms with awareness of connotative levels of meaning. Appreciates fully the sociolinguistic and sociocultural implications of language used by native speakers and can react accordingly. Can mediate effectively between speakers of the target language and that of his/her community of origin taking account of socio-cultural and sociolinguistic differences.</i>	<i>Can hold his/her own opinion in formal discussion of complex issues, putting an articulate and persuasive argument, at no disadvantage to native speakers</i>
	C1 <i>Consistently maintains a high degree of grammatical accuracy; errors are rare, difficult to spot and generally corrected when they do occur.</i>	<i>Can recognise a wide range of idiomatic expressions and colloquialisms, appreciating register shifts; may, however, need to confirm occasional details, especially if the accent is unfamiliar. Can follow films employing a considerable degree of slang and idiomatic usage. Can use language flexibly and effectively for social purposes, including emotional, allusive and joking usage.</i>	<i>Can easily keep up with the debate, even on abstract, complex unfamiliar topics. Can argue a formal position convincingly, responding to questions and comments and answering complex lines of counter argument fluently, spontaneously and appropriately.</i>

Table 4. The CEFR descriptors for linguistic accuracy, understanding context and understanding conflict (Independent User).

CEF scales	Linguistic Accuracy	Understanding Context (Goldman et al)	Understanding Conflict (Goldman et al & Toulmin)	
Independent User	B2	<p><i>Shows a relatively high degree of grammatical control. Does not make errors which cause misunderstanding, and can correct most of his/her mistakes.</i></p>	<p><i>Can express him or herself confidently, clearly and politely in a formal or informal register, appropriate to the situation and person(s) concerned.</i></p> <p><i>Can with some effort keep up with and contribute to group discussions even when speech is fast and colloquial.</i></p> <p><i>Can sustain relationships with native speakers without unintentionally amusing or irritating them or requiring them to behave other than they would with a native speaker.</i></p> <p><i>Can express him or herself appropriately in situations and avoid crass errors of formulation.</i></p>	<p><i>Can keep up with an animated discussion, identifying accurately arguments supporting and opposing points of view.</i></p> <p><i>Can express his/her ideas and opinions with precision, present and respond to complex lines of argument convincingly.</i></p> <p><i>Can participate actively in routine and non-routine formal discussion.</i></p> <p><i>Can follow the discussion on matters related to his/her field, understand in detail the points given prominence by the speaker.</i></p> <p><i>Can contribute, account for and sustain his/her opinion, evaluate alternative proposals and make and respond to hypotheses.</i></p>
	B1	<p><i>Uses reasonably accurately a repertoire of frequently used 'routines' and patterns associated with more predictable situations</i></p>	<p><i>Can perform and respond to a wide range of language functions, using their most common exponents in a neutral register. Is aware of the salient politeness conventions and acts appropriately.</i></p> <p><i>Is aware of, and looks out for signs of, the most significant differences between the customs, usages, attitudes, values and beliefs prevalent in the community concerned and those of his or her own.</i></p>	<p><i>Can follow much of what is said that is related to his/her field, provided interlocutors avoid very idiomatic usage and articulate clearly.</i></p> <p><i>Can put over a point of view clearly, but has difficulty engaging in debate.</i></p> <p><i>Can take part in routine formal discussion of familiar subjects which is conducted in clearly articulated speech in the standard dialect and which involves the exchange of factual information, receiving instructions or the discussion of solutions to practical problems</i></p>

The criterion tables A2 – A1 are irrelevant in most cases as far as officers are concerned because they should not stay at levels below B1 at any language skill.

Conclusion

Argumentation and negotiation are skills needed in all stages of our lives and in all domains of activity. Thus they are basically context-independent and potentially possess a good transfer value. Designing, implementing and assessing a unit on argumentation pose a familiar problem of alignment. This can be promoted by having a good model to draw on. In the case of argumentation, the Toulmin model of practical reasoning (1958/1984) has gained increasing recognition and it now serves as a tool in conceptualizing validity argumentation in general (Kane, 2006) and in the case of TOEFL (Enright, 2007). In the case of negotiation, Goldman & Rojot (2003) provide a good rationale. These sources will be drawn on extensively in our development project.

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