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Language/Communication Skills
in Industry and Business

– Report for Prolang/Finland

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Lukijalle

Kielitaito on nykymaailmassa olennainen osa ammattitaitoa ja kansainvälisiä valmiuksia. Kieltenopetuksen kehittämiseen onkin suunnattu viime vuosina paljon huomiota kaikissa koulumuodoissa. Vajaa vuosi sitten valmistui myös Kieliäkö ammatissa? -arviointiraportti, joka sisältää tietoa ammatillisten oppilaitosten kieltenopetuksen nykytilasta ja kehittämistarpeista.

Nyt valmistunut julkaisu jatkaa ja täydentää kieltenopetuksen kehittämistä. Tässä julkaisussa on erityisen arvokasta tietoa yritysten ja työelämän kielitaitovaatimuksista ja koulutustarpeista. Tutkimus jäsentää ja hahmottelee konkreettisella tavalla niitä kommunikaatiotilanteita, joissa kielitaitoa tarvitaan ja kieltä käytetään. Se antaa tutkimuspohjaista tietoa kieltenopetuksen ongelmista ja voimavaroista. Tuloksia voidaan hyödyntää kaikessa opetuksessa.

Tutkimus on osa Euroopan unionin Leonardo -ohjelmaan kuuluvan PROLANG -projektin työtä. Muut yhteistyökumppanit tulevat Ranskasta ja Saksasta. Projektin yhteinen raportointikieli on englanti, minkä vuoksi tämä raportti on englanninkielinen. Kansainvälisestä ulottuvuudesta huolimatta raportti palvelee ennen kaikkea kansallisia tarpeita. Kommunikaatiotilanteet ja kielenopetuksen ongelmat ovat kuitenkin samankaltaisia kaikissa maissa.

Tutkimuksen päätekijä on fil.lis. Marjatta Huhta Helsingin ammattikorkeakoulusta, mutta työhön ovat osallistuneet lukuisat yhteistyötahot, opettajat ja asiantuntijat Suomessa. Opetushallitus kiittää Teitä kaikkia arvokkaasta työstänne.

Julkaisu palvelee ennen muuta ammatillisten oppilaitosten ja korkeakoulujen kieltenopetuksen kehittämistä, mutta antaa paljon virikkeitä myös työelämän kielikoulutukselle ja oppimateriaalien tuottajille. On havaittu, että käytäntöön ja koulutusalaan kytketty kieltenopetus motivoi parhaiten oppimista. Toivotan innostunutta kieltenopetuksen tulevaisuutta!

Heli Kuusi
Ylijohtaja

Acknowledgements

The Prolang project demonstrates what collaboration can do. Pirjo Väyrynen had been inspired by the European Commission in Brussels to start a Finnish project in occupational language teaching. She invited a group of people to discuss workplace communication and language teaching. From this simple conversation grew an exceptional blend of international contacts, a network of schools and companies and a network of volunteer language teachers. All of this became a practical research and development project, long hoped for in language teaching. I would like to take this opportunity to thank Pirjo Väyrynen for her initiation, persistent work and creative ideas in the project; I am sure all of the language instructors in the project want to join me here. The project has also enjoyed the full support of the National Board of Education, for which we thank Heli Kuusi and the whole organization.

The field work of the research in Prolang/Finland – interviews and the questionnaire survey – has been performed by the Prolang instructors from all parts of Finland. I want to mention all of them, since their work in the companies has been essential for the project: Tarmo Ahvenainen, Anneli Airola, Marja-Liisa Blek, Esko Johnson, Eeva-Liisa Karhunen, Kaisu Korhonen, Riitta Kujala, Juha Louhevirta, Marja Luopa, Torsti Mäkinen, Päivi Niemelä, Jarmo Palenius, Liisa Pulkkinen, Tuovi Puustinen, Ritva Rapila, Tuula Sykkö, Kirsti Tirkkonen, Stefan Troberg and Heli Vihottula. Thank you for working hard and for disseminating the results throughout the country.

The international dimension of the project has brought us contacts with other projects in the European Community. The Prolang instructors thank Dr Hartmut Weber for the discourse training in Turku. Our partners in Germany and France have processed similar research projects as we. Without mentioning a long list of names I thank you all for valuable information and rewarding learning experiences. We also thank the Leonardo da Vinci office for co-funding the project.

We want to mention the schools and educational institutions that have committed themselves to support the project during its lifetime 1997–1999. We refer to Appendix A for a full list of names. There are also sixty-nine employers, listed in Appendix B, who have opened their doors to join the interviews and answer the questionnaires. Their active interest and hospitality has convinced us that we are doing the right thing: looking for the shared benefits of education and work.

Several other people have contributed to the project. Henna Karjalainen and Kaisu Ratilainen from the National Board of Education have

Central Conclusions

The following conclusions are discussed in more detail in Section eleven, Conclusions and Discussion.

1. Employers are more concerned about the language skills of their employees than earlier. The best demonstration of language skills at recruitment is a document for work or study abroad. Interviews and language tests by the employer are also favoured. The Finnish general language examination (yleinen kielitutkinto) has not gained popularity for the majority of companies, neither have portfolio methods so far.

2. Finns should start learning other languages besides English, Swedish and German. Personnel departments recognize this need and so do employees, to a certain extent. However, employees plan to study basically the languages they have already studied some of, not 'new languages'.

   If language programs are to serve the future needs industry and business it is essential to start the diversification into more languages right from the school level.

3. Men, more commonly than women, face problems with language/communication at work. The language problems of male employees should be followed up from early school and tackled by changes in the language policy, language introduction and approaches suited for male language learners.

4. The language/communication capacity of female employees is not fully exploited in companies. The level of their language skills is higher. However, the communication they use languages for is easy routines, according to employees.

5. The communication interest in the workplace lies in how well individuals demonstrate the competencies and skills necessary for the industrial/business community. All employees need workplace communication in foreign languages, irrespective of educational background; the extent and context of communication varies. Therefore language education should focus on the identified key elements of workplace communication, rather than creating of different aims for different educational backgrounds.

6. Both personnel departments and employees agree that the employees' greatest strengths in foreign languages are reading, listening and writing skills. The greatest problems encountered are deficient oral skills and having skills in too few languages. Thirdly employees suffer from lacking awareness of intercultural issues.

7. Vocational language teaching provides professional terminology, overall language skills, and prepares students relatively well for the workplace. The problem is that languages are taught in minimal quantities. The second problem is that oral skills are not given enough space. Therefore the language requirements of vocational studies should be raised. The contents and methods should be geared towards more interactive oral skills and integrated learning methods.

8. According to personnel departments and employees general language teaching (peruskoulun ja lukion yleissivistävä kieltenopetus) provides good grounds for language skills and grammar, but not enough oral skills and contents, which would be relevant to work.

9. The contents and methods of vocational/occupational language teaching should be focused on the needs of work. The methods should concentrate more on oral skills and prepare students for integrated work tasks.

10. Language instructors should in their education learn about skills and contents relevant to work. For this purpose their education is too narrowly focused. Besides linguistics the education should include elements which relate to communication at work. These include for instance communication science, business communication, social sciences, psychology, anthropology and business studies and other fields, which illuminate the understanding of human interaction and intercultural communication.

11. There is a large market in language/communication training for business and industry in Finland over the next five years because of the competence gap in language and communication. There is a language/communication market of about FIM1million/100 employees on an annual basis, if the expressed plans of employees materialize in practice. The figure is ECU168 067, which excludes lost working hours and cost for eventual travel and subsistence.

12. More collaboration between workplaces and educational institutions is necessary for developing language teaching towards the needs of work environment. The practical steps that these results suggest involve building of case simulation for teaching, which can be used by both parties. Many educational institutions already train company personnel. As a logical sequence of creating work-relevant cased are conjoint language programs for employees and students which provide many benefits. This would bridge the gap between study and work.

Part I

BACKGROUND

1. Introduction

The field of industrial business has a constant change to face: larger markets, more efficiency and tougher competition. In this competition all functions and human competencies are subject to internationalization: from marketing and procurement to research and development, production, logistics, human resources development and financial management. At the heart of this competence lies the ability to communicate and empathize between different cultures[1].

Language/communication skills are a bridge of understanding between cultures and individuals. Sometimes the bridge may just barely support one's weight, as when you manage to get your shopping through by mimics and gestics in a foreign culture. Sometimes the bridge will carry, and simply let the strangers through with the correct fare for tolls, but wondering what the tolls were all about and why. Optimally the bridge will carry everything required and be recognized for how well it serves the clients and fits perfectly in its natural environment.

Prolang/Finland is a national major development scheme for bridging the gap between work communities and vocational language education. Some of it is also a part of an EU project funded by a Leonardo da Vinci program PROLANG 1997–1999. The international Prolang program aims at Developing a Common System for the Recognition and Validation of Language Skills in Occupational Contexts irrespective of whether the employee has been educated formally or has received training on the job. The role of Finland in the project is to research communication situations relevant at work.

The Finnish project studies language/communication needs of industry and business by using interviews and questionnaire surveys. This, as such, is nothing new, since it has been done before in form of needs analyses, but this time the aim will be to find out concrete enough details of communication situations for language instructors and schools to base their curricula on.

To understand the sufficiency of communication skills in foreign languages, employees are asked to describe their strengths and weaknesses in foreign languages and give their feedback on the language instruction they have received in education. Personnel managers of the same companies are also interviewed in order to find out whether employees' views coincide with the ideas of personnel departments.

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[1]   Hagen, S. 1998a. Pp. 14–15.

This research is all about serving the clients of industry and business so that the employees recruited by industry and business would be equipped with the best possible skills and knowledge in language/ communication. The plan is to identify the needs of industry and business and recognize their significance and internal priorities for the purpose of developing language teaching.

The contents of the research project is illustrated in chart 1.
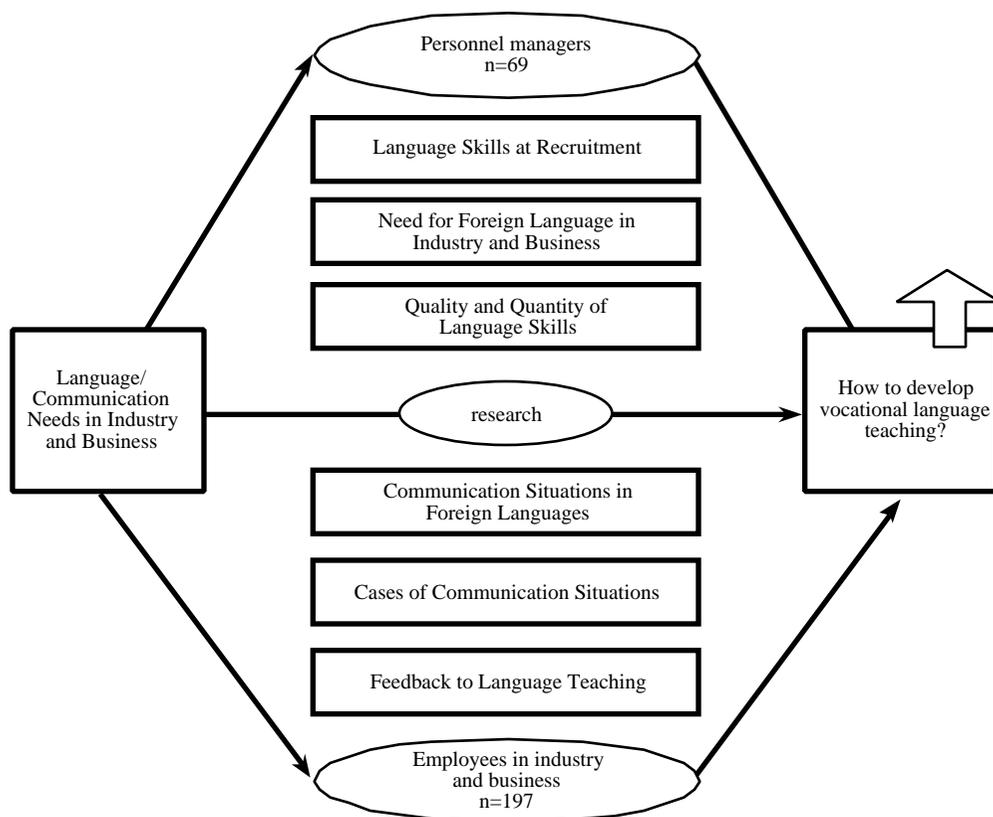
CRAPH 1.   Contents of the Prolang/Finland Project

The Prolang development scheme combines the interests of four parties: the Finnish National Board of Education, language instructors, educational institutions and companies, where the graduates of educational institutions get employment.

The Finnish National Board of Education has the aims to develop language teaching towards the needs of work life, for which reliable and up-to-date research data is essential. This will make it possible to develop curricula and methodology, which will benefit the expectations of work communities. It is also necessary to provide decision-makers with research results on the changes of work-related language needs.

Language instructors who specialize in teaching languages for work communication are the second interest group of the Prolang project. Through the Prolang project language instructors are given a structured way by which to tighten their ties with work communities in the vicinity, obtain or keep up personal relationships with employers, find potential work contacts for trainees and update their knowledge about companies. Research, however valuable, will not have an impact unless it concerns a number of people committed to its objectives. The idea of involving a number of instructors in the research project as researchers may not serve the best interests of the purity of the research method. But it will serve the needs of company – school contacts, personal relationships and commitment in developing language training towards the needs of companies.

The instructors in many vocational and polytechnic schools are often alone with their problems. This approach of tying language training to the objectives of companies will also contribute to the professional self-esteem of the instructors.

Educational institutions were involved in the very first stage on the Finnish project in order to utilize the company contacts of the whole organizations and the information already existing in the schools.

The fourth beneficiary are companies who will get their opinions heard in the development of language teaching. They will get information of the language/communication needs of different groups of personnel for their own development programs.

The European Leonardo da Vinci project, Prolang, has three parties in the work of devising a common system of validation and recognition of language skills in occupational contexts. The acting parties are France, Germany and Finland. The coordinator is France, represented by the Délégation Académique de Formacion Continue (DAFCO). Germany is represented by three parties, der Verband der Volkhochschulen von Rheinland-Phaltz, Deutches Institut für Erwachsenenbildnung (DIE), Frankfurt, and Universität Trier. The agents from the Finnish side are the Finnish National Board of Education and the Helsinki Institute of Technology.

The following graph illustrates the organization of the international Prolang project.
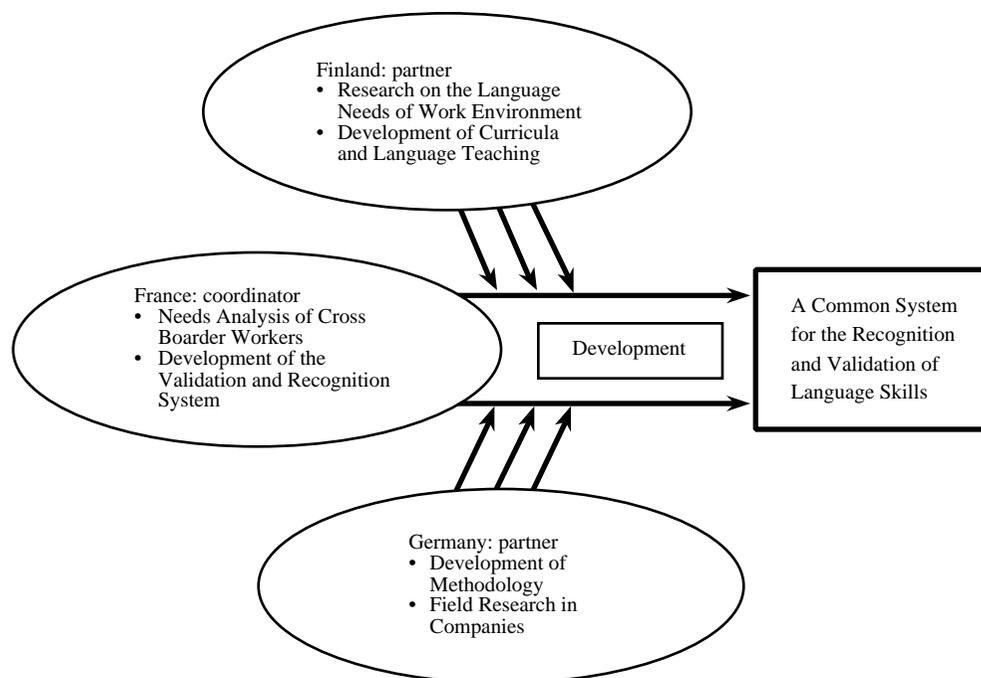
GRAPH 2.   The Prolang Project – Leonardo da Vinci project 1997–1999

The main research question concerns language teaching:
How could language teaching best equip students with the skills required in industry and business?

The study diagnoses the current language/communication needs in industry and business and quantifies and qualifies the current language/communication resources available. In order to reply the main question, several sub-questions need to be answered first. They include the following:

1. How are language skills considered and recognized at recruitment? (Section 5)

2. What is the need for foreign languages in the workplace now and in the future? (Section 6)

4. What are the language skills of employees at the moment (level of skills, experienced strengths and weaknesses, sufficiency, level now)? (Section 7)

5. In what settings do employees need foreign languages? (communication situations by position, educational background, degree of difficulty) (Sections 8 and 9)

6. What feedback do employees and employers give for language education? (Section 10)

After answering the sub-questions it will be possible to identify the present situation, discover the strengths of the current language teaching practice and system and focus on developing the weak spots, discovered through the analysis.

2. Background of the Study

This section discusses the main concepts and theoretical framework of the study, development schemes in national Finnish and European perspective and their links with the Prolang project.

2.1
Central Concepts

Language/Communication Skills is a title consciously chosen as the focus of attention in this study instead of, for instance, foreign or nonnative languages. Language/Communication skills in industry and business deal with business communication. The term *language* alone would lead us to thinking of work communication in the traditional way: as the particles system of linguistics.[2] The word "communication" alone again may lead the reader to think of messages sent and received or media or theories of the sign, visual meaning or social semiotics.[3] People with a technical orientation may even link it with the field of technical communications. *Business communication* also comes close to what we want to look at in this study. According to Johnson and Bayless, for instance business communication covers a wide ground. They include in it communication theory, use of technology, selecting communication channels, examining impact of communication, intercultural issues/understanding of diversity, oral communication, listening skills, group interaction, report writing, investigating information sources, research documentation, presenting graphical information, writing proposals, business correspondence, employment, to mention the major content areas.[4] This point of view is certainly very valid, as it is incorporated in the teaching of business communication for native speakers of English. The level of sophistication, however, can surpass the skills second language learners can hope to achieve in a foreign language. Besides, technical communication also needs its share of attention.

With the term Language/Communication skills I would like to link the discussion with Louhiala-Salminen[5], who defines Business English

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[2]   Trask, R.L. 1999.
[3]   Cobley, P. (ed.) 1996.
[4]   Johnson, B. S.and Bayless, M. L.1999.
[5]   Louhiala-Salminen, L. 1995. P. 25.

(here: language of business/industry) as part of workplace communication, including the interactive processes and contexts involved. The communication episodes appear in professional discourse, which is the realization of the communication process.

With reference to Roberts (1992:70) Louhiala-Salminen introduces aspects of professional discourse:
1. linguistic units above the level of sentence language in its social context
3. strategies for interpreting interactive signs and conventions
4. cohesion and coherence
5. language as the means of organizing social, political and economic values
6. languages as reflecting and maintaining power relations

These levels are necessary for a full understanding of the workplace communication. For the purpose of this study, influencing syllabi and teaching, we seek to understand the two first levels of language/communication at work for the groups of personnel in industry and business. Linguistic units above the sentence level are classified as communication situations (1) and socio-contextual data (2) are collected from the company and its type of operation and the employees' position in the organization. The work history of the employee and her future prospects are also included. The communication situations will be described from the points of view of the backgrounds of persons, type of situation, location and interactivity. The employees describe the communication situations to help the reader envision the socio-culture of the job.

The instructors of the educational institutions involved in this project are teaching language for communication at work. The term *Language for Specific Purposes* (LSP) is avoided here, because of its connotations. It has mainly been understood as teaching English with a general approach, not based on occupational needs analyses. A more detailed discussion on this is given by Louhiala-Salminen[6]. It is only fair to say that practices of ESP teaching have developed towards more target-orientation, but as Hutchison and Waters put it, but "the traditional leisurely and purpose-free stroll through the landscape of the English language seemed no longer appropriate in the harsher realities of the marketplace"[7].

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[6]   Louhiala-Salminen, L. 1995. Pp. 27–29.
[7]   Hutcheson, T. and Waters, A. 1986. P.7.

There is an even more serious reason to avoid this term. LSP practice has often been often monolingual – teaching English in English, explaining new words/ideas in difficult explanations, which conceal the true meaning of the message in the learner's native language. Especially in technical communication there are specific requirements of being able to identify perfect equivalencies between concepts and terms in two languages. Therefore, though the teaching will take place in the target language, it is essential to link the second language terms with those in the native language. Thus this study chooses to deals with workplace communication in industry and business in a broad meaning of language/communication.

Instead of LSP we can talk about 'targeted learning' or 'tailor-made learning' discussed by Reeves and Wright. The kindo of language is immediately useful for job purposes. The objectives of learning are limited and thus realistic. The learner can progress step by step. The trainer and the learner form a partnership, 'with the result that the feelings of inadequacy on the part of the learner are lessened and the language teacher's sense of ignorance about the learner's area of expertise is reduced'[8].

A detailed desrciption with similar guidelines is given in Huhta describing the difference of general language education and 'target-oriented language training'.[9]

2.2
Measures for Developing Language Teaching in Finland

Language skills have enjoyed a recognized position in Finland and measures for improving language competencies have been promoted by public authorities.

The Finnish Ministry of Education has recognized how needs of communication change in global economy by introducing a strategy plan for language teaching and the internationalization of education.[10] The development plan includes actions for expanding the range of language studied, development of teaching methodologies and materials, support for multi-country projects, support for language instructors of study opportunities abroad and support for language learning through different means of life-long learning. The agents of this development will be the Ministry of Education, the National Board of Education, universities and institutes of higher education, other educational institutions and employer and employee organizations.

[8] Reeves, N. and Wright, C. 1996. Pp.4–5.
[9] Huhta, M. 1997. P.55.
[10] Opetusministeriö. 1997.

The National Board of Education has initiated a program on the diversification and development of language teaching 1996-2000.[11] This plan includes almost 300 different schools and institutions, which specialize in a selected development aspect of language teaching such as teaching other subjects in foreign languages, integration of subjects or student assessment. Moreover the pilot schools are progressing in six different thematic networks, including a network for distance and multi-media learning, oral skills, international cultural exchange and integration of foreign languages with subject studies, promoting optional language studies and teaching methodology.[12]

The status of vocational language teaching has recently been evaluated through a major research project conducted by the Finnish National Board of Education.

This national evaluation report identifies and quantifies the language programs and teaching resources in the vocational secondary education. It also evaluates the language teaching from the points of view of students, teachers and headmasters. It also tests the learning outcome – the acquired levels of students.

As a result the report calls for the contents to be developed towards the needs of work environments and to more collaboration with international partners. It identifies the need more varied language programs, more opportunities for optional studies both in the schools and in collaboration with other institutions. The results of the research indicate that the level requirements in the first foreign language could be raised. The contents of the teaching should be geared towards more oral skills, communication and spontaneous self-expression.

The report also identifies a problem in the training of language instructors, to be alleviated through connections with to work communities (traineeship), study abroad and continuing education.[13]

2.3
Systems for Language Study in Finland

To understand the language learning background of employees it is necessary to say few words about the language requirements in Finland in the past. Languages have been introduced as a mandatory element in the educational curricula as early as in the 1960's. The mandatory language was English but could also be some other language. In the conditions of a bilingual country political negotiations took place and agreement was

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[11]   Opetushallitus. 1996.
[12]   Opetushallitus. 1998.
[13]   Väyrynen, P. et. al. 1998. P. 147.

reached that two languages would be included in the foreign languages for the student, one of which had to be the second native language. This arrangement was considered to secure the biligualism of the country.[14] This decision has established a generation of young people who have some skills in two languages long before the White Paper[15] requirements of knowing two other European languages other than one's own language.

When the comprehensive school reform progressed from the north to the towns and cities of the south, it was identified that English became the dominant choice for the first language. A committee was formed to set up a plan of action (1976-1978). This committee set up objectives for level of language skills, 30% of the population should know a certain level of German and Russian, 15-20% of French. Later on these objectives can have been set too high. However, the result of the work of the committee was a national language program, based on which all provinces were to design their regional language programs. As a benefit due attention was paid to the importance of languages in educational curricula.

The proposals of the committee have been taken into account in the development of educational legislation in the 1980´s. Large school districts were obliged to organize learning opportunities of all important languages. Clear targets were set for the percentage shares of different languages. The first point of evaluation was in 1992 when results were for the first time evaluated. Some of the target was achieved, such as having 42% of the age class to study an extra optional language, but the disappointment was the dominance of girls in this group. This concerned especially French and Russian.

The new objective of the Ministry on Education is that in 2001 50% on the age class would study 2–3 foreign languages in comprehensive school. 90% of high school students should study 2–3 languages. In vocational education 40–100% should study two languages, depending on the field. [16]

As for vocational language training, language studies have been optional until 1986[17], when one language has become mandatory for all programs. In a follow-up of educational curricula it has become clear that English is the major language in the sector, but the second domestic language is also studied as an obligatory language in most fields. German, as well as French and Russian are provided as optional languages mainly in the fields of commerce and technology, according to Stenström.[18] The recent results of Väyrynen indicate Swedish in included as one of the

[14]   Numminen, J.and Piri, R. 1998. Pp. 8–15.
[15]   White Paper on Education and Training 1995.
[16]   Numminen, J. Piri, R. 1998. Pp.12–20.
[17]   Opetushallitus. 1994.
[18]   Stenström, M-L. 1997.

the obligatory languages in 81% of vocational schools. [19]According to the curricula developed in the 1990's the second domestic language and one foreign language are mandatory to all institutions on vocational secondary education, with an option for exceptions.

Polytechnics (newly developed undergraduate schools of applied sciences, providing fachhochschule training in no less than 3,5-year degree programs), the first ones of which were established in the 1990s, include a language program, the extent of which is dependent on the field. Two languages are required, according to the present legislation, of which one must be the second domestic language.[20] The amounts of credit units per program are the highest in business and technology.

Language centres established in universities in the 1970´s provide an extensive language program. The requirements for language in universities have been at the highest in the 1980´s. Later on, due to economic resources; especially the hard disciplines have decreased their requirements in languages. The internationalization program of the Ministry of Education, referred to earlier, includes a program for improvements in the economic conditions of language centers. More about the language program provided by language centers in given in Sajavaara.[21]

Additionally there is a host of bodies, which provide language learning opportunities, many of which are government-subsidized to some extent. Under liberal arts there are folk colleges/evening schools (kansalaisopistot), folk high schools and study centers, which all provide language courses. There are high schools for adults functioning in the evenings and vocational adult education centers of different kinds. Language training is also organized by summer universities, which are separate organizations from. Universities, besides major study in languages and language centers, also provide language courses through their centers for continuing education. Pentti Yrjölä gives an extensive record of the programs provided by these organizations in an article. [22] The whole large private language sector remains to be mentioned. The field is described in Huhta, including names of organizations most used by companies in Finland.[23] Open opportunities for language study are also provided, for instance language programs broadcast by the national Finnish Broadcasting Company.[24]

[19]   Väyrynen, P. et. al. 1998.
[20]   Nykänen, M.1998. Pp.117–138.
[21]   Sajavaara, K. 1998. Pp. 91–100.
[22]   Yrjölä, P. 1998. Pp. 72–99.
[23]   Huhta, M. 1997. Pp. 91–96.
[24]   Hautamäki, S. Pp. 127–131.

All in all, the structured way of approaching languages though systematic development rooted in legislation has produced a new generation young people who have skills in two non-native languages. All students study two languages and 30% a third another optional language. As for English, the ample opportunities of practising the language have produced positive results.[25]

2.4
Languages in the Workplace

However, the structured development has not been able to fulfil the increasing needs of foreign languages in the workplace. This has become clear through several needs analyses conducted in the field.

Individual companies have used needs analyses as part of their competence development[26]. The communication needs may have been asked in context with other competencies, such as Neste or Valmet/Rautpohja or they have been conducted separately. In those cases the language/communication needs of the employee have been detailed for the purpose of training, such as the Fintra needs analyses used in 1980's and 1990's.

The earliest needs analyses have been conducted in Finland in the 1970´s (Roininen)[27]. A breakthrough in the company sector was the publishing of Ola Berggren´s Language trainer's manual in 1986[28]. Based on Berggren's models of needs analyses it became a common practice in companies to use needs analysis as a tool in designing language programs. Ola Berggren had published research on the need of engineers in industry in 1975. Since then he had compared the use of foreign languages in industry to the objectives of language teaching in the language Center of Lappeenranta University of Technology, where he was working.[29] His practice of linking needs of work communication directly with the language programs at the Lappenranta University of Technology is not different from what we aim to do here. Only the target group is more extensive and the plan is to go more deeply into the contents of the communication.

In the 1980´s Mehtäläinen has researched the sectors of (mainly) domestic industry[30], personnel of the Helsinki City[31] and the civil servants of communities[32]. Huhta has researched the language needs of export

[25]   Takala, S. 1998. Pp.73–89
[26]   Huhta, M. 1987 and 1994.
[27]   Roininen, V. 1972.
[28]   Berggren, O. 1986.
[29]   Berggren, O. 1985.
[30]   Mehtäläinen, J. 1987a.
[31]   Mehtäläinen, J. 1987b.
[32]   Mehtäläinen, J. 1988.

business personnel in 1989[33] and of major importing and exporting companies in 1994[34] and Koskinen concerning language needs in small and medium-sized companies in 1994.[35]

Several other sectoral and regional needs analyses have been conducted, many of which have been recorded in an article by Sinkkonen[36].

Language training performed in major Finnish companies has been researched as a function of the organization. The methods of language teaching have been analysed and evaluated from the point of view of personnel departments. Aspects, such as use of needs analyses, course type, extent of study, role of trainers and language schools, role of tests and testing and reporting systems have been evaluated. The 'good practice' views of personnel departments have been developed into a set of principles, which are typical of language training as an investment in communication skills.[37]

2.3 Language Training for the Workplace Developed in the European Context

It has become clear that that the needs of workplace communication are diverse and language training for the workplace needs to be built on tailored elements. Therefore sectoral and regional needs analyses and language audits are necessary steps for identifying the precise language/communication needs of the workplace.

In Germany companies needs analyses have been conducted in companies similar to those mentioned for Finland, e.g. Mercedes and Siemens. The Ministry of Education, Science, Research and Technology has published a full research report on the needs of foreign languages in small and medium-sized companies.[38] It reveals that 98% of companies need English 80% French, 48% Spanish and 48% Italian. But if only those who need the language regularly, the percentages are 80% English 32% French and 12% Spanish. The need for Italian is less than that. The research monitors all the functions in the company (sales, marketing, purchasing, research etc.) and records the needs in all activities. As for difficulties discovered in communication, oral skills come in the first place: difficulties are met by 60% of employees. The second problem is the shortage of general vocabulary, 52% and the next listening

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[33]   Huhta, M. 1989.
[34]   Huhta, M. 1994.
[35]   Koskinen, M-L. 1994.
[36]   Sinkkonen, M. 1998.
[37]   Huhta 1997. 173-177 and 191–193.
[38]   Schöpper-Grabe, S. and Weiss, R. 1996.

comprehension 40%. It seems that the questions have been given as a ready set, since it follows the common practice in language education (the four skills, grammar, translations). The results of the above research have been published 1998.[39] It also includes some case studies of language training implemented in the area.

In the University of Trier language programs have been created based on a pragmatic-functional approach[40]. The pedagogy of occupational language teaching has been developed based on needs analyses of occupational target groups.[41] A new publication on the basis of needs analyses based on discourse analysis is coming up.[42]

In Britain the Department of Trade and Industry (DTI) has had an interest in the role of foreign language in UK exporting since the 1970's.

The language needs of business personnel have been studied in the early 1990´s as a Euraudit project[43] The Department of Trade and Industry has recently introduced a program to recommend, and partially also finance a language audit to small and medium-sized companies. The program, called LEXAS (Languages in Export Advisory scheme) is introduced as "professional help to undertake a Business Language Review of their communications, both written and oral, with non-English-speaking markets. LEXAS will provide the exporter with a professionally written report of their business language needs, suggesting appropriate solutions for their communication problems. Funding may also be available through the Business Link network to help finance any training or translation work identified in the review." [44] The message to SMEs in that business planning must now include corporate language policies.

The most important trading partners for Britain are Germany 12,3%, USA 11.9%, France 10,1% Netherlands 7.9%. Of employees 37% know French, 29% German, 13% Spanish according to statistics received in the Leonardo da Vinci project, Elucidate, reported by Hagen.[45] In the same project 19% of British companies were found to have experienced cultural barriers in business. Business was lost in 29% of companies because of inability to communicate effectively, because inquiries were not followed up (9%)or because companies could not capitalize on opportunities (8%). Other problems include misunderstandings, lack of confidence, exhibitions and trade fairs, problems with agents and distributors were mentioned. These are interesting observations in view of searching instruments for measuring the results of language training.

[39]   Schöpper- Grabe, S. and Weiss, R. 1998.
[40]   Weber, H. 1982. Pp. 219–234.
[41]   Weber, H. 1989.
[42]   Becker, M., Weber, H. 1999.
[43]   Metcalf, H. 1991.
[44]   British Chamber of Commerce.
[45]   Hagen, S. 1998.

The British approach of solving language/communication problems, more often than for other European countries, involves suggestions other than learning a language: translation services, raising cultural awareness, machine translation, interpretation services etc. For instance David Graddol,[46] who explores the linguistic challenges facing teachers and educational strategists in the 21st century, mentions ten essential challenges coming up as we move towards the 21st century. In this list the actual learning of a language other than English comes only as the fourth point: "ability to speak or understand one or more of the major ´diasporic´ languages – Chinese, Arabic, Spanish, Hindi/Urdu." The rest of the objectives deal with awareness of languages, ability to speak international English, attitudes to non-native speakers, ability to compose text in simplified English – in a word, how to cope with non-speakers of English rather than actually learn another language. This is logical considering from the point of view of native English speakers. It has been a welcome development, though, that the British are joining the discussion of improving the diversity of languages in the community. This has come up clearly for instance in the DTI conference in June 1998, where the diversity of languages was discussed by agents of various interest groups, DTI, European Commission, representatives of universities and companies.

The European Commission has recently taken an interest in developing language audits. The objective is to make companies aware of the importance of language competence development and advise companies to develop the language competencies of their personnel. Another is to set standards for language training, by setting a system of auditors, throughout Europe who would have an approved status to conduct language audits in companies. The third is to provide tools for language providers by specifying what is considered as quality language training.[47] Multilingualism is a key issue in the future Leonardo da Vinci program and projects concerned with this development are welcomed. One of the important areas mentioned is the question of sectoral and regional audits, to find out more about the specific linguistic/communicative needs of specific sectors.

The concept of linguistic auditing concerns the employees, their communication environment, their duties and language/communication they face. The auditing procedure consists of several stages starting from the introduction of the audit to integrating it in the planning process. A thorough investigation of the organization is necessary for spotting the role of communication in the internal and external hierarchies of operations. From this general understanding of the organization the audit proceeds to

[46] Graddol, D. 1998.
[47] Language/Communication and Competitiveness. 1998.

analyzing postholders' foreign language use and needs onto the reporting stage. Thus the chain of focus starts from the strategic level, moves on to the operational and functional level and then goes down to the levels of posts and post-holders in the organization.[48] This process has conspicuous similarities with the principles developed in Huhta for quality language training in companies.[49]

The purpose of a language audit is to identify the language/communication 'balance' of a company and suggest measures, which could fill this gap of status quo and agreed objectives agreed by the auditor(s) and the management. Another question is whether the implementation of the measures of the audit should be the same or different organization than the auditor's company. This is seriously considered in the European context and the impression at the moment is that companies can better be persuaded to conduct language audits if the auditor(s) and the training provider can at least partly be the same organization.[50]

Quality issues is another current concern of the field of language training. The effort is to influence the quality and contents of language teaching through setting of criteria and guidelines. One of the actions on these guidelines, sponsored by the European Commission, is an effort to create a quality guide for the evaluation and design of language learning and teaching programs and materials. It is it is related to the White Paper of learning and teaching.[51] It describes the design, implementation and outcomes of language learning/teaching and sets certain principles of quality. The main principles include nine principles, which are broken down into sub-principles. The principles include relevance, transparency, reliability, attractiveness, flexibility, generativeness, participation, efficiency and socialization.

We have seen that there is a rising interest in sectoral and regional needs analyses, linguistic audits and measures of raising the quality of language teaching. The trends in the field show an increased interest in the contents of workplace communication, in the quality of the training activity and in the quality of the results. There is an interest in integrating language and communication with the core strategies of the workplace.

We already know quite a lot of the levels of employees' skills and what goals they need to reach. The problem with these kind of needs analyses is that we still know relatively little about the actual contents of communication events. The teaching community needs more precise data of what takes place in communication and how. That is why we need this research process.

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[48]   Reeves, N and Wright, C. P.7.
[49]   Huhta, 1997. p. 49, 173-176, 179.
[50]   Language/Communication and Competitiveness. 1998.
[51]   Lasnier, J-C., Morfeld, P., North, B. , Borneto, S. and Späth, P. 1998.

3. Research Method

This section introduces the research process used in Prolang/Finland. The research methodology is also discussed including considerations of alternate approaches in the international Prolang/Leonardo da Vinci project. Questions of validity and reliability are also discussed. Readability may suffer due to the minute detail of the account. It has, however, has been necessary because of plans of transferring the method to other sectors and fields.

The method chosen to study the language/communication needs in industry and business has been a combination of structured interviews and questionnaire surveys. The representatives of personnel departments (for the sake of abbreviation here referred to as personnel managers) have been interviewed with a set of structured questions (Questionnaire A). The employees' representatives have filled in a questionnaire (Questionnaire B). After filling in, the field researcher has answered any questions the informant may have needed clarification for and made sure that the questions have been replied. Some field researchers have also written comments in the questionnaires to give more background information of the company. Some field researchers have also picked up brochures and other written material from the companies.

3.1 Methodological Considerations

As mentioned, a combined approach of questionnaire surveys and interviews was adopted in the study. The questions introduced are a combination of ´good practice´ ideas collected from a number of previous researches in the field, used for need analysis and tailoring of language training programs for companies. They include for instance ones conducted by the Finnish Institute of International Trade during 1983–1991, which have been a basis for determining the contents and focus of tailored language training programs. The methods used by Davidsson[52], Berggren[53], Huhta[54][55], Koskinen[56] and Mehtäläinen[57] have been screened

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[52] Davidsson, A. 1983 and 1990.
[53] Berggren, O. 1986.
[54] Huhta, M. 1994.
[55] Huhta, M. 1989.
[56] Koskinen, M-L. 1994.
[57] Mehtäläinen, J. 1987.

and applicable parts have been adopted with the objectives of the re-search in mind – development of syllabi and language training for the occupational sector.

In view of the interests of syllabus design in mind, the contents of the research data had to be analyzed into a statistical format, which limits the variation of answers. In a search for relevant items in work-focused curricula descriptions of workplace communication are necessary. These cases must include enough detail for finding common denominators in the curricula, but not quite as much as would be necessary for creating case simulations for learners.

Needs analyses can be conducted using a variety of methods. It is possible to ask employees themselves of what they feel they need. The second option is to ask the representatives of human resource develop-ment section (HR), who are experts on overall needs. It is also possible to involve industrial employee organizations for finding out the needs in the sector. Training organizations deal daily with the competence gaps of employees: they can also be consulted in finding out the language needs. Trainers and instructors in the field also have a realistic under-standing of the language needs of the field. In this study the first two mentioned options have been used. Thus both employees and personnel departments have been asked about the language needs of personnel.

The extent of need has been has been studied by asking questions con-cerning the sufficiency of language skills. It is also possible to ask the employees to self-assess their language level now and in the future. Personnel departments can be asked to estimate the percentage of personnel who need different languages. It is also possible to ask for exact numbers of those who need languages, but very few companies keep the statistics of that kind. A common way of finding out the needs is to ask how frequently the employee needs languages at work. The three first mentioned methods have been used to measure the extent of language needs in companies.

Different options were considered for questions concerning the de-scriptions of communication.

One is the approach presented in the General Framework for Lan-guage Learning and teaching. It is an action-oriented approach. It in-cludes the description of language competence in a range of general competencies. It understands communicative language competence as linguistic, pragmatic and socio-linguistic components. It enlists language activities such as reception, production interaction and mediation. Lan-guage occurs in domains, of which occupational domain is one. Tasks are performed through texts (discourse), built up on alternate communi-cative strategies.[58] This European framework is a valid approach, which includes a full range of linguistic and communicative items. Socio-lin-

guistic and pragmatic variables of the workplace are, however, not detailed in the framework. Also, many of the aspects of the European framework have already been researched in depth, such as linguistic components of communication. We can link our results to the European Framework, but we see the European Framework as less suitable for the purpose of the Finnish project – developing national curricula and teaching.

A second option has been developed at Trier University for the purpose of tailoring language programs and materials for workplace communication. It is a hierarchical model including the following elements:

Level A. Background Information
Level B. Language Skills
Level C. Text and Discourse Types
Level D. Tasks and
Level E. Behavioral and Intercultural Knowledge and Competence.[59]

Level A consists of questions about the company, its operations, profession and the type of work. It also includes questions on the language history of the informant and the acquired level of competence. Level B consists of what is understood as language activities in the European Framework: questions concerning the reception and production of written texts, reception and production of monologues, participation in verbal interaction and mediation. Level C enlists tests or discourse types, graded by complexity (e.g. report**, presentation*, meeting****). Level D describes tasks, such as adequate text format or structuring for reports or stating objectives, inviting participation or coming back to a point for meetings. Level E includes for instance practices of politeness, norms of discourse structures, communicative styles and factual cultural knowledge. Weber and Becker give a more detailed description of the developed method.[60]

Academie de Strasbourg, France has used a third, functional approach in the Prolang project. Interviews have been used as the method for acquiring the information. The questionnaires include some background information about the companies, their field and type of operation. The positions of the employees are also included. This information would correspond to the level A information of the Trier method. As for the language/communication the questions mainly deal with functions in the job, such as following instructions or exchanging information for

58   Council of Europe. 1998. P. 9.
59   Becker, M. and Weber, H. 1998.
60   Becker, M. and Weber, H. 1996.

oral skills, departmental messages, forms or reference documents for reading and filling in forms, translating or departmental messages for writing.[61] This type of method has been in use in language teaching for the era of communicative language teaching and has resulted in comprehensive lists of language functions. The functional approach is a valid component of communicative language teaching and can complement the situational and discourse approach, but has the drawback of focusing on components of discourse rather than the holistic needs of communication at work.

The Finnish has conspicuous similarities with the Trier approach, formulated through a different development process than the one in Finland. The Finnish method includes all of the elements of the German Task and Text approach, though in a slightly different format.

There are three points where the Finnish approach differs. The Finnish category of Level C, text or discourse types, is described in categories of situations instead of text/discourse types, because situations have been found practical and easy for employees to identify with. They have high face validity and are easy for employees to tick. Secondly, Level D, the level of tasks or functions is only implicitly present in the Finnish questionnaire. It is thus underscored that it remains the job of researchers to spell out the discourse of the situations (e.g. telephone call) with the help of descriptions of cases of communication situations given by employees (see Section 9) and with the research available for different types of discourse.

Thirdly, the final Level E, Intercultural Competence, is included in indirect ways: the nationality of participants in communication situations, difficulties encountered in demanding situations and success factors in ordinary communication situations. Open answers allow the informants a good chance to take up problems concerning intercultural problematics.

3.2
Research Process

In the beginning of the project information was collected on the institutes/schools and potential companies. Many of the institutes already had some contacts with the companies they contacted; others needed a recommendation letter from the National Board of Education to facilitate access. It was agreed that all instructors send in the recommendation letter to the company and contact the company afterwards.

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[61] Korchane, D. et. al. 1998.

The first step was to select active language instructors and their institutes for the project. The institutes were selected at the National Board of Education, by a team of three members (Väyrynen, Huhta, Vesterinen). Several aspects were taken into consideration in the selection process: regional representation, language representation, representation of fields (technical/commercial, fields of study (major fields) and knowledge of the prospective participants' development interest. It was also decided to include representatives of completely different fields than those of the selected interest group of the this study (technical and commercial) to see how well the method would apply to other fields than technical or business. This field was the social and health sectors. A proposal letter was sent to 35 institutes around the country, one letter to the head of the school, another to the selected language instructor. 25 institutes committed themselves, but in the process five to withdraw for various reasons. The final list of the 20 institutes and the names of the language instructors is enclosed in the appendix.

The proposal letter included a questionnaire (PQ1- preparatory questionnaire 1) to the selected instructors, inquiring into the urgent development needs of vocational language training. This information has been of essential value in outlining the contents of the project.

In the first training session the development needs were presented, as experienced by the participants. This was compared with background research on the communication needs of industry and business.[62] The preliminary Prolang research plan was introduced and a working group selected. The seminar also included a three-day input on brain-based holistic learning by two specialists, Dr. Heljä Robinson and Dr. Robert Wolffe from Bradley University, Ill. USA, organized by the National Board of Education and the Helsinki Summer University. The topic for the training was chosen because the background research calls for holistic, integrated learning.

Before the second training seminar the instructors were asked to prepare some information and send it in. The assignment (PQ2- preparatory questionnaire 2) concerned the company environments of the schools, their training programs, language teaching programs and facilities. It was summarized, distributed and presented in the second training seminar.

Through the two preparatory questionnaires and constructive talks amongst the group (face-to-face, established Internet links and snail mail) the background information of the institutes' language teaching and the experienced development needs could be taken into account in the research project.

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[62]   Huhta, M. 1997.

It was decided in the Prolang working group that the research method would be interviews with personnel managers and questionnaires to the employees of the target companies. The research method was drafted by the researcher, developed by the working group and complemented and abbreviated by the whole Prolang group (20 instructors). The questionnaires were tested in two companies in the early autumn of 1997 and revised.

Since the interviews would be conducted at different sites by different language instructors, a structured interview was chosen, recorded by the instructors in the form of questionnaire A (for a translation, see appendix D.) The interviews were conducted with the personnel managers of respective companies. Three employees were chosen from each company, representing different educational backgrounds. The questionnaire designed for the employees was named questionnaire B (see appendix E).

In the training session prior to initiating the field stage the Prolang instructor group were briefed to

– contact the company by phone to find the name of the relevant person (the personnel manager or corresponding, in charge of personnel development)
– send a recommendation letter to the person by the National Board of Education
– make the arrangements for the interview and the questionnaires (Based on the testing experiences it was recommended that all contacts with one company would take place on one morning/afternoon, so that the employees would be briefed how to fill in the questionnaire and left alone to fill it in while the Prolang instructor would be interviewing the personnel manager. When the interview was over the employees would have a chance to ask for clarification and the instructor could check that all the information in the questionnaires was completed in an adequately comprehensive way. This concerned the open answers especially.)
– implement the survey by the end of 1997
– write notes on any deviant action in the procedure or other information helpful to the understanding of the given answers.

The field stage was planned for October – December 1997, but it took slightly longer than expected. The testing stage was delayed by two weeks, thus some last questionnaires were delivered just before a monitoring session in late January. By March 1998 the data had been stored in Excel format and the statistical analysis of the material was conducted using Survo, a statistical program at the National Board of Education.

Preliminary results on the runs were presented and distributed to the Prolang instructors at a seminar in June 1998 in order to disseminate the results through the network of the Prolang instructors in all areas in Finland. Full analysis of the results and reporting of the results in English was completed by the end of 1998.

The research process is detailed in the following.

TABLE 1.   The Prolang Research Process

Stage	Time	Agents	Comments on contents
Management of the project	1996–99	Väyrynen	
Planning the project	Spring 1996	Väyrynen, Huhta, Vesterinen	Objectives, aims, outcome and procedure of the project; background data
Selection of participating institutes/schools	Jan 1997	As above	
Proposal letter to the institutes	April 1997	Sent to heads and language instructors, Väyrynen	
Replies from the institutes (PQ1)	April–May 1997	Replied by the Prolang instructors	Questionnaire on development needs of vocational language training
Training session 1	June 1997	The Prolang instructors	– development needs and research sources presented, working group formed (– training on holistic learning)
Preliminary questionnaire (PQ2)	Summer -97	The Prolang instructors before the second training seminar	Questions on the company environment of the schools, their language teaching programs and facilities
Planning of the company research	Summer -97	Researcher and the working group	Research procedure decided upon: 1.Personnel Managers Method: Structured interviews (Questionnaire A) 2.Employees Method: Questionnaire survey (Questionnaire B)
Training session 2	Sept. -97	The Prolang instructors	– results of PQ2 shared – research questionnaires discussed and complemented – training on research procedure and interviewing practice

Stage	Time	Agents	Comments on contents
Testing	Sept–Oct. -97	By Huhta in two companies	Both questionnaires revised and adjusted
Field stage	Oct–Dec. -97	The Prolang instructors	Interviews and questionnaire surveys conducted on site
Training session 3 (monitoring)	Jan 20, 1998	The Prolang instructors	Experiences and feedback on the field stage shared – new changes to the questionnaires suggested
Data processing	Feb–May -98	Väyrynen, Huhta, Henna Karjalainen, Kaisa Ratilainen, NBE, Kernel Oy, Numantor Oy	– data saved on Excel – statistical analysis: Survo – presentation: Excel, PowerPoint
Analysis	1998	Huhta	
Training session 4	June 1998	The Prolang instructors	– preliminary results presented and distributed (– training on requested themes: language technology and intercultural communication)
Writing out/translating the communication cases	July–August	Tomi Tikka, NBE Linda Salvia, NBE	
Training session 5	Oct. 1998	The Prolang instructors, Väyrynen, Huhta	– results presented and distributed (– training: Dr Weber from Trier University)
Report in English	Dec. 1998	Huhta	in English for the international Prolang project
Comments and publication		Väyrynen	

3.3 Reliability and Validity

This section deals with considerations as to whether the method used has yielded reliable and valid information on the phenomenon under consideration: language and communication skills in industry and business.

Reliability

The Prolang/Finland project targets the population of companies in the major fields of industry: electronics and electrical engineering, forest, wood and paper and mechanical engineering, construction and services. The population of persons consists of two groups: representatives of personnel departments and employees who work for the industrial or business activity of the companies.

The sample of companies was selected to represent all major fields of industry and locations throughout the country, as will be indicated in the results. The language instructors who worked as field researchers were asked to choose companies where the graduates of their institutions receive employment in. Companies themselves named the representatives of personnel departments as persons who are knowledgeable of matter related to personnel management and (language/communication) training. These representatives were asked to choose three employees per company on the grounds that there must represent different educational backgrounds, occupations and ages.

The sample is limited by the fact that the field research was done by full-time language instructors as sideline work and could not reasonably be extended. However, comparing the representation of background factors with information obtained from the Finnish Statistical Center[63],[64], we can conclude that the sample represents all parts of Finland. As for regional distribution, there is a slight over-representation of the Western part of Finland because of wanting to make sure the language needs of the Swedish would be accounted for. There is an under-representation of Northern Finland because of some institutes not responding to the proposal letter for asking them to join the project. The Southern, Eastern and Western parts are well represented.

Both SMEs (small and medium-sized) and large companies well included in the sample. The age distribution of the sample is similar to the age distribution of personnel, with male domination in the industrial

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[63] Tilastokeskus. 1997.
[64] Tilastollinen vuosikirja. 1997. Pp. 159–160.

sector. The most important fields of industry in Finland, electronics and electrical engineering, wood and paper and mechanical engineering as the major fields are all well represented in the sample.

As for employees, the intention was to include employees with vocational and polytechnic backgrounds plus those university graduates whose background has been built on vocational or polytechnic education. The proportion of those with clear vocational or polytechnic background is 89 %. The share of pure vocational background may seem very low, 24% (n=47), but it must be taken into consideration that vocational education has been is a prerequisite to entering some polytechnic programs. Also a number of those who have vocational education have later in their careers supplemented their educational background with studies in the polytechnics. Considering that 67% (n=134) have more than 10 years of work experience they will have had time to do that. We can thus say that the sample represents personnel with both vocational and polytechnic backgrounds.

The level of language skills has been evaluated using self-evaluation, not testing. In language research this has been found a sufficiently reliable method for diagnosing language skills. The 0–5 scale is useful for this target group, since the same scale is in use in assessment systems in vocational and polytechnic education.

Validity

Structured interviews and questionnaire surveys have been used as method of studying language at work. Other options are available, and one of them, the observation of communication at work, was seriously considered, since it would fill in a lot of socio-cultural information, which cannot be obtained in short questionnaires and interviews. This idea was discarded because of the need to first achieve an overall view of the language/communication needs at work and the fact that instructor-researchers in this project are full-time instructors and have scheduling problems in engaging is such a time-consuming activity as communication observation.

The inclusion of about 20 instructors as field researchers can be a problem to validity. It is obvious that despite training sessions and mutual agreement of how the work is to be conducted, differences in the implementation of the field study has taken place. This has influenced some of the results (see Section 8.19). However, implementing the study in this way outweighed the minor problems of validity in this respect. The 20 language trainers in the project have had a chance to tighten their ties with work environments, improved the understanding of employers, improved their research skills and created contacts with other language

instructors in the often solitary work of language teaching. This benefit has been much greater than the minor validity problem caused by the method.

As for questionnaires most of the questions have been successful, since the answers relate well to the questions. There is room for improvement, if this method is to be used for another target group. There will be a list of the recommended changes to be made to the questionnaires before using them again.

Now a few observations regarding the validity of information received through this method. The need for languages had best be given in quantities, not in vague estimates by second-hand sources. For instance personnel managers have estimated the need for foreign languages of employees. This estimate is thus given by a second-hand source. Based on experience from previous studies, accurate quantitative information concerning those who need languages has not been sought since companies do not keep records or are not willing to go through their files to obtain this information. In this study personnel managers have specified a percentage of staff they think need certain languages. This result is then complemented by the information provided by employees, which should improve the validity of the results, since the employees themselves are a first-hand source.

Feedback on language teaching has been sought through open-ended questions, which have been subject to content analysis. Both strengths and weaknesses have been asked for, to ensure the non-suggestiveness of replies. There is a validity problem, however, again in the case of personnel managers who are asked to give their opinion on the strengths and weaknesses of vocational education. When they give it, they base their judgement on second-hand information rather than own experience. Therefore it is necessary to obtain feedback from employees as well, since, as we have seen, they constitute a first-hand source themselves, having been personally involved in vocational language programs. The comparison of information from both sources should ensure the validity of the object, educational institutions and their language teaching.

One final validity aspect concerns the situational categories, discussed in detail in sections 8 and 9. Categories should basically be exhaustive, as has been the attempt here. It is clear, however, that some categories have been understood differently by the informants than by the test designers. To improve the exhaustiveness in the future, it is wise to specify the categories of *Telephone calls, Client contacts* and *Other* again in the manner suggested in section 9.

4. Research Material

The companies contacted include large and small mechanical engineering companies, for instance Ahlstrom, Outokumpu, Rautaruukki, Valmet, Timberjack, Imatra Steel, Sisu Logging, Sako, Talmu, or smaller companies such as Metsi, Kumera or Sunds Defibrator, Cimcorp, Mattilan Säiliö Oy. There are companies in electrical engineering and electronics such as Nokia Telecommunications, Nokia Mobile Phones, ABB Industry, ABB Transmit, IVO, Kyrel, Kajaanin puhelinosuuskunta, Incap Electronics, Planmeca ja Hidex. Forestry and paper companies include for example Enso (before its merger with the Stora), UPM-Kymmene, Laminated Papers, Metsä-Botnia and Pankakoski Boards. Chemical engineering companies are represented by for instance Kemira Chemicals, Tikkurila, Oy KWH Plast and Diversey Level. Some service companies are also encluded such as the Sampo Group, the KPO Group and Veljekset Lehtomäki Oy. More than one of the units of a large company may have been interviewed. A full record of the employers is listed in the appendix B.

4.1 Description of the Material

Language instructors from 20 vocational schools and polytechnic institutes in Finland have conducted the field research. Each of the instructors visited a minimum of three companies; some more than that. One personnel manager and a minimum of three employees were interviewed from each company. The number of companies visited is 69; thus 69 personnel managers or equivalents were interviewed. They are mainly personnel or training managers or in other management position.

Most personnel managers are responsible for a good number of personnel. 37% of their answers are concerned units of more than 1000 employees. 26% concern units between 501–1000 employees, 41% concern units of less employees 51–500. 21% deal with units smaller than 50 employees. A total of 69 employers answered the questionnaires. The filling of the questionnaire was done by the interviewer during the interview and completed after the interview with the company representative.

A few of the employers contacted have not been companies but rather employers from the public sector. This was done intentionally, since the plan is also to see whether this kind of methodology would be applicable for other fields besides business and industry. The conclusions will be drawn in the final discussion.

4.2
Information on Companies

An informant was chosen to reply to questions concerning the whole corporation, its activities and matters concerning the language/communication needs of the personnel as a whole. The informant was chosen by companies as one who is knowledgeable about personnel matters. The informant was a personnel or training manager in 40% (n=28) of the cases, director or manager of some other category in 42% (n=29) of the companies and a training assistant or a secretary in 13% (n=9) in the companies. Thus in smaller companies the person could be the managing director or other director who answered the questions. Three informants did not belong to any of these categories.

Other 4 %

Training assistant,
secretary 13 %

41 % Personnel of
training manager

Director 20 %

Other manager 22 %
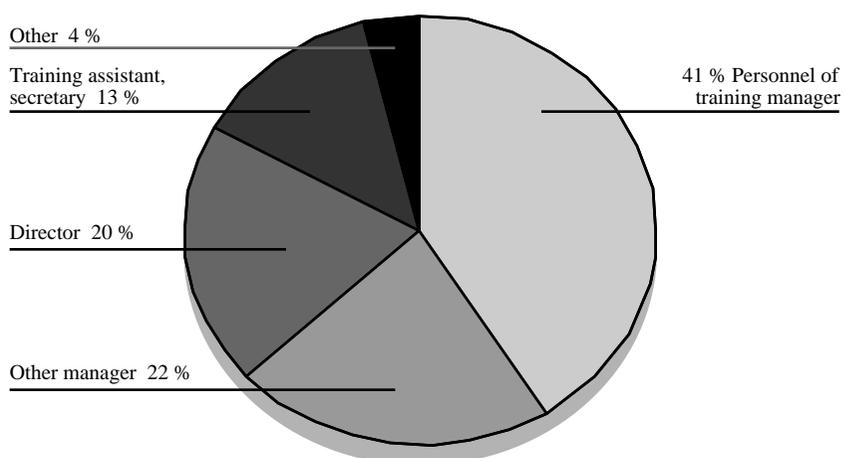
GRAPH 3.   Representative of the Employer (n=69)

The number of employees the informants were in charge of varies in the material. 21% replied for less than 50 people and 41 % for less than 500 people. As many as 38% of the informants spoke for more than 1000 employees; it is thus clear that many of the answers reflect overall impressions rather than accurate numbers (e.g. concerning language needs of personnel or their educational backgrounds). This was pointed out by some of the interviewees.

Location and Field

Companies in the sample come from different parts of the country, as can be seen in the graph 4.

(n=8) 12 %
Eastern Finland

(n=9) 13 %
Northern Finland

45 % (n=31)
Western Finland

(n=21) 30 %
Southern Finland
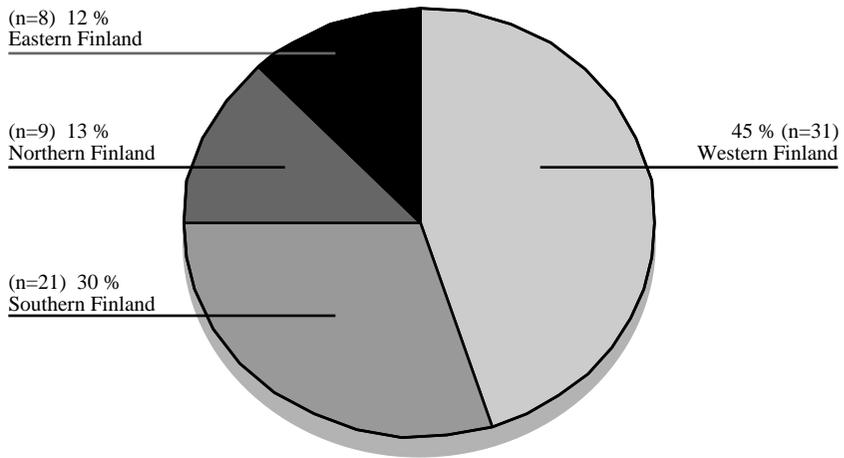
GRAPH 4.   Employers by Geographical Area (n=69)

The companies divide into the most important industries in Finland: mechanical engineering 36%, electronics and electrical engineering 25%, forestry, wood and paper industry 14%. These most important fields of industry constitute 75% of the companies. The remaining 25% belong to the chemical industry, the service sector or some other category, such as conglomerates.

12 %
Other

13 %
Service sector

14 %
Forest, wood
and paper

36 %
Mechanical engineering

25 %
Electronics and
electrical engineering
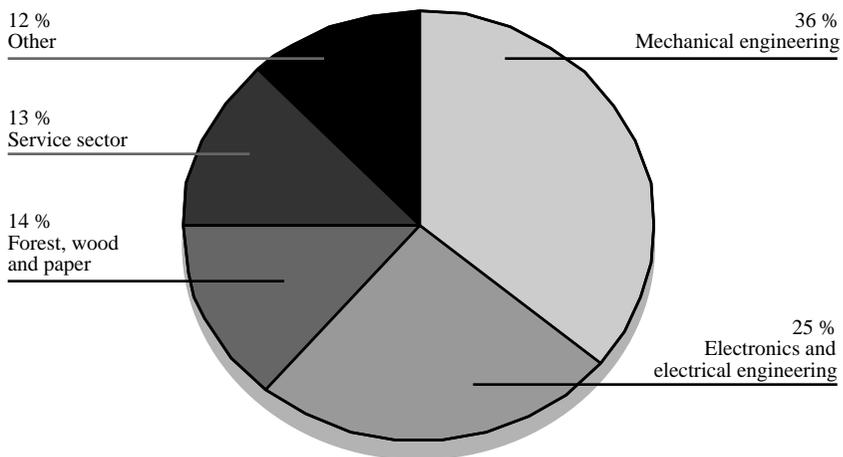
GRAPH 5.   Field of Companies

Size of Companies

The companies visited in the project were suggested by the local language instructors on the grounds that students from their institutes have obtained employment there. That is why the number of small and medium-sized companies is rather large, 39% of the companies (27 companies). 18 more are companies with less that 1000 employees (26%), totalling 65% of the companies. 35% are large companies, with more than a thousand employees, eight of them companies with more than 5 000 employees.

(n=8) 12 %
5001–

17 % (n=12)
Less than 100 employees

(n=16) 23 %
1001–5000

22 % (n=15)
101–500

(n=18) 26 %
501–1000
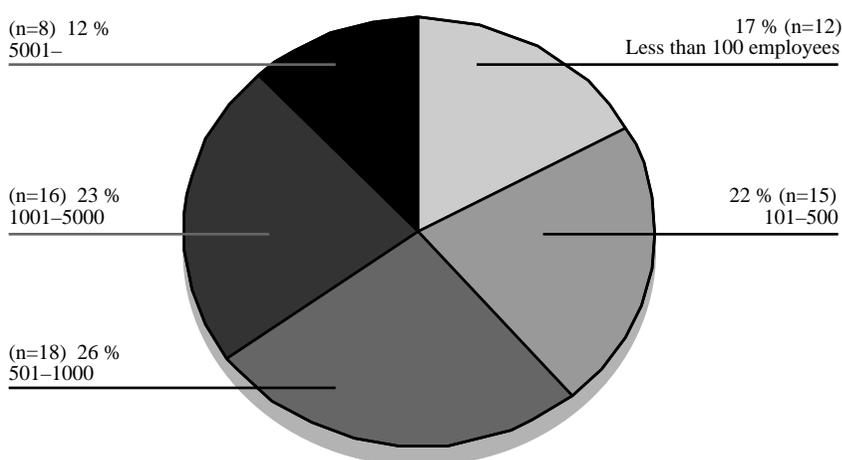
GRAPH 6.   Size of Company (n=69)

International Activity

Global markets have become a necessity for economic and industrial activity. A few figures of the Prolang results illustrate this trend.

One third of the companies in the Prolang material produce more than 80% (n=29) of their turnover through foreign operations, 22% (n=15) less but more than half, 7% (n=5) between 26–50% through foreign operations. The foreign operations of only 12% (n=8) of the companies is some, but less than 25%. 15% (n=10) of the employer companies are purely domestic activity. For illustration, see chart 7.

Thus most companies are actively involved in the international market and therefore in need of communication in foreign languages. More-over, those with no foreign operation are planning to involve themselves in foreign operations and need languages, especially receptive skills. Another indicator of active involvement in the global marketplace is

47

15 %
0 %

43 %
81–100 %

12 %
1–25 %

7 %
26–50 %

22 %
51–80 %
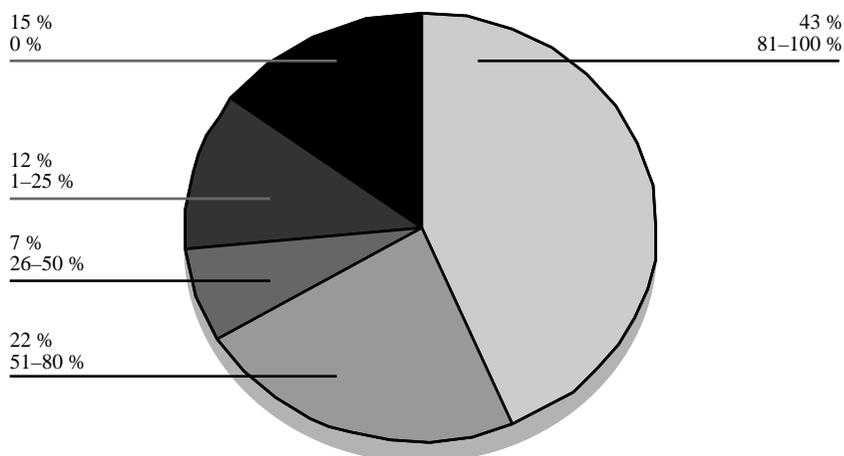
GRAPH 7.   Foreign Operations of Turnover (n=67)

that 64% (n=44) of companies have some of their personnel abroad and 54% (n=37) intend to keep the situation as it is, and 40% intend to increase the number of their personnel abroad. None of companies have expressed a desire to decrease their number of employees abroad.

A third indicator of foreign communication involvement is the number of foreign employees in the company. 52% (n=36) companies already have foreign employees, all of them intend to keep the situation as it is, 30% (n=21) intend to increase the number of foreign employees in the company. None of the companies intends to decrease their number of foreign employees in Finland.

Both of the previous indicators of more international communication contact show that international activity is here to stay. But it also indicates that the companies do not specifically express a plan to expand their expatriation program: the plan seems to be to localize activity, though operating internationally. It seems that technological advances, such as the Internet and various Intranets, speech processing, machine translation, checking devices are counted on to alleviate communication problems. It has been predicted that the World Wide Web will become truly multi-lingual, as systems such as the Alta Vista search engine expand to many more languages. According to the estimates of the EU the proportion of material in English on the Web is predicted to diminish significantly. It was 80% in 1990, 65% in 1995, 55% in 1998 and it is predicted to be down to 40% in the year 2000.[65] Though the position of English along-side has been strengthened in the EU in the recent years, the developments in the Internet seem to call for more multi-language communication.

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[65]   Hagen, S. 1998.

4.3
Information on Employees

The Prolang instructors were advised to ask the personnel managers to find employees whose education was a vocational or polytechnic degree, not university, unless they had a vocational background before university. Despite this the sample includes 8% of university graduates, and it is not possible to know whether all of them have a previous vocational background. This division was necessary, because the point of the project was to focus on the needs of the people with vocational background rather than university graduates. Their language package is heavier from the start and their development schemes belong under the Ministry of Education, not the Board of Education.

The background of the employees is only roughly divided into three categories: vocational, polytechnic and university. *Polytechnic* is used as a compromise to indicate secondary undergraduate education of 3–4 years (opisto-tason tutkinto), but also those few who in the sample may have the degree of recently established polytechnic degree (ammatti-korkeakoulututkinto). In the questionnaires the second level includes ´opistotason tutkinto/ammattikorkeakoulututkinto´, since the average of age of the employees is relatively high and most employees will have completed their studies before the graduation from the new institutes of higher education has been possible.

128 employees represent the polytechnic level, 47 employees represent vocational schools and 15 have university background, as can be seen in the graph below.

3 %
Other

8 %
University level

24 %
Vocational level

65 %
Polytechnic level
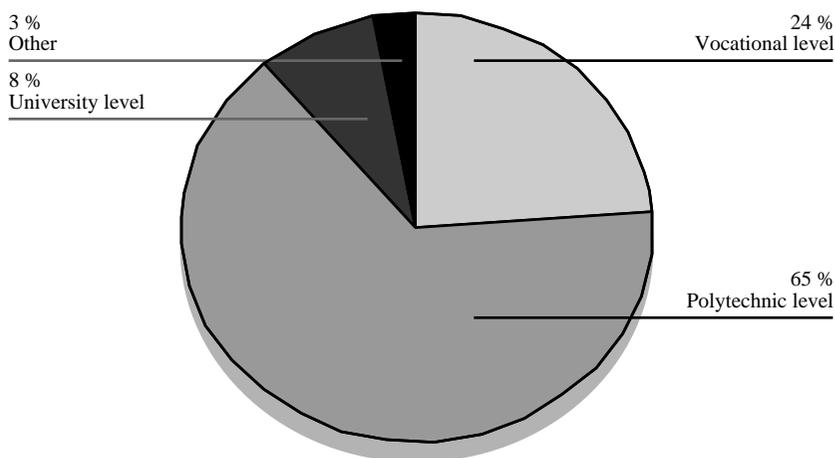
GRAPH 8.   Educational Background of Employees (n=196)

92% (n= 181) of the employees have Finnish as their native language, 8 % (15) Swedish. The proportion of the Swedish-speaking population in the sample is slightly higher than in the whole population, which would be about 6%.

62% (n=122) of the informants are male, 38% female (n=74).

The employee informants come from all adult age classes: 6% (n=9) are under the age of 25, 32% (n=63) are under 35, 42% (n= 82) age class 36–45. 19% (n=37) belong to age class 46–55. The rest 2% (n=4) are older.
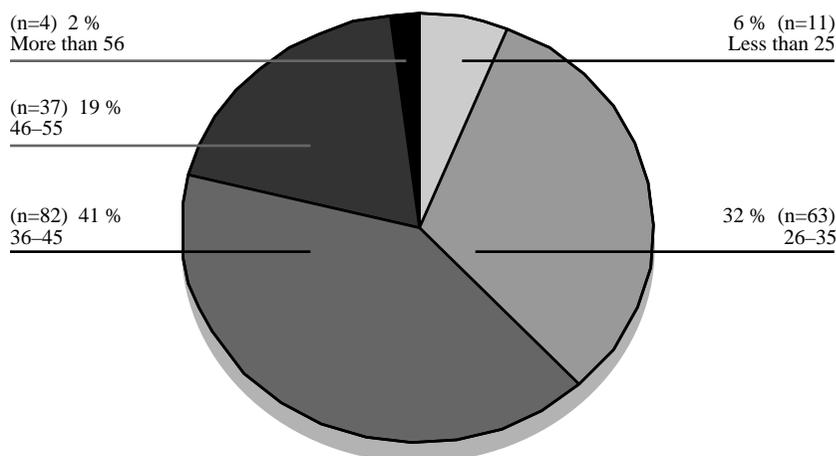
GRAPH 9.   Age Structure/Employees (n=197)

Employees come from all parts of the country, as can be seen in graph 10.
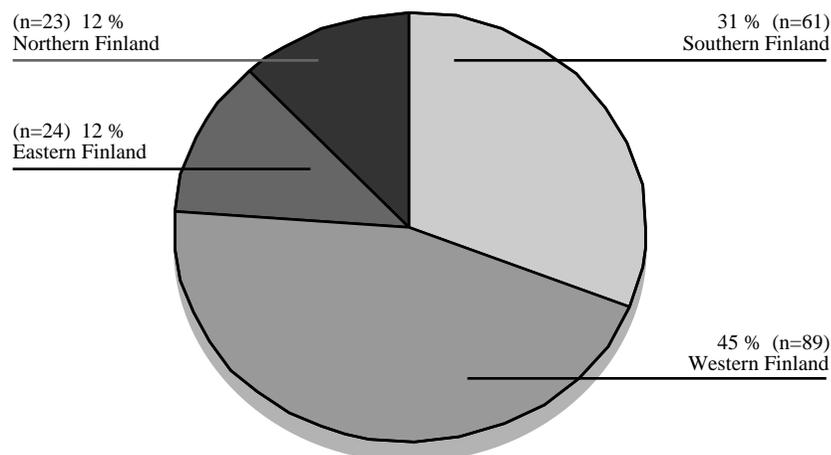
GRAPH 10.   Employees by Geographical Area (n=197)

Position/Occupation

The employees (n=194) work in a variety of positions and occupations. There are commercial people such as marketing, purchasing or export managers (18%), personnel in the adminstration of sales (10%) and secretarial personnel in general services such as departments secretaries (14%). There are engineers in various job descriptions (28%) and production represented by technical support, operators, installation/repair/machining workers (12%), manufacturing workers (5%) and foremen (8%). The distribution can be seen in graph 11.

(n=9) 5 % Other

(n=9) 5 % Manufacturing worker

(n=15) 8 % Foreman

(n=24) 12 %
Technical support,operators,
installation/repair/
machining workers

(n=19) 10 %
Administrative sales staff

14 % (n=27)
Administrative staff, general services

28 % (n=56)
Technical designer, engineer

18 % (n=35)
Commercial specialis
(marketing/purchasing/
exports manager)
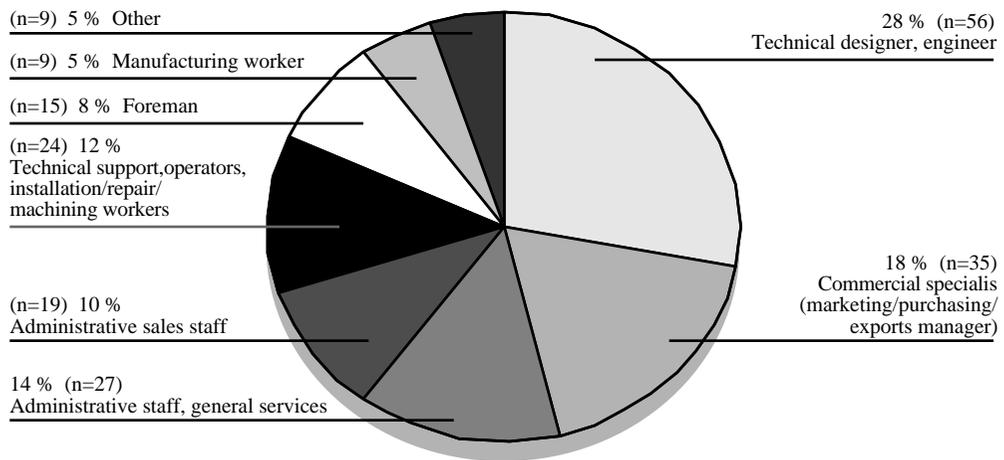
GRAPH 11.   Type of Occupation/Position

Work Experience

The informants have varying lengths of work experience. Up to 50% (n=100) have work experience of more than 15 years, 17% (n=34) have worked 11–15 years. 14 % (n=28) have worked 6–10 years and 19% (n=35) of the informants have less than 5 years of work experience.

In the questionnaires employees were asked to describe two of their previous work places. Many of the informants had been working for the same company for a long time and therefore had not answered the question regarding their previous jobs. The largest groups of occupations are jobs within technical design and planning, managerial positions, general secretarial or administrative jobs, jobs in sales, purchasing or marketing jobs in installation, repair and maintenance, trained manufacturing or service jobs and foreman's jobs, as can be seen in graph 12.

Other (n=19) 13 %

Management positions (n=3) 2 %

Sundry worker (n=5) 3 %

(n=6) 4 %
Technical support, operators

5 % (n=7)
Commercial specialis/
marketing/sales

Foreman (n=10) 7 %

(n=12) 8 %
Administrative staff/sales,
customer service

(n=12) 8 %
Trained manufacturing or service worker

26 % (n=37)
Technical specialist/designer/manager

14 % (n=21)
Administrative staff,
general services

10 % (n=15)
Installation/repair/
maintenance work

GRAPH 12.   Type of Work Experience (n=147)

52

60% (n=119) of employees have no experience from work or study abroad. 26% (n=51) of the employees have some work or study experience from abroad. The rest have not answered the question.

Of those who have studied or worked abroad the most frequent length of the stay abroad has been between 7 months to three years. This group constitutes 15% of all of the employees. Another 8% have stayed abroad more than 3 months. All in all 34% of employees have some experience from work or study abroad. Their foreign experience is commonly from Scandinavia (34%) or other European countries (43%), Asia (20%) and America (9%), as can be seen in graph 13.

The jobs among those who have worked abroad were distributed fairly evenly in all of the occupational categories: 'odd jobs', non-skilled worker's jobs, manufacturing or service worker, mechanic or installation worker, technical support, administrative staff, jobs in sales and marketing, specialist jobs, technical designer or specialist.
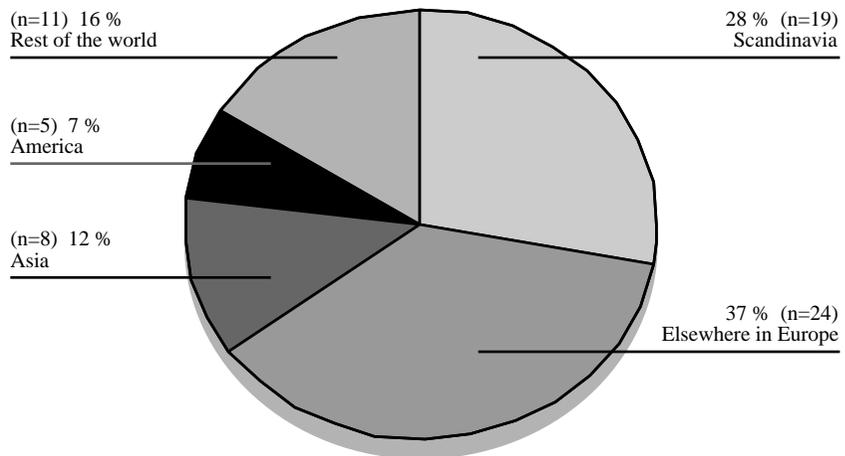
GRAPH 13.   Experience from Abroad (n=67)

53

Part II

RESULTS OF THE STUDY

This section deals with the language/communication environment in companies and needs and resources of language/communication in the light of the results of this study.

The methods used for identifying the language skills of future employees at recruitment are first described in Section 5. This section will answer the first research question concerning language skills at recruitment. The research questions have been listed in the Introduction, Part 1.

Next the language needs at work are discussed and specified from the point of view of the company and the employees (Section 6). This section will answer our second research question about the needs of foreign language/communication in the workplace now and in the future.

This is followed by a look at the language resources of the employees, as evaluated by the employees themselves and by personnel management (Section 7). This section identifies the current language skills, their strengths and weaknesses, which is our third research question.

Communication situations at work are the central focus of this study. They are described, analyzed and compared in Sections 8 and 9. These two sections answer the fifth research question concerning communication in foreign languages in industry and business. The contents of communication situations are compared in relation to different variables such as occupation, educational background, degree of difficulty and gender. Factors contributing to the success or failure of communication at work are also discussed. These sections answer our fifth research question.

To understand the gap between the needs of language/communication and the available skills the employees have been asked to evaluate the language teaching they have experienced. Personnel managers, also, will give their evaluation of the strengths and weaknesses of general and vocational language teaching (Section 10).

The results are discussed and some conclusions drawn in Section 11. The research project is evaluated and suggestions are put forward for further study in the final section 12.

5. Identification of Language Resources at Recruitment

In order to be able to devise a system for the validation and recognition of language skills at work it is essential to know what methodology companies are currently using for identifying the language skills for their employees. The representatives of personnel departments have been asked two questions:

> What would be the best way of validating employees' language skills at recruitment?
> (7 options given; Appendix D, Questionnaire A, question 17)
> Which methods is your company using at present? Use the options in the above question.
> (7 options given; Appendix D, Questionnaire A, question 18)

The employees have been asked the following:

> When you last applied for a job in _____(year), were you inquired about your language skills at recruitment?
> 1 Yes   2 No   3 I cannot remember
>
> If yes, how?
> 1 A question was asked   2 Tested   3 Other method, which…
> (Appendix E, Questionnaire B, question 11)

5.1 According to Employees

Companies are using different methodologies for diagnosing the language skills of their employees at recruitment. In this study most companies report having used a variety of methods. Many report doing a diagnosis after the person has been employed, not at recruitment. The following methods are used: interviews (61%, n=42), school certificates (52%, n=36), certificates for work or study abroad (38%, n=26). Every third company has sometimes used language tests in recruitment (33%, n=23). Fairly few of the personnel managers have used the Finnish general language examination (26%, n=18) or other methods such as for instance portfolio for work performed.

School certificates are the least trusted method of determining the employee's language skills. The best ways of demonstrating language skills according to personnel managers can be seen in table 2.

The choice made by the personnel managers show that employers appreciate experience abroad more than any other indicator of language skills. Interviews are used for diagnosing purposes and they are regarded a relatively good and easy way of identifying language skills. Language tests come as the third priority. School certificates, though currently often used (by 52% of companies), have proven to be a less attractive method. In some of the interviews it is was pointed out that grades from school cannot be measured against each other: a high grade from one school may mean relatively good skills and high marks from another may indicate deficient abilities.

In the question for language certificates the Finnish general language test was specifically mentioned as an example of language examinations and included as the first one of the options. Despite the publicity of the examination, more than half of the companies either included the option as a less attractive option or excluded it completely. The reasons may be that the examination is still not well known or that the rigid system of tests organized only a few times a year is less suitable for corporate systems that require flexibility and speed. Companies find

TABLE 2. The Best Ways of Diagnosing Language Skills at Recruitment according to Employers (n=69)

Method of diagnosis	Mentioned as one of the best three methods		Mentioned as one of the other less attractive options		Not mentioned at all	In total
	n	%	n	%	%	%
1. Certificates for study or work abroad	47	68	12	17	15	100
2. Interview	46	67	20	29	4	100
3. Language test organized by the employer	41	59	19	28	13	100
Language certificate, for example the Finnish general language examination (YKI)	34	49	18	26	25	100
School certificates	14	20	32	47	33	100
Portfolio (collection of work performed in the foreign language)	14	20	31	45	35	100
Other methods	0	0	1	1	99	100

interviews to be the second best method, since it is fast, flexible and interactive and can be made to include authentic work simulations.

Portfolios were the least recognized of diagnostic methods: though the term was defined in the questionnaire, informants asked questions about it and a high number of informants (35%) excluded it from their list. When this was explained, the interviewee could say that it was an interesting idea. This method needs to be properly introduced and tested before companies will become interested in it. Its drawbacks still remain: it can mainly be written; if oral, it will come in video/audio-tape, Internet or diskette format and will be time-consuming for the employer's representatives to watch/see just like any language test or interview. Therefore the natural interview or other dialogue methods may continue to dominate as a method of diagnosing interactive communication skills.

The methods mentioned by the personnel managers have not in any way been used systematically according to the information from the employees. Language diagnosis at recruitment has recently become more common than earlier.

The most efficient tool for finding out whether a person knows languages is a certificate of studies or work abroad. In education students should therefore be encouraged to stay abroad during their education to gain this useful asset for their future employers, as can be seen in graph 14.
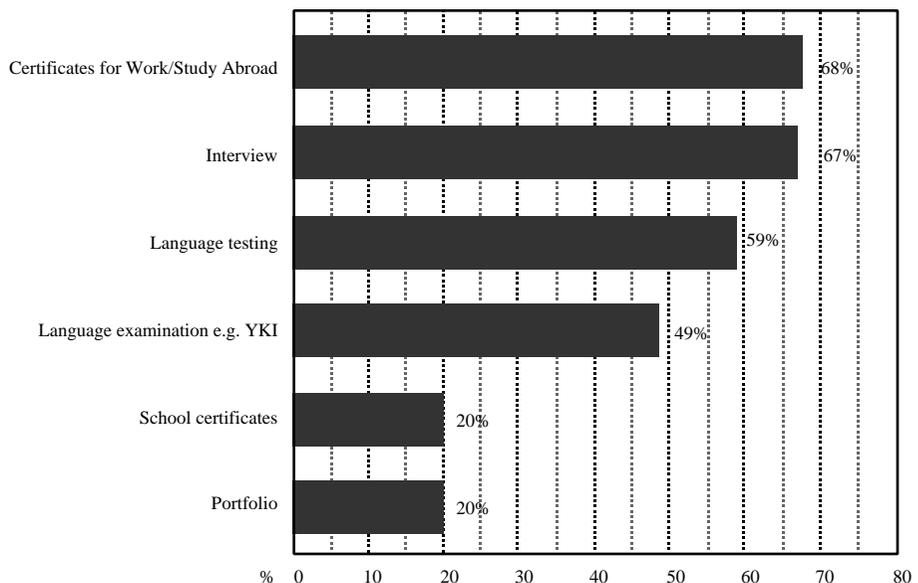
GRAPH 14.   Methods Recommended by Personnel Managers for Validating the Language Skills of New Employees (n=69)

5.2
Employee Experience

The employees were also asked whether their language skills were considered at recruitment. 60% (n=119) report that their language skills were asked about at recruitment. 32% said it was not mentioned; the rest could not remember.

42% of employees report that diagnosing took place by asking them whether they know languages and how well. Only in 13% (n=26) of the cases had their language skills tested; in most of these cases the testing had taken place after 1995. 7% say some other method was used than inquiring or testing. 38% say nothing about how their language skills were considered at recruitment.

6. Need for Languages

This section seeks to answer the research question of what the need for languages in the workplace is now and in the future.

6.1 Need for Languages at Present

Personnel managers' view of language needs illustrates the needs corporations set for their employees. The language needs expressed by employees are individual conceptions, which may include needs relevant for work, but also one's personal plans and aspirations. The results reflect different realities and will be somewhat different, as will be seen in the following. Both employers and employees have also predicted language needs for the future.

6.1.1 Need for Languages according to Employers

The needs for language indicated by the personnel managers of the researched target group were requested by asking the personnel managers to prioritize the most important languages for their company. The results can be seen in graph 15.
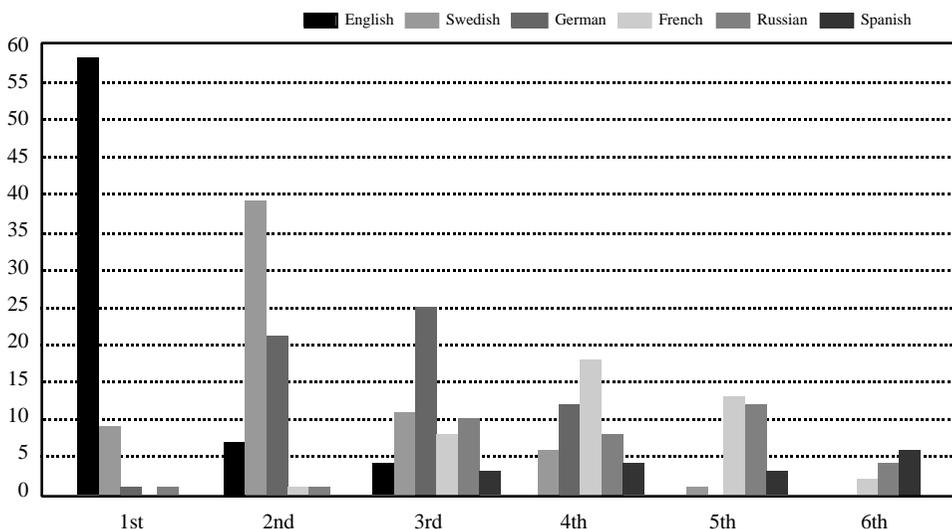
GRAPH 15.   Language Needs at Present according to Employers (n=69)

In the following text the languages are considered separately. For the point of easier comparison, the languages will be compared in percentages rather than absolute figures. They can also be seen in table 3.

According to the information given by personnel managers, the need for English is expressed by 100% of companies. Among all companies **English** is the most important language in 84% (n=69), the second most important language in 10% of companies and the third most important language in the rest of companies. Thus all companies, even the smallest with no international operations express their need for English.

Swedish is needed in 86% (n=59) of companies as one of the three important languages; 4% do not express a need for Swedish. The rest of the companies need it as fourth or fifth language. For 14% of all companies Swedish is the first important language, but for most, 59%, it is the second most important language, third for 17% of the companies. 96% of companies express some need for Swedish.

German is needed by 68% (n=47) of companies as one of the three important languages; 14% of companies do not express a need for German. German is the most important language only in 2% of companies, the second most important language in 36% of companies and the third important in 42% of the companies. For 20% of the companies German comes as the fourth language. German is among the most important four, or then not needed at all (i.e. it is not one of the marginal languages of priorities 5,6,7 etc.) Some need for German is expressed by 86% of companies.

French is needed as one of the three important languages in 13% (n=9) of Finnish companies; 40% of companies express no need for French. It is never placed as the most important language by personnel managers, in 2% of companies it is the second most important language and third in 19% of companies (n= 8). 60% of companies express some need for French.

Russian is needed in 17% (n=12) of Finnish companies as one of the three most important languages; 48% of personnel managers express no need for Russian. Russian is rarely the first or second important language (6%), but it can be the third (28%). It is typically a supplementary language on priority three, four or five; trade is often conducted in English, but it is important to understand enough Russian to be able to follow the procedure of meetings, as expressed by those involved. 66% of companies express their need of Russian as a supplementary language (fourth, fifth or sixth language). Some need for Russian is expressed need for Russian is by 52% of companies.

Spanish is one of the three important languages in 4% (n=3) of companies. 77% of companies express no need for Spanish. Spanish is typically a supplementary language on priority 4, 5 or 6. 23% of companies express some need for Spanish.

TABLE 3.   Need for Languages in Companies according to Personnel Managers

Languages	Percentage of 69 companies who express some need for the language		Percentage of the replied companies For which the language is the first/ second/third… most important language					
	%	n	1st	2nd	3th	4th	5th	6th
English	100	69	84	10	6	0	0	0
Swedish	96	66	14	59	17	9	1	0
German	86	59	2	36	42	20	0	0
French	60	42	0	2	19	43	31	5
Russian	52	36	3	3	28	22	33	11
Spanish	23	16	0	0	19	25	19	39
Italian	7	6	0	0	0	13	50	37
Chinese	6	3	0	0	0	0	50	50
Estonian	4	3	0	0	33	33	0	33
Japanese	3	2	0	0	0	0	100	0

The typical supplementary languages placed on priority 4, 5, 6 or further are **Italian, Estonian, Chinese, Japanese** and other languages. Their total expressed need is less than 9% (n=9) of the companies; thus more than 90 % of the companies manage without these languages. It has, however, been pointed out in the interviews that the potential need for languages causes complications of communication in the global market. Though the need for one or two Italian/Estonian/Chinese/Japanese or other language agents may not seem significant in the statistics it can be crucially essential for the success of the business. Table 3 summarizes the figures expressed above.

    The employers' representatives were also asked to estimate what how many of their employees need foreign languages at work. The figures seem amazingly low: English 33%, Swedish 19%, German 7%, French 2%, Russian 1% and others all together 2.6%. It is possible that some of the informants have considered not all the personnel but rather those who have vocational or polytechnic background, since this was taken up as a clarifying question in some of the interviews.
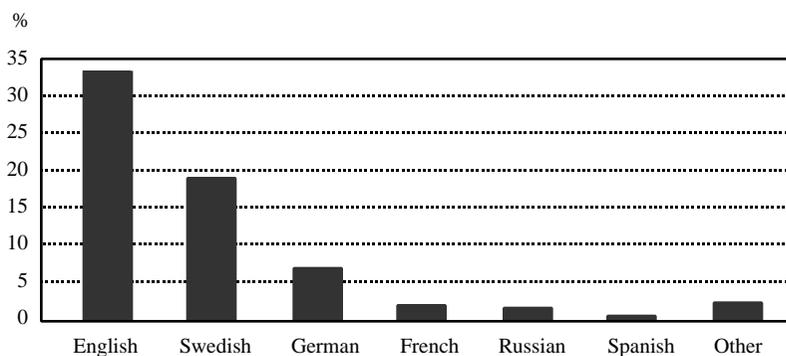
GRAPH 16.   Percentage of Personnel who Need Foreign Languages, Estimated by Personnel Managers (n=69)

A comparison of companies with more and less international operations does not explain the low figures.

Language needs seem to be quite similar in both groups: concentration in English, Swedish and German; little on other languages. These results when put against the figures for employees (in 6.1.2) are very different.

TABLE 4.   Share of Employees who Need Languages according to Personnel Managers

	In more international companies * % of employees	In less international companies ** % of employees
English	32.57	33.15
Swedish	17.76	19.67
German	6.26	8.19
French	2.02	1.26
Russian	1.24	1.70
Spanish	0.44	0.15
Italian	0.38	0.04
Chinese	0.00	0.00
Estonian	0.02	0.00
Japanese	0.00	0.00
Other	2.38	2.96

*   More than 60% of turnover of operations from abroad
**   Less than 50% of turnover of operations from abroad

6.1.2 Need for Languages according to Employees

The employees (n=197) at work see the need for languages differently from the employers' representatives. As many as 84% (n=165) of employees say they need languages. Only 4% say they do not need foreign languages at work. 12% did not answer this question.

22% of the employees need one language, 36% of the employees need two languages, 26% three languages and 12 % more than three. Only 4 % do not need a foreign language. Thus 74% of employees consider they need one or more languages at work.

When looking more closely at the group of employees who say they need foreign languages we can compare the groups which express the need for one, two three or more languages. The group of employees that needs two languages is the largest and is made up of a wide selection of occupations, with no special concentration in any occupational group. The second largest groups is those who need three languages; they are often people in commercial and technical specialist tasks or management positions. It is no surprise that those who need more than three languages are often in sales, marketing or customer service positions. On the other hand it is rather unexpected that up to 50% of those who need three languages are technical designers and specialists and that more than 30% of those who need more than three languages are technical people. Thus the commonly expressed idea that technical people only need to know one foreign language well does not seem to get full support from these results.

Employees who need only one foreign language include employees in technical design, general secretarial services, foreman positions, technical support or working as mechanics or trained workers. This group constitutes 22% of employees.

The languages needs expressed by employees are given in table 5.

TABLE 5.   Language Needs Experienced by Employees

	Needed by number of persons	% of employees (n=197)	The language is needed by employees at work as the first/ second/ third etc. most important language					
			1st	2nd	3th	4th	5th	6th
English	190	97	168	21	1	0	0	0
Swedish	139	71	19	103	17	0	0	0
German	83	42	1	23	55	3	1	0
French	18	9	0	0	5	12	1	0
Russian	12	6	1	0	3	5	3	0
Spanish	4	2	0	0	0	2	1	1
Italian	1	0	0	0	0	0	1	0
Chinese	0	0	0	0	0	0	0	0
Estonian	0	0	0	0	0	0	0	0
Japanese	0	0	0	0	0	0	0	0

6.2
Need for Languages in the Future

When comparing the needs expressed it is important to keep in mind
that this sample of companies include both SMEs and international com-
panies and that the employees are mainly those with vocational and poly-
technic backgrounds (88%, n=175)) and university graduates (8%, n=15).
Though unskilled workers who need little languages are not included, it
is probable that a sample with the most internationalized companies and
a greater concentration of management jobs would show different results.

6.2.1 Future Language Needs according to Employers

The personnel managers were asked to estimate how the number of those who need languages will change within the next three years.
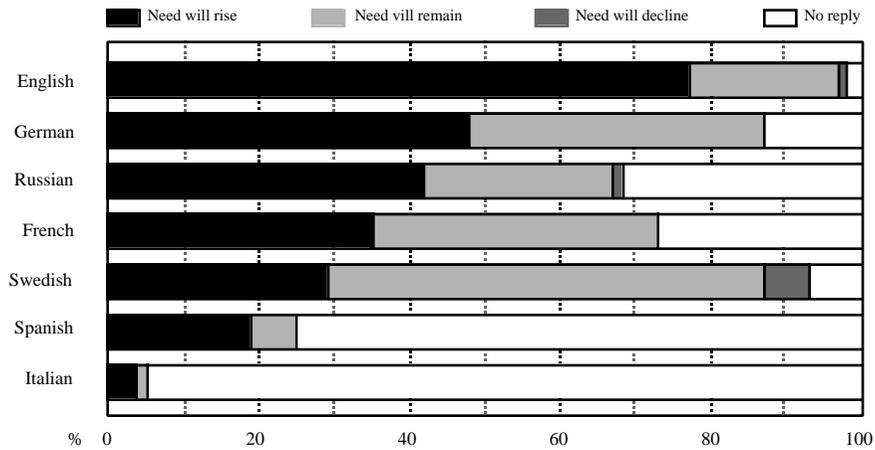
GRAPH 17.   Predicted Change of Language Needs according to Employers (n=69)

Figures for all the languages mentioned occur in table 6.

The statistics clearly show clearly that the order of future language needs have changed. Not that Swedish could be excluded from the place of the three most essential languages, where it seems to belong based on the needs expressed by both the employees and employers, but that the future calls for more variety and more combinations. The needs of lan-

TABLE 6.   Language Needs Three Years from Now according to Personnel Managers (n=69)

	The need will rise		The need will remain as it is		The need will decline	
	n	%	n	%	n	%
English	53	77	14	20	1	1
German	33	48	27	39	0	0
Russian	29	42	17	25	1	1
French	24	35	26	38	0	0
Swedish	20	29	40	58	4	6
Spanish	13	19	4	6	0	0
Italian	3	4	1	1	0	0
Chinese	0	0	0	0	0	0
Estonian	3	4	0	0	0	0
Japanese	1	1	0	0	0	0
Other	5	7	4	6	0	0

guages are increasing; only in Swedish 64% of companies predict that the need will remain the same or even decline. How this is to be implemented is another question, with serious efforts being made by the National Board of Education.[66] In a study with a similar sample of companies, the language training needs were discovered in English, German, Swedish, French, Russian and Spanish.[67] This has been the case according to a recent study with industry as the target group.[68] Now that time has passed since the joining of the EU, it seems that priorities are gradually changing. The need for German and French increase as the result of increasing contacts with the EU countries. The need for Russian results from trade connections with border countries. Even with these changes, however, the main languages remain the same: English, Swedish and German.

6.2.2 Future Language Needs According to Employees

90% of employees plan to have a position or occupation where they need languages. The employees were also asked to estimate their need for languages five years from now. Their reality seemed different from the personnel managers.

In a comparison employers and employees agree that the already important role of English is increasing. But there are clear differences between the two points of view.

TABLE 7.   Future Language Needs Estimated by Employees (n=197)

	The need will rise		The need will remain as it is		The need will decline	
	n	%	n	%	n	%
English	144	73	46	23	3	1
Swedish	65	33	100	51	11	6
German	56	28	65	33	13	7
Russian	24	12	37	19	6	3
French	20	10	40	20	4	2
Spanish	4	2	2	1	0	0
Italian	4	2	1	1	0	0
Chinese	1	1	0	0	0	0
Estonian	1	1	0	0	0	0
Japanese	0	0	0	0	0	0
Other	5	7	4	6	0	0

[66]   Opetushallitus 1996.
[67]   Huhta, M. 1997. P. 101
[68]   Sartoneva, P. P. 35

Employees do not seem to agree with personnel departments on the increased need for German, Russian and French. In all of these languages, the difference is essential: up to 20–25 per cent units of difference; personnel managers predict high needs, employees the low ones. As a result Swedish becomes the second most needed language in its traditional position from the employee point of view. Though some 6% of both employers and employees see Swedish as declining in importance, every third employee find that Swedish will increase in the future. A comparison between the views of employers and employees can be seen in graph 18.

There may be several reasons why employees predict such different needs for languages in the future. One may be that personnel management, being closer to the strategies and visions of the company has a clearer vision of current market forecasts. On the other hand single training issues may become over-weighted in these forecasts as markets change and the business environment has become more turbulent. Therefore the personnel manager administering language issues will focus on current training needs, but may be overwhelmed by the very present situation, which may have changed significantly over the next five years.

The employees in turn may be looking at languages from the point of view of their personal skills and the training efforts needed to cope with the languages the have some skills in. Employees may also reflect the very practical needs from the point of view of their department and
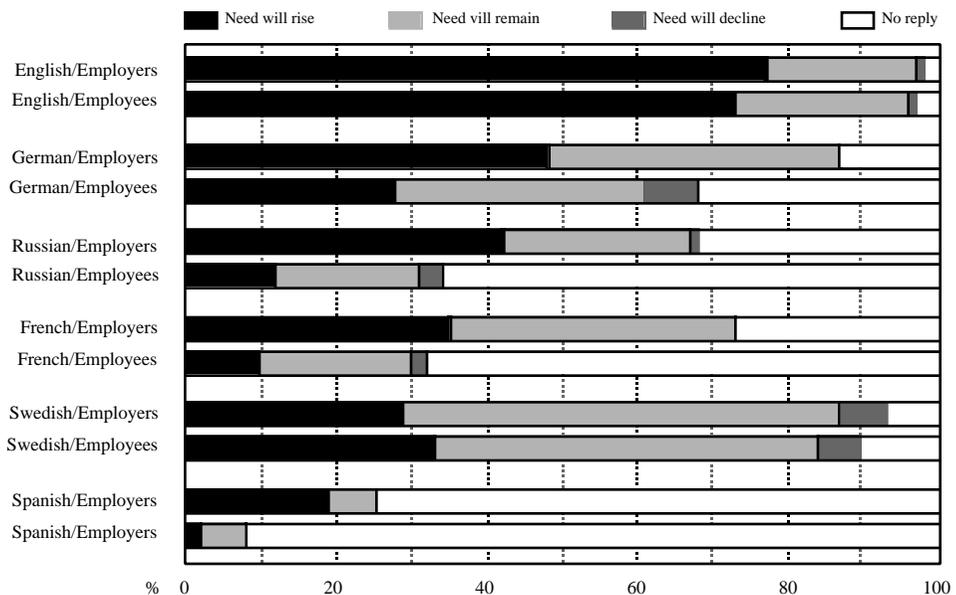
GRAPH 18.   Predicted Change of Language Needs according to Employers (n=69) and Employees (n=197)

section, including their own personal needs. They may also have experienced situations where they would have necessarily needed to speak a language and generalize the situations encountered at work.

It is worth noting that the difference between the estimates of employers and employees does exist. Personnel managers express a clear need for more German, Russian and French at the cost of Swedish and more of a variety of other languages. Employees see no greater change to the present situation.

6.3
Need for Languages by Region

In this study personnel management have been asked to prioritize the most important languages for the company. To compare the priority, placement coefficients have been used. Based on the importance of a language (1st, 2nd, 3rd etc. most important language) all answers have been given a placement coefficient. Thus all languages given the first importance have been given coefficient 6, which is the maximum value given by informants. The second important language will receive weight 5, the third 4, the fourth 3, the fifth 2, the sixth 1 and others 0. Based on these coefficients the average need for languages in different geographical areas varies as shown in table 8.

The table shows that there are similarities but also slight differences between areas. The most important languages are English and Swedish. This is clear in Western, Eastern and Northern parts of Finland. But in Southern Finland, where business and industry is strong, the need for

TABLE 8.   Need for Languages by Region

	Location			
	Southern Finland	Western Finland	Eastern Finland	Northern Finland
English	5.89	5.52	5.91	6.00
Swedish	3.89	5.00	4.91	4.00
German	3.39	3.84	3.36	3.89
French	2.22	1.80	1.45	1.00
Russian	2.39	0.92	1.18	1.56
Spanish	0.56	0.76	0.64	0.00
Italian	0.22	0.28	0.00	0.00
Chinese	0.11	0.04	0.00	0.22
Estonian	0.00	0.04	0.00	0.00
Japanese	0.00	0.08	0.00	0.22
Other	0.06	0.68	0.00	0.22

German is approaching that for Swedish. This result coincides with results received for the most international companies earlier. Southern Finland needs other foreign languages more than the rest of the country: Russian, French, Spanish, Italian and other languages.

The high need for Swedish in Western Finland is clear; in Western Finland English and Swedish almost compete for space of the first important language. German is a clear number three, but international contacts and entrepreneurship in the area seem to require a variety of other languages as well.

In Eastern Finland English and Swedish are the two most important languages, and German follows at a distance. Russian is more important in Eastern than Western Finland, but not as important as in Southern Finland. This may be due to the use of English in local trade. The need for other languages with the exception of French and Spanish is minimal.

In Northern Finland English is the unquestionable first language for all companies. The second place is almost missing as Swedish and German almost share the third position. At a distance there is need for Russian and French. Some companies mention the need for Chinese and Japanese and other languages.

This kind of data can only indicate the priorities of languages. The need for English can mean that 90 people out of 100 need English and one person needs Chinese. To really quantify the need of foreign languages it would be necessary for companies to keep statistics of the actual use of foreign languages. Also, it would be necessary to develop systems that produce comparable information from year to year on the extent of the needs of languages.

6.4
Language Needs by the Degree of Internationalization

A comparison between more domestic and international companies gives us some interesting results. We can see that English is the unquestionable number one in both groups and German is needed, because it is our most important trading partner. The difference is that global companies require more variety: Swedish, German, high French, but also Russian, Spanish, Italian, Chinese, Japanese and other languages. There is a great need for variety.

In mainly domestic companies the importance of neighboring languages is pronounced: not only Swedish but also Russian and Estonian. The need for Russian and Estonian is significantly higher in mainly domestic companies. The need for other languages is much lower than in more international companies.

TABLE 9.   Language Needs of more International and more Domestic Companies.
             A Comparison

	In more international companies * % of employees	In less international companies ** % of employees
English	5.79	5.78
Swedish	4.40	4.74
German	3.83	3.19
French	2.14	1.07
Russian	1.10	2.11
Spanish	0.79	0.11
Italian	0.24	0.04
Chinese	0.12	0.00
Estonian	0.02	0.26
Japanese	0.10	0.00
Other	0.48	0.00

* 51–100% of turnover from operations abroad
** Less than 50% of operations from abroad

7. Language Resources in Companies

This section deals with language resources found in the sample companies: the number of speakers of different languages and the estimates of their language at present. As for the future the employees have been asked to express their plan for their language level in five years' time.

The sample (n=197) includes personnel who have studied languages to the following extent: English an average of 8 years, Swedish, 5.8 years, German 2.4 years, French 0,3 years.

A closer look at the language studies shows the following distribution:

TABLE 10.   Language Background of Company Personnel

	Studied language some number of years	no studies		1–3 years		4– 6 years		7–10 years		More than 10 years	
	%	n	%	n	%	n	%	n	%	n	%
English	95	11	5	22	11	33	17	78	40	53	27
Swedish	83	25	13	27	14	64	32	68	35	13	6
German	57	84	43	61	31	33	17	17	9	2	1
French	14	169	86	25	13	3	2	0	0	0	0
Russian	10	177	90	15	8	3	2	2	1	0	0
Spanish	4	190	96	7	3	0	0	0	0	0	0
Italian	2	192	98	5	3	0	0	0	0	0	0
Other	7	184	93	8	4	1	0	3	2	1	0

We have seen in section 6.1.2 that 90 % employees need languages at work, 74 % more than one language. The sample includes a more language-skilled group than the population in general[69] as we will see in table 11. This reflects how companies are getting more involved in international operations and 90% (n=179/197) of the employees report they need languages.

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[69]   Sartoneva, P. (ed.) 1998. P. 52.

TABLE 11.   Comparison of Language Background between Industrial Employees and
the Whole Population

Target group	Prolang/1998 share of employees in industrial companies who have studied languages	Sartoneva/1998 share of those who know some languages in the whole population
	%	%
English	95	66
Swedish	83	55
German	57	29
French	14	8
Russian	10	5
Spanish	4	3
Italian	2	2
Other	7	not indicated

7.1
Level of Language Skills at Present

The employees in the study have assessed their present level of language skills in five categories:

0- no skills

1- elementary skills

2- low intermediate skills

3- intermediate skills

4- good skill

5- excellent skills
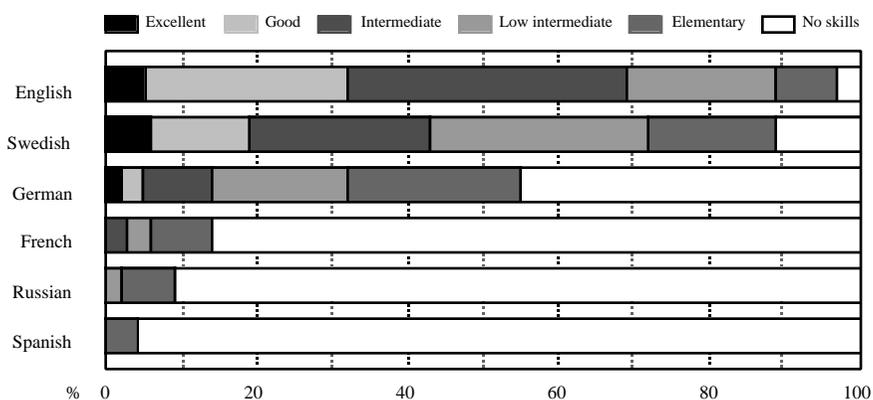
GRAPH 19.   Level of Language Skills at Present

Graph 19 shows the precentage of employees (n= 197) who have estimated their language skills on this scale.

The resources in the most important languages are the following. Almost all employees have some skills in English, 33% good or excellent skills, 37% intermediate skills and the rest some knowledge of English. 90% of the personnel have some level of Swedish, almost 20% good or excellent (including a number of native speakers), 24% intermediate and closer to 46% know some Swedish.

For German only 5% have good or excellent skills, 9% intermediate and about 40% know some German. In the sample of mainly vocational and polytechnic backgrounds French speakers are hard to find; some 3% are on intermediate level and 11% know some French. The situation with Russian and other languages is still weaker.

A comparison of those who have studied the language with those who acknowledge having acquired a level in the language shows that studies can result in a level of skills, but not necessarily in all cases.

TABLE 12.   Language Studies Compared with Acquired Language Skills

Language	Prolang/Share of employees who have studied the language	Prolang/ Share of employees who have acquired some level of skills in the language	Sartoneva/1998/Share of the those who have acquired some level of language in the whole population
English	95%	98%	66%
Swedish	83%	79%	55%
German	57%	55%	29%
French	14%	13%	8%
Russian	10%	9%	5%
Spanish	4%	4%	3%
Italian	2%	0%	2%
Other	7%	4%	Not indicated

In this comparison it is interesting to see that more people can speak English than just those who have studied English; English can be picked up through TV and computing, access at work, private life and travel.

Opposite observations can be made of Swedish, German, French and Spanish: despite studies, some people report that they have not acquired any level in the language. They have either not learned or have forgotten what they have learned or they just do not have the feeling that they know anything. The 'loss' of learning is reported as the greatest in Swedish: 4% of employees say they do not know Swedish although they report having studied it.

The number of years of language study have a clear correlation to the level of language, which is statistically significant. This can be seen in the illustration below.

TABLE 13.   Length of Studies Related to the Acquired Level of Language

Acquired Level	English/years of study	Swedish/years of study	German/years of study
0	0.5	1.2	0.4
1	3.7	4.0	2.7
2	6.7	5.5	5.8
3	8.4	7.6	4.1
4–5	9.9	9.0	6.3

These results illustrate how long the employees will have studied a language at an average to reach a certain level.

In English 8.4 years is the average of those who have evaluated their English as intermediate level. Good or excellent skills have been acquired in approximately ten years on average. It is essential to remember that not only study will contribute to improved language skills. This aspect is unfortunately not visible in these results.

For an intermediate level in Swedish the common length of studies has been an average of 7.6 good or excellent skills have been acquired in approximately nine years.

Employees who have intermediate skills in German will have studied an average of four years of German. As short a study period as six years has brought them good or excellent skills in German.

These differences between languages in relation to the experience of possessing language skills and past studies are interesting. How is it possible that an employee can reach a moderate level of language skills in German in four years, when it takes 7.6 years in Swedish and up to 8.4 years in English?

Current national language programs and language policy offer explanations to this result. Perhaps also the experienced grade of difficulty plays some role. Level of expectations will also influence the results: in English the need may be more frequent and varied whereas the needs for German and Swedish may occur more seldom and perhaps also in more limited contexts. Attitudes to learning and exposure to language will certainly influence the result. It would also be necessary to look into the stage when these skills have been acquired and how the opportunities for using the language have changed. Also the conceptions of 'good' and 'excellent' level entail in different languages. Also, these are reported competencies, not tested.

But from the point of view of fulfilling the competence demands of the work environment, the question of national language policy – priorities, introduction and timing of language programs in the educational system – needs to be reconsidered.

Language Level in Relation to Age

A common claim is that the language skills of younger people are better than the older generation's. This was an idea expressed for instance by about 60 training/personnel managers in a study of 100 of the largest importing and exporting companies in 1994.[70] Similar results have been introduced by a national survey of language skills in 1998 concerning the whole population, with special emphasis on the share of population who have studied languages.[71]

As a note to the statistics below it is worthwhile to notice that the groups of employees under 25 and over 56 are the two figures can be at least potentially be unreliable.

With a view to the language/communication competencies at work and the target group we are dealing with, this trend can be confirmed for English in the light of these results. Even there, however, the result is not statistically significant and for Swedish and German the figures are considerably more problematic.

Swedish-speaking employees in the age class 26–35 have better skills than older age groups, but employees under 25 have a much lower level than the age class 26–35.

TABLE 14.   Level* of Languages by Age

Level	Less than 25 years (n=11)	26–35 years (n=63)	36–45 years (n=82)	46–55 years (n=37)	more than 56 (n=4)
English	3.18	3.35	2.76	2.70	3.00
Swedish**	2.10	2.53	2.04	2.03	3.00
German	0.73	1.22	1.05	0.97	1.50

*   Scale used: 0–5.
** Native speakers of Swedish have been excluded. Including them, the figures would be the following: 2,18 for persons under 25; 2,54 for those under 35; 2,16 for those under 45, 2,16 for those under 45 and 3,50 for those above 56.

[70]   Huhta, M. 1994. P. 15.
[71]   Sartoneva, P. (ed.) 1998. P. 55–64.

It is possible that the group, if it had been larger, would raise the figure. It is also possible that the abridged curricula in the educational system for Swedish are beginning to bite. There may be other reasons as well. Level estimates for those aged 36–55 are not particularly high, either. It may also be that the level of Swedish suffers from lack of practice, since many companies report using English in their communication with Scandinavians.

The picture for German looks equally puzzling. There is positive development in the midrange, ages 26–55. The old long course for German is reflected in the class above the age of 56. But again the youngest group comes below all other age groups, as can be seen in graph 20.

As an observation of these results we can say that the younger employees may have better skills, compared with the whole population or university graduates. But this sample which includes a majority of graduates with vocational and polytechnic backgrounds does not show a clear improvement of language skills by age, except for English.

There is some positive development, especially in English. As for other languages, the current practices of language curricula and extent of language study do not seem to support the growing language/communication demands of industry and international business for the target group of this study.
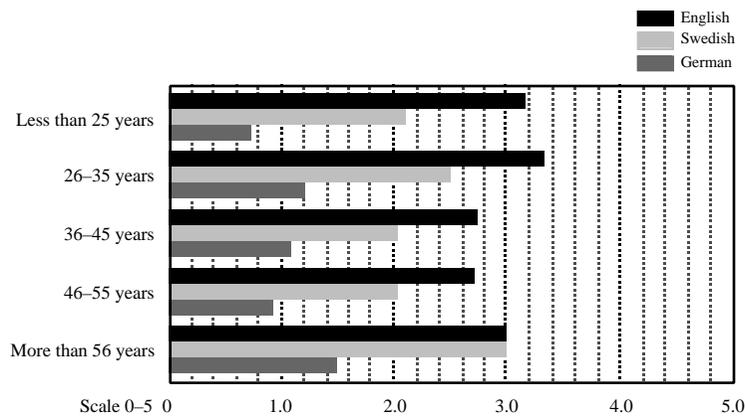
GRAPH 20.   Level of Language by Age Group

7.2
Sufficiency and Quality of Language Skills

The sufficiency of language skills depends on many different factors such as occupation, degree of international contacts, type of company, and personal preferences.

For instance if employees have experienced their English as sufficient their level of skills has been an average of 3.7 (on a 0–5 banding scale), 2.7 if partly sufficient and 2.1 if insufficient for the job. This correlation is statistically highly significant.

In Swedish the figures are 2.9 for sufficient level, 2.1 for partly sufficient level and 1.7 for insufficient level in Swedish.

In German 1.6 is the average for those with a sufficient level, 0.9 for partly sufficient and 0.5 for insufficient skills in the language.

There is a need for finding out the factors, which contribute to the differences in languages skills: self-perception of skills, differences of needs (level, type, frequency), differences between languages, differences of objectives for comprehension, accuracy or fluency, just to mention a few.

Employees have also evaluated the quality of their language skills. They were asked to indicate the most important of their strengths and weaknesses in foreign languages.

7.2.1 Language Skills according to Employees

Only one third of the employees (34%, n=68) find their language skills sufficient for their work, 44% (n=87) partially so and 18% (n=35) find their language skills insufficient for their work.

In order to pinpoint the qualitative features of the employees' present language skills they were asked to mention the strengths and weaknesses of their language skills.

Through content analysis employees' strengths and weaknesses have been grouped according to the order of strengths mentioned by employees:

In the open-ended questions concerning strengths and weaknesses the employees' answers were not limited, as can be seen in questionnaire B, in appendix E. Thus one informant has given several answers to interpret her own strengths and weaknesses in her foreign language skills. The difference indicated in the fourth column shows the difference between positive and negative comments on one aspect. It is thus supposed that if one aspect (e.g. listening comprehension) is as much a weakness as a strength it has no clear message to the educational system. Again, if a feature is more positive than negative, this side is relatively

TABLE 15.   Strengths and Weaknesses of Language Skills by Self-evaluation

Aspect of Language	STRENGTHS	WEAKNESSES	DIFFERENCE**
	n	n	n
Reading skills: comprehension, speed of reading	293*	202	+91
Oral interaction: participation in conversation; presentations; fluency	233	253	-30
Listening skills	108	52	+56
Written skills	89	87	+2
Professional terminology	85	74	+11
Grammar	59	81	-22
Pronunciation	43	55	-12
Cultural understanding	20	100	-80
Having/Not having skills in sufficiently many languages	17	99	-82
Total of given answers	957	1 003	–

*   indicated by the informants in open answers; number of informants n=197
** the difference between positive or negative answers concerning one aspect.

well taken care of. If the negative comments override, this is an aspect that should be considered in developing language syllabi and teaching.

Employees consider reading as their greatest of strengths. Employees can read well; but the more language aspects are included in their answer, the more people report having difficulties in reading as well. Studies in language comprehension confirm that comprehension of reading is not necessarily the same as being able to understand the language. All in all reading is considered more as a strength than a weakness.

The second strength experienced is some aspect of oral skills. It would be tempting to conclude that educational institutions have now succeeded in incorporating oral practice in curricula, and therefore oral skills have become a strength rather than a weakness. A closer analysis of the feedback for vocational and general language teaching to be introduced in the next section contradicts this conclusion. Thus oral strength has been acquired not so much through formal education but later on in life, through practical language use. Also, compared with the weaknesses we can see that 15% (30/197) more employees experience oral skills as a weakness rather as a strength. Because of the contradicting data we cannot conclude oral skills as an overall second strength.

Employees have given a variety of explanations of why oral skills are a problem. They find it difficult to find the relevant terminology, to converse with their counterparts, pronounce well enough not to cause confusion and so on. It is interesting that in the replies 253 relate to some aspect of oral language/communication, as a weakness. The number of informants is 197; thus everyone has mentioned something about oral skills as a weakness; many have included two or more aspects for oral

communication. This category deals with a basic reluctance to express oneself or be active in social situations. It also includes problems encountered in presentations or general fluency.

Listening comprehension is also one of the strengths of employees although there are employees who report difficulties in understanding spoken language, especially on the phone, both with non-native speakers and native speakers of language. After strengths and weaknesses have been accounted for, listening is the second greatest strength experienced by employees.

Professional terminology is often a strength for employees, but almost equally often a problem for employees. Employees mention grammar as a strength, but a weakness to slightly more employees than a strength. Writing is equally often a strength as a weakness.

There are three points where language is a problem from the employees' point of view. The greatest problem does not concern language skills themselves but difficulties involving the language background of employees. More than 50% of employees (n= 99/ all informants, n=197) believe that they do not know the languages they need. Their language repertoire is too limited for the work tasks they need to This is a result that needs to be taken into account when formulating the national language policy for the future.

If all answers are considered the second greatest problem is with intercultural communication. Global communication situations require more sensitivity on intercultural issues. How it is to be promoted in language programs needs to be given thorough examination.

From the point of view of the employees we can say in summary that employees feel strong in reading and listening but they feel that they do not know the languages they should. They feel they are weak on intercultural communication and oral interaction.

TABLE 16.   Comparison of the Strengths and Weaknesses of Employees' Language Skills Experienced by Employees

STRENGTH	WEAKNESS	NEUTRAL
Strong evidence of:		
1. Skill in reading	1. Knowing too few languages	
2. Skill in listening	2. Shortage of under-standing intercultural skills	
3. Professional terminology	3. Shortage of oral interaction, presentation skills; lack of fluency	
Some evidence of:	Grammar	Pronunciation Written skills

7.2.2 Quality of Language Skills Experienced by Employers

Representatives of personnel departments have also been asked about the strengths and weaknesses of the language skills of their staff with non-university background. Some of the informants were not happy with the question, because they felt it was difficult to think of such a mass as a group and answer for all of them, which is a fair comment to such a general judgement. Those that could be convinced to give a general answer took up very similar points as employees themselves, though in a slightly different order.

The personnel managers see the strengths of employees much the same way as the employees themselves. Employees are strong in reading and listening skills. But personnel managers also think that their employees have a good command of the professional terminology, whereas the employees do not take this as a strength.

Some aspect of oral interaction (active skills, good presentation skills, fluency) is mentioned as a strength in 58 answers. However, oral interaction skills are the most dominant weakness from the personnel managers' point of view. Some weakness of oral skills is mentioned in 115 answers of 69 informants; thus every personnel manager has pointed out this deficiency, almost all a couple of deficiencies in the oral field. Also 36% (115/302) of all comments on weaknesses deal with oral skills alone. In addition, oral skills are mentioned in 58 more answers as a weakness than as a strength.

TABLE 17.   Strengths and Weaknesses of Personnel with Vocational Language Background (Estimated by Personnel Managers) (n=69)

Language aspect	STRENGTHS	WEAKNESSES	DIFFERENCE*
	n	n	n
Reading skills: comprehension, speed of reading	66**	6	+60
Oral interaction: participation in conversation; presentations; fluency	58	115	-57
Listening skills	42	17	+25
Written skills	51	17	+34
Professional terminology	22	23	-1
Grammar	10	23	-13
Pronunciation	24	35	-11
Cultural understanding	7	31	-24
Having/Not having skills in sufficiently many languages	5	35	-30
Total of given answers	286	302	

* gap between positive or negative answers concerning one aspect
** replies given by employees in open-ended questions, total number of informants n=69

TABLE 18.   Comparison of the Strengths and Weaknesses of Employees Estimated by
            Personnel Managers

STRENGTH	WEAKNESS	NEUTRAL
Strong evidence:		
1. Skill in reading	1. Shortage of oral interaction and presentation skills, lack of fluency	
2. Writing skills	2. Knowing too few languages	
3. Listening skills	3. Shortage of intercultural skills	
Some evidence:	Pronunciation	
	Written skills	Grammar

Other weaknesses are the same as felt by employees themselves: not
knowing a variety of languages or having problems coping with
intercultural communication.

    The results confirm the results gained through a similar method in
1994[72]. The order is slightly different. The problem of not knowing as
many languages as required has passed in importance the problem of
cultural understanding, compared to the previous study.

    It is interesting that both employees and employers recognize some
of the same strengths – reading and listening skills – and agree some-
what on the mastery of professional terminology (though employees are
not quite as sure about it as employers). The biggest difference concerns
oral skills: employees mention it often as a strength (and so do quite a
few employers), but employees place it at the top priority on the weak-
ness list. Employees feel that there are bigger problems such as not know-
ing enough languages and having problems in intercultural communica-
tion.

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[72]   Huhta, M. P.159.

Significance of Sub-skills in Foreign Language/Communication

When the employees in this study were asked to evaluate the percentage of their present language skills needed for writing, reading or interactive oral communication the answers varied widely depending on the job and background of the employees. The estimated proportions ranged between 5%–90% for oral work, 10–100% for reading and 5–60% for writing. The mean values were 40% for oral work, 34% for reading and 19% for writing. The medians are 40% for oral work, 30% for reading and 20% for writing. The average values for all given replies are:

– ORAL INTERACTION   43%
– READING   37%
– WRITING   20%

7.3
Language Skills in the Future

Employees were asked what their level of language is now and what they plan it to be in five years from now. The plans for the future can be seen below in percentages. 90 % of the employees say they will need languages in the occupations/positions they will have in five years' time.

Graph 21 shows the objectives the employees have for the future.
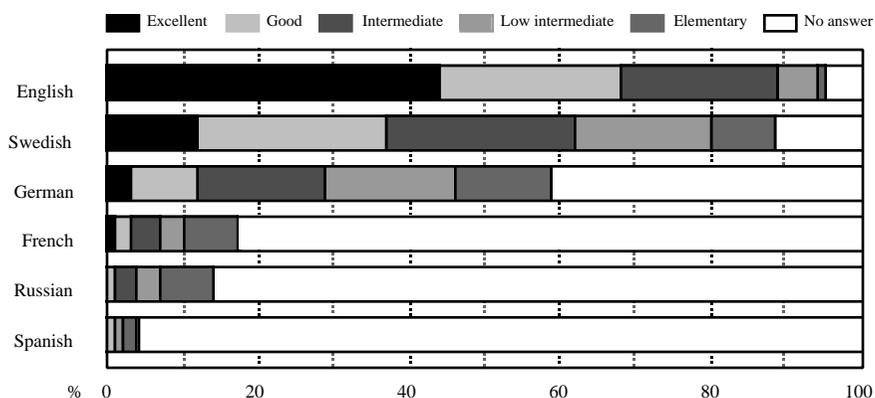
GRAPH 21.   Level of Language in Five Years (n=197)

TABLE 19.   Language Study Plans for the Future by Employees (n=197)

| | English | | Swedish | | German | | French | | Russian | | Spanish | |
	Now	In 5 yrs	Now	In 5 yrs	Now	In 5 yrs	Now	In 5 yrs	Now	In 5 yrs	Now	In 5 yrs
	%	%	%	%	%	%	%	%	%	%	%	%
Excellent, 5	5	44	6	12	2	3	0	1	0	0	0	0
Good, 4	28	24	13*	25 **	3	9	0	2	0	1	0	1
Intermediate, 3	37	21	24	25	9	17	3	4	0	3	0	0
Low Intermediate, 2	20	5	29	18	18	17	3	3	2	3	0	1
Elementary, 1	8	1	17	9	23	13	8	7	7	7	4	2
Levels 1–5, total	98	95	89	89	55	59	14	17	9	14	4	4
No answer/no language skills	2	5	11	11	45	41	86	83	91	86	96	96
Total	100	100	100	100	100	100	100	100	100	100	100	100

* incl. 8 % natives
** incl. natives

In a comparison between the level of language now and in the future we can see that there are significant plans for improving language skills.

The employees' plans for raising or improving their language skills can also be illustrated by comparing the mean values of present language skills to the ones predicted for five years from now.

In this table we can see how employees have plans for raising their level of the three important languages: the increase will be highest in English 0.71, then Swedish 0.48 and thirdly German 0.43. The plans for French 0.13 and Spanish also exist for very few people (French 32 persons, Spanish 7). The problem is Russian. Personnel managers indicate that there is a great need for Russian, but only one single person in the

TABLE 20.   Comparison of Employees' Language Level Now and in Five Years.
Mean values and Medians

| | Level of skills NOW; 0-5 scale | | | Level of skills 5 years from now; 0–5 scale | | |
	Mean value	Median	Number of observations/ Number of 0 answers	Mean value	Median	Number of observations/ Number of 0 answers
English	2.96	3	197 (4)	3.67	4	197 (11)
Swedish	2.31	2	197 (21)	2.79	3	197 (22)
German	1.08	1	197 (89)	1.51	1	197 (80)
French	0.22	–	197 (171)	0.35	–	197 (165)
Russian	0.13	–	197 (179)	0.01	–	197 (196)
Spanish	0.05	–	197 (189)	0.08	–	197 (190)

sample has plans to study Russian in the next five years. The language is often experienced as difficult and historical burdens may also reduce its popularity.

Thus there seems to be somewhat of a gap between the plans of personnel departments and the plans of employees. The personnel managers see the need for German, Russian and French increasing more than the need for Swedish. However, a great number of employees plan on improving their skills in English and Swedish, and also German. But the problems arise with French and Russian. Not many employees have plans for studying them.

Table 21 shows the figures of percentage of persons planning to study languages in the next five years and the figures from the personnel managers indicating the greatest need for improvement:

TABLE 21. Comparison of Predicted Need for Languages to Plans of Language Study

	Predicted change in the need for languages according to personnel managers (n=69)			Number of employees who plan to raise their level of the language (n=197)		
	The need will rise %	The need will remain the same %	The need will decline %		n	%
English	77	20	1	English	136	69
German	48	39	0	German	73	37
Russian	42	25	1	Russian	16	8
French	35	38	0	French	20	10
Swedish	29	58	6	Swedish	91	46
Spanish	19	6	0	Spanish	7	4

7.4
Summary

On the individual level there is a host of language skills in a sample of about 200 employees with vocational, polytechnic and university backgrounds: English, Swedish and German are the best known languages. The employees have studied languages an average of 8 years for English, 5.8 years of for Swedish, 2.4 years of for German and 0.3 years of for French. The number of study years does not predict the self-estimate of the employees' language level.

To give an idea of the extent to which languages are known in Finnish companies we can look at a group of ten employees from an industrial company with vocational/polytechnic/ university backgrounds. Amongst them you find nine of them speaking Finnish as their native language and one with Swedish as their native language.

As for foreign languages **all** of them speak **English**, three very well (levels 4–5), four cope (3) and the rest three know some (1–2). **Nine** of them speak **Swedish**, two very well (level 4–5), because one of them is a native speaker of Swedish, two more speak Swedish all right (3) and five struggle (1–2). **Six** of them speak **German**, one very well (4–5) a second one manage to communicate (3) and four more can speak some German (1–2). Only **one** of them speaks **French** (levels 1–3), and never well (levels 4–5). Among the ten employees **one** person has some knowledge of **Russian** (level 1–2). To find a speaker of some other language one might need to find another group of ten employees.

The average level of English is generally around an average of 3 (on a 1–5 scale), Swedish 2 and German, close to one. Only 14% (n=28) of the 197 know some other language than these three. There are 68 indications of other languages, but many of the 28 know several languages. Employees' level of skills in the other languages is limited: as high as 75% (n=51) of these only have either elementary skills or low intermediate skills 25% (n=22) in the other languages, such as French, Russian, Italian and Spanish. This means that work communication will be rather difficult, considering the demands of interactive communication.

The employees report having plans for improving their level of languages in the next five years: the highest increase will take place in English, then Swedish and German; thus the languages where employees also have some background in.

It is understandable that employees prefer to continue with studies they have started with at school, not start with new languages. Present tight work schedules do not easily allow such high time investments. Therefore it is essential that a variety of languages be taught at least to some degree in the general educational system. According to some

research[73] the concentration on English has increased rather than decreased as the result of the prevailing policy for language education.

Both employees and personnel managers were asked to prioritize the strengths and weaknesses of employees' quality of language skills. The strengths placed first by employees are good **reading** and **listening skills** and **mastering professional terminology**.

There are three serious weaknesses encountered in the quality of language skills; employees and personnel department prioritize them differently. The weakness far more significant than any other in the personnel managers' view comes as the third in employees' experience: there are **weaknesses of oral communication**, reluctance and reticence to speak and act, problems of fluency and delivery of presentations.

Employees experience that their greatest problem is **not knowing as many languages as they should.** This is understandable since only 14% of employees know some other language(s) besides the three most common languages. Personnel managers prioritize this as the second most important weakness. Employees also find their **understanding of intercultural communication issues** a weakness. Personnel managers place this on the third priority.

According to employees the most important language skills are **oral interaction skills** (43%). They use an average of 37% for **reading** and 20% of their language skills for **writing.** There are great differences in the proportion of needs depending on the job of the employee.

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[73]   Nikki, M-L. Pp. 28–32.

8. Communication in Industry and Business

It is possible to use different approaches for describing the communication required at work. Therefore it is important to consider the objectives of the research in searching the best options available for describing and analyzing communication at work.

This section deals with the communications situations experienced by employees at work. The results have been obtained by asking employees (n=197) to tick their choices in a list of communication situation as either very important, important, not so important or not necessary (See questionnaire E, question 19). The list of the above suggested communication situations was derived through previous research done in the field. The first eleven situations are interactive and have been grouped with an increasing grade of difficulty in mind, to make it easier to respond. Descriptions 12–13 deal with reading skills, 14–15 with writing and the remaining 16–17 are demanding interactive situations. An open category (18) has been in included for areas, which may not be covered in other questions.

Table 22 gives an overall view of what communication situations are important and less important.

As for the very important situations employees have given a total of 930 answers for the very important situations. Thus they have ticked an average of five very important situations per employee. The following chart illustrates the share of each situation of all very important situations mentioned by employees (questionnaire E, question 19)

When looking at the very important situations we can see that the largest group of very important situations are simple telephone calls such as taking messages and forwarding a call. Client contacts, including such situations as customer service, exhibitions and dealing with inquiries take second priority. Social situations are mentioned by 8 % of employees.

These are followed in frequency by certain writing and reading tasks. The most common writing tasks include such short messages as e-mails, faxes and short notes. The most common reading tasks concern texts such as instructions, manuals or product descriptions in foreign languages. Other reading tasks are reading company documentation such as memos, reports and quotations. 5% of employees indicate that is very important for them to be able to write these documents.

About two thirds of the very important situations include all three aspects of communication: interactive, reading and writing. The inter-

TABLE 22.   Communication Situations for all Employees (n=197)

	Very important or important	Not important or not so important	No answer, I don't know
1. Talking about oneself and one's work	122	71	4
2. Travel	157	39	1
3. Social situations (e.g. introductions, small talk)	170	26	1
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	163	32	2
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	131	59	7
6. Hosting visitors	124	66	7
7. Solving data processing problems	66	123	8
8. Explaining a process or a (working) method	111	79	7
9. Discussions concerning deliveries. Installations, maintenance	92	98	7
10. Fault analysis, solving problems	103	88	6
11. Tutoring a new employee	51	137	9
12. Reading manuals, instructions, professional literature	136	56	5
13. Reading company documentation (memos, quotations etc.)	112	77	8
14. Writing email messages, faxes; taking notes in a meeting	131	60	6
15. Writing memos, reports, documents	106	83	8
16. Giving a presentation (e.g. company profile, product presentation)	77	111	9
17. Meetings, negotiations	108	81	8
18. Other, please specify…	8	2	187

active situations include simple telephone calls, more demanding client contacts and social language.

Other situations considered very important are situations for hosting visitors, travel and meetings and negotiations. It is also very important to discuss deliveries, installations and maintenance questions, solve problems and fix faults and describe a production process or working method. 5% consider giving presentations a very important communication situation.

This general distribution of very important communication tasks has no capacity for describing the requirements of specific occupations or positions. Therefore the communication situations will be looked at from the point of view of degree of experienced difficulty, educational background and type of occupation/position.

Talking about oneself and one's work	
Travel	
Social situations (introductions, small talk)	
Routine telephone calls	
Client contacts	
Hosting visitors, visiting companies	
Solving EDP-problems	
Describing a process or a working method	
Discussions concerning deliveries, installations, maintenance	
Fault analysis, solving problems	
Tutoring a new employee	
Reading manuals, instructions etc.	
Reading company documentation	
Writing email messages, faxes; notes	
Writing memos, reports, documents	
Giving a presentation	
Meetings, negotiations	
Other	

GRAPH 22.   Very Important Communication Situations * for Employees (n=197)

*   Total number of replies, n=930

8.1
Communication Situations by Type of Occupation

This section provides information on differences of the domain of communication for different groups of employees. The mass of material on 197 employees does not provide large enough groups for every occupation. There will be three example categories presented followed by a more general description of types of occupational groups (commercial / technical/secretarial/production/management).

Three groups of employees have been selected here for presentation. They are employee groups whose needs for language are rather different. The group of technical designer/engineers will be compared with the communication domain of administrative secretaries and installation and repair workers, illustrated in graph 23.

Here we can see that the engineer is busy with client contacts: socializing during visits, negotiating and speaking on the phone. The work involves a lot of solving of technical problems and describing processes. Manuals and instructions need to be read in foreign languages and emails, faxes and documents need to be written.

The most important situation for administrative secretaries is contacts on the phone. Social interaction is necessary in context with client contacts. Secretaries also read company documentation and write emails and faxes, also memos. The secretary does not usually need foreign language in demanding interactive situations (less than 10%). For this group there is an interesting piece of information available: 76% of departmental secretaries consider that they also need foreign languages for travelling. Whether this is because of work or time off does not become clear from the result. Compared to the communication needs of the engineers in this sample, the secretaries' needs for foreign languages are not equally frequent.

The third interest group is installation and repair workers. There are three main activities in a foreign language: reading manuals and instructions, socializing and travelling. The context of the talks is in fault analyses, solving problems, discussing deliveries, installations and maintenance and describing processes and procedures. An installation worker seldom gets involved with presentations, or writing tasks, but sometimes in telephone calls (38%) or even interactive negotiations (25%), which is a very demanding communication task according to the employees. Compared with engineers and secretaries not so many repair workers need languages as engineers but they will need languages with higher probability than the departmental secretaries of this target group.

Overall the number of very important communications situations varies by the type of occupation. In management positions the average

Chief designer, chief engineer (n=56)
Administrative staff, general services (n=27)
Installation repair, machining workers (n=16)

Talking about oneself and one's work
Travel
Social situations (introductions, small talk)
Routine telephone calls
Client contacts
Hosting visitors, visiting vompanies
Solving EDP-problems
Describing a process or a working method
Discussions on deliveries, installations, maintenance
Fault analysis, solving problems
Tutoring a new employee
Reading manuals, instructions etc.
Reading company documentation
Writing email messages, faxes; notes
Writing memos, reports, documents
Giving a presentation
Meetings, negotiations

% 0   20   40   60   80   100

GRAPH 23.   Communication Situations: Important and Very Important for
             Three Groups of Employees

93

Legend:
- Commercial positions
- Technical positions
- Secretarial positions
- Production jobs
- Management positions

Talking about oneself and one's work

Travel

Social situations (introductions, small talk)

Routine telephone calls

Client contacts

Hosting visitors, visiting vompanies

Solving EDP-problems

Describing a process or a working method

Discussions on deliveries, installation, maintenance

Fault analysis, solving problems

Tutoring a new employee

Reading manuals, instructions etc.

Reading company documentation

Writing email messages, faxes; notes

Writing memos, reports, documents

Giving a presentation

Meetings, negotiations

% 0   20   40   60   80   100

GRAPH 24.   Communication Situations in Different Occupations

number of very important communication situations is 13, in technical positions 11.4, commercial positions 10.8, production jobs 7.6 and secretarial jobs 6.2.

There are two observations to be made on points that are slightly unexpected: I had expected communication situations for commercial positions to be higher than technical positions; the results indicate the opposite. I had also expected more variety of communication situations in secretarial jobs compared to production jobs, but the figures indicate the opposite. Thus the communication needs of technical people are even more varied and concern larger group of employees than expected.

When the five groups of employees are compared, there is a statistical difference between the communication of these five occupational groups. The statistical significance of the difference varies. There is no significance between the occupational groups in terms of travel and solving problems with computers. But in all the other types of situations there is statistical significance of difference in relation to occupation. As for talking about oneself and one´s job (situation 1) and social situations (situation 3) the statistical significance exists. In all of the other types of communication situations the difference between the occupational groups is highly significant.

The employees in this study have been asked to give the percentages they need of oral interaction, reading and writing skills. They show some similarities, though also some differences. Notice that the low number of management people included in the sample may influence the reliability of the figures. The figure for management level needs to be tested by further data.

It seems that the need for oral interaction overrides reading and writing needs in all but management positions, though less so for technical occupations where the need for oral interaction is close to the need of reading skills. This data also seems to imply that writing skills are more significant for commercial, management and secretarial functions than for technical occupations. This result complies with the findings of

TABLE 23.   Communication Sub-skills in a Foreign Language

Average of percentages	Oral interaction	Reading	Writing	
	%	%	%	n
Commercial occupations	42	31	23	54
Technical occupations	40	38	18	79
Secretarial occupations	40	32	21	7
Production jobs	37	29	14	25
Management positions	36	42	23	5

Louhiala-Salminen[74] who has recognized the increase of the importance of written documentation.

This may also be a temporary phenomenon, since new technology introduces new media and so far use of new media has required input in a written format such as email or fax. Technological change may increase the importance of written skills as opposed to oral interaction unless speech recognition and graphical and visual recognition develops faster than networks with text.

8.2
Communication Situations by Educational Background

The careers of employees progress in such a way that it becomes rather insignificant to differentiate between vocational, polytechnic and university backgrounds. The dramatically changing work environment utilizes the resources it has available. If it does not have the relevant skills and competencies, it will acquire them through development and training. Of course background can limit potential options, but as such in no obstacle for career development and further training. All employees go through some form of training or use various tools for self-development; some study for a different degree; others do postgraduate programs. If further education and universities do not demonstrate the capability of serving the needs of industry and business international companies will do what they have already done for instance in the United States and in Europe. They have established their own universities to fulfil relevant development tasks.[75]

In the results we find that there are types of positions, which are desired in the future: management jobs, combinations of interesting jobs, commercial jobs, foreman's post. Instead, not so many want to work as a manufacturing worker as have worked in the past. The same seems to be true of sundry work, unclassified 'other work' and even installation/maintenance/service work and general secretarial work.

A study of communication situations by educational background shows that these eighteen classes of situations selected cover almost all of the situations the employees have thought of for essential communication situations (question 19, appendix E). The open category was used in only 17 cases out of 1844 replies for cases of important or very important communication situations; thus this selection of situations can be seen as fairly inclusive.

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74   Louhiala-Salminen, L. 1995.
75   Mawditt, R. 1998.

As for overall skills for personnel with different educational back-grounds employees with a vocational background need most oral skills, then reading and little writing. The same order prevails for employees with polytechnic and university backgrounds. The need for writing is highest for those with university background, as can be seen in graph 25.
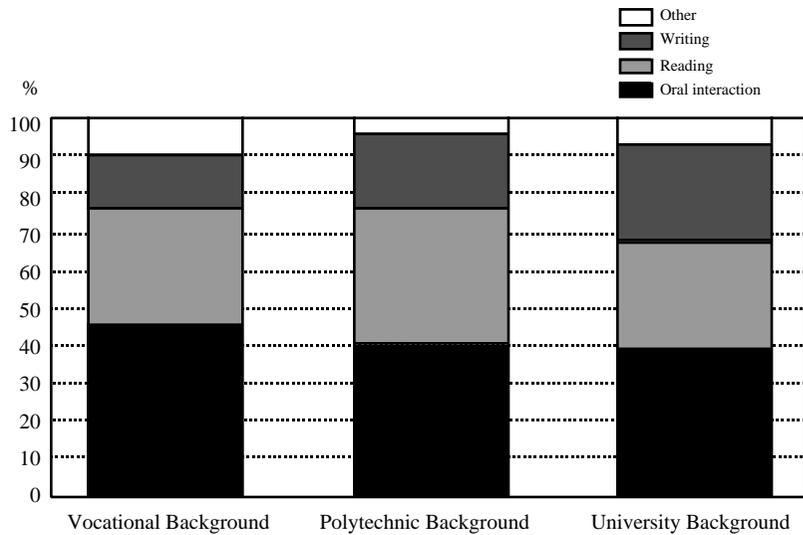
GRAPH 25.   Share of Language Skills by Educational Background

8.2.1 Communication Situations at Vocational Level

The employees with vocational background have marked the importance of communication situations at work. The figures in graph 26 are from the total number of employees with vocational background (n=47, number of situations, n=385).

A look at the communication requirements of the vocational employees shows that the areas that are essential for employees are social situations, travel for installation and maintenance work and interactions on the telephone. It is also important to be able to describe and discuss
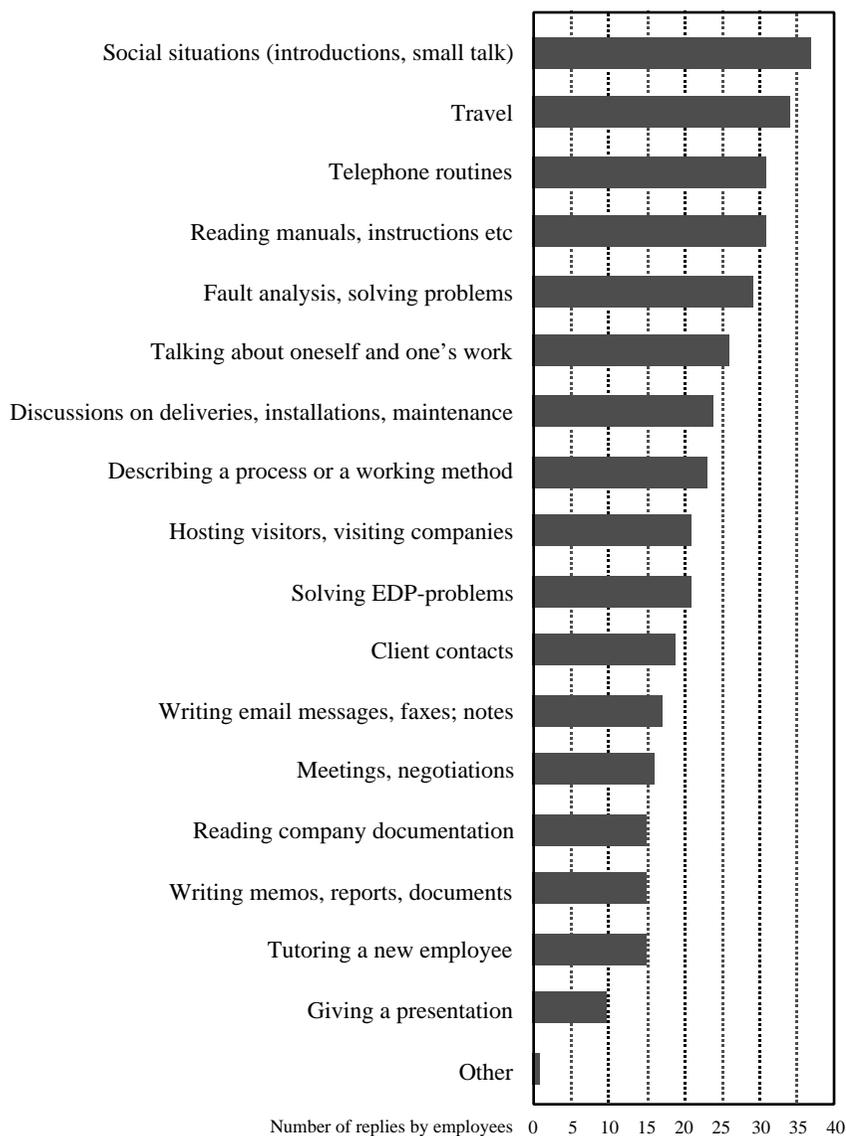
GRAPH 26. Communication Situations in Occupations with Vocational Background (n=385)

one's work and work processes and solve problems concerning deliveries, maintenance and installations. In order to solve problems and fix faults vocational employees need to pick up information from manuals, instructions and other written sources.

Based on the Prolang data it seems that the areas which require less attention in the educational programs are writing tasks and demanding interactive situations such as meetings, negotiations and presentations, though a fair number of students do end up in situations like that. For example as many as one third of employees with vocational background report that negotiations and meetings in English are important or very important in their work.

It is not easy to draw a line between the essentials and peripherals. Table 24 shows where the percentage of those needing the situation ex-

TABLE 24.   Importance of Communication Situations Given by Employees with Vocational Background (n=385)

		The situation is important or very important for employees (n=47)	Not important	Difference between important and not important situations
		%	%	%
1.	Talking about oneself and one's work	55	40	+15
2.	Travel	72	26	+46
3.	Social situations (e.g. introductions, small talk)	79	19	+60
4.	Telephone (e.g. taking messages, answering inquiries, making arrangements)	66	30	+36
5.	Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	40	57	-17
6.	Hosting visitors	45	49	-4
7.	Solving EDP-problems	45	49	-4
8.	Explaining a process or a (working) method	49	43	+6
9.	Discussions concerning deliveries, installations, maintenance	51	43	+8
10.	Fault analysis, solving problems	62	34	+28
11.	Tutoring a new employee	32	62	-30
12.	Reading manuals, instructions, professional literature	66	30	+36
13.	Reading company documentation (memos, quotations etc.)	32	60	-28
14.	Writing email messages, faxes; taking notes in a meeting	36	57	-21
15.	Writing memos, reports, documents	32	60	-28
16.	Giving a presentation (e.g. company profile, product presentation)	21	70	-49
17.	Meetings, negotiations	34	57	-23
18.	Other, please specify	2	0	+2

ceeds the share of those who do not need it. This may help in identifying how much to include in a limited syllabus.

Having concluded this it is worth noting that one has to look more closely into the occupational and organizational communication needs of an individual in order to pinpoint exactly what the communicative needs of employee groups, specific occupations and individuals are.

8.2.2 Communication Situations at the Polytechnic Level

The employees on the polytechnic level have also indicated the important communication situations at work. They have also indicated if a communication situation is not important for them. The percentages given are from the total number of employees with a polytechnic background (n=128, number of situations, n=1358)
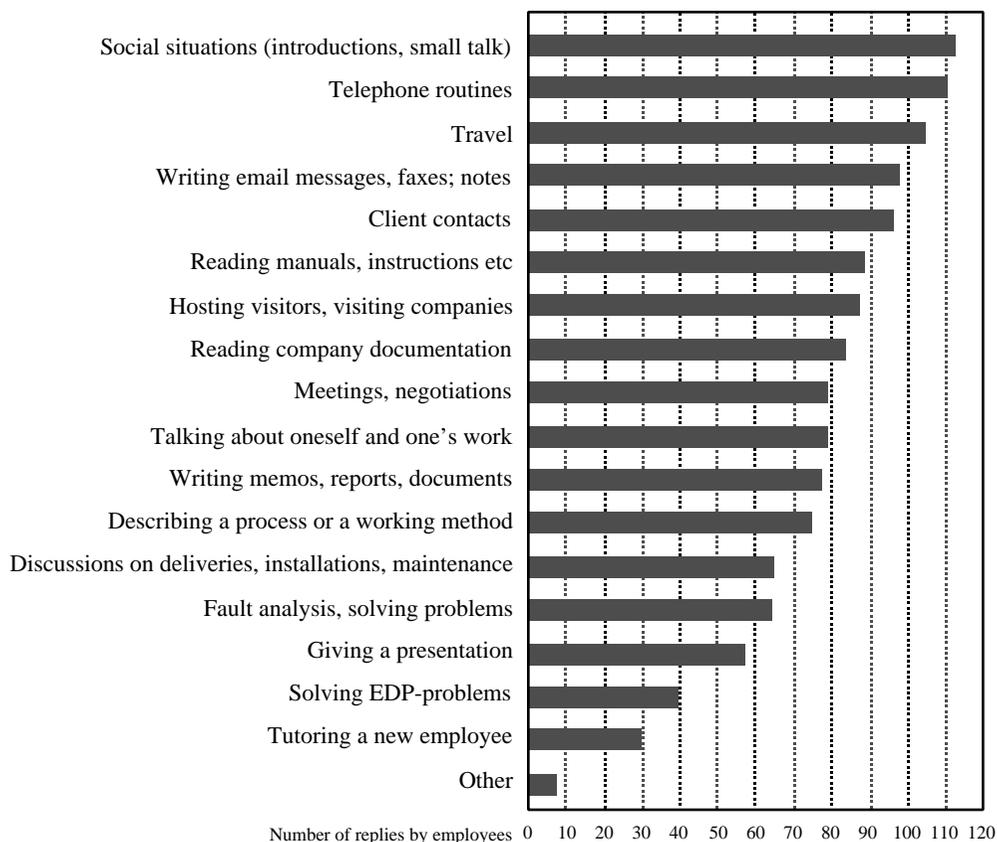
GRAPH 27.   Communication Situations in Occupations/Positions with Polytechnic Background (n=1358)

TABLE 25.   Importance of Communication Situations by Employees with Polytechnic Background (n=128)

	The situation is important and very important for for employees (n=128) %	Not important %	Difference between the share of important and not important situations %
1. Talking about oneself and one's work	62	37	+25
2. Travel	82	18	+76
3. Social situations (e.g. introductions, small talk)	88	12	+76
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	87	13	+64
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	76	21	+55
6. Hosting visitors	68	29	+69
7. Solving EDP-problems	31	56	-25
8. Explaining a process or a (working) method	59	39	+20
9. Discussions concerning deliveries, installations, maintenance	51	47	+4
10. Fault analysis, solving problems	50	48	+2
11. Tutoring a new employee	23	72	-49
12. Reading manuals, instructions, professional literature	70	29	+41
13. Reading company documentation (memos, quotations etc.)	66	31	+35
14. Writing email messages, faxes; taking notes in a meeting	77	21	+56
15. Writing memos, reports, documents	61	36	+25
16. Giving a presentation (e.g. company profile, product presentation)	45	52	-7
17. Meetings, negotiations	62	35	+27
18. Other, please specify	6	2	+4

Employees with a polytechnic background need foreign languages in oral situations such as social talk, travel, routine telephone calls and client contacts. They communicate frequently in writing through email and faxes. They must read manuals and other company documentation. Demanding contacts often include visits and different kinds of meetings and negotiations.

8.2.3 Communication Situations at the University Level

It must first be pointed out that the number of replies in this category (n=15, situations n=178) is much lower than in the other categories. However, the corresponding figures have been calculated for this category as an experiment, to be tested by further studies. Graph 28 below gives the distribution of the situational categories.

A more precise division of the categories can be seen in table 26.

GRAPH 28.   Communication Situations with University Background (n=179)

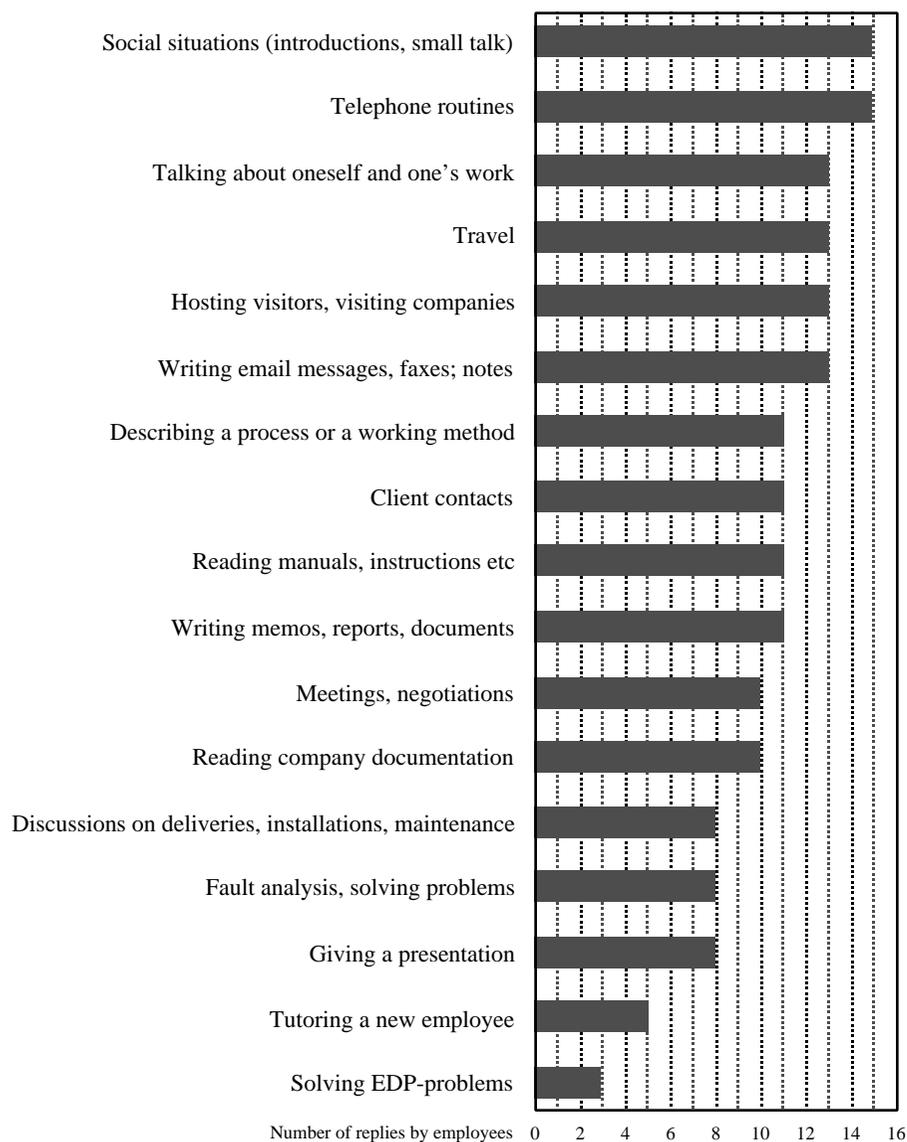TABLE 26.   Importance of Communication Situations by Employees with University
Background

	The situation is important and very important situations (n=15)	Not important	Difference between important and not important situations
	%	%	%
1. Talking about oneself and one's work	87	13	+73
2. Travel	87	13	+73
3. Social situations (e.g. introductions, small talk)	100	0	+100
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	100	0	+100
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	73	13	+60
6. Hosting visitors	87	13	+74
7. Solving EDP-problems	73	20	+53
8. Explaining a process or a (working) method	73	27	+46
9. Discussions concerning deliveries, installations, maintenance	53	40	+13
10. Fault analysis, solving problems	53	40	+13
11. Tutoring a new employee	33	67	-34
12. Reading manuals, instructions, professional literature	73	20	+53
13. Reading company documentation (memos, quotations etc.)	67	33	+34
14. Writing email messages, faxes; taking notes in a meeting	87	13	+74
15. Writing memos, reports, documents	73	27	+46
16. Giving a presentation (e.g. company profile, product presentation)	53	47	+6
17. Meetings, negotiations	67	33	+34
18. Other, please specify	0	0	0

The situations for employees with a university background are similar
to those with a polytechnic background. The differences are that univer-
sity graduates need more of all kinds of situations. Especially, they need
to talk more about themselves and their work, host visitors and socialize,
describe processes and draw up written documents.

8.2.4 Educational Background as an Explanatory Factor in Communication

When comparing the communication needs of different educational back-grounds, it becomes quite clear that persons with university background need more foreign languages in a greater variety of situations than em-
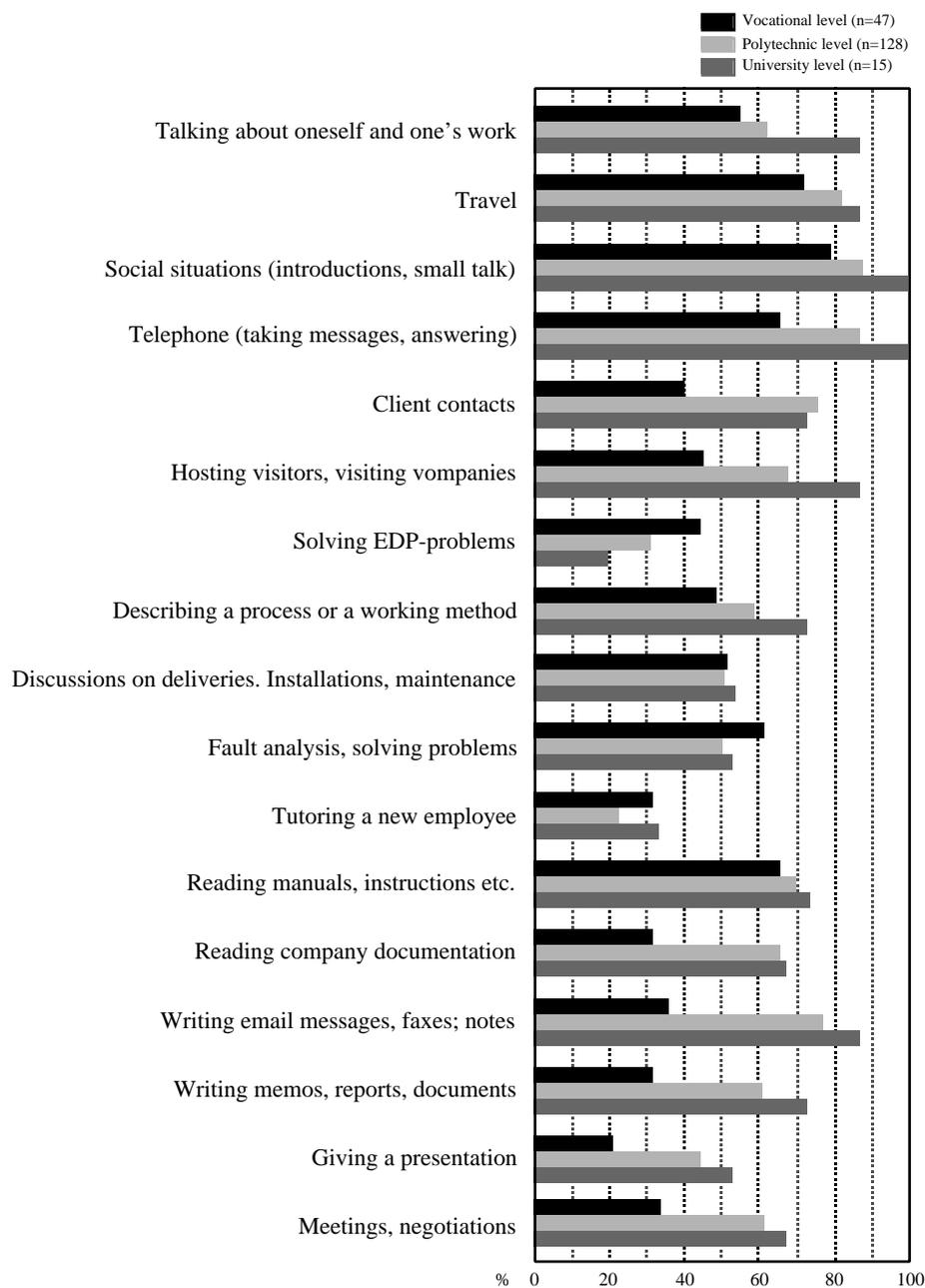
GRAPH 29.   Communication Situations by Educational Background

ployees with a polytechnic and vocational background as can be seen in graph 29. The average number of communication situations mentioned by employees with a vocational background is 8, those with a polytechnic background 11 and those with a university background 12 communication situations. 18 options were available, one as an open category.

The low number of university graduates in the sample may have complicated the differences observed there. However, the statistics at hand seem to indicate that the communication of graduates from vocational schools mainly entails face-to-face and telephone contacts concerned with technical questions/processes/problems of different kinds. The problems often need to be solved by finding information in manuals and handbooks. Writing tasks and demanding group-to-group interactive situations are rarer for those with a vocational background. The same applies to client contacts.

The language/communication needs of university and polytechnic graduates resemble each other more, though it is significant that a greater percentage of university graduates need foreign languages in complex situations than those with a polytechnic background. More than half of all university and polytechnic graduates find themselves in demanding group-to-group interaction situations as well as in one-to-one telephone calls and face-to-face contacts. More than half of both university and polytechnic graduates need to have good reading and writing abilities in foreign languages – not only in one language, preferably in two or three languages.

8.3
Degree of Difficulty in Communication Situations

What a person experiences as a difficult communication task depends a lot on the respondent. In this study we decided to look for answers to the concept of experienced difficulty by asking the informants to give an example of a difficult communication situation. We also asked for supplementary by background information such as location, nationality, flow of events etc. To understand what is not considered difficult we asked the employee to give an example of ordinary communications situations at work, with a set of similar questions.

8.3.1 Demanding Communication Situations

Respondents have described the situations in open answers (See appendix E, questionnaire B, question 21). Based on them we have created a format where the information interpreted from the answers is expressed.

Type of situation	6. Hosting visitors/Participating in visits
Example number	8
Description given by the informant	Participating in a visit
Degree of difficulty (Ordinary or demanding)	Demanding
Number of case (Situation 1–18, Question 19/Case identification of the questionnaire)	4/1B21
Location of the situation	A company in France
Those present	The informant and the chief of quality of the French company, who is a 45-year-old woman.
Nationality of those present	Finnish and French
The element that makes the situation demanding	The informant finds it hard to speak English and the situation required her to speak all the time.
Description of the demanding situation	The visit lasted a day. The atmosphere was a little stiff in the beginning. According to the informant, the Frenchman spoke fluent English but it was she who did not feel comfortable speaking English at first. The main purpose of the visit was to find out what was wrong with the machines that the French company had purchased from the informant's company. The informant clarifies that the faults in the machinery are usually an outcome of improper usage or a defect in the machine. The informant had also been given a tour in the laboratory of the company, where she and her host had compared the Finnish and French research methods.
Position of the informant	Quality Engineer
Age of the informant	26–35
Educational background of the informant	Post-secondary/polytechnic level
Field of company	Forest/wood/paper industry
Size of company	Small/medium-sized

This information allows us to envision the participants, their age and (some of) their hierarchical relationships, conditions of location, time and task.

A similar set of questions have been asked for ordinary situations: there we did not, however, ask for a detailed description of the situation, since they are much more obvious and the questionnaire was already becoming too heavy with five tightly printed pages.

The demanding and ordinary cases (n=398) will be detailed in section 8.

Here we can, however, explain what the demanding communication situations are and reasons why they seem to be so demanding. The following diagram gives the most demanding communication situations mentioned by the employees in the order of frequency.

The respondents have classified 155 situations as demanding. The most demanding situations are meetings and negotiations and client contacts in general. Presentations are another demanding situation. Discussions about deliveries, installation and maintenance and company visits also belong to the top five of demanding communication situations. The group 'others' include translation and interpretation tasks, projects abroad and job interviews (as interviewer or interviewee).
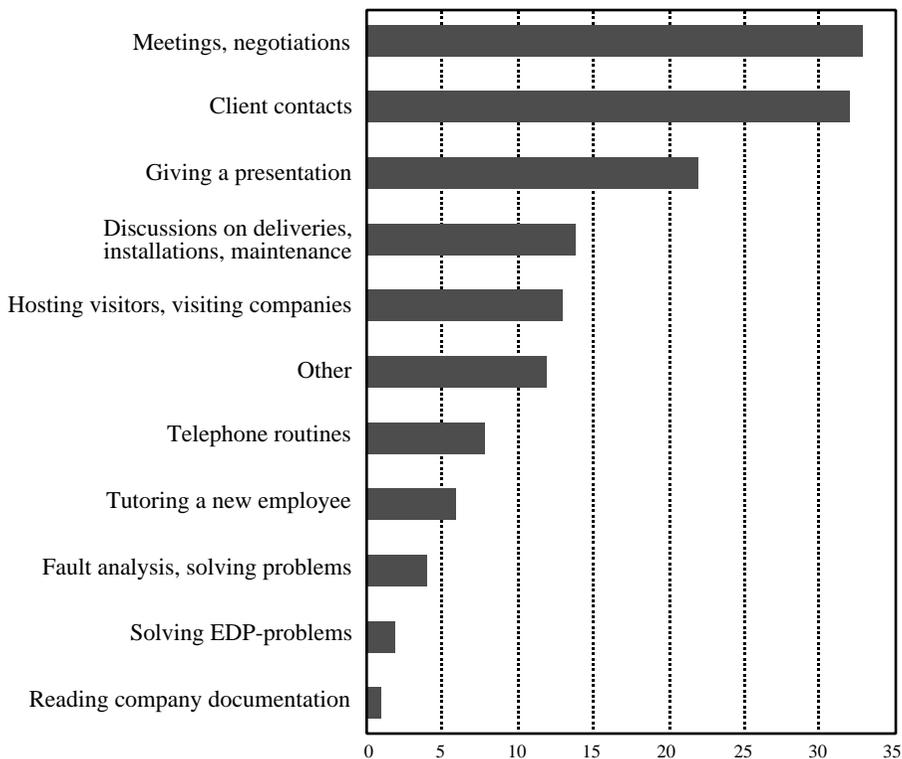
GRAPH 30.   The Most Demanding Communication Situations (n=155)

A common element to the top five is that they all deal somehow with formal register, new contacts, unfamiliar faces and places, and unexpectedness. Graph 31 gives the reasons why the situations are felt to be difficult.

Deficiency of language skills seem to be the biggest problem in demanding communication situations. The surprise element, however, is that almost all of the other reasons deal with something else than language.

The reason cousing difficulty may be that the situation is complex. Difficult matters are at stake. The speaker may run short of her own expertise. The counterpart cannot understand the speaker or her logic, or vice versa. The counterpart has such demanding attitudes that the speaker has difficulty in coping with her. The issue as such may be difficult. The cultural backgrounds of the participants may complicate communication. Problems are tackled in very different ways in different cultures. The situation occurs unexpectedly, as did one informant's, who had to step in for a full morning's work as an interpreter without one minute's preparation. Some speakers suffer from lack of experience and therefore find situations in a foreign language stressful. Sometimes the talks last so long that the speaker's concentration span in a foreign language has run out.
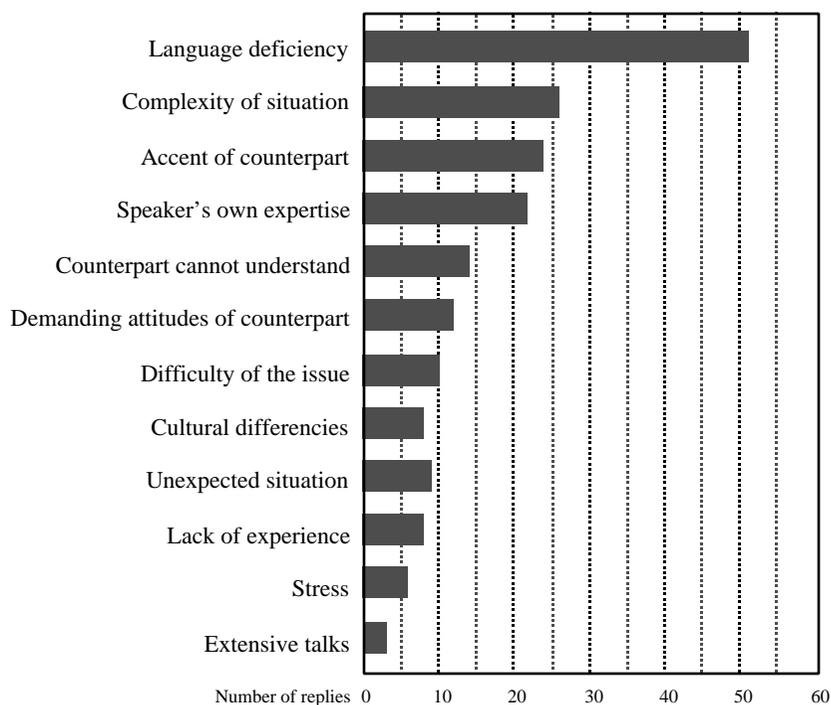
GRAPH 31.   Factors Causing Difficulty in Demanding Communication Situations (n=190)

This result supports the view that foreign language skills are not to be looked at as an isolated linguistic activity, but rather as an integral part of work communication. In work communication language is a limited tool for expressing important contents through various means: communication strategies, behavior and body language, verbal expression, interpretation, exchange of gifts and invitations among others.

8.3.2 Ordinary Communication Situations

What is demanding for one employee may just be ordinary for another. The most common ordinary work situations in a foreign language include social talk, routine telephone calls (taking messages, passing on calls) and travel. These are followed by reading manuals and instructions and by email and fax writing. Client contacts for instance at the fair, hosting visitors and talking about oneself are often considered easier than dealing with processes, discussing deliveries, installations and maintenance or negotiating with clients.

The employees have also been asked to give the reasons why communication could be successful in these situations though a set of open questions.

The most important success factor is comprehension. One must be able to understand different accents and dare to ask for repetition and reformulation. Telephone language is a challenge: it is important to learn to understand different accents.

Another group of explanations does not relate to language, but rather to the strategy in the situation. Some examples can illustrate this group of reasons:

– One must be service-oriented and master the subject matter well. (11B11)
– One must agree to take an oral confirmation of order instead of a written one. (11B12) It is important to be able to ask enough questions so that the whole problem gets solved and no further phone calls will be required. (11B31)
– It is important to be able to raise interest towards the company and its products. (11B42)
– It is important to be able to set the targets of the talk right. (12B11)
– It is essential to speak in practical terms so the client understands. (12B21)
– You must be able to popularize the facts to a trainee. (12B23)
– It is essential to agree on the meaning of terms used. (16B12)

Some respondents complain that the situation is difficult because such a lot of responsibility is at stake and they need to make sure not to cause damage to the company but promote the company objectives.

Mastery of technical terminology is necessary for the message to get through. Later we will see that personnel managers have an optimistic view of the professional terminology skills of their employees; employees see this as a weakness.

Besides knowing the technical terms right it is important to give out accurate details: This may go together with another requirement, which is mastering one´s own subject area. Politeness is essential: many employees have observed the difference of politeness practices in different cultures. One must be able to express one´s ideas clearly and have understanding for the customer´s needs.

It does not seem to be enough to concentrate and listen; one must also create a good contact and react promptly to the counterpart´s statements. Some point out that it is essential to be able to differentiate be-
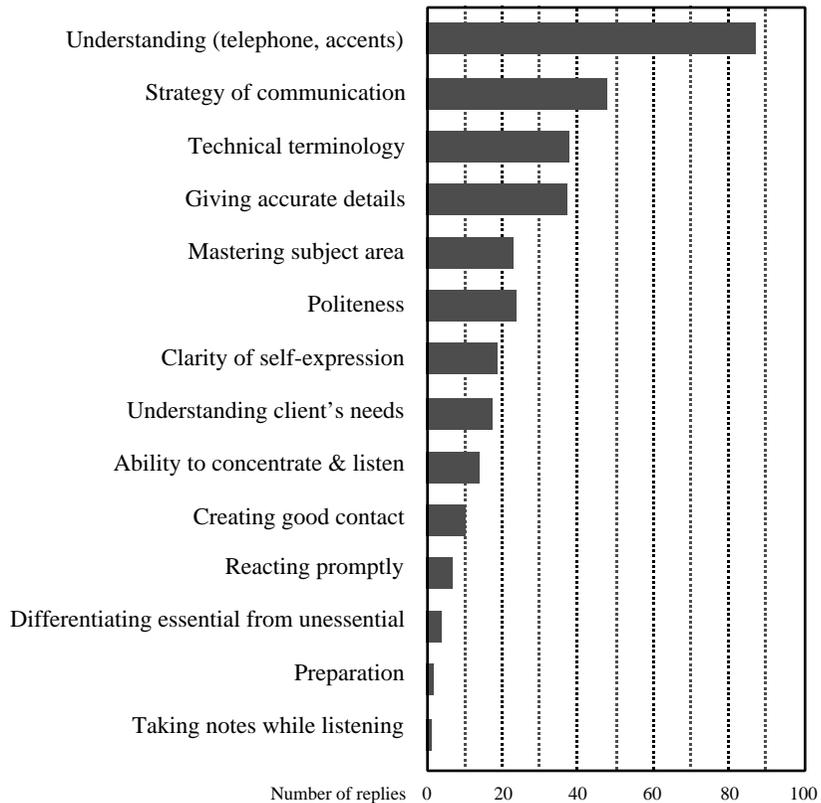
GRAPH 32. Reasons for Communication to be Successful in Ordinary Communication Situations (n=280)

tween the essential and the unessential. Preparation is necessary according to some informants. Taking notes while listening is also recommended.

Graph 32 shows these reasons in a diagrammatic form.

8.3.2 Types of Ordinary and Demanding Communication Situations Compared

The employees were asked to give an example of a difficult and ordinary situation, which they would describe. They have themselves named the cases as either demanding or ordinary. Table 27 shows which categories the respondents have regarded as ordinary and demanding.

We find that some categories are blank or almost blank: employees have declined to give an example for either a demanding or a ordinary situation. These are for instance categories for talking about oneself and one's work, travel, social talk, reading some documentation or writing a memo. The reasons may be many.

TABLE 27. Communication Situations Exemplified by the Employees

	Ordinary n=188 %	Demanding n=204 %
1. Talking about oneself and one's work	0	0
2. Travel	0	0
3. Social situations (e.g. introductions, small talk)	2	0
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	12	4
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	26	16
6. Hosting visitors	8	7
7. Solving EDP-problems	2	1
8. Explaining a process or a (working) method	2	0
9. Discussions concerning deliveries, installations, maintenance	6	7
10. Fault analysis, solving problems	5	3
11. Tutoring a new employee	2	4
12. Reading manuals, instructions, professional literature	2	2
13. Reading company documentation (memos, quotations etc.)	0	1
14. Writing email messages, faxes; taking notes in a meeting	2	0
15. Writing memos, reports, documents	1	0
16. Giving a presentation (e.g. company profile, product presentation)	8	11
17. Meetings, negotiations	11	17
18. Other, please specify Interpreting Interviewing Projects abroad	1	6
No answer	10	21
Total	100	100

One explanation may be that that the categories like talking about oneself and travel are so 'simple' that employees have decided to leave them out as simplistic. Another reason may be that the categories for reading and writing are more difficult to be seen as 'situations' to be described. However, a comparison between the ordinary and demanding situations shows how what is demanding for one employee may just be ordinary for another.

In this table we can also see that the most frequent ordinary situations by all employees are client contacts, telephone conversations, meetings and negotiations, presentations and hosting visitors. Other larger groups include meetings and negotiations, client contacts, presentations and discussions on deliveries, installations and maintenance. The rest are distributed between the remaining other categories.

In comparison between demanding and ordinary examples we can see that routine telephone calls are hardly ever demanding. Client contacts are usually just ordinary, but more demanding than routine telephone calls. Many of the oral interaction situations have been exemplified as both ordinary and demanding: hosting visitors, discussing deliveries and installations, fault analysis and solving data processing problems.

Some of the situations are more often demanding than just ordinary. They are meetings and negotiations, presentations, interpreting, job interviews and projects abroad. There is also a major group of unclassified cases, which were too vague or blank for the identification of the situation. They are not included in this table, but will be discussed in section 9.

8.3.4 Background of Demanding and Ordinary Communication Situations

Some socio-linguistic features of communication situations such as nationality of the counterpart, location of the contact, set-up or interactivity of a communication situation have been compared between demanding and ordinary situations.

In an ordinary situation the counterpart comes from somewhere in Europe. Communication with Europeans and Asians is easy rather than difficult. In demanding situations the counterpart is often American or some unrecognized nationality. An American, of course, has the benefit of speaking her own language. Communication with other Scadinavians is more often difficult than not; Finnish belongs to a different language family than the rest of languages in Scandinavia. The number of answers was too limited to make it possible to isolate nationalities in more detail.

Another observation worth noting is that only 50 informants (of 178 records of ordinary situations) mentioned something about the nationality

TABLE 28.   Nationality of the Counterpart in a Communication Situation

	Demanding situation n=146 %	Ordinary situation n=50 %
Scandinavia	8	12
The rest of Europe	6	58
(North)America	59	6
Asia	1	12
Other	26	12
Total	100	100

of the counterpart in ordinary situations. In some of the interviews employees could not answer the question of what nationality the counterpart was; a ´foreigner´ seemed to be enough for identifying a counterpart. Interestingly enough the counterpart´s nationality was registered in demanding situations.

There are some similarities but also differences concerning the location where the communication takes place, as can be seen in the table below.

It is common to have both ordinary and demanding communication situations at work. However, the other ordinary contacts often take place in the office. The demanding situations happen elsewhere, in places not familiar to the informants. This could be at a fair, in a conference or reception, in a forest or outing, at an accreditation authority or some other unfamiliar environment.

An interesting observation can be made of the interactivity of the demanding and ordinary communication situations. Notice that the category 'one' refers to a situation where a person is reading a contract or writing a document.

TABLE 29.   Location of the Communication Situation

	Demanding situation n=150 %	Ordinary situation n=165 %
In the premises of the informant or the counterpart	58	51
Out in the city	3	2
In the office at work	8	37
In a conference room	6	2
Elsewhere	25	8
Total	100	100

TABLE 30.   Set-up of Ordinary and Demanding Communication Situations

	Demanding situation n=140 %	Ordinary situation n=164 %
One-to-one	31	60
One-to-group	33	26
Group-to-group	34	12
One	3	3
Total	100	100

Ordinary situations are more often one-to-one situations, which are not considered as demanding as one-to-group or group-to-group situations. They can take place in a familiar environment such as home office and repeat expected patterns of behavior and content. The degree of difficulty increases as members at the negotiations table multiply. In a multi-party negotiation, more points of view, more objectives, more approaches to problems and culture-bound behavior. In the table we can see that the most demanding situations are those where groups are negotiating against groups.

This is illustrated by graph 33.
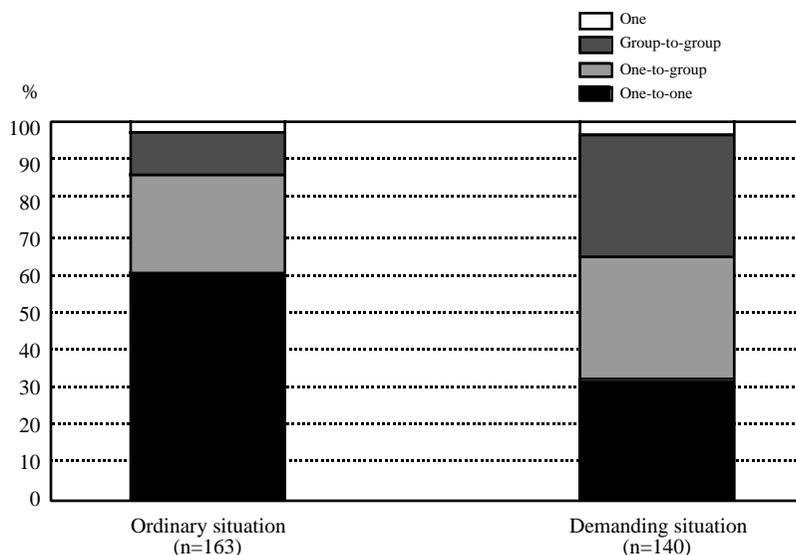
GRAPH 33.   Interactivity of Ordinary and Demanding Communication Situations

8.4
Communication Situations by Gender

It is no surprise that secretarial jobs are female-dominated, technical and production jobs male-dominated and commercial jobs more even. Management jobs are commonly male-dominated but in this sample (which does not concentrate on the management level) the situation is almost even.

Many of the communication situations have similar importance for both female and male employees: social situations, client contacts, reading company documentation and writing documents. But in other situations the profiles of women and men differ.
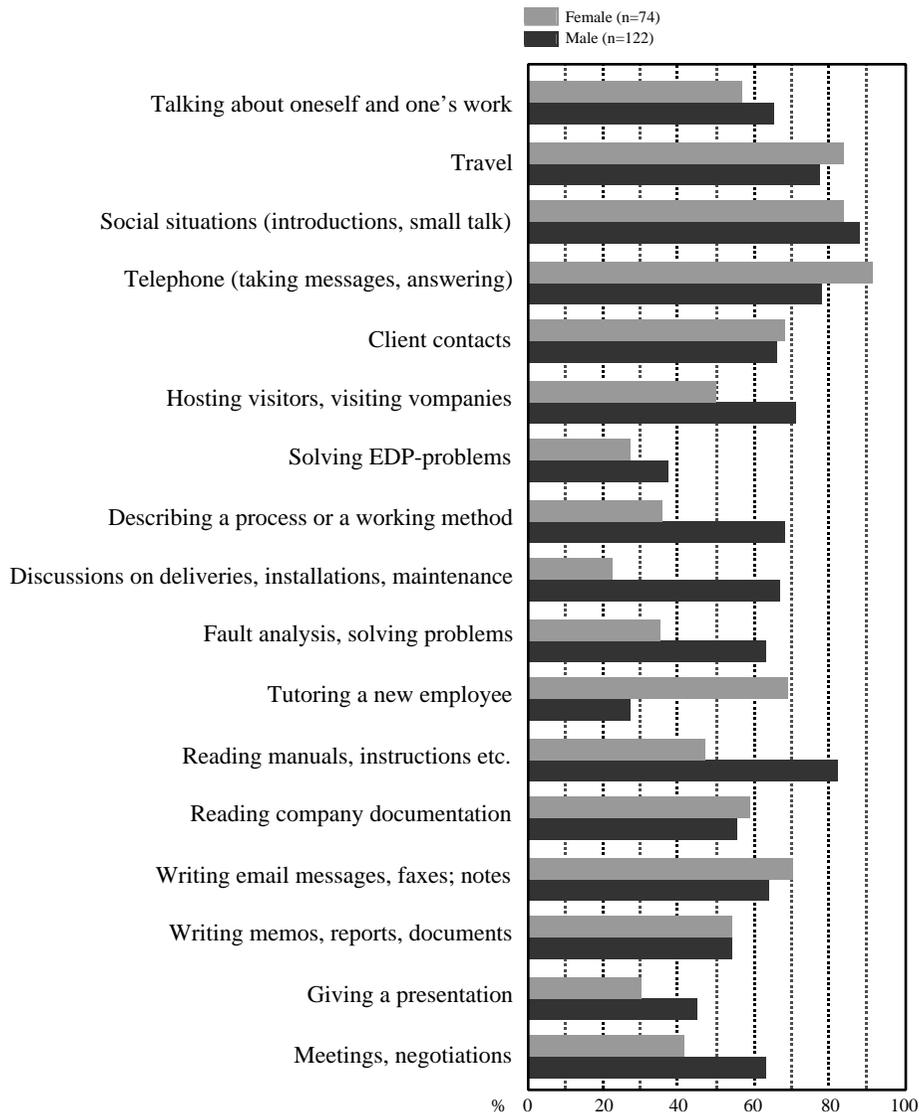
GRAPH 34.   Communication Situations by Gender

Male employees are active in reading manuals, social situations, fault analysis, discussions on deliveries, installations and maintenance, processes, hosting visitors, presentations and negotiations – in a word, tasks that require reading and interacting with people. Female colleagues take care of routine telephone calls, deal with clients, write emails, faxes and other documents – one-to-one interaction and writing. Female employees are also involved more often than their male colleagues in tutoring new employees, as can be seen in graph 34.

With reference to section 8.3 for demanding and ordinary communication situations it is worth observing that many of the demanding communication situations are found in the list of male employees: negotiations, meetings, presentations, discussions concerning deliveries, installation, maintenance, hosting visitors. Situations classified by employees as ordinary have top priority in the female list: routine telephone calls and writing emails.

As for the level of language skills female employees of the sample demonstrate a higher level of skills in all of the languages, as can be seen in graph 35. A difference is discovered in all languages.
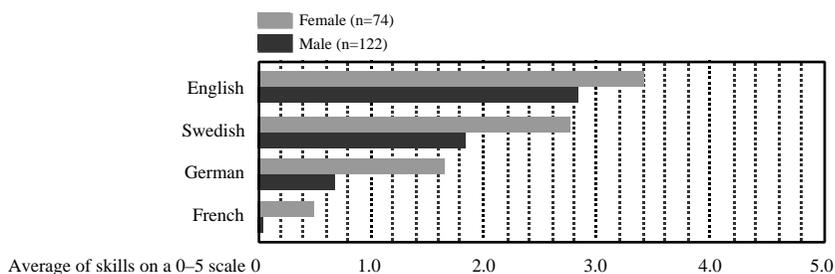
GRAPH 35.   Level of Language by Gender

In statistical analysis the difference in English in significant (t-test); the difference is highly significant in Swedish, German and French. It must be also be considered that the estimates of level are based on self-evaluation, which has proven to be a reliable method for the evaluation of language skills. Gender has been proven not to influence the reliability of self-assessment. Self-evaluation is an easy and reliable method, which has been in use in Finland since the1980´s.[76]

Compared with the results of a recent study concerning the students in the vocational sector[77], the conclusions for this sample of employees

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[76]   Sartoneva, P. (ed.) 1998. P.12.
[77]   Väyrynen, P. et al. P.147.

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in industry and business do seem to indicate a difference in the level of language skills and contents of communication domain. In the study concerning the whole population no difference was found between the test results for males and females. The difference discovered here will depend on many factors which cannot be dealt with in this study, for instance how much the respondent's educational background, field, position, age and personal capacities influence the experienced level of language skills.

Employees in this study were also asked whether their language skills were sufficient, not sufficient or partly sufficient. The results show a difference in figures. Statistically the difference is, however, not significant.

TABLE 31.   The Sufficiency of Language Skills by Female and Male Employees

	Sufficient %	Partly sufficient	Insufficient
Female n=74	43	38	18
Male n=123	29	48	18

This result shows that some of both males and females suffer from inadequacies in language. Male employees suffer from inadequacies more than female employees. This is logical because, as we have seen, their communication tasks are more demanding and their level of language is lower. The demands do not concern one language, but several, as we have seen.

The shortage of language/communication skills is reflected on the future plans of male and female employees in developing their skills. 82% of employees (161/197) plan to raise their language skills within the next five years. 32% of these are female, 68% male. Compared to the percentage of male and female in the whole sample (38% female, 62% male/n=197) the plan is slightly more male than female, which can be understood by the above figures of only partly sufficient language skills. However, of the group of 46 employees who plan to raise their language skills in three or more languages. Of these 43% are female, 57% male; thus there is female domination in the group of those very interested in language studies.

As for companies, they seem to have a competence resource in their female employees, which is not fully exploited. Whether the identified language/communication competence matches with other necessary competencies is yet a different question to be discussed elsewhere.

9. Communication Exemplified by Employees

Employees were asked to describe an ordinary and a demanding communication situation of their choice and explain what factors contribute to the experienced success in the situation or difficulty of the situation. The employees' descriptions also include some background factors of the situations such as location and participants (questions 20 and 21 in questionnaire B).

This section describes and exemplifies the communication situations as described by the employees.

The cases exemplified by employees have been recorded on case description sheets for closer analysis (n=392). Three examples are given, two for ordinary and one for demanding situations.

Type of situation (Number of category, 1–18)	5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)
Example number	70
Description given by the informant	Meeting clients at the fair
Degree of difficulty (Ordinary or demanding)	Ordinary
Number of case	35/6B23
Location	International fair in Finland
Those present	The informant and a Polish buying engineer
Nationality of those present	Finnish and Polish
What is essential for the ordinary situation to be successful?	To understand cultural differences and people with diffferent backgrounds
Description of the ordinary situation	The Polish client came to the informant's stand at the fair and asked about different paints. The client gave his contact information to the informant and asked him to send him samples and information on the company's dealers in Europe. He also told the informant that he would contact him after he had received the material asked for, which he did. He called and wanted further information on some of the products. The informant could provide him with some information right away but had to check some of it and cal him back later, mainly because he did not have the vocabulary he needed to give the information on the telephone.
Position of the informant	Sales Representative
Age of the informant	36–45
Educational background of the informant	Post-secondary/polytechnic
Field of company	Chemical industry
Size of company	Large

Type of situation	14. Writing email messages, faxes; taking notes in a meeting
Example number	245
Description given by the informant	Writing faxes
Degree of difficulty (Ordinary or demanding)	Ordinary
Number of case (Situation 1–18, Question 19/Case identification of the questionnaire)	123/ 15B23
Location of the situation	At work
Those present	The informant
Nationality of those present	Finnish
What is essential for the ordinary situation to be successful?	It is important to cut the text to its essence and make it simple.
Position of the informant	Project Designer
Age of the informant	46–55
Educational background of the informant	Vocational level
Field of company	Machinery and metal industry
Size of company	Small/medium-sized

Type of situation (Number of category1–18);	9. Discussions concerning deliveries, installations, maintenance
Example number	2
Description given by the informant	Training session (Eurotherm –training)
Degree of difficulty	Demanding
Number of case	1/1B11
Location	Our factory
Those present	Myself and a British man, age 45, who installs the system of a manufacturer
Nationality of those present	Finnish, British
Description of the demanding situation	The training takes a week. The English mechanic helped me in the servicing of a new profile for the control and adjustment mechanisms of our surfacing machine for a week. While he was here he also fixed some faults in the machine. At times I assisted him in the repair work.
Theelement that makes the situation demanding	The contents were new to the respondent and very comblicated. The respondent had stress for concentrating on a demanding topic in English. The respondent knew that she had to get it understood in one go since there was no time for discussion.
Position of the informant	Electrical fitter, 36–45 yrs, vocational level
Age of the informant	36–45
Educational background of the informant	Vocational level
Field of company	Forest/wood/paper industry
Size of company	Large

Employees (n=198) have exemplified a total of 392 communication cases in all. 48% of the cases given by the employees are ordinary, 52% demanding situations. The employees have themselves classified the examples either as ordinary or demanding.

Table 32 shows the distribution of the given examples into ordinary and demanding categories.

The following record introduces the situational categories as explained by the informants. Some supplementary information is included to give a full picture of the types of communications industrial and business employees face at work.

It may be worthwhile to say a few words about the categories. They were developed from a variety of lists and pieces of information as a

TABLE 32.   Communication Situations Exemplified by Employees

Category of Situation	Total number of examples	Ordinary situations	Demanding situations
1. Talking about oneself and one's work	0	0	0
2. Travel	1	0	1
3. Social situations	4	2	2
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	45	27	18
5. Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)	67	46	21
6. Hosting visitors	34	18	16
7. Solving EDP-problems	6	4	2
8. Explaining a process or a method	15	7	8
9. Discussions concerning deliveries, installations, maintenance	17	10	7
10. Fault analysis, solving problems	15	7	8
11. Tutoring a new employee	8	5	3
12. Reading manuals, instructions, professional literature	9	4	5
13. Reading documents (memos, quotations etc.)	3	0	3
14. Writing email messages, faxes; taking notes in a meeting	6	4	2
15. Writing memos, reports, documents	4	4	0
16. Giving a presentation (e.g. company profile, product presentation)	29	10	19
17. Meetings, negotiations	59	22	37
18. Other, please specify			
– Interpreting		0	4
– Interviewing		0	3
– Projects abroad	10	0	3
19. Non-classified	60	18	42
Total	392	188	204

result of reflection by all the 20 Prolang instructor-researchers and the Finnish working group. They have turned out to be fairly inclusive, since the category of *Other, please specify* only brought is in three more subcategories of interpreting, job-interviewing and projects abroad. Most informants were able to place their case under the appropriate category.

There are, unfortunately, some problems of overlap in the classification. For instance, if an informant has negotiated on the phone with a client, he could think of placing this case under telephone, under client contacts or negotiations.

To avoid this we have exemplified telephone with a notification of e.g. *taking messages, answering inquiries, making arrangements* to indicate that it is a routine telephone call, not really dealing with the business transaction or a stage of one, but getting organized for someone to deal with it. Client contacts are specified by *e.g. customer service, exhibitions, complaints by telephone, face-to-face).* Thus under client contacts we wanted to include a ´scene´ of the customer contact. These two categories were fairly well recognized by the repondents though some cases had to be relocated in the interpretation stage. Under the *category of negotiations, meetings* we did not specify anything, because it seemed like an exhaustive category of a coherent, structured, outcome-based, somewhat pre-scripted or preplanned, multi-party discussion. However, some small telephone negotiations were placed under it, which then had to be relocated again.

Situational categorization can and must certainly be developed. But as a working tool it has functioned relatively well. The number at the end of each example refers to the number of the case example (n=392). In the following the number given in brackets refers to the description of the case. This makes it possible to trace the company and employee, if more information will be necessary for building a case simulation, for instance.

9.1
Talking about oneself and one's work

No examples have been given for this category. It is a frequent situation especially for those in management positions. It may not have been exemplified since those who need it will have had a chance to rehearse for it and therefore it may be nothing worth mentioning.

9.2
Travel

One example has been given for this category. Travelling is the second most frequent of important ordinary communication situations and not mentioned as a demanding situation. People with all educational backgrounds make it clear that they need it. About seven of ten people with a vocational background need language for traveling, nine out of those with a university background.

9.3
Social situations

Only four examples have been given for this category. This may sound very little, but many of the other cases in other categories include stages of social talk; thus this category seems to be an important one.

Ordinary situations are exemplified by a book-keeper from a small company in the service industry who works at the information desk and needs to inform tourists about local sights and shops.(85) A calculator of wages from a large chemical company meets foreign employees in the pay office and needs to make small talk while dealing with wages.(65)

A young project manager has participated in a social event. There have been a lot of different nationalities from all around the world. The purpose of the evening is to spread goodwill for the company. He finds that mingling is not an easy skill in this demanding situation. One must discuss a variety of matters with people who have some kind of interest in the product and the company. (334)

A product manager in his thirties from a small company finds it demanding to have dinner with a group of clients in a restaurant. He finds his vocabulary insufficient for the situation. (266)

9.4 Telephone (e.g. taking messages, answering inquiries, making arrangements)

Examples of telephone calls include a variety of cases. The ordinary calls include finding out what/whom the caller wants, transferring calls, taking messages, answering inquiries, sorting out questions concerning names, locations, driving directions.

Demanding situations deal with similar situation, but often with some stress element such as a bad line, strong accent, constant rush at the telephone exchange or some other confusion.

A departmental secretary receives a phone call from a truck driver as to the location of the customs office. She gives him the directions on how to get there. (191)

A research technician from a medium-sized company speaks to a client, who had first been talking to the wrong people. He needed information on a particular machine and the employee manages to explain and make an appointment for two weeks later. He is afraid of failing because of the lack of practice in speaking a foreign language. (212)

A switchboard operator from an electronics company receives a call from a woman with a strong accent, who wants to talk to the marketing manager. The caller wants his email address and the operator realizes that she does not know the sign for @ ('at'). The operator also notes that the constant rush in the telephone exchange makes it hard for her to concentrate on speaking English. (122)

An executive secretary from a large company in the field of mechanical engineering frequently receives calls from Asia, Southern Europe and America. These calls include a lot of foreign names which she needs to write so she must pay close attention to what the person calling is saying. (59)

A departmental secretary from a medium-sized paper company makes a point of writing down all the essential information during the call. (113)

An accountant makes a point that it is essential to understand the message and act accordingly. (51)

An assistant chief from a small mechanical engineering company is filling in for someone in the telephone exchange. He finds that it is essential to understand what the client wants and know the staff well enough to be able to transfer the call to someone who can help the client. (235)

An employee from a chemical company talks to a Russian who does not know English too well. The employee does not know the details about the matter. The caller wants her to handle the case instead of the roommate since the roommate does not speak good English. (340)

An executive secretary from a large company in mechanical engineering must give accurate information on something that she is not necessarily familiar with. The Asian client notes that he has tried to reach a person several times already. The employee notes that it is important to explain very politely why the person he is trying to reach is not there at that particular moment. (60)

A departmental secretary from a large company in the wood industry receives a phone call for spruce saplings for business gifts. She explains that they cannot not help her and direct(S) her to another company who deals with this activity. The employee notes that it is sometimes extremely difficult to tell what it is that the client really wants. (114)

A mechanic from a small electronics company receives a call from a Frenchman. He cannot make out what the Frenchman is saying. The caller gets mad and hangs up on the employee. (224)

A switchboard operator makes the point that it is essential that the person speaks calmly, be very articulate and avoid using regional accents, which are sometimes difficult to understand. (233)

9.5 Client contacts (e.g. customer service, exhibitions, complaints by telephone, face-to-face)

Client contacts in this study are understood as contacts which occur with clients without clear prior appointments and which are typically either not planned or loosely planned.

This category of client contacts is perhaps a group that needs to be re-categorized since it is easy to confuse with other categories. For instance routine telephone calls (8.4) could be classified as client contacts as well. But, as we saw in Section 9, in this classification client contacts are expected to have more substance than routine calls (transferring calls, receiving messages), but are not yet as structured and planned contacts as meetings, negotiations or presentations.

Client contacts are exemplified by face-to-face contacts or telephone calls.

Client contacts face-to-face:

Face-to-face contacts occur often in customer service situations, sales contacts, contacts at the fair, demonstrations or exhibitions. Telephone contacts deal with deliveries, transportation, forwarding, orders, schedules, confirmations or payments of business deals. They may also deal with technical processes or technical details.

An exports secretary from a small company meets a British client in the exhibition room. The client is a professional in the field of technology, whereas the informant is not. She has a commercial education and some work experience in the field. The informant notes that it is essential to know all the common courtesies and have a good salesmanship in order to keep the client interested in the products. According to the informant, it is hard to manage a situation in which the other is a native speaker of English because that gives him a tremendous advantage in the talks.(184)

A storeroom salesman from a small company in the service industry meets an Irish male customer who wants to build a bar counter. For this purpose he needs to purchase wallboard of various qualities. The wall-

board needs to be cut in various shapes to make a bar counter. The salesman finds the situation demanding because the customer has a strong Irish accent, which makes it hard for the informant to understand at times. It is also difficult to explain all the required details. (14)

A head of a workshop meets at the office to discuss the payments with a foreign client. The situation is found demanding because it is not easy to explain complex matters in a simple and clear way. One must also have good professional skills in one's own field. (303)

A departmental manager from the service industry meets a group of customers in a common sales situation. It is essential to find out the interests of the customer, find the right product for him or her and help him/her to find it. (87)

A sales representative from a small/medium-sized company meets a group of Russian customers. He points out that it is extremely important to master technical terminology and the common courtesies in English to make the situation more enjoyable for the customers. (15)

An export secretary from a small or medium-sized company is participating in the fair. He meets a gunsmith from Germany who complains about the procedure of the importer in a complicated case of reclamation. The informant has to figure out whether the reclamation is really justified and decide on the piece of advice to give him. The language is not a problem, according to the informant, although he admits that these matters are not easy to handle in a foreign language. (166)

A production engineer from a small or medium-sized electronics company visits a fair in Munich, Germany with colleagues from different companies. His job is to test different machines and exchange opinions and experiences. The informant notes that he/she will have difficulty understanding if the opposite party comes from an English-speaking country. (132)

Client contacts on the telephone:

An export assistant receives a call from a Hungarian client at work. The client wants to know about the design of the machinery. The informant will call the designer, find out the facts and inform the client. (76)

A shift-master from a large paper company speaks to a German supplier in order to find out details concerning ambiguous technical terms. He comments that he usually needs to explain the way the company's production works before the problem is solved. He suffers from insufficient command of technical terminology. (4)

An American client calls an export secretary to discuss the delivery of the machinery over the telephone. The secretary needs to figure out the right time of a coming phone call because of the time differences.

The client is in a hurry, which makes the situation demanding. The matter will have to be dealt with fast but yet well. (26)

A customer service assistant from a small company receives a phone call for a person who is absent and has to explain the situation for him. The situation is difficult because the caller cannot understand the particular policy of the company and the employee has a poor command of English for explaining. (310)

A foreman speaks to a Spanish supplier to get a solution to a machinery problem. The situation is demanding because the fault in the machine needs to be explained in detail and the repair work needs to be done according to the instructions received by telephone. (56)

A foreman from a chemical company has sent machinery abroad to be repaired. They contact the foreman to inquire if they want to have the machine repaired regardless of cost. The point of difficulty according to the foreman is that you have to give the proposal a lot of thought before deciding anything. (92)

A young invoice clerk gets a phone call from a British contact person. After common courtesies she answers questions concerning the time and quantity of delivery. Her insufficient vocabulary and command of technical terminology cause problems in the situation. (104)

An export secretary from a small chemical company receives a reclamation by telephone. Both parties, the informant and the caller, are only middlemen and will have to inform their supervisors before deciding the matter. The informant points out that the situation requires a good command of English and ability to stay focused throughout the telephone call, because there is a great risk of misunderstanding. (336)

A departmental manager in the service industry receives a phone call from a representative of a foreign company who is trying to market a new product. The situation is demanding because there is no way to prepare oneself for these situations. The representative usually wants to deal with the matter at once. Sometimes the informant has trouble understanding the caller due to his or her strong accent. (88)

9.6
Hosting visitors

People who need to host visitors in companies include many groups of employees: not only management staff but mechanics, secretaries, switchboard operators, repairmen, laboratory workers, designers, quality control people, a variety of people.

For the common situations some informants point out that it is essential to have the courage to speak languages, and to master one's own

specialist field but also the general knowledge about current developments in the company. It is also essential to take cultural differences into account and know about the future plans of the company. The situations are demanding because many people are involved at the same time and complications like noise in the production space and changes in the schedules and program may involve people quite unexpectedly.

An industrial designer with a vocational school background is involved in hosting a visit. A British guest, the chief buyer of the Finnish company, the informant's superior, the managing director of a major Finnish electronic supplier are involved in a business transaction. The informant picks the Briton up at the airport. In the morning he meets the visitor at the hotel, drives him to the company. The informant and the Briton spend the morning talking about the informant's company. In the afternoon the Briton will meet with the chief buyer to discuss the annual contract of the purchase. The next day the visitor will go and meet other business associates. The informant will take him to the airport at the end of the visit. The situation is demanding because the informant knows that if they fail to lose the deal his career is in jeopardy. (82)

A maintenance planner from a paper company hosts a tour on the production line. The situation is demanding, because it is unexpected and the informant needs to cope in an ex tempore situation for representatives of other units within the company. There is constant noise in the background. It is also hard to just jump into this kind of assignment. (214)

A production designer from a paper company is in a conference room with a representative of the agent and the sales manager of his own company. The informant must welcome the guests and make small talk with them. It is the informant's job to explain the different phases of the manufacturing process and she does this very often by using a diagram as an aid. In addition to this, she is also to give information concerning such matters as the time of delivery and the amount of delivery. According to her, the agents usually ask questions after the presentation is over. She says that she very seldom needs to go into small technicalities with them, however. The informant finds it hard to express herself in English. This, according to her, has a lot to do with the way she was taught English at school. Everything had to be accurate or the instructor would interrupt the student. Furthermore, the informant notes that she does not know the technical terminology as well as she ought to. (6)

A quality engineer meets the chief of quality of a French company, who is a 45-year-old-woman. The visit lasts a day. The atmosphere has been a little stiff in the beginning. According to the informant, the Frenchman speaks fluent English but it is she who does not feel comfortable about speaking English at first. The main purpose of the visit was to find

out what was wrong with the machines that the French company had purchased from the informant's company. The informant clarifies that the faults in the machinery are usually an outcome of improper usage or a defect in the machine. The informant has also been given a tour in the laboratory of the company, where she and her host had compared the Finnish and French research methods. (8)

An electrician from a paper company is having lunch in the canteen with a foreign visitor. He needs to explain the dishes in English and speak about the technology of their products. The electrician finds the situation demanding, because of lacking technical terminology. (58)

A marketing secretary is hosting visitors, who are foreign guests together with some professionals of the field. She points out that there have been many misunderstandings during the visit. She also writes that the vocabulary has been changing so much in the field of forestry during the past few years that one has to be extremely careful with the words one is using. (112)

A marketing secretary reports that she has been hosting a visitor at work. The guest has been taken to a restaurant. The informant finds the situation demanding because she needs to discuss topics related, for example, to politics, hobbies and contemporary issues in the conversation with the client. (326)

9.7
Solving EDP-problems

People that have mentioned examples on solving EDP-problems include a program designer, EDP-engineer, an accountant, a calculator of wages and a telephone fitter.

A telephone fitter points out that it is necessary to understand the commands on the screen, because if you misinterpret them, it can result in the breakdown of the whole system. All the manuals and instructions are given in English. (123, 124)

An accountant participates in EDP-training with controllers from Finland, Sweden, Poland and Estonia and employees of the company. A new computer program is presented to the participants and everybody has their own PCs to work with. The program is done all in English. (52)

An EDP-engineer speaks on the phone with a Danish representative of a subsidiary company. One has to plan carefully beforehand what he or she will say because the matters that require explanation are usually rather complicated. Another reason for this is the fact that one cannot demonstrate what he or she is trying to say over the telephone. A typical situation would be to try to find out why someone's e-mail is not working. (11)

9.8
Explaining a process or a (working) method

Employees with many occupations have given examples for explaining processes: foreman, cathode maintenance man, laser operator, spare parts salesman, harbor master, planning engineer, research technician, project engineer, product development engineer.

The situation may be of explaining how a machine works/operates, how to operate machinery, what stages the working process consists or how, for instance, installation should proceed.

A project engineer with vocational background is installing machinery at the client's premises. The informant needs to explain to the Indonesians how the machinery is installed and how they should work it. The situation is demanding, because both parties have a poor command of English. (246)

A product development engineer with vocational background from a small company in mechanical engineering gives a thorough presentation on how to operate the machinery and make sure that the client is able to follow the presentation. This takes place outside due to the size of the machine. (27)

A head designer from a small or medium-sized company gives a training session in Strasbourg to a group of French machine operators who are assisted by two interpreters. The designer finds it difficult to express himself in English. (242)

A spare parts salesman conducts a radiotelephone conversation with a group of Ghanaians, which is demanding, because of a bad radio link, the Ghanaians' poor command of the English language and their insufficient command of the technical terminology in English. The vehicle of the Ghanaian peacekeepers had broken down and the informant needed to give them instructions how to repair the vehicle over the telephone. The radio link was also bad, which caused problems of understanding. (210)

9.9
Discussions concerning deliveries, installations, maintenance

Those who have exemplified discussions on deliveries, installations and maintenance as ordinary situations include a manufacturing manager, production manager, personnel manager, technical manager, area manager, development technician, maintenance man, export secretary and electrician. A maintenance manager, industrial designer, forwarding agent, machine operator, spare parts salesman, foreman and a repairman have mentioned situations that are demanding.

The situations occur for instance with representatives of dealers, importers, consulting companies, suppliers, buyers, clients, installation companies. A maintenance manager from a small/medium-sized company is discussing the installations with British electricians. The situation is demanding because there are two installation projects going on at the same time and it is hard for the informant to recall all the details of the project. The informant also has trouble understanding what the Britons want due to his insufficient command of the English language. (374)

A forwarding agent from a small/medium-sized company meets with the export assistant, the export manager and a Brazilian client. The informant plans a new route to ship the goods to Brazil because the client has a particular airline and transport business that he wants to use. The client speaks English with a strong accent and the informant has a hard time understanding what he means. Another thing that makes the situation hard is that the informant has never handled that particular client's matters before. (256)

A spare parts salesman conducts a telephone conversation with a British client. The client has contacted the informant's company due to problems in the machinery he has purchased from them. He wants information on spare parts, their prices and delivery. The informant made the client an offer over the telephone. (208)

A foreman from a small/ medium-sized company works with two Japanese fitters who install new machinery at the plant. The foreman notes that it is important to have the ability to communicate with the foreign fitters during the installation process. (198)

A repairman from a large electronics company is installing machinery with an Italian mechanic. According to the informant, the Italian mechanic also had a relatively limited vocabulary in English, which made it harder for the two to communicate. The informant noted, nevertheless, that the two men began to understand each other better towards the end of the project. (142)

A staff manager is assessing a procedure together with his colleagues and the representatives of a foreign consulting company. It is essential, according to the informant that all the documentation is dealt with very carefully. (93)

9.10
Fault analysis, solving problems

Examples in this category have been given by a variety of occupations: buyer, cathode maintenance man, tutor for new employees, production planner, materials manager, development technician, development en-

gineer, project manager, sales engineer, radio engineer, planning engineer and harbour master, electricians.

A radio engineer from a small or medium-sized company repairs a fault in the telephone network. The radio engineer and a German supplier read manuals and discuss the fault. It is important to understand the terminology, otherwise the manual is of no use, the engineer reports. (126)

An EDP development engineer tries to solve a problem concerning software on the telephone with an Iranian client. According to the Iranian way of thinking, the relationship between two companies of different nationality reflects the relationship between these two countries, which is why the informant experiences a huge responsibility every time he deals with matters that have anything to do with Iran. On top of this, there is also the financial responsibility. (250)

A project manager from a small or medium-sized company in the field of mechanical engineering is solving a problem in the machinery delivered by their company. There are five people trying to solve the problem: the informant, a Finn, and four Portuguese men: the maintenance man, the product manager, head of the electrical engineering department and a mechanic. The project manager is the only representative of the company dealing with the problem.

The maintenance man of a Portuguese client has called and informed the informant's company about problems in their product. The situation could not be handled on the telephone and the informant was sent to Portugal to solve the problem. After the problem was solved a meeting was held to sum up the situation. After talking to the local maintenance man the informant learned that one purpose of his trip was to assure the product manager that the machinery was properly maintained. After his return to Finland the informant wrote a report to the maintenance man about his visit with the Portuguese company. Cultural differences, the client's poor command of the English language and getting a grip of the situation cause difficulties. It is also demanding, according to the informant, to work alone and be the sole expert on the case. One needs to have a vast knowledge of the machinery and matters related to it. (240)

An electrician from a small or medium-sized company is localizing a fault in the machine they have purchased, together with the representative of the supplier. According to the informant, the most important skill is to master the technical terminology, which is relatively hard, because one has not been taught that kind of vocabulary at school and not even dictionaries have that sort of lexicon. (57)

9.11
Tutoring a new employee

Examples of tutoring a new employee have been given by an accountant, a staff secretary, a mechanic, a calculator of wages and some foremen.

A foreman from a small or medium-sized mechanical engineering company is tutoring a foreign trainee together with a mechanic to his work in production. The foreman points out that it is important to give clear and understandable directions of what to do and how. (197)

A mechanic is in the workshop tutoring a foreign trainee. The foreman is also present for part of the time. The mechanic points out that one must have the ability to explain everything in such a manner that the trainee understands. Demonstrating a working method or a process is a good way to tutor people, he reports. (193)

A foreman is giving an introduction session for new employees in Eastern Finland. The group includes a Russian, for which reason the session is held in English. The informant explains what he does in the company. The session contains a lot of technical terminology, he points out. (50)

A calculator of wages tutors a new German employee in the pay office. The informant and the German employee exchange hellos. The informant asks for his/her bank account number, tax deduction card and informs him/her of the payday. The new employee asks a few questions about the company, working hours and canteen facilities. (66)

9.12
Reading manuals, instructions, professional literature

Despite the frequency of reading tasks among the communication tasks of employees only a few examples have been given for this category. One of the reasons may be that it is such a self evident skill that respondents assume there is no need to mention it. The persons who have exemplified reading tasks include mechanizers, machine operators, a laboratory engineer and an area manager.

The informants have rather vague descriptions of what they do for reading. It seems to be manuals for installing machinery, finding out the operations of machines, clues of how to fix faults or repair machinery or instructions of how to service or maintain a system.

It is pointed out by some of the informants that the language used in manuals is very difficult to understand (216). One needs to master the technical terminology of the field (181). Reading manuals is demanding because one has insufficient command of the English language (228).

9.13
Reading company documentation (memos, quotations etc.)

Reading internal company documentation is not a category worth mentioning since the informants have not exemplified this category. There are two types of documents which are mentioned: offers/quotations and legal documens. The reading/going through of legal documents also occurs under negotiations, so it is a text worth mentioning.

A production manager is going through an offer to decide whether the company is interested in them. The informant points out that offers are usually handled through mail. Face-to-face contacts are rare. The informant makes a point that one must be very careful when going through the offers. (90)

A head maintenance man is reading through a contract at the client's. He points out that reading legal documents is hard for someone with no training for such texts. (298)

A sales engineer meets a Dutch buyer at the company in Finland. They go through a contract of 25 pages with the Dutchman and decide to make some alterations to the text. (180)

9.14
Writing email messages, faxes; taking notes in a meeting

This category includes short written notes, emails, faxes and forms, and taking notes in a meeting.

Employees find writing email messages easy. Those who have mentioned email messages include positions such as project engineer, customer service assistant, marketing manager, marketing executive, industrial designer, project designer, sales manager, office manager. It is essential to note that telexes and faxes are also still used.

A marketing executive sends an email to the representative of their office in Poland. He points out that it is essential to answer the inquiry without delay. One also has to make sure that the message has reached the other end. (53)

An industrial designer with vocational background replies to an inquiry from a German client. He points out that it is essential to know how to use measuring devices and have the ability to choose the right device for a job. One also needs to know how to explain the matter to the client. (81)

A project designer with from a small or medium-sized company in mechanical engineering (vocational background) writes faxes to clients' inquiries. He points out that it important to cut the text to its essence and make it simple. (245)

A sales manager writes an invitation of tenders to a British client. According to him, one needs to be able to answer the questions of the client and ask questions oneself. The client gives a technical review of the product and after that the informant asks for further information. (61) (Author's note: This example, too, is an indication of integrated skills in one business transaction. The written element is included in the sequence of a chain of actions, many of which interactive.)

An office manager from a large service company translates an itinerary and faxes it to a foreign client. According to the informant, the fax had to be an exact translation, which meant that it had to contain the same facts as the original. The English grammar was hard for the informant. (282)

A secretary in her fifties from a small/medium-sized company in the service industry needs to fill out customs declaration papers, which she notes is the only occasion where she needs English. Due to her poor command of English this work is demanding. She gave this example as an unclassified case. (18)

9.15
Writing memos, reports, documents

This category includes typical business correspondence such as inquiries, quotations, memos, reports and the like.

Not many of the informants have given examples for this category, and those who have, have classified the examples under ordinary, not demanding cases of language use. One reason may be the richness of letter models available for help.

A marketing manager in his late thirties from a small/medium-sized company in mechanical engineering mentions that he has drawn up an offer together with a peson whose job it is to finalize the document. He points out that it is important to be able to understand the inquiry by the client and answer clearly without delay. (35)

A marketing secretary in her thirties from a large paper company produces a thank-you note to a client. She points out that one needs to master the most common phrases in the English language a be a good letter writer. One must also know the techncal terminology of one's own field. (111)

A quality engineer from a small/medium-sized company in the forest industry produces a written response to a claim in his office. He has observed that it is essential to be able to explain the company policy in such matters. For example, he mentions, sometimes a thorough examination of the fault must take place before compensating actions are taken. Moreover, one has to explain the customer about the arrangements concerning the return of the product and the nature of the compensation. (7)

9.16 Giving a presentation
(e.g. company profile, product presentation)

The situations given as ordinary consist of a product presentation, a company presentation and introducing a subject for discussion. The demanding presentations are also product presentations, company profiles and presentations for a larger audience in a conference, workshop or training situation.

A purchasing secretary in her thirties from a small/medium-sized mechanical engineering company gives a company presentation to a group consisting of her, the chief buyer of the company, a sales manager and a sales secretary from Italy. They have met at the fair. The representatives of the Italian company visit the informant's company to market their products. They are given a presentation of the company and they will be shown around the factory. (168)

A logistics engineer in his thirties from a small/medium-sized company meets an Italian salesman for the first time to become familiar with the factory the informant works in. At first general introductions take place, after which the informant gives a presentation on the company. After that the informant takes the Italian around the factory and later they have lunch together. The demanding element in the situation is the technical terminology and lack of experience in giving presentations. (128)

A forest machine operator under 25 from a small/medium-sized service company needs to give a presentation to a British client on the parts and operation of a machine. The situation is demanding. (204)

A quality engineer from a large electronics company gives a presentation in a conference room to a group of industrial designers from Australia. The informant introduces himself and gives the presentation with the help of transparencies. The audience asks questions throughout the presentation. In case there is a question she cannot answer, the informant advises the audience to turn to one of her colleagues. (80)

A sales assistant in her 40s gives a technical review of their product to a group of three people: a Bulgarian buyer, his host in Finland and a factory worker. The informant must make an offer to the host and not to the Bulgarian, who is the buyer. The Bulgarian has to be assured that the machinery is worth buying. The informant does not know the technical terminology in English well enough. (260)

A deputy chief of telecommunications in his forties gives a company presentation to a group of instructors among whom there is a foreigner. The informant is prepared to give them a presentation on the company profile. She does not know, however, that there is a foreigner among the visitors and is in no way prepared to give the presentation in English.

However, she picks up few transparencies in English that deal with her company. They are of great help to the foreigner and makes it possible for the visitor to follow the presentation. (236)

A quality engineer in his thirties from a large electronics company is giving a presentation to an audience which consists of four different nationalities. The age span of the audience is from 25 to 55. The audience is big and the questions they ask are difficult, the informant comments. She steps in front of the audience, introduces herself, gives an approximately 20-minute presentation and afterwards answers questions. (78)

A sales assistant under 25 from a large paper company is giving a training session to a Central European agent. The general introductions take place over coffee before beginning the training session. The informant's job is to explain the company profile and the nature of the product with the help of an overhead projector. The others present will shed some light on how the product is manufactured. One needs to be able to answer questions afterwards. This sort of a training session usually lasts a day. One needs to make sure every now and then that everybody present has been able to follow. Cultural differences and the fact that the informant has to use a foreign language make the situation demanding as well. (20)

9.17
Meetings, negotiations

People from different occupations/positions are involved in meetings. In classifying the given case examples, efforts were made to classify commercial and technical meetings. This did not work. Neither did it work to divide the meetings and negotiations according to job titles: people in technical positions can deal with commercial matters and people with commercial positions titles can deal with technical matters. Technical people are involved in commercial meetings and negotiations and vice versa. It may therefore be best to desribe the kinds of meetings and negotiations which have been observed.

Those who have exemplified cases of meetings and negotiations include shipyard workers, packing development workers, laboratory workers, mechanics, electricians, (production or workshop) foremen, industrial designers, development engineers, laboratory engineers, logistics engineers, planning engineers, project engineers, project managers, production managers, productions designers, product managers, area managers, sales managers, export managers, marketing managers, forwarding agents, (export) sales representatives, accounting managers, departmental managers or controllers.

Most meetings take place face-to-face, though a few are done on the telephone concerning technical solutions to problems that are urgent. Commercial negotiations include sales negotiations, negotiations with suppliers on purchasing new machinery, contract negotiations, renewing annual contracts, dealing with disputes over contracts, negotiations concerning forwarding and transportation arrangements.

Technical meetings and negotiations concern industrial design, technical solutions to problems, financial consequences of technical changes, progress of projects and project work, testing, interpretation of agreements, auditing and standardisation processes, documentation of processes or work, delays, causes of delays, compensation and documentation of problems.

It is worth noting that in many of the meetings and negotiations an interpreter is used.

It may be wise to distinguish between meetings and negotiations, though there are cases which include elements of each. **Meetings** are fairly predictable, to some extent prescripted gatherings of two or more people. Meetings are characterized by short information inputs followed by discussions and decisions on progress to be taken. They often have either an agenda or program which has been decided upon either implicitly or explicitly. Meetings are often part of routine procedure A weekly departmental meeting or the first sales contact can be an examples of meetings.

Negotiations are arranged to solve a problem/problems to the satisfaction of both/all parties. It seldom has an agenda, or it may have two or more competing agendas, one planned implicitly/explicitly by one party, with priorities important to one party, and another one, planned or thought of by the other party, with another set of priorities. The outcome of the negotiation is less predictable than that of meetings. Contract negotiations or solving a technical problem can be examples of negotiations

Meetings:

A sales representative from a small/medium-sized company has come to the informant's company to offer their services. The informant's job is to listen to his presentation, make notes and ask for further information on subjects that are of relevance to his company.

The Briton spoke very fast and had a strong regional accent in his English. The informant found it hard to ask questions in English and he was also slightly distressed of the fact that he had sole responsibility for the situation. (16)

A maintenance engineer from a large electrical engineering company goes to England to talk about how machinery is maintained in Finland.

The informants´s job is to explain how it is done in Finland and discuss how it could be done in Britain. (322)

An electrician from a large building company is having a meeting with French and German customers. The electrician's job is to explain how the foam extinguishing system works and give details of the operations of some other machinery. (332)

A production manager from a small/medium-sized company is involved in a meeting with auditors of an external (foreign) auditing organization. The course of action in the firm is audited and the documentation of the working processes checked and documented. He reports that the technical terminology is the demanding element in the situation. (366)

A customer service manager from a small/medium-sized company in the metal industry has organized a meeting for all of their company's importers from all over the world. The executive board of the local company are all present. The informant notes that the meeting must be well-organized from beginning to end. Such matters as where to dine have to be taken care of beforehand. This occasion is organized once a year, and it is his job. The informant notes that the situation requires a very good command of the English language and organizing ability. (32)

A staff manager from a large chemical company arranges a meeting to discuss the fire insurance policy of their company with his colleagues and the representatives of a British company. The occasion begins with general introductions, after which the party discusses the changes in fire insurance value and the changes in the world of factories. They go through reports and documentation and go for the inspection round. In the end there is a sum up of everything that has been discussed that day. (94)

A project manager in his fifties is chairing a meeting with purchasing clients from Japan, Spain and Germany. The meeting starts, after which general information is handed out to everybody. This is followed by presentations of the members and talks on future goals. The situation is demanding, according to the client, because people come from different cultures and backgrounds and they all speak English as a foreign language. (302)

Negotiations:

An engineer from a pulp factory is negotiating with a foreign supplier, who is a British sales director. The equipment supplier comes to the informant's factory. At first, they have coffee and make small talk. Their job is to go through a precontract, in which quantity, quality, prices, time of delivery and means of transport are specified. At this point, the supplier is familiar with the product already so there will not be any need to

discuss it further. According to the informant, the whole session takes only about four hours. The informant's awareness of the fact that the agreement is legally binding makes her extremely careful in these sort of situations. (22)

A planning engineer from a large company in the electrical industry is negotiating in a factory in Japan with the designers, middle management and the superior of the factory. The meeting is about the component that was designed for the informant's company. The informant's job is to present his company's opinion of the product. He gives information concerning the technical details and the problems that have occurred. They also discuss the future and measures that will be taken. The situation is demanding, because of the informant's insufficient command of English. (72)

A staff manager from a large chemical company organizes a meeting on the insurance premiums of their company. Those present are his colleagues and the representatives of a British insurance company. The occasion begins with general introductions, after which the party discusses the changes in fire insurance value and the changes in the world of factories. They go through reports and documentation and go for the inspection round. In the end there is a sum up of everything that has been discussed that day. The situation is demaning, since the result will influence the costs of their insurance premium. (94)

A departmental manager from a large forestry company is negotiating with the project manager and architects from the US, Germany and Norway about a technical solution to a problem. The demanding element in this situation is that the finanacial responsibility is enormous, and that it is always hard to find a solution which would satisfy both parties both financially as well as technically. The talks are conducted at the client's site. (146)

A project manager at a large electronics company with a vocational background is negotiating in Korea with the client´s representatives and an interpreter. It is a project meeting and it is important that the client understands what is said about the schedule of the project, the equipment and the working principles. This situation is classified by the informant as ordinary. (133)

A young project engineer from a small/medium-sized commpany is having a meeting abroad with a large group of the supplier's representatives (nationality not specified). Those present include three engineers, five machine operators from the informant's company and three engineers of the supplier who are in charge of the machinery. First the machinery is tested and after that the party has a discussion about the problems that have come up in the test drive. They try to reach a solution about how to take care of the problem. From time to time the informant

has to speak with his hands in order to make sure that his proposal to solve the problem is understood. (338)

A project engineer from a small/medium-sized company in mechanical engineering is in the Netherlands to negotiate on how to compensate a defect in their machinery. The Dutch comany is represented by the head of the department of electrical engineering, the production manager and the project manager. The demanding point in the negotiation is how to interpret the contract made between the parties. (178)

9.18
Other, please specify

This class of cases can partly be distributed among the exisiting categories. However, there are three areas which do not easily fit into the existing categories; it may therefore be worthwhile to establish three more classes:
1. Interviewing (practices and procedures for employing staff)
2. Interpreting or mediation
3. Project work abroad

1. Interviewing:

The head of the information department at a small/medium-sized company in mechanical engineering is giving a job interview to a candidate. The situation is ordinary. One needs to find out the essential information of the interviewee and master the technical teminology in English to find out about the person´s technical skills. The informant also notes that it is of great help to have knowledge of the culture that the interviewee comes from. (329)

An young assistant from a small/medium-sized chemical company is hiring a new foreign employee and drawing up a contract of employment. She points out that it is hard to make the employee understand the terms of contract. (162)

2. Interpreting or mediation

Some of the tasks encountered in the examples given by employees include interpretation or translation functions, which are classsified as *mediation* in the Common European Framework of reference for languages[78].

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[78] Common European Framework of Reference for Language Learning and Teaching. 1997. P.30.

The head of the information department from a small/medium-sized company in mechanical engineering needs to function as an interpreter to Polish mechanics, who have come to learn more about the machinery and the practices for maintenance. She needs to interpret a speech about the daily work of a mechanic. The element that makes the situation demanding is that it comes all unexpected, with no time to prepare for. (330)

A young automation engineer from a large company in electrical engineering works as a interpreter in a training situation. Those present include a German engineer, mechanics and machine operators. The German engineer speaks English and the informant translated everything to the trainees.It is demanding, according to the informant, since one needs to master the technical terminology in English, otherwise the trainees will not know what the instructor is talking about. (320)

A young sales coordinator from a small/medium-sized electronics company works as an interpreter to a German instructor, who is training the personnel at the informant's company. The situation is demanding because almost all the instructors speak English with a strong accent. Another problem is the technical terminology, which the informant does not know well enough because most of the time the subject matter has nothing to do with his own line of work. It is also hard to find Finnish equivalents for all the words. (258)

3.   Project assigments abroad:

A head of the production line at a large company in mechanical engineering gets an assignment to work in China for 14 months. The work is done with the local project engineers. During that time the informant needs to use his English on a daily basis. He needs to interpret contracts of purchase, write faxes and reports in English and handle matters related to the project in English. It was demanding, explains the informant, because of the poor command of the English language in China. An interpreter was constantly needed. (248)

A mechanic from a small/medium-sized company in mechanical engineering takes part in a machinery development project. He co-operates with a group of Italian men on a regular basis. He points out that it is essential to speak English relatively well, otherwise the matters cannot be dealt with properly. (231)

9.19
Unidentified cases

This category of unidentifiable raises a lot of questions. 60 examples of the 392 given cases (15%) are unidentifiable: the informants have not named the situation and have written so little that it is impossible to make anything out of the case.

The employees who have given unidentifiable descriptions of communication situation include the following: laser operator, foreman, butcher, industrian technician, repairman, electrician, manufacturing worker for ordinary situations; electronics designer, research worker, caculator of wages, mechanic, manufacturing worker, stores manager, electrician, repairman, industrial technician, foreman, butcher for demanding situations. They all have a vocational background.

Those who have polytechnic or above education might also have given ordinary unidentifiable cases: sales assistant, sales manager, departmental secretary, accountant. Demanding cases that are unidentifiable have been given by respondents in the following occupations: export assistant, sales secretary/assistant, departmental secretary, secretary, director of admistration, shipyard worker, book-keeper, area manager, foreman, manufacturing manager, sales manager, development manager, head maintenance man, electrician, engineer, staff secretary.

One reason for not answering is of course that some may have been in a hurry and not have taken the time to answer. For some the ordinary cases may have been so self evident that it felt unnecessary to state routines. It is also clear that some instructor interviewers have insisted that they fill in all the questionnaire and in those cases all parts are filled in. Other interviewers have not been insistent and all of their informants have left the descriptions blank or almost blank.

A third interpretation is that it is difficult to analyse, classify and describe a communication situation. It has become clear that personnel with a lot of formal education have better skills in analysing the situations in verbal form than those with less education. Their descriptions are more complete, longer and more detailed. This interpretation is supported by the fact that 29% of those with a vocational background have given unidentifiable or almost blank descriptions whereas the figure fore those with a polytechnic background or more only give 11% of unidentifiable cases in total.

The share of unidentified cases of demanding situations is as high as 36% for those with vocational background; the figure for demanding situations is 17% for those polytechnic and above.

In this respect the validity of the method used can be questioned. The question arises: What method could be used to find out more about the

communication of less educated staff? Perhaps observation of communication situations at work and interview on work processes will be more useful for certain target groups. For employees with relatively long formal education written desription and analysis does not seem to be a problem.

10. Evaluation of Language Teaching

The Prolang project aims to approach issues that could contribute to vocational teaching programs so that the skills acquired through undergraduate education would better meet the needs of the work environment. Therefore the employees were asked to evaluate the language teaching received through their school education. The feedback was given separately for vocational language teaching (= ammatillinen kieltenopetus) and for general language education (= yleissivistävä kieltenopetus (peruskoulu/lukio)).

This part of the survey was presented in the form of open questions, with no suggestions for answers. Thus there was a space with five blank lines for the strengths and weaknesses of both vocational and general language education (See questionnair A, questions 22 and 23) The answers were analyzed and grouped into categories suitable on basis of the answers. Some answered nothing; others may have given more than one answer. All of the items given as answers were treated as single answers.

10.1
Strengths and Weaknesses of Vocational Language Training

The personnel managers evaluated vocational language training based on their experience of dealing with the competence development of their staff. Thus their answers reflect second-hand knowledge of vocational language teaching. It reflects the results of language teaching, not the experience of having participated in it as for the replies of employees. Personnel managers are aware of the development needs of personnel and have identified and discussed the competence needs and deficiencies of personnel.

As for the extent of feedback on vocational language education, the total number of replies given by personnel managers was 90 replies for strengths, 95 for weaknesses. All in all, 57 personnel managers out of 69 responded to the question of strengths and 55 for the weaknesses of vocational language education, some with more than one aspect as an answer. Among the employees, the total number of replies given for vocational education was all 202 replies for strengths and 200 for weaknesses. All in all, 142 employees responded to the question of the strengths and 146 for the weaknesses of vocational language education.

10.1.1 According to Employers

By the evaluation of personnel managers vocational language teaching is strong on professional language, overall basic language skills and, to some extent, reading. They are not quite sure if vocational language teaching focuses sufficiently on preparing people for work, since this aspect is considered almost as frequently a strength as a weakness. Oral skills are also considered a strength, but when strengths and weaknesses are put against each other, oral skills remain more strongly a weakness than strength, as can be seen in the table below.

Personnel managers are convinced that the greatest weakness of vocational language teaching is the lack or shortage of oral skills practice. 51% of personnel managers agree that oral skills are the greatest problem of vocational language teaching (28 answers by 55 informants). Another aspect which is more on the negative side than positive is the low share of language programs in vocational education.

Graph 36 shows the distribution of personnel managers answers. 57 personal managers have answered for strengths and 55 for weaknesses.
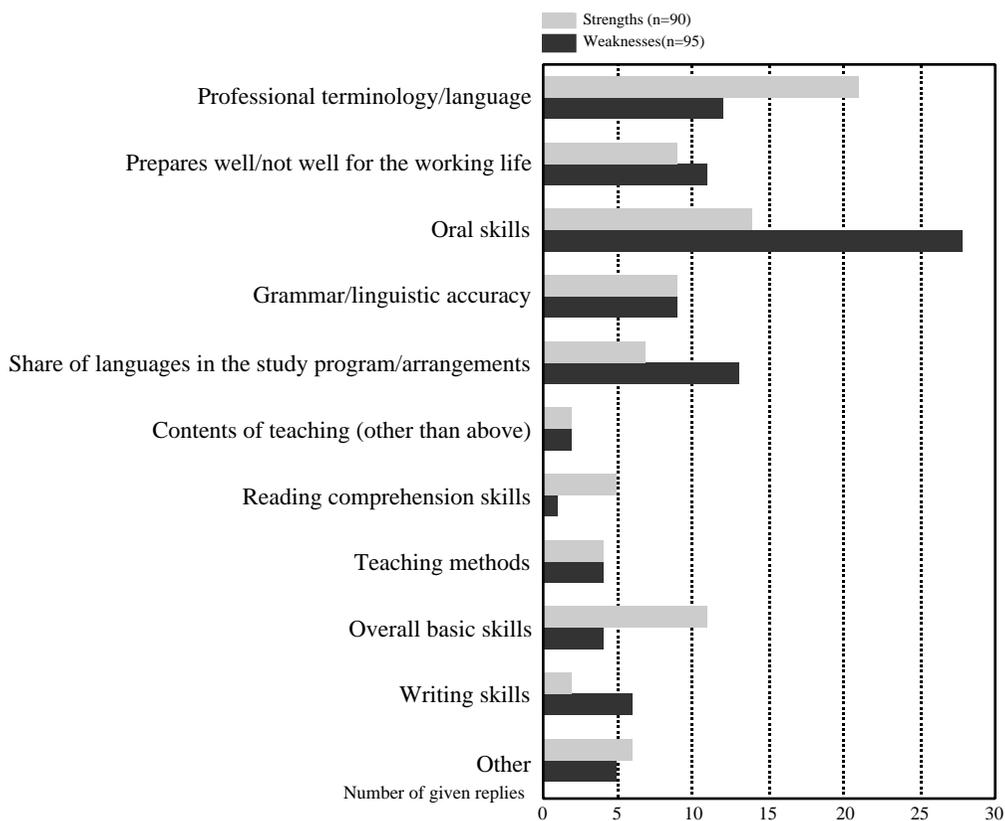
GRAPH 36.   Estimated Strengths and Weaknesses of Vocational Language Teaching according to Personnel Managers

10.1.2 Strengths and Weaknesses according to Employees

Employees themselves have taken part in vocational language training, thus their answers are first-hand information based on experience; though.from experience during a time that may be somewhat removed from the present day.

Employees agree with employers that vocational language teaching has prepared them well for professional terminology. Employees are more convinced than employers that vocational language teaching has prepared them well for working life. The share of these answers is 18% whereas only 13% of employers agree. 142 employees have replied for strengths and 146 for weaknesses.
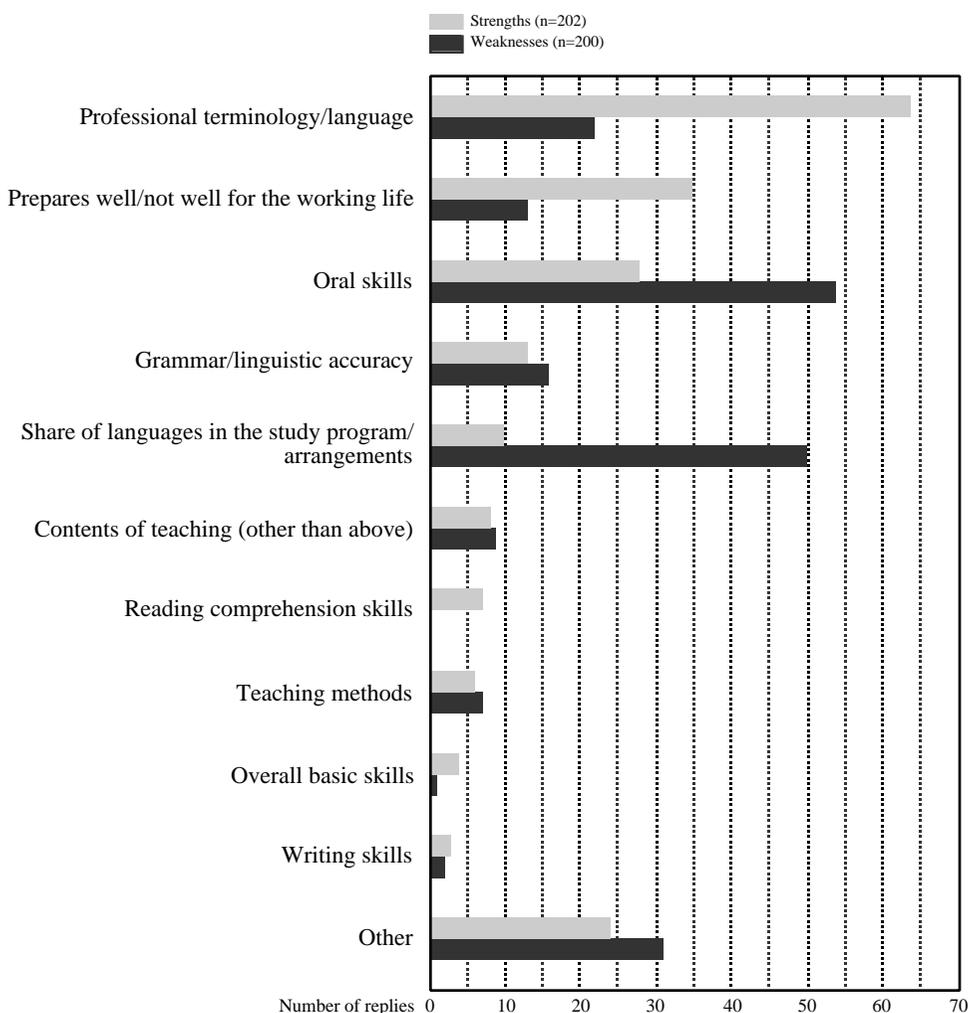
GRAPH 37.　Experienced Strengths and Weaknesses of Vocational Language Teaching according to Employees*

* Based on open answers

The third strength documented by employees is preparation for oral skills. But when both strengths and weaknesses are considered, oral skills clearly remain more a weakness rather than a strength. 32% of employees see the lack of oral skills more as a weakness than as a strength.

The strongest of weaknesses experienced by employees is that the share of languages in vocational training programs is low or non-existent (for the older generation: an obligatory language program was not introduced until 1986 in vocational institutions). 34% of employees who have replied have commented on the low share of language teaching in their education.

When the differences of strengths and weaknesses are compared there are two development areas above others, where weaknesses exceed the strengths from the employees' point of view: there are not enough languages in the study programs and oral skills do not get enough attention.

Statistical analysis has also been conducted in order to find out whether the feedback for vocational language training is dependent on age. It may be logical that complaints from the younger generations would be different from those of the older generation. This material does not show any statistically significant differences in the feedback between different age groups.

As can be seen in graph 37 the same aspects can be seen both as positive or negative, depending on the individuals' experience. There are some aspects, though, which are more often mentioned as positive/negative.

TABLE 33. Summary of the Evaluation of Vocational Language Teaching*

	Strengths	Weaknesses
Personnel managers' estimates:	1.Professional terminology 2.Overall basic skills	1.Oral skills 2.Share of language studies in the study program
Employees' estimates:	1.Professional terminology 2.Prepares well for the work environment (3. Reading skills)**	1.Share of language studies in the study programs/arrangements 2.Oral skills

*   Based on differences between strengths and weaknesses expressed by employees and employers
** Brackets indicate less clear indication of the feature

10.2
Strengths and Weaknesses of General Language Education

It has also been necessary in this study to inquire about general language education, to observe if there is any difference of feedback to general language education. A common claim about vocational language teaching has been, at least earlier, that it is a continuation of general language education, not much different from general language teaching. The development of vocational language training in the past decade has been strongly towards professionally oriented vocational language training.

The extent of feedback given for general language education was influenced by the fact that this was the last question in the long questionnaire. The number of replies given by personnel managers was 61 for strengths and 70 for weaknesses identified by personnel managers. All in all 58 personnel managers answered the question of strengths of general language education, 54 for weaknesses, some including more than one observation in their answers. On the employee side 213 replies were given for strengths and 213 for weaknesses of general language education. The number of employees was 155 for the strengths of general language education, 151 for the weaknesses of general language education.

In the comparison below the strengths and weaknesses have been compared in percentages for easier comparison of the personnel managers' and employees' replies.

10.2.1 According to Employers

General language education, according to personnel managers, provides the basics of language and concentrates on grammar and writing. Other comments include such as giving a versatile language program and opportunities for all to study languages. They are the most important strengths of general language education, as can be seen in the table 34.

TABLE 34.   Strengths and Weaknesses of General Language Teaching according to
            Personnel Managers*

| | Strengths | | Weaknesses | | Difference of percentage of |
	n	%	n	%	strengths and weaknesses
Basics of language	22	36	4	6	+30%
Grammar	10	16	6	9	+7%
Teaching methods	7	12	8	11	+1%
Share of languages in education	7	12	12	17	-5%
Writing	3	5	0	0	+5%
Oral skills	2	3	22	31	-28%
Reading comprehension	2	3	0	0	+3%
Relevance to work	0	0	9	13	-13%
Other	8	13	9	13	-0%
Total of answers	61	100	70	100	
Total of respondents	58		54		

*   Based on open answers

Teaching methods, reading and amount of language studies are regarded
almost as often as a strength as a weakness.

There are two weaknesses that are considered more important than
others. General language education does not teach enough oral skills,
according to 38% of personnel managers (22 out of 58). 17% of person-
nel managers (9 out of 54) consider that language studies in general
education is more irrelevant than relevant to work. Whether it should be
is yet another question.

Statistical analysis was conducted in order to find whether differ-
ences were found between younger and older generations concerning
the feedback, since the fruits of communicative language teaching may
not show in the age groups of older generations.

No statistical significance could be found between the younger and
the older age classes.

10.2.2 According to Employees

Employees gave 426 replies concerning the strengths and weaknesses of general language education, 213 strengths and 213 weaknesses in total.

The results look quite similar as those for employers. General language education is strong on teaching grammar and basic language skills, grammar in the first place, though according to the employers the order is visa versa. According to employees, reading and writing are considered more as strengths than weaknesses.

The greatest weakness, lack of oral skill practice, is mentioned by 58% of employees (88 informants of 151 responding employees). Only 9% of employees considered oral skills as a strength in general language education. 13% of the employees who replied did not find general language education relevant for their work.

The comparison between the strengths and weaknesses expressed by employees are similar to the ones by personnel managers, as can be seen in the following graph.

A correlation study of age and feedback on general language education was conducted to see if the feedback to general language education would differ by age. As a conclusion it was found that there was no statistical difference between the feedback given by the older generation and the younger age classes. Thus neither younger nor older employers or employees can see a development towards more oral language teaching in the feedback.

TABLE 35.   Experienced Strengths and Weaknesses of General Language Teaching according to Employees*

	Strengths		Weaknesses		Difference
	n	%	n	%	%
Grammar	67	31	33	15	+16%
Basics of language	32	15	0	0	+15%
Share of languages in education	17	8	18	9	-1%
Oral skills	14	7	88	41	-34%
Reading comprehension	12	6	1	0	+6%
Writing	12	6	4	2	+4%
Teaching methods	11	5	14	7	-2%
Relevance to work	4	2	18	9	-7%
Other	44	20	37	17	+3%
Total of answers	213	100	213	100	
Total of informants who replied	155		151		

*   Based on open answers

TABLE 36.   Summary of the Evaluation of General Language Teaching*

	Strengths	Weaknesses
Personnel managers' estimates:	1.Overall language skills (Grammar)**	1.Shortage of oral skills 2.Irrelevance to work
Employees' experience:	1. Grammar 2.Overall language skills	1.Shortage of oral skills

*   Based on the difference of strengths and weaknesses expressed by employees and employers
** Brackets indicate less clear indication of the feature

It is fair to comment here that the population of younger age classes are smaller in the sample that the older ones. However, some more positive feedback from the younger generation would have been expected as a result of much discussion on communicative language teaching. The results are just not there yet in the feedback of employees and personnel managers.

The understanding of the benefits and problems of general language education is very similar according to both personnel managers and employees. The only difference is in the degree of the views, as can be seen in graph 38.
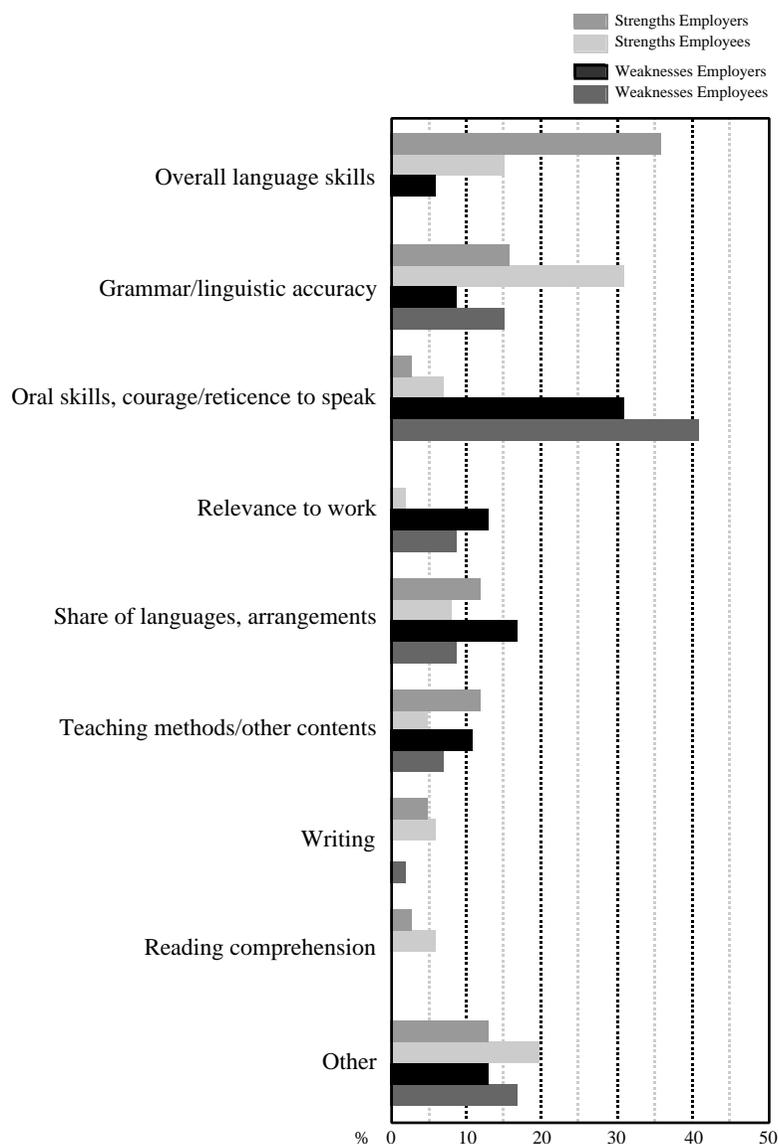
Employers and employees agree that general language education provides basic language skills and offers a versatile language program for everyone and concentrates on writing and reading skills. The problems are that oral interaction skills necessary at work are not provided to a sufficient degree and the skills acquired are sometimes found irrelevant to work needs. Another question is whether general language education could or should take the aspirations of the work environment into consideration. And if so, how the skills taught could be more relevant to work.

When the feedback is compared for vocational language teaching and general language education it is worth while to observe a difference of profile between general language education and vocational language teaching. The feedback for vocational language teaching is profiled towards the needs of work, which it has been developed towards for years. In the light of this comparison we can say that vocational language teaching cannot be seen as a straight continuation of general language study with a 'more of the same' approach. Vocational language training is getting feedback, which shows that it has somewhat succeeded in working its way towards a work-oriented direction, though there is ample space for improvements.

One element that applies to both vocational and general education: oral skills are necessary at work. Oral skills are not well enough included either in vocational or general language education. This is an

aspect of language teaching, which needs to be worked on very seriously, if the needs of work communities are to be taken into account. We will come back to this question in the discussion.

The feedback language teaching in is getting from industry and business does not provide a happy end for 'communicative language teaching'. A lot of development work lies ahead. It seems that theories of communicative language teaching have not yet begun to bite enough in classroom practice.

GRAPH 38.   Comparison of the Strengths and Weaknesses of General Language Given by Employers and Employees

11. Conclusions and Discussion

The results of this study give rise to the following conclusions.

1. Employers are more concerned about the language skills of their employees than earlier. The best demonstration of language skills at recruitment is a document for work or study abroad. Interviews and language tests by the employer are also favored. The Finnish general language examination (yleinen kielitutkinto) has not gained popularity for the majority of companies, neither have portfolio methods so far.

Employers have become more concerned about the language skills of their employees, since language skills are increasingly considered at recruitment. Language has been an issue in 85% of recruitment situations since 1996, whereas earlier, in 1980–1995, languages were considered in less than 65% of recruitment situations.

According to personnel managers the best ways of demonstrating one's language skills at recruitment are to show a certificate from work or studies abroad. Two other trusted methods are interviews and language tests organized by the employer. This gives a reason for the educational authorities to support actions for traineeship, study and work abroad.

Employers do not trust grades from school because of their incommeasurerability. They also find the general language examination a rigid method for identifying language skills. Portfolios are not yet well known in enterprises. Inquiring for language skills at recruitment has by no means been systematic during the past years. Only one out of ten employees was language tested at recruitment, while inquiries were made of four out of ten regarding their language skills at job interviews.

2. Finns should start learning other languages besides English, Swedish and German. Personnel departments recognize this need and so do employees, to a certain extent. However, employees plan to study basically the languages they have already studied some of, not 'new languages'.

If language programs are to serve the future needs industry and business it is essential to start the diversification into more languages right from the school level.

The needs for languages in Finland are gradually changing. Only 20% of employees have skills in some other languages besides English, Swedish and German. Though the three most important languages continue to be English, Swedish and German, employers and employees agree that the role of languages, especially other languages, will increase in the future.

There is a slight difference between the views of employers and employees concerning the need of the other languages in the future. Employees predict that the need for German, Russian and French will increase significantly more than employees think. The difference for German is 20%, Russian 30% and French 25%. 64% of employers predict that need for Swedish will either remain the same or decline. Employees, instead, predict that the need for Swedish will increase more than the need for German, Russian and French. 56% predict that the need for Swedish will remain the same or decline.

There are similarities, but also differences in the importance of languages in international companies compared to mainly domestic employees. The need for English is high in both groups, but Swedish, Russian and Estonian play a greater role in mainly domestic companies than in international ones. The need for Swedish in internationalized companies is significantly lower than that in domestic companies. Instead other languages are needed, German significantly more than in domestic companies.

3. Men, more commonly than women, face problems with language/communication at work. The language problems of male employees should be followed up from early school and tackled by changes in the language policy, language introduction and approaches suited for male language learners.

One of the biggest problem identified by personnel managers in the language skills of their employees is that they are restricted to a few languages. To meet the demands of industry and business especially male employees must have skills in a diversity of languages. However, more than half (51%) of male employees know either two or fewer foreign languages, whereas the share for female employees is less than one third (28%). 37% of female employees have skills is in four or more languages compared to 9% of male colleagues. There should be more male employees with skills in more than two languages.

Industrial business also needs good performance in demanding communication situations. Male employees frequently face the most demanding communication situations such as group-to-group interactive nego-

tiations and meetings, visits and solving problems. Typical communication situations for female employees are routine telephone calls, client contacts and email-writing. However, the level of skills for male employees is lower in all languages compared to female employees. The difference is statistically significant for this target group. The difference is smallest in English, large in other languages.

As a result 88% of male employees must study languages within the next five years, whereas the percentage for female is 70%. About 50% of the male employees need to study two or more three languages in the next five years.

Knowing the demands of technology and science for the target group in industry, it is unrealistic to jump to conclusions regarding th shifting of emphasis of studies more to languages. In international comparison Finland already invests a substantial amount of time in languages both in compulsory school system and in secondary and tertiary education in languages.

There are some options for approaching the problem. It is possible
1) to leave the language/communication problems for companies to solve
2) to change the contents and methods of teaching so the results of learning would improve or
3) to change language policy so that two languages would be obligatory, which could be freely chosen
4) attract more female employees to fields typical for men.

The first option will always remain part of the solution: no undergraduate or graduate program can fully meet the expectations of work in the future, since future requirements keep on changing. The second option is one that educational authorities and those in charge of teacher training could concentrate on. We need research and methodology for the area of communication at work. Language and linguistics will solve only a limited portion of the problems of communication in foreign languages at work. So far universities have educated language majors in more or less narrow terms of linguistics and philology. As long as the education of language instructors includes negligible elements of communication science, sociology, psychology and anthropology, there will be little hope of changed views in the methodology and contents of language teaching. This also concerns the role of intercultural issues and their sufficient inclusion in the teaching programs. A lot of useful work done in these fields could directly be adapted into language teaching for the benefit of industry and business, if desired by educational authorities.

The third option concerns the national educational policy. First, we have seen that employees prefer to continue studying what they have

started earlier, not 'new languages'. All opportunities for introducing new languages, even modest amounts of them, should be included on several levels of education. Secondly, two languages can be quite enough, if the languages are the necessary two languages. It should thus be discussed whether our rigid system of always including the second domestic language as one of the two is desirable. It blocks the diversity of languages from especially the male population, which is statistically not language-oriented, but could demonstrate a variety of two in their own special fields of expertise (e.g. English/German, English/Russian).

The fourth option of attracting females to dominantly male occupations is highly desirable, but a slow method to materialize.

4. The language/communication capacity of female employees is not fully exploited by companies.

Female employees score high on the language skills scales, but, more often than their male colleagues, deal with simple communication situations at work, such as routine telephone calls, client contacts and writing email. It seems that companies might have a reserve, which could be used, if the status quo were fully identified and the competence areas of female employees investigated. This must be said with the proviso that language/communication competencies are a part of all competencies, and it is the work of skilful management and human resource development to complement the skills of some specialists with others who are experts on communication.

5. The communication interest in the workplace lies in how well individuals demonstrate the competencies and skills necessary for the industrial/ business community. All employees need workplace communication in foreign languages, irrespective of educational background; the extent and context of communication varies. Therefore language education should focus on the identified key elements of workplace communication, rather than creating of different aims for different educational backgrounds.

Educational background contributes to the extent and variety of communication in a person's work, though less than could be expected. In fact, any types of communication situation can become the job of people with any background; it is a question of probability in the employee's occupation, function and company.

Persons with vocational background can expect an average of eight different types of communication situations, whereas those with polytechnic or university background can expect an average of eleven or twelve different types of communication situations in a foreign language.

Graduates from vocational institutions can expect mainly face-to-face and telephone contacts on technical questions, at least in one foreign language, together with reading skills. The oral situations are often one-to-one. Employees with a polytechnic or university background, additionally, need more group-to-group interaction and more reading and writing skills; preferably in many languages. University graduates will need more of everything than graduates from polytechnics, especially in context with visits, processes and organization. Writing skills are also more important than for polytechnic graduates.

There are significant differences between the contents of communication of different groups of employees: commercial, technical, secretarial, management and production people. The differences are significant in relation to e.g. telephoning, hosting visitors, client contacts, describing processes and working methods and negotiations. The differences are not significant if social talk, travel or computer problems are concerned.

Communication in foreign languages is most varied in management and technical positions, since they need to communicate in a larger variety of communication situations, including the most demanding ones, such as meetings, negotiations and client contacts. Surprisingly enough, employees working in production have more varied communication tasks than those in secretarial positions.

The needs for oral interaction in foreign languages are highest in commercial, technical and secretarial positions. Reading skills are most needed is management and technical positions. Writing skills are needed most in secretarial and management positions.

6. Both personnel departments and employees agree that the employees' greatest strengths in foreign languages are reading, listening and writing skills. The greatest problems encountered are deficient oral skills and having skills in too few languages. Thirdly employees suffer from lacking awareness of intercultural issues.

This conclusion is fully understandable, based on the learning contents of languages in school. It would, however, have been expected that the younger age groups would have fewer problems with oral skills than the older age classes. This could not be verified by the statistical analysis of

this study. Thus the results would indicate that, despite improvements of language teaching, oral skills still remain a neglected area.

Intercultural issues have basically been introduced in language teaching in different ways: 1) background studies (Landeskunde-studies) 2) culture-specific texts and dialogues 3) comparative information on customs and 4) do´s and don´t guides.[79] The methods used so far have not been sufficiently used or, perhaps, too, new methods need to be found to familiarize students with the complexities of intercultural communication in global industry and business. This aspect needs more attention.

7. Vocational language teaching provides professional terminology, overall language skills, and prepares students relatively well for the workplace. The problem is that languages are taught in minimal quantities. The second problem is that oral skills are not given enough space. Therefore the language requirements of vocational studies should be raised. The contents and methods should be geared towards more interactive oral skills and integrated learning methods.

Personnel managers think that vocational language teaching is strongest at providing professional terminology and giving overall basic skills for the graduates. Vocational language teaching is at its weakest in providing oral skills. Personnel managers also think that the share of languages in study programs is too minimal.

Employees agree about professional terminology as a strength for vocational language teaching, but also a majority thinks that vocational language teaching prepares students well for working life. The biggest problem, according to employees, is that the share of languages is too minimal in vocational teaching programs. The second big problem concerns oral skills, which are not given enough space in vocational language teaching according to employees.

8. According to personnel departments and employees general language teaching (peruskoulun ja lukion yleissivistävä kieltenopetus) provides good grounds for language skills and grammar, but not enough oral skills and contents, which would be relevant to work.

Both personnel managers and employees have evaluated general language education in this study. The best side of general language teaching, according to personnel managers, is that it teaches basic language

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[79]   Huhta, M. 1997. Pp.165–169.

skills and grammar. The greatest weaknesses mentioned by personnel managers are the shortage of oral skills practice. The weakness mentioned second most often is that the contents have little relevance to work.

Employees agree with the same points, except that they feel that grammar is the greatest strength of general language teaching. Providing overall language skills comes as the second most strength. The weaknesses are prioritized in the same order as personnel managers: oral skills and little relevance to work.

9. The contents and methods of vocational/occupational language teaching should be focused on the needs of work. The contents should be relevant to work. The methods should concentrate more on oral skills and prepare students for integrated work tasks.

Communication in the workplace includes multiple skills: oral interaction, reading, writing. Therefore the language teaching methods used should become more integrated and focus less on single skills. Thus instead of teaching listening comprehension, gap-filling of words, multiple choice and questions on details, the practice methods should simulate authentic work situations where many skills are concerned in the same simulation. This implies a shift from surface levels of learning (recognition, repetition, identification, choice-making) to more complex levels of learning (analysis, synthesis). Workplace communication is guided by holistic objectives; thus holistic methods serve the needs faster than an atomistic approach.

Oral interaction is the most crucial part of successful communication at work. Especially the most demanding communication situations are interactive, group-to-group and one-to-group situations. Therefore teaching methods used should involve interaction techniques and long-term team working practice, which improves the skills of coping with individuals on a long-term basis. It is also necessary to include authentic international partners, since speaking/using a foreign language with fellow natives is not realistic. Information technology can provide good opportunities for written and oral communication with other international students, despite distances.

Workplace communication intertwines many aspects, e.g. objectives, responsibility, strategies applied, complexity of situations, cultural difficulties, demand for professional expertise, stress factors. Language teaching should become an integrated element of interactive skills development, where the foreign language is a component. This means an opportunity for integration with any other subject which uses or deals with interaction.

10. Language instructors should in their education learn about skills and contents relevant to work. For this purpose their education is too narrowly focused. Besides linguistics the education should include elements which relate to communication at work. These include for instance communication science, business communication, social sciences, psychology, anthropology and business studies and other fields, which illuminate the understanding of human interaction and intercultural communication.

This study does not include interviews with language instructors, but the feedback of language teachers to the requirements of teaching communication rather than language is vaguely positive. But language instructors want to know more about what it means to teach communication from the perspective of the workplace. They raise questions such as: how could language instructors, specialists on the nuts and bolts of linguistics, feel comfortable with teaching oral work and integrated skills, which have either been minimally introduced in their own education or fully excluded?

In the evaluation study by Väyrynen et. al. language instructors of the vocational sector were also asked what major and minor subjects they have studied. The typical majors are in languages and minors in other languages, education, phonetics, literature, history, esthetics or liberal arts. In very few cases was the minor any of social sciences, communication studies or anthropology or subjects related to human interaction.

The need for widening horizons in teacher training has become quite evident.

11. There is a large market in language/communication training for business and industry in Finland over the next five years because of the competence gap in language and communication. There is a language/communication market of about FIM1million/100 employees on an annual basis, if the expressed plans of employees materialize in practice.

82% of employees (n=197) plan to raise their level in one or more language within the next five years. 27% of them will study two languages, 23% three or more languages. 69% of all employees will study English, 46% Swedish, 37% German, 10% French and 8% Russian within the next five years.

To raise one level on a 0–5 point scale in a language involves an average of 250 study hours. Let us say that 180 of it could be contact

teaching. The levels to be raised are 413 all together, which makes it a 2.1 increase in level/individual.

The cost per teaching hour could be approximately around FIM700 (including social costs) and the average of group size for 5 participants. On these terms the estimated price for the raising of one level could be 180hxFIM700 x2.1 levels. Thus the 197 employees in the sample would need an average input of FIM52920 to reach the aims they have set themselves. This divided onto the five years would come down to FIM10 584 of investment in language training/employee on an annual level. This would mean an investment in the neighbourhood of FIM1million/ per 100 employees. This is ECU168 067/100 employees. This figure only includes the cost of language training. The cost of lost working hours, travel expenses or subsistence during studies needs to be added for total cost. We can see that the learning objectives the employees have been set at the high end.

12.

More collaboration between workplaces and educational institutions is necessary for developing language teaching towards the needs of work environment. The practical steps that these results suggest involve building of case simulation for teaching, which can be used by both parties. Many educational institutions already train company personnel. As a logical sequence of creating work-relevant cased are conjoint language programs for employees and students which provide many benefits. This would bridge the gap between study and work.

Closer collaboration between work and education bring multiple benefits. The contents of language teaching become more work-oriented. The motivation of students improves as they work with real issues together with company personnel. The significance of non-verbal issues, such as discourse style, distance, politeness etc. are not often easy for students to grasp. Seeing company people interact makes them realize the subtle significance of non-verbal behaviour. Many simulations are difficult for students because they know too little about the realities of work. This concerns for instance meetings and negotiations, where they have difficulty of realizing the impact of changing a price or a delivery time. Company representatives can function as important, credible informants for students.

Companies can also gain by joining projects with companies. As they are concentrating on their core business language/communications activity should be effective, yet development of training should be cost-effective. By investing a fair amount in development of language train-

ing companies can get low-cost training for certain groups of their employees, based on up-to-date case simulations and work input of students. Projects familiarize company personnel with students. Potential employees for further projects can easily be found as networks of people grow. Projects like this can also be a problem: the slowness, inflexibility of timeframes and outcomes of students products may not always meet the needs of set objectives.

However, in the long run, tighter collaboration between companies and educational institutions bring about useful networks of people, quality language training for both, the more relevant the contents of language teaching is, work-relevant methods. The graduates will be more ready for the challenges of the workplace.

12. Evaluation and Recommendations

The evaluation of the Prolang project here concerns two aspects, the results and the method.

The Prolang project has met its objectives in that it has answered the questions set for the project. We know how industry would like language skills demonstrated at recruitment. We know what kind of language program is wished for in business and industry and where the needs are. We know the language level of employees and where their strengths and weaknesses lie. We also have a good idea of the contents of oral versus written skills and the type of interaction common in industry and business. We have received information of the most common communication situations for different backgrounds, groups of employees and some specific jobs, which can be used when designing syllabi for various purposes. We possess sufficient background information regarding the situations to gain a view of what is communicated in industry and business in foreign languages. We have an idea of the strengths and weaknesses of our current language teaching, as understood by employers and employees.

There are limitations to the Prolang project. The limited sample cannot give answers to the curricula of every single employee group, because the range is wide and numbers of single employee groups become very small for generalizations. That has not been the objective, either. Further study needs to be done to determine details of specific target groups.

Secondly, the communication situations described here are textualizations of situations by employees who are not analysts of communication. Employees have excluded a lot of necessary data has been excluded as many descriptions have been painfully short. It is therefore lucky that interviews on authentic communication in industry and business have been done, to a certain extent, to complement the knowledge gained through this method. Though some discourse analysis of communication in the field does exist, more of it is necessary in order to delve into the roots of communication strategies and their verbal, non-verbal, cultural and behavioral actualizations at the workplace. This would lead to a more thorough understanding of interaction and would help produce practical didactic solutions.

Thirdly, if these results of the Prolang project are further developed into study materials, more details of communication cases will be required, such as procedures of communication in different contexts and authentic facts concerning product information, types of problems, types

of solutions, figures, dates and names. We have understood from the results that teaching material must be relevant for workplace. Authentic material, suitable for students with little experience, is best constructed together with the representatives of companies. At the least the outcome of case simulations should be revised and checked by experienced agents of the case simulation.

Collaboration with workplaces is necessary for improving language teaching. Companies must have an interest in doing this since they can the use the cases in their own training activity as well. The production of case simulations can be a reason for more conjoint study programs between educational institutions and employees.

One of the aims of the Prolang project was to provide development objectives for language teaching, thinking that work environment is the aim of all degree courses. In the project we have developed a method for finding out more about language/communication at work. The important thing is that the instructors working with targeted language courses have themselves a tool they can use for designing courses for specific groups. Therefore the method as such is a central result of the Prolang study.

As for the method, interviews and questionnaires, and the situational approach in the contents of the questionnaires we can say that it has worked well for finding out the contents of teaching in industry and business.

Applicability of the Method to Other Fields

As we have mentioned, five of the employees involved in the project represented the social and health sectors, to see how well the method would be applicable in other fields. This was done intentionally to experiment how the method would work in other fields.

Based on this experiment, the method works surprisingly well for the field of health and social services. The Community of Kemi, social services, Nursing District of Länsi-Pohja, Health Care Centre of Kemi, the City of Turku and Turku Lutheran church were surveyed: employees in nursing, child care, social office, pre-school teachers and deacons.

Based on the answers of all questions seemed to work. It is obvious that needs for foreign languages are very different. It is not worthwhile to summarize such very different groups of employees. In this very limited sample of employees in the social and health care sectors there is less need for languages than in industry and business. However, the need for languages is increasing. Interactions are frequently travel, social situations, talking about one's work, reading professional literature, telephone calls, solving computer problems, client contacts, meeting and writing email.

The established situational categories get a different meaning in the new environment. C*lient contacts* take on a meaning of dealing with social service issues of immigrants or discussing childrens' or patients' problems with refugee children or counceling in a family situation or preparing the patient for treatment. *Hosting visits* are exemplified by cases of visits of collegiate institutions from other countries or professional groups in a department.

In the situational categories there seems to be some misunderstanding concerning social situations and client contacts. All the examples given suggest interaction with clients in professional context rather than socializing as an informal activity, but the figures for social situations are 75% and client contacts only 25%. The understanding of categories need to be thoroughly discussed with representatives of the field and tested by employees to make sure that terms are understood and interpreted in the same way by respondents and researchers.

It seems that the method would work in the social and health sector. But because research in the foreign languages/communication in social and health care has not, to my knowledge, been done as in industry and business, it would be important to start with interviews, also with employees, to get a better understanding of the contexts of communication.

The Prolang project also hopes to promote research on work communication so that language programs could be tailored on a realistic basis. For those who need to design a language/communication program we can recommend a procedure, similar to what has been done in Prolang, slightly adjusted, based on our experience in the project. The strongly abbreviated version below gives an idea of the procedure recommended for studies of defined target groups.

Procedure for Designing a Tailored Language/Communication Course

1. Study the target group. Find out the typical occupations of the students after graduation. Use previous studies, interviews with your experienced people in your institution and the educational sector, knowledge about the companies where your students will be working in through trade press, brochures and discussions.

2. Choose a few typical workplaces where students in the area find employment. Contact the personnel department or a department where employees of your target group are employed. Use at least three-four different workplaces, because they are very different. Study the operations of the organization (publications, Web pages, brochures) to understand the context and aims of the work done by employees.

3. Organize to conduct a structured interview with the manager and questionnaires, complemented by interviews with the employees. Contact the workplace well ahead of time, in writing, and give them an opportunity to fit your study in a suitable timeframe. Tell them you would like to interview the (personnel) manager and mention that you would also like to ask them for brochures, process descriptions, product information, annual reports and similar while you visit them.

4. Prepare the questionnaires, questionnaire A for managers, B for employees. Make the questionnaires shorter, rather than longer. Organize the interview of the manager to take place while the employees are filling in the questionnaires. Brief the employees for a few minutes by making them understand why you are doing this. Emphasize the confidentiality and the fact that that you are not testing them in any way. After finishing with the manager, meet each employee to see that your questions have been understood and completed in the way you have meant.

   If the target group has short educational background you should use an interview instead of written questionnaire. You could thus use the same questionnaire but fill in the answers yourself either immediately or having the interview taped. This is, however, a more time-consuming method.

5. On completing the surveys code the answers using for instance Excel and process the data into the format you require. Of course you can use the information in the questionnaires as such, but to share your knowledge write an article or a report to disseminate the information to colleagues in the field as well.

In actual fact the process of finding out the language/communication context and needs of a sector is a more extensive project in practice than it seems. Therefore it is strongly recommended that a few colleagues who teach in the same field get together and do the project in collaboration. This is how more workplaces can be included and less work needs to be done by the same teacher-researcher. Besides, if the teacher is willing to do some further study or a postgraduate study this would be a useful topic for future teaching work. By expanding research activity in the field we can gradually cover more ground and serve the needs of workplace better in the future.

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Appendix A.   Language Instructors and their Institutions Involved in Prolang/
Finland

Ammatti-instituutti Iisakki	Heli Vihottula
Etelä-Karjalan amk	Eeva-Liisa Karhunen
Jakobstads handels- och pälsläroverk	Stefan Troberg
Helsingin amk, Helsingin teknillinen oppilaitos	Marjatta Huhta
Joensuun oppimiskeskus	Marja Luopa
Jämsänkosken metsäoppilaitos	Torsti Mäkinen
Kainuun ammattioppilaitos	Päivi Niemelä
Kajaanin amk	Kaisu Korhonen
Keski-Pohjanmaan amk, Kokkolan tekninen oppilaitos	Esko Johnson
Kymenlaakson va. amk	Tarmo Ahvenainen
Lieksan oppimiskeskus	Marja-Leena Blek
Malmin kauppaoppilaitos	Liisa Pulkkinen
Myyrmäen ammattioppilaitos	Kirsti Tirkkonen
Pohjois-Karjalan amk	Anneli Airola
Riihimäen ammattioppilaitos	Juha Louhevirta
Satakunnan amk, Tekniikan yksikkö, Pori	Jarmo Palenius
Turun amk	Riitta Kujala
Turun kauppaoppilaitos / Raision kauppaoppilaitos	Anneli Wirén
Vaasan teknillinen oppilaitos	Ritva Rapila

Social and Health Sector

Kemi-Tornion amk, Kemin terveysalan yksikkö	Tuula Sykkö
Turun kristillinen opisto	Tuovi Puustinen

Appendix B.   Companies Involved in the Prolang/Finland Research Project
1997–1999

ABB Control, Vaasa
ABB Industry, Helsinki
ABB Motors, Vaasa
ABB Transmit, Vaasa
Abloy Oy, Joensuu
Ahlström, Helsinki
Cimcorp Oy, Ulvila
Diversey Lever, Turku
Enso Oy, Imatra
Enso Oy, Kotka
Farmer Oy, Helsinki
Hakaniemen metalli Oy, Helsinki
Hidex Oy, Turku
Incap Electronics, Vuokatti
IVO Tuotantopalvelut, Vantaa
Kajaanin puhelinosuuskunta
Kemira Chemicals, Kokkola
Kesla Oy, Joensuu
Koneistamo Alm, Kajaani
KPO-konserni, Kokkola
Kumera Oy, Riihimäki
Kvaerner, Turku
Kyrel Oy, Hämeenkyrö
Laihian metalli, Vaasa
Laminating Papers Oy, Kotka
Mattilan Säiliö Oy, Hämeenkyrö
Metsi Oy, Oitti
Nokia Mobile Phones, Salo
Nokia Telecommunications, Hki
Nokian Renkaat, Lieksa
Outokumpu Poricopper Oy, Pori
Outokumpu Zinc, Kokkola
Oy Imatra Steel Ab, Imatra
Oy Ja-Ro Ab, Jakobstad
Oy KWH Plast Ab, Jakobstad
Oy Metsä-Botnia Ab, Joutseno Pulp
Pankakoski Boards, Lieksa
Perlos Oy, Joensuu
Planmeca, Helsinki

Purso Oy, Nokia
Puumerkki Oy, Kotka
Rakennustempo Oy, Pyhäselkä
Rautaruukki Oy, Transtech, Otanmäki
Rettig Lämpö, Jakobstad
Sako Oy, Riihimäki
Sampo-ryhmä, Turku
Sarlin Oy, Vantaa
Sisu Logging Oy, Tampere
Sunds Defibrator, Pori
Sähköteho Oy, Riihimäki
Tekmanni Oy, Helsinki
Tikkurila Oy, Vantaa
Timberjack Oy, Joensuu
UPM-Kymmene Oy, Jakobstad
UPM-Kymmene Oy, Kaipola
UPM-Kymmene Oy, Kajaani
UPM-Kymmene Oy, Walkisoft, Kotka
Valmet Sensodec Oy, Kajaani
Veljekset Lehtomäki Oy, Multiala
Wärtsilä NSD, Turku
Wärtsilä NSD, Vaasa
Åkerlund & Rausing, Lieksa

From Social and Health Sector:
Kemin kaupunki (sosiaalipalvelut)
Kemin terveyskeskus
Länsi-Pohjan sairaanhoitopiiri
Turun ja Kaarinan srk-yhtymä
Turun kaupunki

Appendix C. Prolang – Organization of Interviews

1+3 = company represented by 1 personnel manager, 3 employees

Interviewer	Company 1	Company 2	Company 3
Ahvenainen, Tarmo	Enso Oy, Kotka 1+3	UPM Kymmene Oy, Walkisoft, Kotka 1+3	Puumerkki Oy, Kotka, 1+3
Ahvenainen continued			Laminating Papers Oy, Kotka 1+2
Airola, Anneli	Rakennustempo Oy, Pyhäselkä, 1+3	Abloy Oy, Joensuu, 1+3	Kesla Oy, Joensuu, 1+1
Blek, Marja-Leena	Nokian Renkaat, Lieksa, 1+3	Åkerlund&Rausing, Lieksa, 1+3	Pankakoski Boards, Lieksa, 1+3
Johnson, Esko	KPO-konserni, Kokkola, 1+3	Kemira Chemical, Kokkola, 1+3	Outokumpu Zinc, Kokkola, 1+3
Huhta, Marjatta	Ahlstrom, Helsinki, 1+3	Tikkurila Oy, Vantaa, 1+3	ABB Industry, Helsinki, 1+3
Huhta continued			Nokia Telecommunications, Helsinki, 1+3
Karhunen, Eeva-Liisa	Oy Imatra Steel Ab, Imatra, 1+3	Enso Oy, Imatran tehtaat	Oy Metsä-Botnia Ab. Joutseno Pulp, 1+3
Korhonen, Kaisu	Kajaanin puhelinosuus-kunta, Kajaani, 1+3	Incap Electronics, Vuokatti, 1+3	Valmet Sensodec Oy, Kajaani, 1+3
Kujala, Riitta	Nokia Mobile Phones, Salo, 1+2	Kvaerner, Turku, 11+3	Diversey Lever, Turku, 1+6
Louhevirta, Juha	Sako Oy, Riihimäki, 1+3	Sähköteho Oy, Riihimäki, 1+3	Metsi Oy, Oitti, 1+3
Louhevirta continued			Kumera Oy, Riihimäki, 1+2
Luopa, Marja	Perlos Oy, Joensuu, 1+3	Timberjack Oy, Joensuun konepaja, 1+3	
Mäkinen, Torsti	Velj. Lehtomäki Oy, Multiala, 1+3	Sisu Logging Oy, Tampere, 1+3	UPM Kymmene Oy, Kaipola, 1+3
Niemelä, Päivi	UPM Kymmene, Kajaani, 1+3	Koneistamo Alm, Kajaani, 1+3	Rautaruukki OY, Transtech, Otanmäki, 1+3
Palenius, Jarmo	Cimcorp Oy, Ulvila, 1+3	Sunds Defibrator, Pori, 1+3	Outokumpu Poricopper Oy, Pori, 1+3
Pulkkinen, Liisa	Planmeca, Helsinki, 1+3	Farmer Oy, Helsinki, 1+3	Hakaniemen Metalli Oy, Helsinki, 1+3
Rapila, Ritva	ABB Control, Vaasa, 1+1	ABB Transmit, Vaasa, 2+3	Wärtsilä NSD, Vaasa, 1+4
Rapila continued		ABB Motors, 1+0	Laihian metalli, Laihia, 1+2
Tirkkonen, Kirsti	IVO Tuotantopalvelut, Vantaa, 1+3	Sarlin Oy, Vantaa 1+2	Tekmanni Oy, Helsinki,
Troberg, Stefan	Oy KWH Plast Ab, Jacobstad, 1+3	UPM Kymmene, Jacobstad, 1+3	Rettig Lämpö, Jacobstad, 1+3
Troberg continued			Oy Ja-Ro Ab, Jacobstad, 1+3
Vihottula, Heli	Mattilan Säiliö Oy, Hämeenkyrö, 1+3	Kyrel Oy, Hämeenkyrö, 1+3	Purso Oy, Nokia, 1+3
Wirén, Anneli	Wärtsilä NSD, Turku, 1+3	Sampo-ryhmä, Turku, 1+3	Hidex Oy, Turku, 1+3
SOCIAL AND HEALTH SECTOR:			
Puustinen, Tuovi	Turun ja Kaarinan seurakuntayhtymä, 1+5	Turun kaupunki, 1+4	
Sykkö, Tuula	Kemin kaupunki, 1+3	Länsi-Pohjan sairaan-hoitopiiri, 1+1	Kemin terveyskeskus, 1+1

Appendix D.   Translation of Questionnaire A

NATIONAL BOARD OF EDUCATION

PROLANG – LANGUAGE/COMMUNICATION FOR THE WORKPLACE

BACKGROUND INFORMATION

1. Name of the company_____

2. Position of the respondent   1 personnel manager
                                    2 training manager
                                    3 secretary or assistant for training or human resources
                                    4 manager, please specify _____
                                    5 other, please specify _____

3. Field of activity   1 Industry, please specify_____
                                     2 Services, please specify _____
                                     3 Building and civil engineering _____
                                     4 Other, please specify _____

4. Number of personnel in the company/group   1 less than 100
                                                   2 501 – 1000
                                                   3 1001 – 5000
                                                   4 5001 – 10 000
                                                   5 10 000 –

5. Number of personnel in the company/unit/department, on the basis of which you answer
the questions (Delete irrelevant option)
                                                   1 less than 50
                                                   2 51 – 500
                                                   3 501 – 1000
                                                   4 1001 – 5 000
                                                   5 5001 –

6. The educational background of the personnel in the company

Degree/educational background	**Percentage or estimated figure**
University degree	
Polytechnic/ post-secondary degree	
Vocational background	
Other, please specify	

INTERNATIONAL CONTACTS

7. Share of international operations of turnover in percentage _____

8. Are some of your personnel working
abroad at the moment?   1 Yes   2 No

9. Is your company planning to   1 increase   2 keep unchanged   3 decrease
the number of people working abroad?

10. Does your company have employees
from abroad?   1 Yes   2 No

11. Does your company plan to   1 increase   2 keep unchanged   3 decrease
the number of foreign employees?

NEED FOR LANGUAGE SKILLS

12. Which languages are the most important for your company?
Please mark a number for importance (1, 2, 3, 4, 5 …)
                                       1 English   _____
                                       2 Swedish   _____
                                       3 German   _____
                                       4 French   _____
                                       5 Russian   _____
                                       6 Other, please specify _____ _____

13. According to your estimate, how many percent of the personnel
uses the following languages in their work?
                                       1 English   _____ %
                                       2 Swedish   _____ %
                                       3 German   _____ %
                                       4 French   _____ %
                                       5 Russian   _____ %
                                       6 Other, please specify _____ _____ %

14. How do you think the need for the following languages will change in the next three
years? (Check the right alternative)

	Need will increase	**will decrease**	**will remain unchanged**
1 English	☐	☐	☐
2 Swedish	☐	☐	☐
3 German	☐	☐	☐
4 French	☐	☐	☐
5 Russian	☐	☐	☐
6 Other, please specify	☐	☐	☐

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15. What is your understanding of the strengths and weaknesses of personnel with vocational education? What are their top five strengths and weaknesses? Please mark a number for importance.

Item	A Strengths	B Weaknesses
1. Participation in conversation	☐	☐
2. Fluency	☐	☐
3. Presentations	☐	☐
4. Reading comprehension	☐	☐
5. Speed of reading	☐	☐
6. Writing texts	☐	☐
7. Knowing sufficiently many languages	☐	☐
8. Mastery of professional language	☐	☐
9. Cultural understanding	☐	☐
10. Grammar	☐	☐
11. Pronunciation	☐	☐
12. Listening comprehension	☐	☐
13. Other, please specify	☐	☐

16. What would be the best way of demonstrating one's language skills at recruitment?

1 Language certificate ☐

2 Grades in a report card from school ☐

3 Certificate for work or study abroad ☐

4 Portfolio of one's work in a foreign language ☐

5 Language test organised by the company ☐

6 Interview ☐

7 Other, please specify _____ ☐

17. Which of the above mentioned ways is your company using? Please mark in numbers from the previous question.

_____

18. We ask you to think of your personnel with vocational education. Which of the following situations are the most important for them in a foreign language? Please mark a number for importance as follows: 3= very important, 2= important, 1= not so important, 0 = not needed, x = I don't know

Situation	**How important?**
1. Talking about oneself and one's work	☐
2. Travel	☐
3. Social situations (e.g. introductions, small talk)	☐
4. Telephone (e.g. taking messages, answering inquiries, making arrangements)	☐
5. Client contacts (e.g. customer service, exhibitions, complaints)	☐
6. Hosting visitors, participationg in visits	☐
7. Solving EDP-problems	☐
8. Explaining a process or a (working) method	☐
9. Discussions concerning deliveries, installations, maintenance	☐
10. Fault analysis, solving problems	☐
11. Tutoring a new employee	☐
12. Reading manuals, instructions, professional literature	☐
13. Reading company documentation (memos, quotations etc.)	☐
14. Writing email messages, faxes; taking notes in a meeting	☐
15. Writing memos, reports, documents	☐
16. Giving a presentation (e.g. company profile, product presentation)	☐
17. Meetings, negotiations	☐
18. Other, please specify	☐

19. In your opinion, how are oral skills compared with written skills for personnel with vocational education? Please answer on a percentage basis, as illustrated in the example.

	For example from Smith	Share of English skills at the average/ vocational education
Oral skills	60%	
Understanding texts	30%	
Writing	10%	

EVALUATION OF LANGUAGE TEACHING

20. What are the strengths and weaknesses of the language teaching in vocational education?

Strengths
_____
_____
_____
_____
_____
_____
_____

Weaknesses
_____
_____
_____
_____
_____
_____
_____

21. What are the strengths and weaknesses of the language teaching in general education (comprehensive school, high school)?

Strengths
_____
_____
_____
_____
_____
_____
_____

Weaknesses
_____
_____
_____
_____
_____
_____
_____

Thank you for your time!

Appendix E. Translation of Questionnaire B

NATIONAL BOARD OF EDUCATION

PROLANG – LANGUAGE/COMMUNICATION FOR THE WORKPLACE

BACKGROUND FACTORS

1. Age

> 1. Less than 25 years
> 2. 26–35
> 3. 36–45
> 4. 46–55
> 5. More than 56

2. Gender   1. Female   2. Male

3. Native Language   1. Finnish   2. Swedish   3. Other, which _____

4. Educational background

> 1. Comprehensive school or equivalent
> 2. Vocational background
> 3. Polytechnic/ post-secondary degree
> 4. University degree
> 5. Other, please specify

5. Position/Occupation _____

6. How many years have you been in the working life?

> 1. Less than 3 years
> 2. 3–5 years
> 3. 6–10 years
> 4. 11–15 years
> 5. More than 16 years

7. Please mention the most important ones of your earlier jobs.
(Company, Occupation/Position, For how long?)

8. Have you worked/studied abroad?
(Yes/No)

If yes, please give the following information.
(Country, Language, Occupation/Position, How long?)

9. In what kind of occupations/positions do you expect to be working in five years from now?

_____

LANGUAGE NEEDS

10. Are foreign languages needed in the occupations/positions you aim to work in?
(Yes, No, I don't know)

11. When you were recruited last in the year _____, did they inquire about your language abilities?
(Yes, No, I cannot remember)

If yes, how?
(It was asked, It was tested, Other means, please specify...)

12. Have you needed foreign languages in your work?
(Yes, No)

If yes, which languages? Please mark a number for importance (1, 2,3,4,5…)

        1 English   _____
        2 Swedish   _____
        3 German   _____
        4 French   _____
        5 Russian   _____
        6 Other, please specify ___

13. What languages have you studied?

        1 English   _____ years
        2 Swedish   _____ years
        3 German   _____ years
        4 French   _____ years
        5 Russian   _____ years
        6 Other, please specify _____

14. How would you expect your language need to change within the next five years?
(Please tick)

Language	The need will increase	The need will decrese	The need will stay the same
1. English	☐	☐	☐
2. Swedish	☐	☐	☐
3. German	☐	☐	☐
4. French	☐	☐	☐
5. Russian	☐	☐	☐
6. Other, please specify	☐	☐	☐

ASSESSMENT OF THE ONE'S OWN LANGUAGE SKILLS

15. Do you feel your langauge skills are sufficient for your present occupation/position? (Yes, No, Partly, I don't know)

16. Assess the strengths and weaknesses of your skills in English. Mark FIVE of your most important strengths in English in column A. Then mark FIVE of your most important weaknesses in English in column B (by setting 1., 2. , 3., 4. and 5. in the appropriate box).

Item	A Strengths	B Weaknesses
1. Participation in conversation	☐	☐
2. Fluency	☐	☐
3. Presentations	☐	☐
4. Reading comprehension	☐	☐
5. Speed of reading	☐	☐
6. Writing texts	☐	☐
7. Knowing sufficiently many languages	☐	☐
8. Mastery of professional language	☐	☐
9. Cultural understanding	☐	☐
10. Grammar	☐	☐
11. Pronunciation	☐	☐
12. Listening comprehension	☐	☐
13. Other, please specify	☐	☐

17. What kind of language abilities do you need? Mark in percentage according to the example.

Skills	e.g. John Smith	Your English skills now	Your English skills in five years from now
Oral skills	60%		
Text comprehension	30%		
Writing	10%		

18. We now ask you to assess your language skills using the scale in brackets. (5= excellent, 4 = good, 3 = intermediate, 2= low intermediate, 1= elementary, 0 = none). In column A indicate the situation NOW and in column B your estimate of the situation in five years from now.

Situation	A Level of skills NOW	B Aimed level of skills five years from now
English	☐	☐
Swedish	☐	☐
German	☐	☐
French	☐	☐
Russian	☐	☐
Other, please specify	☐	☐

COMMUNICATION SITUATIONS

19. In what situations have you needed English? Mark in the column whether the situation is 3= very important, 2= important, 1= not so important, 0 = not needed, x = I don't know

Situation

1. Talking about oneself and one's work ☐

2. Travel ☐

3. Social situations (e.g. introductions, small talk) ☐

4. Telephone (e.g. taking messages, answering inquiries, making arrangements) ☐

5. Client contacts (e.g. customer service, exhibitions, complaints) ☐

6. Hosting visitors, participationg in visits ☐

7. Solving EDP-problems ☐

8. Explaining a process or a (working) method ☐

9. Discussions concerning deliveries, installations, maintenance ☐

10. Fault analysis, solving problems ☐

11. Tutoring a new employee ☐

12. Reading manuals, instructions, professional literature ☐

13. Reading company documentation (memos, quotations etc.) ☐

14. Writing email messages, faxes; taking notes in a meeting ☐

15. Writing memos, reports, documents ☐

16. Giving a presentation (e.g. company profile, product presentation) ☐

17. Meetings, negotiations ☐

18. Other, please specify ☐

In the following we ask you to give a full description of some situations where you have or would have needed English.

20. Mention a **common work situation**.

Situation   _____
Place   _____
Who were present _____

What is essential for the situation to be successful?

_____
_____
_____

21. Now describe a demanding work situation, where you have or would have needed English.

Situation   _____
Place   _____

Who were present (age, position, nationality, gender etc.)

_____
_____

Please describe the situation from beginning to end.

_____
_____
_____

What makes the situation demanding?

_____
_____
_____
_____
_____
_____

EVALUATION OF LANGUAGE TEACHING

We ask you to evaluate the language teaching you have experienced in vocational undergraduate training and in general education.

22. What are the strenghts and weaknesses of **vocational language teaching**?

Strengths
   _____
   _____
   _____
   _____
   _____

Weaknesses
   _____
   _____
   _____
   _____
   _____

23. What are the strengths and weaknesses of **general language education**?

Strengths
   _____
   _____
   _____
   _____
   _____

Weaknesses
   _____
   _____
   _____
   _____
   _____

We thank you for your contribution in PROLANG.