

Introducing a Collaborative Network-
based Learning Environment into Foreign
Language and Business Communication
Teaching

Action Research in
Finnish Higher Education

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Introducing a Collaborative Network-based
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Helsinki 2004

Maija Tammelin

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Introducing a Collaborative Network-based Learning Environment into Foreign Language and Business Communication Teaching: Action Research in Finnish Higher Education.

Abstract

The primary purpose of this study was to examine the introduction of an educational innovation—in this case, a collaborative network-based learning environment that utilizes ICTs and face-to-face sessions—into the teaching of foreign language and business communication in Finnish higher education. An additional purpose of this study was to explore a) the affordances of the ICTs employed, and b) two particular pedagogical aspects: 1) the manifestation of social presence and the building of a sense of community in a multimodal learning environment; and 2) the roles of the teacher and the learner in an educational setting in which two participating groups of university students located in geographically dispersed sites communicate through the use of e-mail, computer conferencing, and videoconferencing. These groups had local face-to-face sessions with their respective teachers, as well.

The methodological approach adopted in this three-year study took the form of collaborative action research, with a special emphasis on the perspective of teacher-as-researcher. Ethnographic data collection techniques were employed during the course of this study. The data included text-based messages (e-mail messages, messages posted to the discussion lists created specifically for the course web site), videotaped videoconferencing sessions that took place during the three action research cycles, notes from various feedback sessions held, and students' self-evaluations and course reports.

The interdisciplinary theoretical framework of the study drew on several disciplines, including applied linguistics, the science of education, media education, social psychology, and sociology. Because the specific context of this study within the sphere of English business communication was environmental communication, the area of environmental education was also drawn upon.

The findings of this study demonstrated that the successful introduction of an educational innovation into higher education teaching calls for an overall strategic commitment from the surrounding institution. The results of this study also indicated that a collaborative network-based learning environment that utilizes multiple communication channels does indeed provide affordances for language and business communication teaching, in that the use of many different channels can supply the participants with a channel in which they can best find their preferred "voice". The study also stressed the importance of social presence, and the building of a sense of community in a multimodal educational setting. The roles of the teacher and learner were found to line up with the roles emerging in connection with research into learner-centered communicative language teaching. In network-based learning environments, however, the importance of the teacher's ability to perform an overall conscious role switching was emphasized.

Keywords: foreign language teaching, higher education teaching, English business communication, environmental communication, action research, network-based learning environment, social presence, teacher and learner roles, ICTs, educational innovation, affordance

Maija Tammelin

Introducing a Collaborative Network-based Learning Environment into Foreign Language and Business Communication Teaching: Action Research in Finnish Higher Education.

(Kollaboratiivisen verkkopohjaisen oppimisympäristön käyttöönotto vieraan kielen ja yritysviestinnän opetuksessa: Suomalaiseen yliopisto-opetukseen liittyvä toimintatutkimus.)

Tiivistelmä

Tutkimuksen päätavoitteena oli tutkia yliopistojen kieltenopetukseen liittyvän opetuksen innovaation eli tieto- ja viestintäteknikkaa (TVT) hyödyntävän ja lähitapaamisiin perustuvan monimuotoympäristön käyttöönottoa vieraan kielen ja yritysviestinnän, erityisesti englanninkielisen yritysviestinnän opetuksessa. Sen lisäksi tutkimuksen erityistavoitteena oli tutkia sekä TVT:n tarjoamia mahdollisuuksia, affordansseja, vieraskielisen yritysviestinnän opetuksessa sekä tutkia kahta verkkopedagogiikkaan liittyvää ilmiötä: 1) sosiaalisen läsnäolon ilmentymistä ja yhteisöllisyyden muodostumista sekä 2) opettajan ja oppijan rooleja monimuotoympäristössä, jossa lähitapaamisten lisäksi osallistujat kommunikoivat sähköpostitse tai keskustelukanavien kautta sekä videokonferenssin välityksellä kahden eri paikkakunnalla sijaitsevan ryhmän välillä.

Tutkimus toteutettiin kahden yliopiston välisenä kolmivaiheisena toimintatutkimuksena, joka kesti runsaat kolme vuotta. Tutkimus edusti etnografisia tutkimusmenetelmiä soveltavaa ”opettaja tutkijana” toimintatutkimusta, johon osallistuivat tutkimuksen laatijan lisäksi toisen osallistuvan yliopiston ryhmästä vastaava opettaja sekä toimintatutkimuksen eri sykleihin osallistuneet opiskelijat, ympäristöjohtamisen asiantuntijat, kurssiavustajat ja tekniset tukihenkilöt.

Tutkimusaineisto muodostui erityyppisistä kirjallisista viesteistä (sähköpostiviestit, keskustelulistaviestit), kolmen eri toimintatutkimussyklin aikana pidettyjen videokonferenssien nauhoituksista, muistiinpanoista yhteistyöopettajan tai opiskelijoiden kanssa käydyistä suullisista palautekeskusteluista sekä opiskelijoiden sähköisesti lähettämistä itsearvioista ja kurssipalautteista.

Erytyisesti mediakasvatuksen alaan liittyvän tutkimuksen teoreettinen viitekehys oli poikkitieteellinen. Viitekehysten rakentaminen edellytti monien eri tieteenalojen hyödyntymistä, joista tämän tutkimuksen kannalta erityisen merkittäviä olivat sovellettu kielitiede, kasvatustiede, sosiaalipsykologia, sosiologia ja mediakasvatustiede sekä tutkimuksen kontekstina olleen englanninkielisen yritysviestinnän erityisosa-alueen, ympäristöviestinnän, kannalta myös ympäristökasvatustiede.

Tutkimuksen tulokset osoittivat, että opetuksen innovaation tuominen yliopisto-opetukseen edellyttää instituution strategista sitoutumista, jotta innovaatiolla olisi nykyisessä teknistyneen ja nopeasti muuttuvan työelämän tarpeet huomioivassa yliopisto-opetuksessa pysyvämpää merkitystä kuin vain pelkillä yksittäisillä opetuskokeiluilla. Tutkimuksen perusteella voitiin päätellä, että monimuoto-opetus, joka toteutetaan lähitapaamisten lisäksi erilaisia viestintäkanavia hyödyntämällä, tuo vieraskielisen yritysviestinnän opetuksen lisäarvoa, joka ilmenee siten, että osallistujilla on käytettävissään yhteisten kurssitavoitteiden saavuttamiseksi valittavanaan sellainen kanava, jonka avulla hän voi saada oman ”äänensä” parhaiten esille. Tutkimuksessa korostui myös sosiaalisen läsnäolon ja yhteisöllisyyden merkitys silloin kun työskennellään suurelta osin verkkovälitteisesti. Opettajan ja opiskelijoiden roolien todettiin olevan suurelta osin yhteneväisiä oppijakeskeiseen kommunikatiiviseen

kielenopetukseen liittyvien vastaavien roolien kanssa. Verkkoympäristössä kuitenkin erityisesti korostuu opettajan kyky tietoisesti vaihtaa rooleja.

Avainsanat: yliopistojen kieltenopetus, englanninkielinen yritysviestintä, ympäristöviestintä, toimintatutkimus, verkko-opetus, sosiaalinen läsnäolo, yhteisöllisyys, opettajan ja opiskelijan roolit, TVT, opetuksen innovaatio, affordanssi

Acknowledgements

It was in the late 1980s that I accidentally got involved with the use of information and communication technologies, ICTs, and gradually became interested in CALL—computer-assisted language learning. I was fortunate to get to know an early Finnish pioneer in the CALL field, Ms Marja Kalaja, Director of the Language Centre at the Helsinki University of Technology at the time, who not only introduced me into the work already done in the field but also led me into the international CALL world. I am most grateful to her for showing me the direction in which to go. I am also deeply indebted to another colleague, Ms Eija Salo from the Helsinki School of Economics, without whose vision and determination I never perhaps would have started my research project. I very much appreciate her un-failing support all through this long journey that she gently but insistently persuaded me to take.

I joined the Faculty of Education at the University of Helsinki as a post-graduate student in 1991. I first had to complement my previous studies in the field of science of education that I had carried out some twenty years earlier. I completed my obligatory studies in 1995, after which I was qualified to start my doctoral studies. However, I was not sure whether to continue with such studies because combining regular work with the role of a research student had turned out to be rather heavy going at times. Two main factors had a decisive influence on my decision to continue. First, the rapid advances in the field of ICTs in the mid 1990s had brought along such highly interesting educational technologies as the World Wide Web and videoconferencing that seemed to open up altogether new opportunities for language and business communication teaching, and consequently, new areas for research. The second crucial factor was the establishment of the Media Education Centre at the University of Helsinki in 1996. The centre was to become my source of inspiration for the years to come. Several themes of this study were discussed at the Centre's stimulating seminars where I received valuable comments, constructive criticism and positive reinforcement from my enthusiastic and intellectually inspiring fellow students, one of whom was Heikki Kynäslahti, my predecessor in the current Media Education Publication series.

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Espoo, July 6, 2004

Majja Tammelin

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1 Introduction

“Would you tell me, please, which way I ought to go from here?”
“That depends a good deal on where you want to get to,” said the Cat.
“I don't much care where—” said Alice.
“Then it doesn't matter which way you go,” said the Cat.
“—so long as I get somewhere”, Alice added as an explanation.
“Oh, you're sure to do that,” said the Cat, “if you only walk long enough.”

Carroll, Alice's Adventures in Wonderland, 1865 (1962, 82)

1.1 Background to the Study

Educators representing all educational sectors are currently confronted with a myriad of challenging issues arising from the rapidly expanding integration of information and communication technologies (ICTs) into educational contexts. These issues include mainly technical, administrative, and, most importantly, pedagogical issues (Tammelin 1996; 1997; 1998a). One of the main challenges emerging from the pedagogical issues is the call for renewed pedagogical thinking. As Sajavaara (1998, 99) aptly puts it, although the technical facilities are available, transferring old pedagogy into the new ICT-enhanced educational settings is not going get one very far. Indeed, it could be argued that a successful transition from a four-wall, teacher-fronted classroom into open, collaborative network-based learning environments involves a profound rethinking of one's rationale for being a teacher or a learner.

As it does not suffice to only recognize the new needs arising from the issues revolving around the educational use of ICTs, many countries have drawn up strategies and taken concrete measures to respond to the challenges presented by these needs. In Finland, the Ministry of Education's strategy “Education, Training and Research in the Information Society: A national strategy for 2000–2004” (1999) approaches the issue from multiple perspectives. For instance, it focuses attention to criticism leveled at the lack of coordination and randomness in the development of and research into network-based education in the Finnish educational arena. This criticism is founded on the results of a nation-wide evaluation project carried out by Sitra, the Finnish National Fund for Research and Development, regarding the use of ICTs in all Finnish educational sectors (Sinko & Lehtinen 1999). Consequently, one of the four key areas outlined in the strategy's plan for imple-

mentation centers on the development of collaborative network-based learning environments as well as the development of methods for teaching and materials for studying in such environments. As the plan indicates, such developments call for systematic research and an efficient application of the results produced by such research.

From the perspective of Finnish higher education, Sitra's evaluation report does not give the overall development of the pedagogical use of ICTs a very high mark either. In fact, the evaluation report states that the development of pedagogically sound applications in higher education has not been very coherent. For example, the report points out that the pedagogical and technical support given to projects carried out by single university departments is often scant and that the ideas generated in connection with various pilot projects do not often find their way to the use of others in a purposeful way.

On the global level, Salomon (2002, 71) reflects over the impact of ICTs and asks somewhat provokingly, "Technology and pedagogy: why don't we see the promised revolution?" His question is in line with Sinko's (1998, 217) argument which implies that although ICTs have come into classrooms and homes, the new learning paradigm has been mere rhetoric. Sinko further states that the new concept of learning seems to serve more as an argument for using ICTs instead of being actually implemented. He warns about the danger that the early majority of educational institutions will adopt only the technology and reproduce their existing practices in a new framework. Salomon (2002, 72), who shares Sinko's apprehensions, further argues that technology becomes trivialized "in the way it is allowed to do precisely that which fits into the prevailing educational philosophy of cultural transmission and training for the world of yesterday."

It is against the background described above that this study set out to examine the issue of introducing a technological innovation—a collaborative network-based learning environment—into foreign language and business communication teaching in Finnish higher education. As pointed out by Tella (1998a, 168), language teachers have for long had the tradition of using educational technology in their teaching. It is therefore somewhat surprising that the systematic integration of ICTs into language education seems slow compared, for example, with the rate at which language labs were fairly rapidly adopted into general use in Finnish schools and universities. On the other hand, the use of computer technology as such has been widespread in language education since the early 80s. This is evidenced by the prolific literature from the past twenty years on computer-assisted language learning known as CALL. However, the emergence of such educational telecommunications media as e-mail, computer conferencing, the World Wide Web, and videoconferencing has changed the face of CALL. Chapelle (2000, 204) has attempted to clarify this change by referring to CALL that does not require networking as "pre-network CALL". Kern and Warschauer (2000, 1) advocate the use of an altogether

new term to describe the new mode of language teaching by calling it NBLT or network-based language teaching. As for the relationship between NBLT and CALL, Chapelle (2000, 222) suggests succinctly that NBLT represents an expansion rather than a reconceptualization of CALL.

As an area of research, network-based language teaching is still young. As Kern and Warschauer (2000, 2) point out, there is a growing amount of general research on computer-mediated communication (CMC), but in the field of NBLT there are still only a relatively limited number of large-scale published studies available. In Finland, no extensive published studies on network-based foreign language teaching seem to have emerged since Tella's (1991; 1992a; 1992b) pioneering research into introducing international communications networks and electronic mail into Finnish secondary school foreign language classrooms. Research on NBLT seems particularly scarce in Finnish universities and polytechnics although both obligatory and optional foreign language and business communication teaching is extensively offered by them. Some related studies conducted in the field of higher education are to be noted though. For instance, although Marttunen's (1997) research on studying argumentation by electronic mail is not within the sphere of foreign language education, it does focus on Finnish university students' argumentation skills and is therefore of special interest from the perspective of this study. Furthermore, Finnish students in the discipline of language teacher education have been subjected to participation in network-based environments and such endeavors have been researched (cf. e.g., Mononen-Aaltonen 1999; Kuure, L., Saarenkunnas, M. & Taalas, P. 2000; 2001). In addition, viewed from an international perspective, Warschauer's (1997) study on electronic literacies among culturally and linguistically diverse college students is significant.

In their analysis of the current state of NBLT-related research, Kern and Warschauer (2000, 16) have identified a specific area in the field of network-based language education, which they consider still so new that very little research has yet been published. As they point out, the area that has been insufficiently investigated includes the particular impact of the use of multiple media on the teaching and learning experience and the pedagogical aspects related to such an experience. On the one hand, this present study hopes to make a contribution to attempts to fill this particular gap, while on the other hand, conducted as action research, the study seeks to combine theory with practice, by taking up the challenge of introducing a new technology-enhanced course format into language and business communication teaching in higher education.

1.2 Research Aim

The present study belongs to the area of foreign language and business communication teaching, on the one hand, and of media education, on the other. Its main aim is to examine the introduction of ICTs (information and communication technologies) into foreign language and business communication teaching in Finnish higher education. The general focus of the study is on introducing an interdisciplinary¹ and interorganizational network-based multimodal course format that, in addition to face-to-face classrooms sessions, employs a variety of media such as e-mail, computer conferencing, videoconferencing, and the World Wide Web. The specific focus of the study is on introducing a collaborative network-based learning environment into foreign language and business communication teaching, targeted for Finnish university students who already have a high level of proficiency in the foreign language, English, that they are using in a content-based English business communication context. The specific context of the study in the field of business communication is that of environmental communication, which, in turn, belongs to the discipline of environmental management. The present study is based on an action research project involving two participating sites for over a period of three years. The methodological approach adopted in this ethnographic study is that of collaborative action research, with a special emphasis on the perspective of teacher-as-researcher.

1.3 Research Questions

Three main research areas arising from the aim and focus of the present study have been selected. They are as follows: 1) introducing ICTs as an educational innovation into Finnish higher education foreign language and business communication teaching; 2) exploring affordances provided by selected educational ICTs for foreign language and business communication teaching; and 3) examining two specific pedagogical aspects related to collaborative network-based learning environments. The first pedagogical aspect focuses on the concept of social presence whereas the second pedagogical aspect centers on the participants' roles in a network-based learning environment considered from the perspectives of the teacher and the learner.

Within the scope of the present study, answers will be sought to the following research questions:

¹ In the current study, some cited authors have also used the terms 'multidisciplinary' and 'cross-disciplinary' instead of or in addition to the term 'interdisciplinary'. This study does not attempt to make distinctions between the three terms. As Swales and Feak suggest (2000, 176–177), the working out of such distinctions can probably only be carried out in specific disciplinary settings.

1 Information and Communication Technologies (ICTs) as an Educational Innovation

- ❖ What issues or problems arise during the action research process of introducing a collaborative network-based learning environment as an educational innovation into higher education foreign language and business communication teaching?

2 Affordances of Educational ICTs

- ❖ What affordances does the use of multiple media seem to provide for foreign language and business communication teaching?

3 Pedagogical Aspects related to Network-based Learning Environments

a) Social Presence

- ❖ 3.1 How does social presence manifest itself in a network-based learning environment?
- ❖ 3.2 How can social presence be fostered?
- ❖ 3.3 How is social presence linked to the sense of community?

b) Roles

- ❖ 3.4 Assessed by the participants themselves, what roles are the teacher and the learners perceived to have in a network-based learning environment?

Answers to these research questions will be sought through an analysis of the data collected during a three-year action research project (1996–1998). Through this analysis, relevant interpretations will be made. The choice of the research design and methods of data collection and analysis will be described in Chapter 7.

1.4 Some Key Concepts and Related Terminology

This section discusses the terminological choices made for the purposes of this study as regards some of its key concepts. These concepts are a) network-based teaching as the object of the study; b) foreign language and business communication as the context of the study; and c) affordances both as an overarching concept embedded in the study and specifically, as used in one of its research questions.

a) *Network-based teaching and learning*

As terminology related to educational settings mediated or supported by technology varies in different parts of the world, clarification of the way pertinent terminology is used throughout the current study is needed. As an example of varied terminology in use, network-based teaching itself is a case in point as, indeed, many other terms are being used to describe the same concept or related aspects of the concept. In Finnish educational contexts, the current emphasis seems to be on *network-based education* (“verkko-opetus” in Finnish) (Tella 2001, 19). Under the umbrella concept of network-based education, the current study makes frequent references to *network-based teaching* as the study approaches its central themes largely from the teacher’s perspective. In addition, the use of the term *network-based* is in line with the concept of *network-based language teaching* (NBLT) advocated by Warschauer and Kern (2000). Conceptually, *teaching* is understood as part of a larger concept that includes studying and learning as well, as discussed in Chapter 3. When this study refers to *learning* instead of *teaching*, the emphasis in general is on the learner’s perspective.

Since the current study covers a period of several years, changes in the use of relevant terminology are apparent throughout this research report. For example, some of the research data in the earlier stages of the research makes references to *telematic*², *telematics* or *telematics-based* environments instead of *network-based* or *networked* environments, terms which emerged during the later stages of the research project. However, within the context of the present study, no conceptual difference in meaning is intended between the terms *telematics-based* and *network-based*.

As for the varied terminology in use, Bates (2000; 2001) argues that terminological variances reflect the major structural changes taking place in the management and organization of teaching. As Bates (2001) puts it, the state of terminological flux is one indication of the fact that the field is in a period of transition. He points out as an example that, in North America, current technology-enhanced educational developments are commonly placed under the heading of *distributed learning*, whereas in the UK, similar developments may be referred to as *networked learning*, and, in Australia, as *flexible learning*.

As for the concepts of *distance learning* and *online learning*, they generally refer to educational contexts in which the participants come from geographically dispersed locations and utilize various telecommunications media for attending their classes. However, as online courses are increasingly also offered on campus

² French researchers Alain Minc and Simon Nora first used the concept of telematics (télématique) in 1978 in reference to such teleinformatics that serves individual users rather than organizations (Tella 1994, 9). As such, the term ‘telematic’ refers to the integration of telecommunications and computing (Martin 1981).

and often include face-to-face sessions, the term “distance” has started to lose its original connotation. Instead, terms such as *multimodal*, *multi-mode*, *flexi-mode*, *hybrid*, and *blended* are increasingly used to describe course formats that integrate classroom teaching and technology-mediated modes. This study chooses to use the term *multimodal* when referring to such an integrated format. As for the term *online*, it is used in the present study in reference to such modules or sections of a multimodal course placed in technology-mediated environments that use, for instance, e-mail or computer conferencing as communication channels.

Furthermore, yet another example of the prevailing terminological flux can be seen in the use of the term *virtual*. Although the term is used in the names of such current national initiatives as the Finnish Virtual University and the Finnish Virtual Language Center, it seems that, in many cases, more concrete terms such as ‘network-based’ or ‘web-based’ are currently often replacing the term *virtual*, which was in common usage throughout the 1990s (cf. e.g., Hiltz 1990; Tiffin & Rajasingham 1995). Consequently, as the data for this study was collected in the latter part of the 1990s, some of the data also includes references to ‘virtual’ as in ‘virtual classroom’.

Throughout the current study, the technologies utilized in network-based teaching are referred to as *ICTs* or *information and communication technologies* although the study also refers to *media*. When the term *media* is used instead of *ICTs*, the communication aspect is being emphasized. In the context of this study, *ICT*, or *Information and Communication Technology*, in the singular is used when reference is intended as an umbrella term for the general concept of the application, methods, theory and/or practices of a variety of relevant technologies. Not perhaps least because of the wide use of the term by the European Union, the term *ICT* either as a noun or a modifier (as e.g. in the compound *ICT-enhanced*) seems to be commonly used in European contexts in particular.

During the process of writing up this research report, yet new terms and concepts have come about. One of them in frequent use at the time of present writing, *e-learning*, seems popular not least because the business sector and other institutional sectors seem to promote its use. Furthermore, the convergence of e-learning technologies with *mobile* technologies has generated the concept of *m-learning*. However, in order to maintain terminological and conceptual coherence, the present study attempts to avoid the use of terms not yet coined during the action research project reported in this study.

b) Foreign Language and Business Communication Teaching

Throughout the current study, references are made to the concept of foreign language and business communication teaching in connection with the field of study in which this research is embedded. Although there is no actual separate discipline

called “foreign language and business communication”, the choice of the concept has been deliberately made for the purposes of the study. Its use emphasizes the fact that the context of this study is not general language teaching, but teaching business communication that mainly takes place through a foreign language. The focus of the study is narrowed down to English business communication taught to higher education business studies students, who are advanced level, mainly non-native speakers of English.

c) Affordances

From the perspective of this study, the choice of the concept of *affordances* in connection with the use of educational ICTs calls for clarification. The concept itself was introduced by Gibson (1979) in his ecological approach to visual perception. According to Gibson (1979, 127), “[t]he *affordances* of the environment are what it [the environment] *offers* the animal, what it *provides* or *furnishes*, either for good or ill.” In his adoption of Gibson’s concept of affordances, Norman (1993, 105–107) explains that the affordances of an object refer to its possible functions. He applies the concept of affordances to technologies and argues that different technologies afford different operations. Norman (1993, 107) points out that when a technology attempts to force a medium into a usage that violates its affordances, the medium gets in the way. As a result, a reasonable idea can thus be made inhumane by the affordances of the media.³

Interestingly enough, various ecological approaches including the perspective of affordances have been introduced to both language education, on the one hand, and to the field of educational media technologies, on the other. In the field of language education, van Lier (2000) introduces the ecological perspective into language teaching and learning and proposes replacing the notion of linguistic input by the ecological notion of affordances, which refers to the relationship between properties of the environment and the active learner. van Lier (2000, 252) stresses that if the language learner is active and engaged, he/she will perceive linguistic affordances and use them for linguistic action. On the other hand, in the field of media education, Allen and Otto (1996, 201) (cf. also Ryder & Wilson 1996) define affordances as opportunities for action. It is this definition that the current study adopts when exploring affordances yielded by educational media.

³ As an example of a reasonable idea made inhumane by the affordances of the medium, Norman (1993, 107–108) refers to impersonal telephone voice-messaging systems used by many companies, which a large number of customers find annoying.

2 ICTs as an Educational Innovation

“The more complex the change, the less you can force it.”

(Fullan 1993, 22)

This chapter will examine ICTs—information and communication technologies—as an educational innovation. It will first review various definitions of an educational innovation, then focus on the diffusion of such innovations, and finally, it will explore some common barriers to adopting the use of ICTs in higher education.

2.1 Educational Innovation

As the overarching focus of the current study is on introducing and integrating a multimodal network-based course format employing ICTs into the curriculum of a Finnish higher education institution, it is first important to define the perspective from which to view such a process. In searching for such a perspective, the vistas provided by literature on educational change (e.g. Fullan 1993; 1999) could be drawn upon. Although such vistas contain many relevant views, they do not seem to suffice to explain the particular educational change that involves the adoption of new technologies. It is therefore necessary to resort to the growing body of literature approaching this specific type of educational change from the viewpoints of diffusion of technological innovations presented by numerous and well-known innovation studies (cf. e.g., Rogers 1983; 1995; Moore 1991/1999). For the purposes of the present study, the concept of innovation will be examined from the specific perspective of *educational innovation*.

The concept of educational innovation has been extensively examined in connection with “The European Observatory of Innovations in Education and Training” project in 1994–1998, an educational consortium, whose aim was to conduct research on educational innovations in all member states of the European Union (Tella & Tirri 1999). As an outcome of the project, innovation was defined as “a collective creation of original solutions, responding to (new) needs”. According to the Observatory’s specification, the term “new” is in parentheses, because “needs” don’t necessarily have to be new. (Tella & Tirri 1999, 19–20)

The research conducted during the Observatory project demonstrates profound differences in the use and understanding of the notion of innovation in various

European countries. In their analysis of the project, Tella and Tirri (1999, 62) indicate that the term ‘innovation’ is often replaced by such near synonyms as change, development or reform, thus reflecting different historical, sociological or political patterns of thought across Europe. When comparing Finnish educational innovations with those of some other European Union member countries, Tella and Tirri (1999, 62) point out that the Finnish usage of the terms describing the concept of innovation shares similarities with Ireland, Germany and other Scandinavian countries. In these countries, the concept of innovation is regarded as developmental work or as a new process in education, whereas in countries such as Italy and Spain, the concept of innovation is often taken as a synonym for reform.

In their analysis of the concept of innovation, the Observatory examined the concept from six perspectives: Innovation as a Novelty, a Product, a Change, an Action, a Process, and an Intention (Tella & Tirri 1999, 16–18). It considers the last two, innovation as a *process* and an *intention*, to be the perspectives that best correspond to the essence of the concept of an educational innovation. In their further analysis of these two perspectives, the Observatory regards the process perspective as a sequence of events linked to uncertainty. On the other hand, they regard intentionality as the driving force of innovation. They emphasize, however, that the assumption that innovations driven by the intention to do something better for the authors or to do good to others is relative and subjective as innovations can turn out to be quite the opposite.

Based on the rationale that there are different types and levels of innovations, the Observatory project divides educational innovations into four broad categories (Teasdale & Roberts 1998, 326; cited by Tella & Tirri 1999, 20). In the first category, innovation is seen as policy/systems reform. The second category comprises “catalytic innovations”, driven by government reforms in which systematic change is introduced to alter contexts and to create the need for further systematic change. The third category includes “responsive innovations” where institutions such as universities and advisory bodies have to respond to legislation and other top-down initiatives. The fourth category consists of “grass roots”-driven innovations such as independent initiatives by local education authorities, schools, colleges or individual teachers in response to their own contexts. The action research project conducted in the present study falls in this fourth category of grass roots-driven innovations.

2.2 Diffusion of Educational Innovations

Viewed from the perspective of the current study, it seems that the ivory tower contexts have perhaps been reluctant to adopt the learnings from the world of management and business where diffusion studies abound regarding the spreading of

innovations that are mainly in the form of products. Although a critical approach is to be emphasized, such studies can indeed be applied in connection with the uptake of ICTs by academic faculty in educational contexts. In their analysis of teachers' adoption of educational innovations involving the use of ICTs, a host of writers have applied the commonly known Technology Adoption Life Cycle, generally applied in the contexts of business and industry (cf. e.g., Geoghegan 1994; Kershaw 1996; Jaffee 1998; Sinko & Lehtinen 1999; Johnston 1999; Thompson 1999). The cycle, originally developed by Rogers (1983), divides the population into five segments based on the characteristics of the people. The five segments consist of innovators, early adopters, the early majority, the late majority, and laggards. Moore (1991/1999) has further developed the cycle and specifies the segments even further by naming them as follows: innovators = the Technology Enthusiasts; early adopters = the Visionaries; the early majority = the Pragmatists; the late majority = the Conservatives; and laggards = the Skeptics.

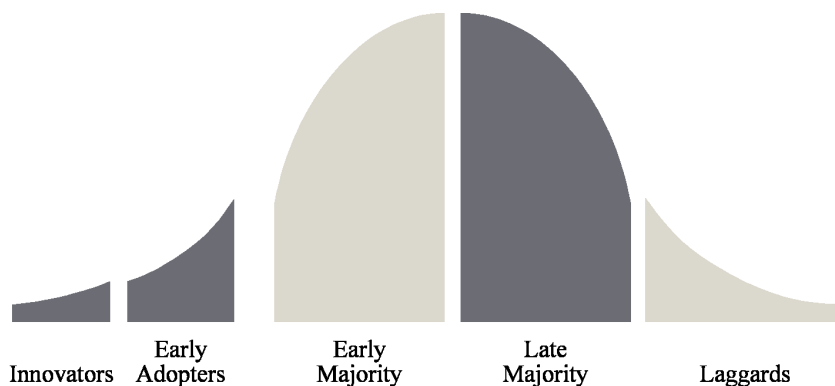


Figure 1. The Revised Technology Adoption Life Cycle (Moore 1991/1999, 16).

In his model of the Revised Technology Adoption Life Cycle, Moore (Moore 1991/1999, 16) introduces a gap between each segment. According to Moore (1999, 15), this symbolizes the disassociation between the two groups, which implies the difficulty any group will have in accepting a new product if it is presented in the same way as it was to the previous group. Moore (1999, 18) focuses special attention on the gap, “the deep and dividing *chasm*”, as he calls it, separating the early adopters from the early majority in the Technology Adoption Life Cycle. Moore considers this gap all the more dangerous, because it typically goes unrecognized. When drawing an analogy to the context of higher education, it could be argued that, indeed, some faculty will always be enthusiastic about technology for its own sake (Innovators: the Technology Enthusiasts) and some will quickly see its potential (Early adopters: the Visionaries). In connection with the launching of a new technology product, the successful development of a high-tech market faces

the crucial test of making the transition from an early market to the mainstream market dominated by the representatives of the early majority who are predominantly pragmatists in orientation. Similarly in the context of higher education, closing the gap between the early adopters and the pragmatists is crucial from the perspective of the faculty's effective adoption of technology.

In adjusting the above categorization to educational contexts, Geoghegan (1994) narrows down the five segments described above into two: the early adopters and the mainstream. He enumerates the characteristics of the representatives of the two groups. Although he admits that the items listed are generalizations, they do help to point out the extent to which these two populations differ from one another. In applying his characterizations into educational contexts, Geoghegan (1994) sees the early adopters as a small subset of faculty, consisting generally of no more than 15% of all faculty. As teachers, he describes early adopters of ICTs with the following characteristics: favoring revolutionary change, visionary with strong technology focus, risk takers, experimenters, largely self-sufficient, and "horizontally" networked with personal networks that have a high proposition of interdisciplinary and cross-functional links.

Table 1. The Characteristics of the Adopters of Educational Innovations according to Geoghegan (1994).

Early adopters	Mainstream
<ul style="list-style-type: none"> ❖ Favor revolutionary change ❖ Visionary ❖ Strong technology focus ❖ Risk takers ❖ Experimenters ❖ Largely self-sufficient ❖ "Horizontally" networked (personal networks that have a high proposition of interdisciplinary and cross-functional links) 	<ul style="list-style-type: none"> ❖ Favor evolutionary change ❖ Pragmatic or conservative ❖ Strong problem and process focus ❖ Risk averse ❖ Want proven applications of compelling value ❖ May need significant support ❖ "Vertically" networked (linkages more concentrated within a single discipline or discipline area)

In his classification of the teachers belonging to the mainstream, Geoghegan (1994) characterizes them as favoring evolutionary change, pragmatic or conservative with strong problem and process focus, risk averse preferring proven applications of compelling value. They also tend to need significant support and be "vertically" networked, i.e. having linkages more concentrated within a single discipline or discipline area. Geoghegan also suggests that the barrier preventing instructional technology from penetrating the mainstream is less a matter of aversion to technology than it is an aversion to risk, a low tolerance for discontinuous change, inade-

quate “vertical” support, and perhaps the lack of an absolutely compelling reason to buy into a new and relatively disruptive way to go about one’s work.

Furthermore, Geoghegan (1994) identifies possible reasons why the many successful ICT applications carried out by the early adopters do not seem to find their way into a more general use within the mainstream faculty. He argues that one reason might be that early adopters often turn out to be poor role models and change agents. Their success in using technology to bring about qualitative improvements in teaching and learning, and the visibility that occasionally accompanies such success, can actually have an alienating effect. Finally, he also points out that such visibility can set inappropriately high expectations with which subsequent users may be quite uncomfortable.

From the perspective of educational contexts, Geoghegan’s (1994) division into early adopters and mainstream seems less value-laden than the original categories proposed by e.g. Rogers (1983; 1995) and Moore (1991/1999). However, for the purposes of this current study it can be argued that even the term “mainstream” is too general and, in fact, also value-laden when used for categorizing teachers. It can be argued that some teachers might justifiably resent being categorized as belonging to the mainstream on the basis of their more critical views to adjusting to the use of new technologies in their work. Consequently, this current study regards Thompson’s (1999, 154–155) classification of educational technology users into “enthusiasts” and “adopters” as a more appropriate classification. Thompson (1999, 154) uses “the term ‘enthusiasts’ for those who are actively involved in the emergent stages and ‘adopters’ for those who take on what is regarded as ‘innovative’ and bring it, with greater or lesser success, both into the mainstream of teaching/learning for an individual curriculum at the micro-level, and as part of a cultural change within the institution at the macro-level”. Thompson does point out, however, that this binary distinction simplifies the gradations of adoption from early to late participants and from small groups to large cohorts, but she still considers it a useful way of foregrounding issues.

Thompson (1999, 155) further indicates that for the enthusiast, the development process may be an end in itself. Typically, even if the final product does not function as intended, much is gained from the experience itself. She stresses that this is in direct contrast to the adopter, who generally wants a working system almost solely for what it can provide. In addition, the enthusiast seems to be challenged by the unknown, whereas the potential adopter seeks proof, i.e. evidence that ‘it’ will work and clearly articulated statements of resultant teaching and learning outcomes. Furthermore, while the enthusiast is likely to be tolerant of failure and to enjoy the whole risk-taking process, the adopter wants any technology to be failure-proof and non-disruptive.

In sum, as illustrated above, Geoghegan (1994) and Thompson (1999) have adopted the diffusion of innovations model from the business world and applied it

into education. Instead of the perspective of marketing, where the target group would consist of consumers, the target population could comprise teachers in higher education. In Sitra's evaluation report (Sinko & Lehtinen 1999) on the adoption of technology in the Finnish educational sector, based on the survey among teachers, Moore's chasm model was also applied. How reliably, then, can a parallel be drawn between two such different populations? As an answer it could be argued that such a comparison certainly needs to be provided with a warning label as the multifaceted requirements within education make the teacher population very problematic, if not impossible, to segmentize. It seems that the diffusion of technological innovations, be it in connection of launching a new digital gadget or a whole new system, can be observed through the rocketing or plunging sales figures. Because of the many layers of education, it would be very difficult to make such inferences among teachers who can be enthusiasts in some aspect of their work but perhaps even "laggards" in another—yet, the two aspects may be inter-related in one way or another. After accepting this waiver, it can be argued that although diffusion studies may not provide conclusive answers, they do provide interesting interdisciplinary perspectives for studying educational innovations and their adoption.

2.3 Barriers to Adopting Educational ICT Innovations in Higher Education

In the previous section, the application of diffusion theories into explaining how the spreading of educational innovations was used to explain why adopting ICTs as an educational innovation can be slow or altogether unsuccessful. Such an approach deals with the issue from the perspective of the teachers, in other words, members of the faculty. It seems, however, that this approach alone does not suffice to explain why the adoption of educational ICT-supported innovations in higher education settings seems to encounter problems and why such adoptions often do not seem to lead to any pedagogically relevant improvements (e. g. Sinko & Lehtinen 1999). For the purposes of the current study, three other potential factors, which may act as barriers to adopting ICTs as an educational innovation in higher education, are now examined. They are 1) slowness of institutional change; 2) non-supportive institutional policies and contexts; and 3) insufficient commitment.

When examining the first factor, there seems to be evidence of some world-wide unanimity regarding the inherent slowness of higher education institutions to change and the difficulties involved in the process of change. Johnston (1999, 40) argues that one of the enduring observations about change is that it is most often a

complex, non-linear process. She refers to the favorite axiom that change is a process, not an event. Johnston (1999, 40) emphasizes that in large, multifaceted organizations such as universities, the complexity and slowness of change are particularly evident. On the other hand, change is acutely called for as a solution to the common issues troubling post-secondary institutions. Among these vexed issues Kershaw (1996, 44) lists globalization, funding cutbacks, increased competition, downsizing, program elimination and increased productivity.

As explicated by McNeil (1992, 196), it seems that the rate at which technological innovations are being integrated into teaching and learning in higher education often tends to be slowed down because of an “academic technology lag”. On the one hand, such a lag may be aggravated by the institutions’ financial constraints, rigid organizational structures or faculty attitudes. On the other hand, the rapidness of technological advances may simultaneously increase pressures on academic institutions to make hasty conclusions about the need to respond to the technological imperative that Bates (2000, 18) describes as the blind belief that technology is good for us. Therefore, it could be argued that in order to overcome the lag or to be able to avoid misjudgments, these possible obstacles to and rationales for the integration of technological innovations need to be analyzed and purposeful strategies for the integration of technological innovations into higher education curricula drawn up.

As for the second factor, non-supportive institutional policies and contexts, LeBaron and Bragg (1993, 88) imply that a major obstacle to introducing new designs into higher education via new technologies is found in the institutional contexts of higher education, which tend to be rigid and “organizationally loosely-coupled”. They argue as follows:

“... meaningful advances in technology-based post-secondary education can only take place in institutional contexts. Institutional contexts in higher education tend to be rigid, and organizationally loosely-coupled. Without attention to entrenched academic structures and coordinated standards, the learner-centered changes made possible by constructivist designs in distance education will not take hold and grow. Many elementary and secondary schools have made this discovery. Higher education could be a harder sell.”

(LeBaron & Bragg 1993, 88)

The third factor, insufficient commitment, is emphasized by Kershaw (1996) who examines reasons why the new technologies and the efforts to integrate them into teaching and learning in pedagogically sound ways seem to have made little impact on educational practices in higher education. Kershaw (1996, 48) underlines the importance of the institutional commitment and points out that the people who use the new technologies must be provided with training, technology access, and encouragement to use the technology in their day-to-day work. He particularly

stresses that “*there must be a clear focus on the people who use the technology, not on the technology itself*” [emphasis in original] (Kershaw 1996, 48). Furthermore, a sustained commitment is needed because as Kershaw (1996, 48) points out, the transformational process can be expected to take between five and ten years, and it is easy to slip back to the old ways if the institution begins to lose its focus on change.

Switzer (1992, 223) calls this institutional commitment the systems perspective, which he sees as absolutely crucial if change is to be successful. For full implementation to occur, all component parts of the system must be in place. As an example of a failure to structure component parts of the system to empower for change, he wonders how many universities have purchased large amounts of technology for faculty use and then provided virtually no staff development in the use of this technology. In addition to institutional commitment, individual commitment is naturally also needed. Fullan (1993, 37) crystallizes the essence of this dual perspective by pointing out that neither centralization nor non-centralization works and that both top-down and bottom-up strategies are necessary.

In conclusion, the aspects of educational change dealt with in this chapter have illustrated the complexity involved in the issue of the introduction and integration of ICTs into higher education institutions. The recognition of these aspects provides a useful basis for approaching and understanding the complex issue of change. First of all, regarding the introduction of ICTs as an educational innovation provides a stepping stone for approaching the issue from the perspective of research done on the diffusion of technological innovations. Applying findings from such research contributes to the efforts of identifying the barriers arising from faculty attitudes to adopting educational ICT innovation in higher education. In addition, this chapter has dealt with other barriers inherent in the ivory tower structures such as the slowness to change, non-supportive institutional policies, and contexts and insufficient commitment.

3 Teaching and Learning in Higher Education

“Learning is not just a one-way street.”

(A student’s comment during Action Research Cycle 1)

This chapter reviews such conceptual and pedagogical aspects related to higher education teaching and learning that are relevant for the purposes of the present study. The chapter will first deal with current pedagogical challenges and prevailing conceptions of knowledge and learning in higher education, followed by an examination of constructivist learning perspectives. It will then approach the issues of teaching and learning from the perspective of didactics by focusing on the teaching-studying-learning (TSL) process and the way ICTs are accommodated into the TSL process.

3.1 Pedagogical Developments and Challenges

Since the end of the 1980s two main developments in higher education calling for new pedagogies⁴ have generated a lively discussion about the essence of teaching and learning. The first main development stems from the efforts to improve the quality of higher education teaching largely as a response to the demands created by both the emergence of the information society and changing working life. As for what these demands imply from the perspective of teaching, Enkenberg (2000, 7; 2002) points out two specific challenges as demonstrated by research into learning in recent years. First, changing working life requires employees to have a greater mastery of content-specific knowledge and skills. As regards the second challenge, Enkenberg (2000, 7) indicates that the changing work tasks and conditions challenge employees to be flexible and mobile and that such tasks and conditions also call for continuous professional development and learning.

In her analysis of challenges faced by higher education, Tynjälä (1999) focuses on the issue of changing nature of expertise. Tynjälä (1999, 1) states, “[w]hat employers expect of their employees is not only a good command of domain knowledge but also diversified social, communication and co-operation skills, ability to work in different contexts with experts from other domains, and ability to critically select, acquire and use knowledge.” Furthermore, Tynjälä (1999, 1)

⁴ In Finnish, these pedagogies are known as “korkeakoulupedagogiikka” (higher education pedagogy) and “verkkopedagogiikka” (network-based pedagogy or online pedagogy).

stresses that because rapid change characterizes today's society and working life, it means that experts need to construct and re-construct their expertise constantly through a process of lifelong learning. Consequently, as Tynjälä (1999, 3) argues, it is an important challenge to today's higher education "to develop instructional practices that would integrate studying domain-specific knowledge with practicing the personal transferable and generic academic skills."

The second main development posing a challenge to higher education centers on the integration of ICTs into teaching and learning. According to Lehtinen (1997; 1999), such an integration and the new pedagogical thinking that it calls for are also to be examined from the perspective of skills and strategies needed for learning and problem solving in the rapidly changing, complex and often ill-defined situations of present-day working life. In contrasting traditional education with the new challenges of learning, Lehtinen (1999) contends that in traditional education, schools deal with well-defined pieces of knowledge, transmit established tradition, fulfill external standards and focus on cultivating individual minds, whereas the new challenges of learning include learning to manage complex, ill-defined problems and rapid change. The new challenges also include the need to keep expanding one's existing expertise and gaining socially shared and distributed expertise.

The pedagogical developments and challenges discussed above can be linked to the general paradigm shift regarding conceptions of learning, on the one hand, and models of teaching based on these conceptions, on the other. This paradigm shift has been brought forward by schools of thought representing several disciplines such as philosophy, cognitive psychology, and science of education. Consequently, the concepts of knowledge, teaching and learning can be approached from multiple perspectives. As the aspect of higher education that this study focuses on is concerned with network-based foreign language and business communication teaching, the perspectives have been selected on the basis of their particular relevancy to the focus of this study. The two main conceptions of knowledge central to that focus are the objectivist and constructivist conceptions.

The objectivist conception of knowledge assumes that there is a direct link between knowing and reality. Tynjälä (2000, 24–25) points out that objectivism emphasizes that knowledge is gained empirically only through experience and perceptions. The opposite view of this empirical-objectivist conception of learning is the epistemology known as rationalism. According to rationalism, sensory perceptions do not generate knowledge but knowledge is generated through thinking. The third view is a pragmatic one according to which reality is not a static state but an ongoing process. In addition to the pragmatist view, the constructivist view of knowledge formation is a central one from the perspective of the current study.

Tynjälä (2000, 25) explains that the constructivist view emphasizes the fact that we do not have a chance to reach the reality directly based on our sensory perceptions since the human mind interprets these perceptions on the basis of the in-

ternal mental structures. Therefore, according to constructivist thinking, the human mind is not a passive recipient of sensory perceptions but an active constructor of knowledge. As for the research and pedagogy of learning, Tynjälä (2000, 37) describes the constructivist conception of learning as the representation of this epistemological paradigm. Constructivism will be discussed further in Section 3.2.

3.2 Constructivism

Over the past few decades constructivism has been exposed to widely varying interpretations of its role and practical implementation in the higher education classrooms, which has thus generated bewilderment and strong opinions for and against the concept. One of the reasons for triggering such reactions seems to have been the erroneous conception of constructivism being just “one thing” or a theory *per se*. Another development causing confusion particularly since the early 1990s has been the manifest adoption of constructivist epistemology by both instructional designers and practitioners versed in educational technology (cf. e.g., Duffy & Jonassen 1992; Duffy, Lowyck & Jonassen 1993; Duffy & Cunningham 1996). Their strong orientation towards constructivism as the supporting epistemology of technology-enhanced learning has led many to assume that the emergence of constructivism is closely linked to the introduction of technology-enhanced educational environments.

Perkins (1999, 7) aptly concludes in his treatise of the many faces of constructivism that no one can live in the world of education long without becoming aware of constructivism being more than one thing. He then writes, “And whatever constructivism is, its advocates sometimes have championed it to the point of overkill. Here and there, mentioning the C word is almost bad manners.” (Perkins 1999, 7) Indeed, it seems that constructivism has at least three “faces”, or main orientations. The first orientation consists of constructivism as a philosophical perception of knowledge. The second constructivist orientation is linked to conceptions of learning dealt with by cognitive psychology, whereas the third orientation is represented by numerous constructivist pedagogical implications.

Consequently, constructivism cannot be considered a uniform theory in itself but rather a paradigm dealing with the essence of knowledge. Central to constructivist thinking is the view that learners construct knowledge on the basis of their previous knowledge and experience and that knowledge is an active process of construction. As commonly acknowledged (cf. e.g., Rauste-von Wright & von Wright 1994; Perkins 1999; Tynjälä 2000; Kanselaar 2002), the basic premise of such thinking and perspectives is that knowledge is constructed within the learners’ heads instead of being copied and transferred there by someone else.

Kanselaar (2002) points out that while the roots of constructivism go back to the theories of Piaget, Vygotsky and Dewey, the influence of constructivism on teaching dates from the early 1980s. Kanselaar further indicates that it was then that constructivism became a reaction against the objectivist epistemology of behaviorism and information processing theories of learning. Interestingly enough, this development coincides with the emergence of the communicative language teaching movement, which also stresses the constructivist principles of active, meaningful learning and the importance of authentic contexts. The earlier second language acquisition theories tended to represent the highly structured, product-oriented, teacher-centered learning based on the objectivist philosophy.

Some of the main pedagogical implications of constructivism have been summarized by Knuth and Cunningham (1993, 164), who describe the constructivist knowledge building process as follows:

“... knowledge is an active process of construction, not the receipt of information from external sources. The role of teaching and other instructional media shifts from one that seeks to maximize the communication of fixed content and/or skills to one in which students are led to experience the knowledge construction process: to construct interpretations, appreciate multiple perspectives, develop and defend their own positions while recognizing other views, and become aware of and able to manipulate the knowledge construction process itself. An important aspect of this approach is the insistence that learning take place embedded in the contexts to which it is most relevant in everyday life and with which the students are personally involved.”

(Knuth & Cunningham 1993, 164)

The pedagogical implications emerging from the constructivist conception of learning outlined by Knuth and Cunningham above that are particularly relevant from the viewpoint of the action research project dealt with in this study include one's own construction of interpretations, appreciation of multiple perspectives, embedding learning in relevant contexts, and personal meaningfulness and involvement. These pedagogical implications provided the basis for creating a collaborative network-based learning environment for foreign language and business communication teaching, which was to be introduced and developed during the action research project examined by this study.

3.3 Teaching-Studying-Learning

With regard to the concepts of teaching and learning, wide-ranging paradigm shifts have taken place over the past twenty years. During that time the pendulum has swung from the singular emphasis on one concept to the other. As for such shifts in emphases, Tella (2001, 20) sheds light on the reasons for them by first pointing out

that in the 1970s and the early 1980s, the concept of teaching was always assumed to include the concept of learning as well. Tella (2001, 20) then indicates how throughout the 1980s until the early 1990s teaching was being replaced by learning in discussions addressing educational issues. He argues that, as a result of the impact of cognitive psychology in particular, learning became the dominant concept to the extent that speaking about teachers and teaching seemed almost banned. Tella (2001, 20) further points out that in the mid-to-late 1990s, along with the growing use of new digital tools and environments in education, the role of the teacher, teaching, and studying were brought back to focus again.

Kansanen (1993, 54) states that it is a well-known fact that teaching in itself does not necessarily imply learning. He further emphasizes that it is confusing to talk about learning when referring to an activity which actually involves studying. Consequently, for the purposes of this study, the concepts of teaching and learning are examined from the perspective of the teaching-studying-learning process. According to the reflective theory of school didactics developed by Uljens (1997), an institutionalized pedagogical process consists of an intentional, interactional teaching-studying-learning process that is culturally and historically developed and situated. Uljens (1997, 39) claims that both the learner and the teacher may try to mould the learning process: the teacher does so by teaching and the learner by studying. Consequently, teaching does not affect learning directly but indirectly through the individual's study activity.

Uljens (1997, 39) substantiates his argument by underlining the unconscious nature of learning which aspect has been emphasized by Kansanen (1993; 1999). Kansanen (1993, 56) argues that it is not possible to make learning take place by means of will power or by means of a decision on the part of the student.

“...learning by its nature is unconscious. We cannot get learning to take place by means of willpower or by means of a decision on the part of the student. The instructional interaction aims at learning, but it is only possible to steer the activities of students with the purpose of fostering learning, or the student can wish and try to do something that s/he or the teacher thinks will probably lead to learning. But learning in itself occurs unconsciously depending on various personal and contextual factors.”

(Kansanen 1993, 56)

What then actually happens to the TSL (teaching-studying-learning) process when ICTs are brought into the process? The process has been illustrated by Tella (2001, 23) in the graph below:

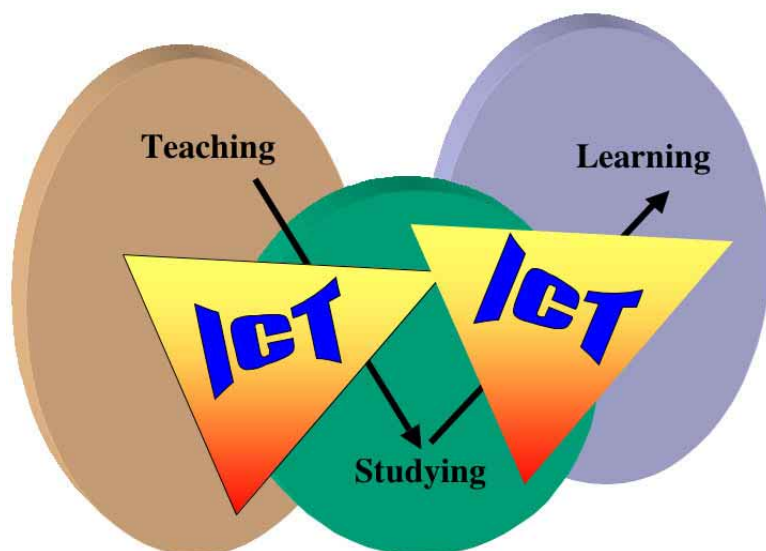


Figure 2. The Intervention of ICT in the Teaching-Studying-Learning Process (Tella 2001, 23).

Tella (2001, 24) points out that in order to understand the consequences of their “intervention”, it is important to understand the essence and meaning of ICTs. He argues against regarding ICTs as mere tools and approaching the issue from only the instrumental perspective, and proposes that in addition to their instrumental function as tools, ICTs should be regarded both as intellectual partners as originally named by Jonassen (1995) and as new kinds of contexts for teaching, studying and communication.

3.4 Collaborative Learning Environment

This section attempts to specify what is meant by a collaborative learning environment in this study. The section first addresses the use of the commonly occurring phrase ‘learning environment’. It then discusses the issue of collaboration in connection with collaborative learning.

The perspectives provided by the TSL (teaching-studying-learning) process discussed in the previous section imply that referring to learning instead of studying can create a conceptual conflict. This is particularly evident when the discussion turns to learning environments, which in many cases should more appropriately be called study environments. For instance, Tella (1998a) states as follows:

“... it is more appropriate to speak about study environments than learning environments. The teacher can help the student make the study environment as

meaningful as possible. That environment together with the teacher's teaching may then generate a learning environment that is a model of the external reality that the learner has constructed in his/her mind or head, its internal representation. The learning environment can be seen as part of a dialogue that the learner conducts with the environment. As teachers we can influence the study environment both through physical arrangements and by giving the learner enough breathing space and lebensraum in a concrete way or symbolically."

(Tella 1998a, 33–34; translated from the Finnish original).

Grabinger (1996, 668) also refers to the broad and careless use of the term 'learning environment' in educational literature as it is used "to describe everything from schools to classrooms to computer microworlds to learning activities to air conditioning and furniture". Similarly, Uusikylä and Atjonen (2000, 133) maintain that the meanings of both learning and study environments have been obscured as starting from an ordinary classroom, all sorts of workspaces or tools are currently being called learning environments. They stress that a study environment is an entity specially designed for the purposes of studying. Both material and immaterial solutions are called for by such environments where teaching is conducted not only by the teacher but also through other arrangements.

As this study recognizes the prevailing conceptual ambiguities, it chooses to use the term 'learning environment' when reference is made to the broad concept of workspace, whether concrete or virtual, where either part of or the whole teaching-studying-learning process is supported and mediated by ICTs.

In this study, calling the learning environment 'collaborative' emphasizes interaction with other learners. Dillenbourg (1999, 1) refers to collaborative learning as a situation in which two or more people learn or attempt to learn something together. Dillenbourg (1999, 8) also points out that collaboration and cooperation are sometimes used as synonymous terms, whereas many scholars use the terms distinctively according to the degree of division of labor. He explains that in cooperation, partners split the work, solve sub-tasks individually and then assemble the partial results into the final output, whereas in collaboration the division of labor can be characterized as horizontal and unstable. It seems that the reason why it can be difficult to make a distinction between the two concepts is because their inherent qualities are interwoven. In both cooperative and collaborative learning not only existing knowledge is mediated but also new knowledge is created through social interaction (Häkkinen & Arvaja 1999, 209).

As the term cooperative learning is also used in reference to a specific teaching method (Johnson & Johnson 1966), this study chooses to refer to collaborative learning in the sense expounded by Häkkinen and Arvaja (1999, 209) who define collaborative learning as building shared meanings and mutual understanding in

interaction with other people and who also indicate that the result of collaboration is more than the sum of what the single members have produced separately.

In their examination of collaborative learning tools, Bonk and Cunningham (1998, 25–27) embed their discussion in learner-centered, constructivist, and sociocultural perspectives on collaborative technology. They emphasize the need to anchor learning in real-world or authentic contexts that make learning meaningful and purposeful. They point out that rapid tool development during the 1990s multiplied concerns within a number of human-computer interaction subfields for identifying, examining, and adapting the design of collaborative learning tools. One such subfield is known as computer-supported collaborative learning (CSCL) (Koschmann, 1996). Bonk and Cunningham (1998, 28) stress that prominent CSCL technologies for computer conferencing and collaboration are bringing students close to real-world environments and mentoring situations. An extensive review of theoretical and empirical research related to computer supported collaborative learning (CSCL) by Brandon and Hollingshead (1999) indicates that designing and managing CSCL activities involves the complex interplay between the basic elements of a collaborative learning experience, features of the groupware used, the rationale behind the use of CSCL in a course, instructor influences, and student characteristics.

In conclusion, the current chapter has examined many different aspects of teaching and learning in higher education. To summarize, the chapter first dealt with some of the currently prevailing pedagogical developments and challenges in higher education contexts, including a discussion of the concepts of knowledge, teaching and learning. It then turned to the conception of constructivism and its pedagogical implications. Next, it focused on the teaching-studying-learning process and it also looked at the bringing of ICTs into this process. Finally, the question of what is meant by a collaborative learning environment in this study was addressed.

4 Foreign Language and Business Communication Teaching

“There was a book lying near Alice on the table... she turned over the leaves, to find some part that she could read, “—for it’s all in some language I don’t know,” she said to herself....”Why, it’s a Looking-glass book, of course! And if I hold it up to the glass, the words will all go the right way again.”
Carroll, *Through the Looking Glass*, 1872 (1962, 179)

The current study is embedded in the context of foreign language and business communication teaching in Finnish higher education with a specific focus on English business communication. The present chapter will explore this multidimensional context. Developments in communicative foreign language teaching will first be reviewed, after which content-based language teaching will be centered on with a particular emphasis on Finnish higher education. Next, the chapter will deal with the developments in the fields of Business English and English Business Communication. In conclusion, aspects related to the use of ICTs in foreign language and business communication teaching will be addressed.

4.1 Developments in Communicative Foreign Language Teaching

Foreign language education has traveled a long way from the days when attention was exclusively focused on the single method concept as the main approach to language teaching (for instance, the grammar-translation, the direct method, the reading method, and audiolingual/-visual methods). As Stern (1983/1991, 477) points out, it was during the sixties and seventies that language pedagogy started to make efforts to overcome the narrowness, rigidities, and imbalances that resulted from conceptualizing language teaching purely or mainly through the concept of method. The major development in the field of foreign language teaching that has had a significant impact on language teaching methods and materials started from the introduction of the concept of communicative competence and the subsequent emergence of communicative language teaching (CLT) in the seventies. As pointed out by Littlewood (1981, viii), the ‘communicative’ movement has been influential in foreign language teaching since the early 1970s. Through the past decades, the

basic idea that communicative ability is the goal of foreign language learning has been explored and developed through an ever-growing number of both theoretical studies and practical handbooks.

The term communicative competence was coined in the sixties by Hymes (1972), a sociolinguist, in order to contrast a communicative view of language with Chomsky's (1965) theory of competence (see also Richards & Rodgers 1986, 69–70). The Hymesian theory of communicative competence included a definition of what a speaker needs to know in order to be communicatively competent in a speech community, thus shifting the focus away from the Chomskyan emphasis on such abstract abilities speakers possess that enable them to produce grammatically correct sentences in a language. This reflected the shift in linguistic research from a structural approach to a functional approach (Austin 1962; Searle 1970), looking at what one does with language rather than how one creates a language system.

In the furthering of communicative language teaching, Savignon (1972; 1983) pioneered both through theory building and practice. Moreover, another milestone with a considerable influence on the advancement of communicative language teaching was the model of communicative competence introduced by Canale and Swain (Canale & Swain 1980; Canale 1983). Their model introduced four components of competence: grammatical competence, sociolinguistic competence, discourse competence, and strategic competence. In their interpretation of these four components, Richards and Rogers (1986, 71) interpret grammatical competence as the domain of grammatical and lexical capacity. They refer sociolinguistic competence to an understanding of the social context in which communication takes place, including role relationships, the shared information of the participants, and the communicative purpose for their interaction. As for discourse competence, Richards and Rogers (1986) refer it to the interpretation of individual message elements in terms of their interconnectedness and of how meaning is represented in relationship to the entire discourse or text. Finally, they summarize the concept of strategic competence as referring to the coping strategies that communicators employ to initiate, terminate, maintain, repair, and redirect communication.

The Canale & Swain communicative competence model has been further expanded by Legutke and Thomas (1991, 265), who propose the adding of intercultural competence as a fifth component into the model. In addition, they suggest adding a separate domain, process competence, which inter-relates with communicative competence. According to Legutke and Thomas, process competence represents knowledge and the ability to use the knowledge of the following three areas:

- ❖ *the individual*, i.e. knowledge about 'self' and personal growth; the ability to respond and to be responsible;
- ❖ *the group*, i.e. knowledge related to the dynamics of the group, the ability to interact, cooperate and work things out with others;

- ❖ *the learning process*, i.e. knowledge about learning and the learning process, the ability to learn, to manage learning and to teach others. (Legutke & Thomas 1991, 265)

The concept of communicative competence has been further expanded in the 1990s by the Council of Europe's Common European Framework of Reference (2001, 101–130), which also classifies the language user's/learner's competences. The Framework defines them as the sum of knowledge, skills and characteristics that allow a person to perform actions. The Framework divides these competences into two separate areas: General competences and Communicative language competences. The first area—general competences—includes four types of competences: 1) declarative knowledge (*savoir*); 2) skills and know-how (*savoir-faire*); 3) existential competence (*savoir-être*); and 4) ability to learn (*savoir-apprendre*). Communicative language competences—the Framework's second main area of competences—consist of linguistic, sociolinguistic, and pragmatic competences. These competences are further subdivided into other specific areas of competence.

In recent years the notion of communicative competence has also been further extended by the growing focus on intercultural communicative competence and intercultural learning. Kohonen et al. (2001, 3) summarize the essence of intercultural learning in foreign language education as follows:

“While the first language is acquired more as an affective process of developing a belonging to the native culture in early childhood, the foreign language remains inevitably foreign, no matter how well we learn to master it. Therefore, *foreign language instruction needs to be enhanced by the emerging goals of intercultural learning*. Important in this goal orientation is to see foreign language learning as developing a capacity to encounter foreignness and otherness in intercultural communication. It is not enough to know the language primarily as a formal linguistic system. Language use is always contextualized, purposeful and interactive communication that involves negotiation between the participants, the tolerance of ambiguity and respect for diversity.” (emphasis in original)

(Kohonen et al. 2001, 3)

In his analysis of intercultural competence, Kaikkonen (2001, 67) states that intercultural foreign language education focuses on learners as individuals and on their relation to languages and other individuals. He further points out that this perspective differs from the traditional model of foreign language education. Kaikkonen (2001, 66) also emphasizes that the idea of intercultural learning through foreign language education is based on treating the learner as a feeling, knowing, thinking and interacting person, and consequently, working and studying in the classroom are no exceptions.

As the notion of competence is widely used to describe some specific orientation regarding the language learner's /user's knowledge and skills, the present study chooses the term 'communicative language proficiency' to describe the notion of the language learner's/user's overall command of the various competences.

4.2 Content-based Language Teaching

The previous section reviewed the general developments in communicative foreign language teaching. This section will now examine communicative foreign language teaching in the light of models of teaching in higher education contexts. For the purposes of the present study, this will be done by choosing the concept of content-based language teaching as the framework for reviewing such models.

The general aim of content-based language teaching is the integration of language learning and content learning. In North American contexts in particular, content-based language teaching is also referred to as content-based instruction (CBI). Much of the literature and research into CBI seems to reflect the perspective of the second language⁵ tradition and background, particularly the ESL (English as a second language) context in which speakers of other native/first languages than English live in a society where English is the dominant language. As for what the concept of CBI contains, Stryker and Leaver (1997, 3) stress that there is no single formula for CBI as it can refer to a number of different approaches, methods, and perspectives. They further suggest that CBI can be at once a philosophical orientation, a methodological system, a syllabus design for a single course, or a framework for an entire program of instruction. They see a CBI syllabus as consisting of three dimensions as follows: 1) it is based on a subject-matter core; 2) it uses authentic language and texts, and 3) it is appropriate to the needs of specific groups of students.

According to Krueger & Ryan (1993), the fundamental premise of the so-called discipline-based approaches to language study holds that students can successfully learn the content of an academic discipline and improve their foreign language proficiency at the same time. That this premise is oversimplified is proven by the fact that there are many different varieties, approaches, and orientations to content-based language education. It is also to be noted that if the discipline-based approaches are targeted for second language contexts, they are not necessarily directly applicable to foreign language contexts, which seem to reflect quite different perspectives and circumstances.

⁵ In this study, the term 'second language' refers to a country's main language spoken/studied by a population whose native/first language is some other language.

The broad umbrella of the CBI approach covers such models as sheltered content courses. As described by Brinton, Snow and Wesche (1989) and further expounded by Krueger & Ryan (1993) and Stryker & Leaver (1997, 4), the concept of sheltered instruction refers to specially designed subject matter teaching given to a group of second language learners by a content specialist. The teacher uses special methods and techniques to “shelter subject matter” in order to make the content more accessible to second language learners. Another type of approach is offered by theme-based courses where the teacher teaches both subject matter and language. Theme-based courses are usually organized as a series of modules, which are built around either the subject matter representing a specific topic or the language aspect (mainly grammar) (cf. e.g., Brinton, Snow & Wesche 1989; Krueger & Ryan 1993; Adamson 1993; Snow & Brinton 1997; Stryker & Leaver 1997).

More recently, the perspective of sustained content for language learning (Pally 2000) has been emphasized. Sustained content refers to curricula in which a specific content (e.g. economics, law) area serves as a carrier topic and context for language learning. As described by Pally (2000, vii), sustained content-based instruction refers to language classes that are not language classes linked to “sister” content classes, but rather language classes which themselves follow a subject through the term. She further explains that they simulate a college class but additionally provide explicit instruction in language and academic skills.

Finally, a further example of content-based language teaching is the teaching of Language for Special Purposes (LSP)⁶. Common in foreign language teaching in many parts of the world, LSP renders itself to several different definitions depending on one’s perspective. For instance, in their discussion of LSP, Stryker and Leaver (1997, 4–5) focus on the content that is aimed at preparing students for specific positions in assignments in other countries. They point out that the content of LSP courses is relatively easy to determine depending on what those “special purposes” are. They further argue that determining content in academic foreign language programs is less clear-cut and that content is frequently decided arbitrarily by the teacher and is usually based on academic tradition. It is to be noted, though, that his argument seems to stem from the North American higher education tradition of seeing the study of language parallel with the study of literature, whereas the European LSP developments have led into other directions, notably seen in the developments in ESP (English for Specific Purposes), which field originally emerged from the LSP traditions at the end of the 1960s.

Hutchinson and Waters (1987, 8) see the growth of ESP brought about by first of all, the expansion of demand for English to suit particular needs, and second, by the developments in the fields of linguistics and educational psychology. This sec-

⁶ Languages for Special / Specific Purposes—erikoiskielet, ammattikielet, fackspråk, Fachsprache

ond development is in line with the developments in communicative language teaching in general foreign language education discussed in Section 4.1. The further developments from ESP to Business English and English Business Communication will be dealt with in Section 4.3.

4.2.1 Foreign Language Teaching in Finnish Higher Education

As pointed out by Sajavaara (1998, 91), the inclusion of foreign language proficiency requirements in one or two foreign languages in all university degrees is a special characteristic of the Finnish university degree system. The extent of the requirements may vary depending on the degree and discipline in question. Furthermore, there are no national uniform standards in Finnish universities regarding the content of these foreign language requirements. In fact, Räsänen (1999, 18) argues that the language requirements written in the statutes concerning higher education in Finland are relatively generally stated. She points out that most often the statutes only seem to mention “sufficient skills needed in the profession or for the studies” as the goal of language studies. Consequently, the institution itself or the department in question can specify what those sufficient skills mean. However, as Sajavaara (1998, 96) points out, because of the universities’ limited resources, in many Finnish universities it is generally not possible to offer more courses than such that directly aim at fulfilling the obligatory but relatively low language skills requirements.

In the programs of the language departments or language centers catering for the language studies of students across the various disciplines, there seems to be a trend towards cross-cultural emphases. Tella and Vähäpassi (2000, 18) identify the link between FL teaching and multiculturalism by pointing out that foreign language (FL) proficiency is recognized as one of the crucial criteria related to multiculturalism that together with cross-cultural communication is permeating most educational sectors at present. They then state that multiculturalism, on the one hand, and FL proficiency, on the other, are the two key components in the internationalization process now taking place in Finnish higher education institutions. This internationalization process is reflected in the increasing number of programs or study modules that are taught in a foreign language in Finnish higher education institutions. Such programs are also a prerequisite for international student exchange where reciprocity is an essential part of the interaction.

One common characteristic of foreign language teaching in Finnish higher education is the dominance of discipline-related content. More specifically, Sajavaara (1998, 98) points out that there seems to be a shift of focus in the universities’ obligatory language studies towards meeting the needs of working life. The link to working life has traditionally been emphasized in universities specializing

in business studies. This link is seen in their efforts to offer such language and business communication programs that attempt to meet both the needs of academic study purposes and those of the kind of working life that the future graduates are going to be entering.

The workplace needs of languages in Finland have been extensively studied. Huhta's (1999, 62–65) study showed that 74% of the employees in Finnish companies considered needing one or more foreign languages at work. According to employers, the three most needed languages in business and industry were first English, Swedish as second, and German as third. Elsinen's study (2000) on Finnish university students' conceptions regarding foreign language education is in line with Huhta's findings. Elsinen's study dealt with Finnish university students' descriptions of their experience of using foreign languages, their assessment of their own language skills, estimates of how much they needed language skills in various sectors of their lives and which languages they felt were of importance. The results (Elsinen 2000, 151) showed that the three languages that the students had used most and in which they had best skills paralleled with Huhta's findings as the languages were English, Swedish and German.

4.3 English Business Communication Teaching

While English has risen to its unquestionable position as the working language of international business and the global economy, there have been interesting developments in the way it has been seen and taught. This section will demonstrate these developments by first discussing the position of English as a *lingua franca* and the issues of ESP (English for Specific Purposes) and Business English. It will then discuss the reasons for the shift of focus from Business English to English Business Communication. In conclusion, the current state of English Business Communication will be reviewed.

4.3.1 English as a *lingua franca*

Among the foreign languages studied in Finnish universities, the importance of English seems to be in a class of its own (cf. e.g., Takala 1998). The situation thus mirrors the special position of English worldwide as a world language, a *lingua mundi*, and a *lingua franca*, a common language of global commerce, media and politics, as categorized by Cope and Kalantzis (2000, 6). Indeed, English is currently more frequently used in communication between non-native speakers of English than between native speakers of the language (Crystal 1997). Furthermore, according to a survey conducted in Europe in 2001 (Eurobarometer 54, 2001), 71%

of the Europeans thought that everyone in the European Union should be able to speak one European language in addition to their mother tongue, and almost the same number of people agreed that the language should be English.

While also recognizing the indisputable position of English among languages, Cope and Kalantzis (2000, 6) consider it paradoxical that English seems to be breaking into multiple and increasingly differentiated Englishes. They write as follows:

“Increasingly, the name of the game in English is crossing linguistic boundaries. Gone are the days when learning a single, standard version of the language was sufficient. Migration, multiculturalism and global economic integration daily intensify this process of change. The globalization of communications and labour markets makes language diversity an ever more critical local issue. Dealing with linguistic differences and cultural differences has now become central to the pragmatics of our working, civic, and private lives. Effective citizenship and productive work now require that we interact effectively using multiple languages, multiple Englishes, and communication patterns that more frequently cross cultural, community, and national boundaries. Subcultural diversity also extends to the ever broadening range of specialist registers and situational variations. When the proximity of cultural and linguistic diversity is one of the facts of our time, the very nature of language learning has changed.”

(Cope & Kalantzis 2000, 6)

The arguments presented in the citation above by Cope and Kalantzis in support of their conclusion regarding the changing nature of language learning could also be used to explain why the focus on teaching business English has shifted to teaching English business communication, which issue will be addressed in sections 4.3.2 and 4.3.3.

4.3.2 Business English

There are several ways of defining Business English. From their perspective of ESP (English for Specific Purposes), Dudley-Evans & St John (1998, 9) see teaching Business English as a branch of English Language teaching. According to them, the English language teaching (ELT) could be presented on a continuum that runs from clearly definable General English courses through to very specific ESP courses. Ellis and Johnson (1994, 3), in turn, regard Business English as a variety of ESP, which differs from the other varieties in that it is often a mix of specific content and general content. The specific content might relate to a particular job area or industry and the general content would relate to general ability to communicate more effectively, albeit in business situations.

Business English has undergone several developments. Ellis and Johnson (1994, 3–4) explain that in its early stages in the late 1960s and the early 1970s Business English was specialist vocabulary focused (e.g. banking). In its next stage in the 1970s, there was a greater emphasis on training the skills of speaking, writing, listening, and reading in a business context. Ellis and Johnson (1994, 4) indicate that in its third stage, which continued into the 1980s, Business English teaching started to focus more on functional aspects such as formulaic language for e.g. giving opinions and showing agreement. They also point out that since the late 1980s Business English teaching has drawn on various aspects of the previous approaches, but it has added more emphasis on the need to develop the skills needed in actually using the language learned.

Ellis and Johnson (1994, 5) further suggest that there are many varieties of Business English. They make an important distinction between pre-experience or low-experience learners and job-experienced learners. In regard to university students, their business knowledge typically is still more theoretical than practical although some students may already have wide work experience.

The role of Business English has been challenged by the impact of societal changes on today's workplaces. For example, Bhatia (1999, 129) argues that as a response to the dynamic complexity of present-day workplace practices, a number of universities have been radically changing the nature of their academic programs by making them increasingly interdisciplinary. He therefore stresses that many of the conventional Business English courses are becoming increasingly inadequate to meet the complexity of the communication demands inherent in the cross-disciplinary academic tasks learners face. As Bhatia (1999, 129) indicates, learners need the competence to handle several types of literacy, which may not be a simple extension of previously acquired communicative competence. Consequently, he calls for developing expertise in diverse and multiple literacy practices within and across disciplinary boundaries. Therefore, it can be argued that the current developments in the sphere of Business English largely focus on English Business Communication, which will be discussed next.

4.3.3 From Business English to English Business Communication

The development of English into its current global status has also reformulated the teaching of English as a language into teaching English for communication. Consequently, the emphasis on Business English has undergone a major shift in recent years towards an emphasis on business communication. This changing emphasis is

reflected in what is being taught in business language studies.⁷ Louhiala-Salminen (1999a, 100–101) aptly describes this shift as being due to the drastic changes in the economic scene. Among these changes the internationalization of companies has been the most visible one. Furthermore, the growing rate of mergers and acquisitions has required the employees to adapt themselves to a new business culture, and increasingly, a new language (cf. also Louhiala-Salminen 2002). Louhiala-Salminen (1999a, 100–101) also mentions the expansion and consolidation of the European Union as a factor placing more demands on communication skills. Finally, she sees the emphasis on communication resulting from the developments in the use of technology.

The increasing demands on linking language studies with the needs of the workplace have traditionally been most extensively met in the business education sector. Finnish Schools of Economics, other universities offering business programs and polytechnics specializing in business studies have for long included practical, business and working life oriented language and professional communication studies in their curricula as they have been considered essential for business students.⁸ In fact, according to the current views (Nikko & Kankaanranta 2000, 247–249), language and communication proficiency is seen as part of the professional competence of Finnish business graduates.

The shift from Business English to English Business Communication has also made it necessary to take a new look at teaching methodology and course design in the teaching of English Business Communication. For example, Louhiala-Salminen (1996, 50) emphasizes that in course design, business communication should not be treated as something separate from the real business.

“First of all, in course design, business communication should not be treated as something separate from the real business, not as a skill separate from other professional skills, not as a store of phrases and idioms, but rather as a thread which is interwoven in everything that happens in business.”

(Louhiala-Salminen 1996, 50)

Louhiala-Salminen (1999a, 18–19) concludes that one needs to see teaching business communication as a dynamic, context-dependent process where such factors as time, roles, power relations, cultural aspects, and communication methods always affect the message. She stresses that teachers should create a context for the students that would include cases and simulations, through which students' attention could thus be drawn to the complexities of each situation.

⁷ In 2001, the Helsinki School of Economics, changed the name of the subject “English” into “English Business Communication” to better describe the content of its English program

⁸ For instance, the 160 credits currently required for the Master's degree in the Helsinki School of Economics include the minimum of 20 credits consisting of language studies (1 Finnish credit corresponds to 1.5 ECTS credits in the Finnish Schools of Economics).

English business communication has also established itself in the field of business communication research. Charles (2000) points out that the discipline of business communication is widely acknowledged especially in North America, but that it is still quite new in Europe⁹. Charles (1998, 85) also stresses that the European business communication research is closely linked with the needs of foreign language teaching and learning. She further states that the situation thus reflects the multicultural and multilingual reality of the continent where, excluding the native speakers of English in general, most European businesspeople must use at least one foreign language to do business. Consequently, English Business Communication is to be placed under the umbrella of international business communication,¹⁰ which covers language-specific business communication processes conducted through English or some other language in international settings.

As a field of research, Charles (2000) indicates that English business communication represents a multidisciplinary field of research, which has developed from practical business transactions. She further states that its predecessor in Europe was the Languages for Specific Purposes (LSP) movement, which currently focuses mainly on terminology research. However, Charles (2000) points out that the borderline between the research into business communication and LSP is a vacillating one. As for the special nature of business communication, Reinsch (1996, 36–37) in his discussion of business communication as a discipline designates it as a “practical-science” that has both a dimension of intellectual content (‘knowing-about’ or ‘knowing-why’) and a dimension of effective practice (‘knowing-how’). Reinsch (1996, 37) asserts that neither of these dimensions should be neglected or else the result is a trade-school approach (knowing-how without knowing-why) or an ivory-tower approach (knowing-about without knowing-how).

According to Charles (2000), the research orientations of international business communication mainly draw on three specific areas. The first area centers on the analysis of companies’ communication flows and systems and the companies’ communication practices and communication culture (cf. e.g., Louhiala-Salminen 1999b; 2002; Kankaanranta, forthcoming). The second major area includes the discourse and conventions of business situations and events and their situational variety (cf. e.g., Charles 1994; Charles & Charles 1999a; Yli-Jokipii 1998a; 1998b). The third orientation focuses on creating favorable learning environments for business language and business communication (cf. e.g., Baker & Tammelin 1995; Baten & Ingels 1998; Nikko & Kankaanranta 2000; Charles & Tammelin 2001). It is this third orientation that the current study draws upon.

⁹ Since 2000, the first European professorship in English Business Communication has been housed at the Helsinki School of Economics.

¹⁰ Since 2002, it has been possible at the Helsinki School of Economics to enrol in a PhD. Program in International Business Communication.

4.4 ICTs in Language and Business Communication Teaching

This final section of the current chapter will first review the use of some of the most common technologies in network-based language and business communication teaching. It will then introduce the theoretical framework chosen for the purposes of the study for classifying various ICTs as the media for communication.

4.4.1 Use of ICTs

In the current study, the notion of network-based teaching refers to teaching that utilizes various network-based ICTs—information and communication technologies. ICTs commonly utilized in network-based language and business communication teaching include e-mail, bulletin boards, computer conferencing, newsgroups, chat, and videoconferencing. Of the various technologies, e-mail as a simple and inexpensive one seems to be the technology most widely used in foreign language and business communication classrooms worldwide. When e-mail communication started burgeoning at the end of the 1980s, language teachers in particular were quick to see its pedagogical value, as it enabled authentic communication activities, for instance, with students in other parts of the world. Consequently, the myriad ways of using e-mail in language classrooms increased at an exponential rate all through the 1990s. Within a single decade an innumerable number of innovative e-mail projects have been and are being carried out in language classrooms throughout the world (cf. e.g., Vilmi 1994; Warschauer 1995a; 1995b; 1996; Warschauer, Schetzer & Meloni 2000; O'Dowd 2003).

As for the pedagogical value of e-mail, Tella's early study (1991; 1992a; 1992b) on introducing electronic mail into foreign language classrooms points out such features as authenticity, learner-centeredness and the increase in the share of both students' independent work, and pairwork or teamwork. Gonglewski, Meloni and Brant (2001) further summarize the pedagogical benefits of e-mail in foreign language teaching by pointing out that the use of e-mail provides a context for real-world communication and authentic interaction, and it expands topics beyond classroom-based ones, promotes student-centered language learning, encourages equal opportunity participation and connects speakers quickly and cheaply. E-mail communication and other written forms of textual mediation such as computer conferencing and chat are commonly referred to as computer-mediated communication (CMC).

The regular use of videoconferencing in language and business communication classrooms has not seemed to gain ground at the same rate as CMC although

many language and intercultural communication projects have successfully utilized videoconferencing (Charles & Poncini 1999b; O'Dowd 2000; Furstenberg et al. 2001). High costs, time-consuming special arrangements involved, lack of appropriate equipment, and incompatibility problems might be reasons why videoconferencing has not gained such widespread popularity yet. Instead, the use of the World Wide Web, also known as the WWW or the Web, has grown phenomenally since the mid-90s when it was first introduced to educational settings. Educators and trainers, especially the ones who already had had previous experience in the use of the electronic networks, rapidly recognized the value of this Internet-based communication system for sharing and searching for information and the multitude of opportunities the Web provided for educational uses both as a resource and a mediating tool (cf. e.g., Barson 1997).

In a large-scale study investigating the potential of the Web as a medium of language instruction both to complement face-to-face teaching and as a stand-alone course, Felix (2001) studied the learners' perceptions regarding Web-based learning. Reported advantages fell into the broad categories of time flexibility, reinforced learning, privacy and wealth of information, while the disadvantages included distraction, absence of teacher and personal interaction, and lack of speaking practice. From the language teaching perspective, Felix (2002, 3) writes, "The exciting promise of the Web is that it offers an environment in which a creative teacher can set up authentic learning tasks in which both processes and goals are stimulating and engaging, and which take individual student differences into account."

4.4.2 Direct and Mediated Communication

How then does the use of the communications¹¹ media such as the ones referred to in the previous section impact the nature of communication in educational contexts? Although searching answers to the question is not within the primary scope of the current study, raising the question is relevant, however, as the use of communications media needs to be considered within a specified framework categorizing the various modes of communication. One categorization includes making the distinction between synchronous and asynchronous communication. Consequently, synchronous communication would include such real-time communication modes as face-to-face communication and communication mediated by such technologies as audiographics, chat and videoconferencing, while e-mail and computer conferencing would represent asynchronous communication modes. However, as

¹¹ In this study, the term 'communications' is used in the plural when the emphasis is on technology and the means of communicating, while 'communication' in the singular is used when the focus is on the process of communicating.

useful as such, this categorization seems limited when faced with a need to accommodate to the rapid technological advances and increasingly blended ways of utilizing them, which, for instance, provide various forms of group communication or mobile learning opportunities.

A comprehensive conceptual framework for positioning the available technologies and contrasting computer-mediated human communication with human-to-human communication is presented by Tella and Mononen-Aaltonen (1998, 67–74). They provide a multi-dimensional model of communication that divides communication into direct communication and mediated communication. In Bakhtinian terms, they build their model on the notion of addressivity, which stresses the interdependency of the speaker and the addressee. Their model contrasts direct addressivity with mediated addressivity. Tella and Mononen-Aaltonen (1998, 71) define direct addressivity as a complement of direct face-to-face communication whose “role is to emphasize the reciprocating presence of the other(s), the interdependency between the persons involved in communication.”

Furthermore, Tella and Mononen-Aaltonen (1998, 72) divide addressivity into primary, secondary and tertiary addressivity. Primary and secondary addressivity refer to real time human-to-human communication, whereas tertiary addressivity is the layer in the model that is concerned with telematic media that enables mediated communication between human beings. They speculate that tertiary addressivity is gradually approaching primary addressivity along with the growing user-friendliness of telematic tools and services. They further point out that direct communication and mediated communication, in turn, approach each other as technology and communication merge.

As explicated by Tella and Mononen-Aaltonen (1998, 68–69), the model graphically depicted in Figure 3 below consists of the following dimensions or “channels”:

- (i) The primacy of communication, divided into direct communication and mediated communication.
- (i) The directness of addressivity, divided, on the one hand, into direct addressivity and mediated addressivity, and, on the other, into primary addressivity, secondary addressivity and tertiary addressivity.
- (i) The directionality of communication, divided into unidirectionality, bidirectionality and multidirectionality.
- (i) The dominance of voices, divided into monophony, stereophony and polyphony.
- (i) The question of time and immediacy, i.e., synchrony (“on-line”) or asynchrony (“off-line”).
- (i) The nature of communication, divided into human-to-human communication (HHC) and computer-mediated human communication (CMC).

The dimensions of direct and mediated communication and the three layers of addressivity are illustrated in Figure 3 as follows:

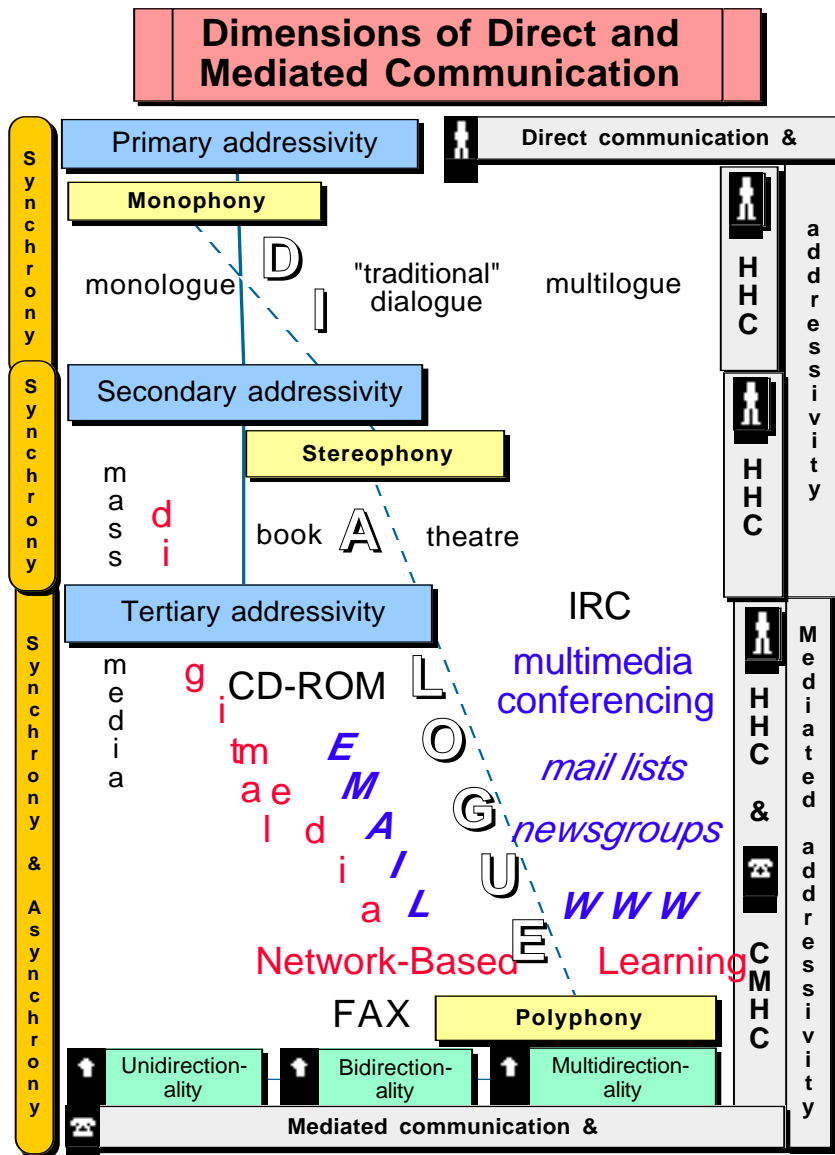


Figure 3. Dimensions of Direct and Mediated Communication (Tella, S. & Mononen-Aaltonen, M. 1998, 70).

The current study draws on this multidimensional model of communication as its theoretical backdrop for categorizing the communications media used in the actual implementation of the study.

5 Social Presence

“As has been underlined many times, it is not the technology but the way it is used, which ultimately affects the learner. A good teacher has presence in any medium.”

(Mason 1994, 34)

ICTs have enabled the implementation of educational experiences that do not require individual participants to be physically present (e.g. computer conferencing) or the participating groups to be in the same place (e.g. group-to-group videoconferencing). As a result, the issue of the participants' presence in such mediated educational contexts has been gaining increasing attention. This current chapter will address the issue of presence in connection with such environments by reviewing research particularly on the notions of social presence and the related concepts.

5.1 From Telepresence to Social Presence

The role of presence in such mediated contexts that exclude face-to-face interaction partly or completely is an issue that has been approached from a theoretical point of view by Lombard and Ditton (1997), who, after having extensively reviewed conceptualizations of presence in the literature, came to the conclusion that research on presence is still in its infancy. Several researchers have, however, attempted to define the concept of 'presence' in connection with technologically mediated environments or virtual spaces. These various definitions reflect the researchers' particular research perspective from which they approach the issue of presence, and therefore, terminology used to describe different concepts related to presence also varies.

A concept that first had an exclusively technological focus is the concept of **telepresence**, which emerged when certain areas of industry started to design remote control systems and industrial robots. As explained by Martin (1982, 167–168), telepresence is referred to when the operator of a distant mechanism is provided with signals or stimuli that give him the sense, to some extent, of being present where the mechanism is. Consequently, the user of a telepresence mechanism can “work” in another location while seeing and feeling what the remote machine is doing. Telepresence is particularly useful when work needs to be done in

dangerous places such as mines or under water, or when difficult surgical operations are performed.

Along with the rapid advances in the development and implementation of technologies, the earlier technology-focused telepresence has expanded into including the human focus. One of the main contributors to this expansion of meaning of telepresence has been the Ontario Telepresence Project (Moore 1997), which was a three-year project centering on finding out how the work activities of groups, especially groups separated by distance, could be supported by organizationally grounded media space design. One of the main leaders of the project, Buxton (1993, 816), states, “As we use the term, telepresence is the use of technology to establish a sense of shared *presence* or shared *space* among geographically separated members of a group”.

Furthermore, Mason (1994, 53), in her discussion of improvements to computer conferencing systems in support of collaboration, summarizes such improvements as facilities that enhance the telepresence of the group, that is, the sense of interacting with real people. On the other hand, McLellan (1996a, 463), who defines telepresence as a feeling of being in a location other than where one actually is, links the notion of telepresence to the concept of cyberspace and virtual realities.

Kreijns and Kirschner (2001, T1F-15), who have researched the social affordances of computer-supported collaborative learning environments (CSCL), adopt yet another concept that also originates from media space research: the concept of **teleproximity**. They explain that teleproximity is created through group awareness, which is a condition where group members perceive the presence of other group members and where these ‘others’ can be identified as discernible persons with whom a communication episode can be initiated. They also point out that media space researchers believe that group awareness provides opportunities for chance encounters that stimulate informal communication, and that it is as a result of such informal communication that collaborative relationships are established.

Tella (1998b, 111–113; Tella & Mononen-Aaltonen 2000, 18–19) introduces the notion of **virtual togetherness**, constructed on Bauman’s (1995, 44–49) original concept of togetherness. Virtual togetherness, as defined by Tella (1998b, 112), refers to the shared feeling of belonging to the same virtual community and being able to fully capitalize on the resources of that community. He argues that virtual togetherness illustrates the feeling of being “present” on the Web, despite time and space distanciation.

Other approaches to defining presence in connection with technology-mediated contexts include a classification made by Biocca (1995; cited by McLellan 1996b, 8) who classifies presence into three types, which are **spatial presence**, **self-reflexive presence**, and **social presence**. Spatial presence is the sense of presence within a space. This space can be either a space visited via telepresence or a

virtual space that only exists digitally. However, spatial presence is not limited to virtual reality applications because a sense of spatial presence can be also achieved, for instance, by multimedia applications. Self-reflexive presence, in turn, refers to the perception that the surrounding environment offers the same responses—the same affordances—that one is accustomed to in a “real” environment. Examples of self-reflexive presence include the metaphorical use of a trash can, the clocks and hourglasses on the computer desktop. Furthermore, self-reflexive presence can be very subtle.

The third type of presence in Biocca’s (1995; cited by McLellan 1996b, 8) classification—social presence—refers to the sense of being present in a social encounter with another person, for instance, via a telephone call where two speakers, although at different physical locations, can feel fully present with each other in the context of the conversation. In her discussion of Biocca’s three different types of presence, McLellan (1996b, 8) proposes a fourth type of presence, **imaginative presence**, which she considers the kind of presence that a good book or a movie, a game or simulation—or any educational activity—can achieve. McLellan argues that imaginative presence fits well with Csikszentmihalyi’s (1988) notion of the optimal experience or the flow regarding the optimal mental state of engagement with a task or activity.

As regards the concept of presence in network-based learning environments, the context in which it has been specifically studied is that of computer conferencing (e.g. cf., Feenberg 1989; 1993; Mason 1994; Garrison 1997). In connection with their extensive research into computer conferencing, Garrison, Anderson and Archer (2000) have developed a model of a community of inquiry that constitutes three elements that they regard as essential to an educational experience. These three elements are representations of presence that they call **cognitive presence**, **teaching presence**, and **social presence**.



Figure 4. The Model of Community of Inquiry for Higher Education based on Computer Conferencing (Garrison, Anderson & Archer 2000, 88).

From the perspective of higher education, Garrison, Anderson and Archer (2000, 89) regard the first element in the model, cognitive presence, as a vital element in critical thinking. They take it to mean the extent to which the participants in any particular configuration of a community of inquiry are able to construct meaning through sustained communication. They suggest that cognitive presence essentially means critical, practical inquiry that can be created and supported in a computer conference environment with appropriate teaching presence and social presence. As for teaching presence, Anderson et al. (2001) regard it as constituting three categories. These categories are design and organization, facilitating discourse, and direct instruction. The third element of the community of inquiry, social presence, is defined by Rourke et al. (2001) as the ability of learners to project themselves socially and affectively into a community of inquiry.

Garrison, Anderson and Archer (2000) invite researchers to further build on their model. From the perspective of this present study, the first modification to their model of community of inquiry would be that the model should not be limited only to the context of computer conferencing. After all, computer conferencing may be just one element in a network-based learning environment that may utilize

multiple media combined with face-to-face sessions. Therefore, from the perspective of this study, it can be suggested that the application of the model be expanded from its computer conferencing context to multimodal learning environments.

5.2 Social Presence and Immediacy

As demonstrated in the previous section, several researchers have contributed to furthering discussion on presence. This section will now take a closer look at the element of social presence that was referred to by Biocca (1995; cited by McLellan 1996b, 8), Garrison, Anderson and Archer (2000, 88) and Rourke et al. (2001). The present study considers the element of social presence particularly important as one of the key concepts from the perspective of this study—the concept of a collaborative learning environment discussed in section 3.4—emphasizes interaction with others and thereby has a close link to social presence.

The concept of **social presence** was first introduced by Short, Williams & Christie (1976) who, exploring the issue from the perspective of social psychology, regarded social presence as an important key to understanding person-to-person telecommunications. In their theory based on feelings of ‘social presence’, Short, Williams & Christie (1976, 64–65) defined social presence as a quality of a communications medium itself, which is subjectively perceived by its users. They hypothesized that communications media varied in their degree of social presence and that because the users of any given communications medium were in some sense aware of the degree of social presence of the medium, they therefore tended to avoid using the medium for certain types of interactions. This was the case specifically regarding interactions requiring a higher degree of social presence than the users perceive the medium to have.

Furthermore, Short, Williams & Christie (1976, 65) emphasized that the capacity of the medium to transmit information about facial expression, direction of looking, posture, dress and non-verbal vocal cues all contributed to the social presence of a communications medium. They argued that the way the medium contributed was “determined by the individual, because we conceive of the Social Presence of a medium as a perceptual or attitudinal dimension of the user, a ‘mental set’ towards the medium.” (Short, Williams & Christie 1976, 66)

Short, Williams & Christie (1976, 72) also argued that social presence was related to two other concepts in social psychology: Argyle and Dean’s concept of **intimacy** and Wiener and Mehrabian’s concept of **immediacy**. In describing intimacy, Argyle and Dean (1965; cited by Short, Williams & Christie (1976, 72) postulated that when two people enter into a conversation they would try to reach an equilibrium of the factors affecting the overall level of intimacy. Apart from physical distance, such factors include eye contact, smiling and personal topics of

conversation. This can lead to many predictions, such as people tending to avoid eye contact and increasing their physical separation if personal topics are discussed, thus being able to maintain an optimum level of intimacy.

From the perspective of this study, intimacy is mainly seen as the level of intimacy prevailing in discussions taking place in computer conferences such as the informal Café conferences or the e-mail interactions between the students and the teacher. In this sense, intimacy could then be regarded as the way personal topics are being discussed or the degree to which personal topics are brought up or avoided. In the current study, intimacy is seen to overlap with the concept of immediacy to such an extent that it will be regarded as being part of immediacy rather than being a distinctly separate issue.

According to Wiener and Mehrabian (1968; cited in Short, Williams & Christie 1976, 73), **immediacy**, the second related concept to social presence, refers to the measure of the psychological distance that a communicator puts between himself and the object of his communication. Wiener and Mehrabian originally applied the concept of immediacy to an understanding of speech. They showed that immediacy in speech could be manifested in many different ways. For instance, they pointed out how using ‘Let us...’ or ‘we’ could connote a feeling of closeness and association as opposed to ‘I...’ or ‘you’.

Short, Williams & Christie (1976, 73) extended the concept of immediacy to include a consideration of other aspects of communication by indicating that a person can convey immediacy or non-immediacy non-verbally as well as verbally, for instance, by physical proximity, formality of dress, and facial expression. They also argued that the more information a medium can transmit, the greater its immediacy. Therefore, the use of face-to-face communication implies greater immediacy than the use of the telephone, for instance. Finally, Short, Williams & Christie (1976, 73) made the point that for any given medium of communication and situation, immediacy may vary while the social presence afforded by the medium—the degree to which the user of the medium is perceived as a “real person”—will be the same.

In her seminal study (1979), Andersen applied the immediacy construct to investigate teaching effectiveness. In the study, teacher immediacy was conceptualized as nonverbal behaviors that reduce physical and/or psychological distance between teachers and students (Andersen 1979, 543). Her study demonstrated that immediacy was a good predictor of student affect and student behavioral commitment and that teaching teachers to be more immediate might improve teacher-student relationships. In recent years, there has been a growing body of research regarding teacher and student immediacy in the classroom and its role in student satisfaction and motivation and positive learning outcomes. For instance, a study conducted by McCroskey et al. (1996) on nonverbal teacher immediacy and cognitive learning in American, Australian, Finnish and Puerto Rican universities indi-

cated that in all four cultures, increased teacher immediacy was associated with an increase in perceived learning and a decrease in learning loss. The study also showed that students from high immediacy cultures seem to expect high immediacy from their teachers. On the other hand, the results of Baringer and McCroskey's (2000) study examining perceived student nonverbal immediacy behaviors in the classroom showed that teachers who perceived their students to be more nonverbally immediate with them in the classrooms expressed more positive affect for the students than did teachers who perceived their students as engaging in less nonverbally immediate behaviors.

5.2.1 Social Presence and Immediacy in Network-based Environments

Along with the exponentially growing number of technology-mediated educational settings, research into the constructs of social presence and immediacy related to such settings is also expanding. What seems somewhat problematic, though, is that some researchers use 'immediacy' (cf. e.g., Freitas, Myers and Avgitis 1998; LaRose and Whitten 2000; Arbaugh 2000; 2001) as the theoretical underpinning for their research, whereas others draw upon the concept of 'social presence' (cf. e.g., Rafaeli 1988; Gunawardena 1995; Tu 2000; 2002; Rourke et al. 2001; Richardson & Swan 2003). In many cases it is not clear how the two concepts might differ from each other. Yet, for instance, studies have been conducted both on social presence and teacher immediacy behaviors in relation to students' perceived learning and satisfaction, indicating that social presence and immediacy are highly correlated with favorable learning outcomes. This overlapping may be caused by different research traditions. In general, it would seem that immediacy studies have been conducted by researchers representing communication education in particular, whereas researchers representing other fields of behavioral sciences, notably educational psychology, have centered on the aspects of social presence in mediated educational environments. The current study chooses the concept of social presence as its theoretical basis. Furthermore, it adopts the view presented by Hiltz (1996) who argues that immediacy is a dimension of social presence.

McIsaac and Gunawardena (1996) define social presence as the degree to which a person feels "socially present" in a mediated situation, linking the issue to a larger social context including e.g. motivation, attitudes, social interaction, and social equality. Gunawardena and Zittle (1997, 9) refer to social presence as the degree to which a person is perceived as "real" in mediated communication. Furthermore, Garrison (1997, 6), who considers social presence an important concept in understanding social context and creating a social climate, for instance, in computer conferences, associates social presence with the degree that individuals project themselves through the medium, which can be done verbally or nonverbally.

In educational research, the constructs of immediacy and social presence have also been applied to network-based education. For instance, studies have been conducted on social presence and teacher immediacy behaviors in relation to students' perceived learning and satisfaction. Such studies seem to indicate that social presence and immediacy are highly correlated with favorable learner outcomes. Mediated environments using computer-mediated communication have been examined in particular (cf. e.g. Rafaeli 1988, Tu 2000; 2002, Rourke et al. 2001; Richardson & Swan 2003). Furthermore, significant research into the social presence construct and network-based educational environments has been carried out by Gunawardena (1995). She conducted two studies that examined whether social presence is largely an attribute of the communication medium or users' perception of the medium in the context of computer-mediated communication (CMC). The results of the studies showed that even though CMC is considered a medium that is low in social context cues, it could be perceived as interactive, active, interesting, and stimulating by conference participants.

In general, research into social presence in network-based educational settings largely focuses on computer conferencing and online discussions (Garrison, Anderson & Archer 2000; Anderson et al. 2001; Rourke et al. 2001). In their study on the relationship between asynchronous, text-based forms of social communication and students' perceptions of the social climate of computer conferences, Rourke & Anderson (2002) found that the majority of students found the conference warm, friendly, trusting, disinhibiting, and personal. The social expressions corresponding to the more positive ratings of the social environment included addressing others by name, complimenting, expressing appreciation, using the reply feature to post messages, expressing emotions, using humor, and salutations. Hiltz (1998) argues that in text-based CMC, missing "non-verbal" communication including facial expressions, tone of voice, gestures, direction of gaze, posture, actions, dress, "decor", and physical presence can directly decrease "social presence". Consequently, online teachers must deliberately structure interaction patterns to overcome the potential lack of social presence of the medium.

Over recent years there have been efforts to develop instruments for assessing social presence in network-based learning environments (Gunawardena & Zittle 1997; Rourke et al 2001; Richardson & Swan 2003). Based on the transcripts of online discussions, several studies have been conducted on how participants in network-based learning environments interact and network socially and how such interaction contributes to the feeling of social presence. However, both operationalizing and measuring the degree of social presence and its impact on the course climate, students' satisfaction and learning outcomes in text-based educational course formats have not been unproblematic.

It can be argued that it is because of the difficult nature of the task that the development of new instruments for assessing social presence has been relatively

slow. Cookson and Chang (1995, 19) indicate that many instruments for observing classroom interaction were developed in the 1960s, Flanders's systematic teacher-behavior focused interaction analysis systems being the best known. In the 1970s researchers started adopting discourse analysis approaches initiated by the seminal research by Sinclair and Coulthard (1975), who developed a system of analysis for classroom discourse. Currently, there seems to be a gradually growing interest in furthering the development of the needed instruments (cf. e.g., Fahy 2002); Tu (2002) for analyzing and assessing social presence in network-based learning environments.

5.3 Social Presence and Community Building

Another concept closely linked to social presence is that of community. In demonstrating the relationship between the two concepts, Tu and McIsaac (2002) stress that social presence is a measure of the feeling of community that a learner experiences in an online environment. On the other hand, Gunawardena (1995) points out that it is the types of interactions that take place between the participants and the sense of community that is created, for instance, during a computer conference that will affect participants' perceptions of CMC as a "social" medium. Therefore, the impetus falls upon the moderators of computer conferences to create a sense of online community in order to promote interaction and collaborative learning.

Community psychologists McMillan and Chavis (1986) identify four key factors as contributing to sense of community. They are membership, influence, fulfillment of individual needs, and shared events and emotional connections. As for membership, a sense of belonging, community boundaries, identity, and personal investment all contribute to membership in a community. The second key factor, influence, may include influencing the community as well as being influenced by it. The notion of influence also instills some pressure for uniformity and conformity that spurs even greater member closeness. As regards the third factor, fulfillment of individual needs, communities provide rewards and reinforcements that fulfill personal needs and are critical to staying within the community. Finally, in accordance with the factor including shared events and emotional connections, members have emotional bonds from shared histories that connect members and encourage continued investment and involvement in the community. In their sense of community model, McMillan and Chavis show how the subelements work together to create and maintain communities. For testing theories and models there are "Sense of Community" scales and indices to determine the relative influence of each factor (Chavis, Hogge & McMillan 1986).

The four factors discussed above can also be considered important in forming a sense of community in a network-based learning community. In their review of

research into learning communities, Hughes & Hewson (1998, 48) indicate that although the group cohesion of a class meeting in a four-wall classroom has been extensively studied, interaction and the formation of learning communities studying in online environments is yet in its infancy. On the other hand, many teachers with hands-on experience in teaching in network-based environments strongly argue for the importance of community building. For instance, Palloff and Pratt (1999) consider developing a sense of community paramount. Furthermore, Hiltz (1998) even argues that the most basic premise from which all online teaching should begin is the building of a learning community for facilitating the exchange of ideas, information, and feelings among the members of the community.

How then can a learning community be defined? In their analysis of the concept of learning community, Lin et al. (1995) point out that a number of theorists argue how ill-suited the structure of typical classrooms is to the goal of encouraging the kinds of learning necessary for the twenty-first century which includes the ability to think critically and reason about important content in addition to the ability and motivation to learn independently throughout one's life. They further point out the difference between traditional classrooms and a learning community, by arguing that the social structure of a typical traditional classroom involves students who adopt the role of passive receivers of the wisdom dispensed by teachers, textbooks and other media. Typically, everyone is taught the same thing at the same time, and ideally, all students are expected to learn more or less the same things.

Lin et al. (1995) also argue that much of the interest in learning communities stems from analyses of successful informal learning environments that exist outside of school. In many learning communities, students are provided with opportunities to plan and organize their own research and problem solving together with opportunities to work collaboratively to achieve important goals. Furthermore, learning communities usually emphasize the importance of distributed expertise. Students are allowed to specialize in particular areas so that the community can capitalize on diversity. An emphasis on distributed expertise is distinctively different from environments where all students are asked to learn the same things at the same point in time.

Lin et al. (1995) emphasize that the instructional strategies most frequently used in learning communities involve strategies for organizing the activities of students rather than strategies for delivering information. The overall goal is to help students learn to interact with one another as well as with teachers and other experts, and to interact in a way that involves a reciprocal interchange of ideas, data, and opinions. In knowledge building, students continually struggle to identify what they don't know and, as a group, attempt to collaboratively extend their understanding. They also point out that the idea of distributed expertise makes the process of assessing students' skills and knowledge more difficult than in standard classrooms. According to their experience, communities based on distributed ex-

expertise are extremely beneficial because they have powerful effects on how students think about themselves and about one another.

Lin et al. (1995) summarize the nature of efficient learning communities as providing students with opportunities to 1) plan, organize, monitor, and revise their own research and problem solving; 2) work collaboratively and take advantage of distributed expertise from the community to allow diversity, creativity, and flexibility in learning; 3) learn self-selected topics and identify relevant resources; 4) use various technologies to build their own knowledge rather than using the technologies as “knowledge tellers”; 5) make students’ thinking visible so that they can revise their own thoughts, assumptions, and arguments.

The concept of learning community as constructed and explained by Lin et al. (1995) above is central for two main reasons from the perspective of the current study. First, it gives further support for conceptualizing the transition from the so-called traditional classrooms to the multimodal—and multidimensional—technology-enhanced learning communities. The second reason originates from the social theory of learning first introduced through the concept of community of practice by Lave and Wenger (1991) and further developed by Wenger (1998), who considers the primary focus of such a theory to be on learning as social participation. Social participation is also eminently present in a learning community and thus, further strengthens the link between community building and social presence.

6 Roles of the Teacher and the Learner

“As in other areas of social life, success in transaction and interaction in the classroom depends on our knowing the parts we have to play and how they relate with those that others enact in the encounters in which we are engaged.”

(Widdowson 1990, 191)

Fuelled by the spreading of the learner-centered movement in pedagogical thinking, much of the discussion regarding educational contexts during the past two decades has centered on the classroom roles of the teacher and the learner. As the wave of technological advances is currently sweeping over the whole educational sector, special attention is drawn to the question of the roles of those acting in the new technology-enhanced educational settings. A common assumption seems to be that the roles of the teacher and the learner are changing in such settings. However, it also seems that such an assumption is made by implying that there would, indeed, exist a set of commonly agreed norms for traditional teacher and learner roles against which the roles of actors in network-based learning environments can be compared. Drawing from previous research, this chapter will seek to explore such a potential basis for comparison, by focusing specifically on teacher-learner roles in language education.

The current chapter approaches the issue of roles from the perspective of what Widdowson (1990, 181) calls the “the sociology of the classroom”. The central concepts related to the role construct will first be reviewed, followed by an examination of role, power, and metaphor. Furthermore, various types of classroom roles in addition to teacher and learner roles in communicative language teaching in particular will be discussed. Finally, the question of roles in network-based learning environments will be explored.

6.1 Role and Related Concepts

In educational literature, the concept of ‘role’ is often rather arbitrarily referred to. Consequently, it may be difficult to distinguish whether a writer actually refers to a position, a status or a task rather than a role. Furthermore, the term ‘role’ is frequently used in everyday contexts, which may lead to many ambiguities regarding the implications of the concept. For the purpose of this study, it is therefore essen-

tial to define the meaning of role and other related concepts. This is done by drawing mainly from the sociological framework these concepts stem from.

As pointed out in sociological literature (e.g. Boudon & Bourricaud 1990, 308), the notion of *role* is one of the key concepts in the sociology of organizations and families. Introduced by such early pioneers in sociology as Linton (1936; cited by Kendall 2000, 101), the two concepts of role and status are closely related. A *status* is a socially defined position in a group or society characterized by certain expectations, rights, and duties. Statuses exist independently of the specific people occupying them. *Role* on the other hand refers to a set of behavioral expectations associated with a status. According to Linton (1936; cited by Kendall 2000, 105), we *occupy* a status, but we *play* a role.

Davis (1948, 90; cited by Charles 1994), another early pioneer in sociology, uses the term *position* instead of *status* and calls *role* the manner in which a person actually carries out the requirements of his position. Furthermore, Davis also points out that *role* is the dynamic aspect of status or office and as such it is always influenced by factors other than the stipulations of the position itself. Therefore from the point of view of the social structure, *role* is not static but contains certain novelty and unpredictability.

As regards roles identified in the language classroom, Wright (1987; 1990), who has specifically explored the issues of teacher and learner roles in language education, maintains that the teacher-learner role relationship lies at the very heart of the classroom process. He also argues that awareness of teacher and learner role relationships is central to effective teacher development. As for *role*, Wright (1990, 83) defines it as a complex grouping of factors that combine to produce certain types of social behavior. Wright (1987, 9) also stresses that a major conflict can occur when the personality of the individual is at odds with the role. In a classroom setting, *role* is subject to a unique set of social conventions that derive in part from the deeper and less accessible social and psychological dimensions of the teacher-learner relationship. On the other hand, he points out that in group activities such as those taking place in a language classroom, it is likely that one's personality will not only affect the role one takes but it can also affect the interpretation of that role.

The concept of role has generated a host of other related concepts and a variety of terms to describe such concepts. For instance, Merton (1968, 423) stresses that a particular status involves not only one single role but also an array of associated roles. He introduces the term *role set*, by which he means the complement of role relationships that persons have by virtue of occupying a particular social status. Handy (1985, 58–59), in turn, approaches the definition of *role set* from the perspective of the *focal person*. He first points out that the particular individual with whom one is concerned in the analysis of any situation is usually given the name of *focal person*. This person is seen to have the *focal role* in which the person can be regarded as sitting in the middle of a group of people and interacting with

each member of the group in some way in that situation. Handy defines this group as the person's *role set* and further points out that the *role set* includes all those with whom the individual has more than trivial interactions. From the perspective of this study, the single status of the university lecturer could be regarded as an example. Such a status could include a role set that relates the focal person—the lecturer, for instance—to his/her students, colleagues, the administration, technical staff, and professional organizations.

In his analysis of the concept of role set, Merton (1968, 423) emphasizes that a role set differs from the structural pattern that sociologists have identified as that of "*multiple roles*". These multiple roles refer to the complex of roles associated, not with a single social status, but with various statuses in which individuals find themselves, often in differing institutional spheres such as the roles connected with such distinct statuses of the university lecturer, for instance, as parent, spouse, and friend. A *status set*, on the other hand, is made up of all the statuses that a person occupies at a given time.

As for other central role-related concepts, Handy (1985, 59) points out that the definition of any individual's role in any situation is a combination of the *role expectations* that the members of the role set have of the focal role. Kendall (2000, 105) defines *role expectation* as a group's or society's definition of the way a specific role ought to be played. Among Kendall's treatise of some of the key concepts related to role, *role performance* refers to how a person actually plays a role. Roles are relational (or complementary) in that they are defined in the context of roles performed by others.

For the purpose of this study, some other key concepts related to roles also need to be brought into focus. Among these concepts are the following: *role ambiguity*, *role incompatibility*, *role strain* and *role conflict*, *role overload*, and *role stress*. *Role ambiguity* occurs when the expectations associated with a role are unclear (Kendall 2000, 105). Handy (1985, 60) points out more explicitly that role ambiguity results when there is some uncertainty in the minds, either of the focal person or of the members of the person's role set, regarding what the person's role precisely is at any given time. He further indicates that *role incompatibility* results when the expectations of the members of the role set are well known but are incompatible as features of the same role. For instance, a situation may arise in which both the teacher and his/her students have specific expectations of the teacher's role but these two sets of expectations are different from each other, thus resulting in role incompatibility.

Role strain is best known through the role strain theory introduced by Goode (1973). According to Goode's theory, *role strain* occurs when incompatible demands are built into a single status that a person occupies. From the sociological point of view, it is important to distinguish between *role conflict* and *role strain*. According to Kendall (2000, 106), *role conflict* occurs when incompatible role de-

mands are placed on a person by two or more statuses at the same time. For the purposes of the current study, *role strain* rather than *role conflict* would therefore be the appropriate term to be used in connection with the single status teacher and learner roles.

Yet another role related concept is introduced by Handy (1985, 60), which he describes as *role overload*. Role overload can be experienced when the number of roles that one person has to handle becomes just too much. He stresses that it does not mean the same as work overload, which often means that there is just too much to do in one role. Furthermore, various states of imbalance can lead to two types of *role stress*, beneficial and harmful stress. Handy (1985, 60) defines beneficial stress as *role pressure* and harmful stress as *role strain*. He points out that there is no clear way of distinguishing between these two concepts, role pressure and role strain, except by their effects.

6.1.1 Role and Power

Partly a separate issue of its own, partly interwoven into the issue of roles, is the question of power relationships between the teacher and the learner. In discussing power in the classroom, Wright (1990, 17) points out that there are power relationships in any social encounter involving two or more people. Wright (1990, 17) further stresses that “[i]t is very rare, however, for power to be equally shared—*power relationships are almost always asymmetrical*. One individual is likely, for one reason or another, to have more power than another.” (emphasis in original).

The question of power in connection with teacher-learner roles can also be examined in the light of the emphasis on the social side of learning. Interestingly enough, it was as early as 1938 that in advocating for education based on experience, Dewey already pointed out that when pupils were a class rather than a social group, the teacher necessarily acted largely from the outside, not as a director of processes of exchange in which all had a share. According to Dewey (1938), the power relationship between the teacher and the pupils change when education is based upon experience and educative experience is seen as a social process. Dewey writes as follows:

“When pupils were a class rather than social group, the teacher necessarily acted largely from the outside, not as a director of processes of exchange in which all had a share. When education is based upon experience and educative experience is seen to be a social process, the situation changes radically. The teacher loses the position of external boss or dictator but takes on that of leader of group activities.”

(Dewey 1938, 59)

Underhill (1989, 253–254) discusses the question of power in the context of humanistic psychology. He argues that humanistic values, whether in education, management, politics, medicine, or psychology, require the facilitator, manager, leader, practitioner, or therapist to be skilled in finding the appropriate balance for each individual between self-directed autonomous power and other-directed authoritative power. He regards the word ‘appropriate’ as the key word, “because the right balance between autonomous and authoritative power depends on the individual and the context, and is in continuous flux.” (Underhill 1989, 254)

According to Underhill (1989, 254), a learner in a teacher-led group is susceptible to at least four uses of power. They are as follows:

- ❖ *Authoritative power*, which is power, exercised for and on behalf of the learner by others (usually the teacher) whose ultimate intention is to help the learner to become self-directing and autonomous. Because of this intention, such power can be considered conceptually contradictory, as Tella (1991, 22) points out.
- ❖ *Autonomous power* is power that the learner is able to exercise for and on behalf of his/her own sake in response to the task in hand; the teacher facilitates and supports the learner’s autonomy; the learner is seen as self-directing, self-determining and self-evaluating.
- ❖ *Authoritarian power* is the degenerate version of authoritative power, exercised over the learner consciously or unconsciously for the sake of interests that are not the learner’s own. The teacher sees the learner as an object, not a subject.
- ❖ *Abdicated power* is the degenerate version of autonomous power, inappropriately given to the learner, because the teacher may be unable or unwilling to take it, or because the teacher understands the learner’s need for autonomy, but is unskilled in facilitating it appropriately. Implicit in this may be the teacher’s own confusion and discomfort with his/her role, and the projection of that confusion onto the learner.

Furthermore, Underhill (1989, 255) stresses that the ability to move between the authoritative and autonomous uses of power is a fundamental requirement of progressive education. This may be the greatest difficulty for teachers used to more traditional attitudes to classroom power relationships. He also argues that the paradox is that the more teachers empower learners to take responsibility for their own learning, the more they also empower themselves in an authentic and valid way, building on their own authority and credibility.

6.1.2 Role and Metaphor

From the perspective of this study, it is essential to recognize that assigning teachers and learners various roles is done in a metaphorical sense. As for the concept of “metaphor”, Lakoff and Johnson (1980, 5) state that the essence of metaphor is understanding and experiencing one kind of thing in terms of another. Lakoff (1993, 203) also argues that through contemporary metaphor research, metaphor has come to mean “a cross-domain mapping in the conceptual system”. Furthermore, the term “metamorphical expression” refers to a linguistic expression, i.e. a word, phrase, or sentence that is the surface realization of such a cross-domain mapping. In sum, Lakoff (1993, 208) stresses that the metaphor is not just a matter of language, but of thought and reason.

Metaphors seem particularly useful when new concepts are being introduced. Hlynka (1994, 14) considers metaphors useful in that they provide a way of seeing. However, he argues that metaphors can be harmful if they constrain thinking. As an example of a potentially harmful metaphor, he mentions the use of computer icons which show the computer as an electronic filing system, complete with file folders, documents, and even a trash can. However, as Hlynka (1994, 14) points out, “the computer is *not* an electronic filing system, and thinking within that metaphor may prevent one from considering other functions beyond word processing and databases.” If Hlynka’s words of warning are to be taken heed of, it could be argued “metaphorically speaking” that metaphors used in describing teachers’ and learners’ roles could therefore be seen as signposts indicating direction, not as landmarks indicating restrictive boundaries.

In an exploratory study into teachers’ and students’ metaphors of teaching, learning and language, Cortazzi and Jin (1999, 150) draw on the usefulness of metaphors in teaching as they may help raise learners’ awareness of key concepts, models, and issues. On the other hand, raising teachers’ awareness of their own metaphors may help them reflect on their own experience and develop professionally. Cortazzi and Jin (1999, 176) conclude that if differing metaphors for teaching and learning are known to all participants in inter-cultural educational contexts, then awareness of differing interpretations may build a bridge across cultures of learning.

6.2 Types of Classroom Roles

In his treatise of the roles of teacher and learners in the language classroom, Widowson (1990, 182) points out that the classroom should not just be perceived as physical surroundings but also conceived as social space. In his differentiation of the two perspectives, he uses the terminology originally introduced by Hymes

(1972, 60) as factors in a speech event. According to this terminology, *setting* describes the physical context and *scene* the socio-psychological. Widdowson (1990, 182) claims that since the classroom lesson is a type of speech event, it should be possible to approach it from the Hymesian perspective. As an example of *setting*, he mentions the physical features of the classroom, which facilitate or constrain certain interactive procedures (e.g. seating arrangements, noise). Setting factors will have an influence on the kind of *scene* that the teacher wishes to create. Widdowson (1990, 182) further argues that the scene, the socio-psychologically defined context, is of particular relevance in recognizing how roles are assumed by classroom incumbents—teachers and learners—the two main ‘protagonists’ as Widdowson (1990, 182) calls them. The protagonists have to be in position both socially and physically before the scene is set and the play can begin.

“The teacher comes into the room. There is a lull in the hubbub, a transitional phase of settling down. Then: ‘Right. Quiet please. Sit down.’ The tumult and shouting die. The scene is set. The classroom is constituted as a kind of social scene and the lesson starts. The participants, or the players, assume their normal and expected positions.”

(Widdowson, 1990, 182)

The varied names for the positions of the players in Widdowson’s description above would seem to indicate that the roles of the classroom protagonists are not as straightforward as they might at first appear. Widdowson (1990, 183) points out that the terms ‘*pupil*’ and ‘*student*’ specify an occupation whereas being a *learner* is not an occupation but an incidental activity. In other words, the term ‘learner’ is not a means of identification. Widdowson (1990, 183) stresses that the term denotes a role of temporary engagement and points out that one can be a learner whenever one likes, not having to formalize one’s position. Consequently, Widdowson (1990, 183) suggests that there are two different kinds of roles enacted in the classroom: the occupational and identifying roles of e.g. pupil or student, and the other incidental role having to do with activity. The term ‘teacher’ in this respect is ambiguous because it is able to denote both types of roles, which may be the source for confusion.¹² Widdowson (1990, 184) implies that terms used in French don’t bear this ambiguity and he therefore resorts to using *professeur*, *écolier* and *étudiant(e)* to denote the identifying occupational roles of teacher, pupil and student. The terms referring to the incidental activity ones are *enseignant(e)* (teacher) and *apprenant(e)* (learner).

¹² The use of the terms in Finnish resembles the English usage: ‘Oppilas’ for pupil or student, ‘opiskelija’ for student, ‘oppija’ for learner but just one word for teacher: ‘opettaja’.

6.3 Teacher and Learner Roles in Communicative Language Teaching

The theme of teacher and learner roles in the language classroom has been a recurrent and prolific one in the literature on foreign language education for more than twenty years. It could be argued that the previously described paradigm shift in methodology towards communicative language teaching (cf. Chapter 4.1 in the current study) and the concomitant shifting of emphasis towards learner-centeredness provide a fertile ground for the emergence of numerous different roles that both language teachers and learners are seen to assume in learner-centered settings.

Breen and Candlin (1980) were among the first to identify the teacher and learner roles in communicative language teaching. They describe the teacher roles as follows:

“The teacher has two main roles: the first role is *to facilitate the communication process* between all participants in the classroom, and between these participants and the various activities and texts. The second role is to act as an *independent participant* within the learning-teaching group. The latter role is closely related to the objectives of the first roles and arises from it. These roles imply a set of secondary roles for the teacher; first, as *an organizer of resources* and as *a resource* himself, second as *a guide* within the classroom procedures and activities... A third role for the teacher is that of *researcher* and *learner*, with much to contribute in terms of appropriate knowledge and abilities, actual and observed experience of the nature of learning and organizational capacities.”

(Breen & Candlin 1980, 99) (emphasis added)

As regards the roles of the learner in communicative language teaching, Breen and Candlin (1980, 110) maintain that it is because of the emphasis on the process of communication rather than mastery of language forms that the roles of the learners are different from those they have in traditional language classrooms. According to Breen and Candlin, “the role of learner as negotiator—between the self, the learning process, and the object of learning—emerges from and interacts with the role of joint negotiator within the group and within the classroom procedures and activities which the group undertakes.” (Breen and Candlin 1980, 110). They further argue that this negotiator role results in the need for the learner to contribute as much as he/she gains and thus learn in an interdependent way.

Littlewood (1981, 91), one of the early heralds of communicative language teaching, presented the idea—revolutionary at the time—that a teacher might decide not to correct errors that he observes, particularly when e.g. an utterance may be successful according to communicative criteria even though it is formally incor-

rect. He also pointed out how this reflected the teachers' need to redefine their pedagogical role when using communicative approaches:

“To many teachers, this might appear to conflict with their pedagogical role, which has traditionally required them to evaluate all learners' performance according to clearly defined criteria. Certainly, it suggests that a communicative approach involves the teacher in redefining, to some extent, this traditional role.”

(Littlewood 1981, 91)

Littlewood (1981, 91) also underlines that the development of communicative ability “occurs through processes inside the learner” and that “the teacher can offer the kinds of stimulus and experience that these processes seem to require, but has no direct control over them”. He further argues that the concept of the teacher as ‘instructor’ is therefore inadequate to describe the teacher's overall function. Littlewood (1981, 92) calls the teacher a ‘*facilitator of learning*’, who may need to perform in a variety of specific roles, separately or simultaneously. These roles include the following:

- ❖ *general overseer* of students' learning whose task is e.g. to coordinate activities;
- ❖ *classroom manager* responsible for e.g. organizational tasks;
- ❖ *language instructor*; some activities call for this familiar role in which the teacher may, for instance, present new language, exercise direct control over the learners' performance, evaluate and correct it. Littlewood underlines that it is only in the instructor role, then, that the teacher is the traditional dominator of the classroom interaction.
- ❖ *consultant and advisor* during the learners' independent activities;
- ❖ ‘*co-communicator*’ with the learners (Littlewood 1981, 92–93).

In his pragmatic examination of class management, Harmer (1991, 235–255) deals extensively with the roles of the teacher in the language classroom. Harmer (1991, 236) starts his discussion by drawing a cline where the opposite ends represent controlling and facilitative orientations.

Controlling _____ Facilitative

He then examines eight different teacher roles, which he places on the cline in accordance with their degree of controlling or facilitative dimensions. These eight roles are those of

- ❖ Controller
- ❖ Assessor

- ❖ Organizer
- ❖ Prompter
- ❖ Participant
- ❖ Resource
- ❖ Tutor
- ❖ Investigator.

Harmer (1991, 236) argues that when the teacher acts as *controller*, the teacher is in complete charge of the class. He also points out that the teacher as controller is closely allied to the image that teachers project of themselves. Harmer (1991, 236) emphasizes that some teachers appear to be natural leaders and performers and argues that where teachers are addicted to being the center of attention, they tend to find it difficult not to perform the controlling role. Harmer (1991, 237) stresses, however, that during communicative speaking and writing the teacher's role must be fundamentally different from the controller one, because otherwise the students will not have a chance to participate properly.

The next role on Harmer's (1991, 237) cline is that of the teacher as *assessor*. In this role, the teacher is expected to assess the students' work. Moving along on the cline, Harmer (1991, 241) comes to the teacher's role as *organizer*, which he considers the most important and difficult role the teacher has to play as the success of many activities depends on good organization and on the students knowing exactly what they are to do.

Moving further towards the facilitative end of the diagram, Harmer (1991, 241) sees the role of the teacher as *prompter*. In this role, the teacher encourages students to participate or makes suggestions about how students may proceed in an activity. The next role identified by Harmer (1991, 241) is that of the teacher as *participant*, which he considers appropriate, for instance, in simulations. Moving again a step further towards the facilitative end of the cline, Harmer (1991, 242) identifies the role of the teacher as *resource*. This refers to the teacher's consultative role when students are engaged in a communicative activity. Finally, close to the facilitative end of the cline, Harmer (1991, 242) places the role of teacher as *tutor*. This role includes a counseling function and is broader in scope than the other roles. In fact, it incorporates some of the other roles already described, i.e. organizer, prompter and resource.

Controlling _____ X _____ Facilitative
Tutor

The eighth teacher role identified by Harmer (1991, 242) does not directly refer to the teacher's behavior in relation to the students. The teacher as *investigator* is the role in which teachers themselves will want to develop their own skills by either

attending training sessions or investigating what is going on in their own teaching and trying out new techniques and activities. This role is commonly called *teacher-as-researcher*.

Although the use of a cline with its opposing ends could be considered an effective way to illustrate how the teacher roles identified above relate to the controlling or facilitative dimensions, at the same time this type of linear presentation runs the risk of oversimplification. Therefore, other definitions of classroom roles in learner-centered educational settings need to be looked into as well.

Gremmo and Abé (1985, 233) point out that the operations of any teaching and/or learning system involve a number of different tasks and roles that have to be shared out between the different components that make up the systems. They argue that in systems based on a traditional structure consisting of a teacher and a group, it is the teacher who performs the majority of the tasks and takes on most of the roles, thus becoming the main component in the teaching/learning situation. When the importance of *the learning process* is emphasized, it actually is the learner who is the essential component in any pedagogical event. They take the importance of the learning process as their starting point and set out to find out what the teacher's role is like when a learner-centered approach is adopted. When a traditional course is turned into a self-directed course with independent learners, Gremmo and Abé (1985, 237) see the role of the teacher turning into that of *consultant expert* who gathers as many tools as possible for the learners to enable themselves make decisions under the most favorable conditions. The teacher thus plays the role of a *research officer* whose job is to make available the greatest possible variety of methods that the learner can choose from.

While addressing the design of communicative language teaching, Richards and Rodgers (1986, 78) draw on Breen and Candlin's (1980) introduction of teacher and learner roles. They expand the scope of teacher roles by adding those of *needs analyst*, *counselor*¹³, and *group process manager*. In their roles as needs analysts, teachers are seen to assume a responsibility for determining and responding to learner language needs. The teacher in the role of counselor is expected to exemplify an effective communicator, which reflects the restrictions of communicative language teaching approach in its heyday. In the role of group process manager, the teacher's responsibility is to organize the classroom as a setting for communication and communicative activities.

Holec (1988, 147) also regards the teacher's role as that of a counselor while he sees learners as managers of their own learning. Furthermore, he introduces a set of metaphors to describe the changing representations of learner roles during the learning process. As learners become the managers of their own learning, they gradually replace the belief that they are "consumers" of language courses, text-

¹³ counselor (Am); counsellor (Br)

books and exercises, and of teacher hours with the belief that they can be “producers” of their own language learning programs. Holec (1988, points out that this change in the representation of a learner’s role entails a concomitant change in the representations of the functions attributed to teachers and teaching materials. In the learner’s mind, the teacher becomes an experienced language resource person whose function it is to facilitate the learning process.

In his discussion of teacher roles in a learner-centered classroom, Tudor (1993, 24) introduces the metaphor of ‘learning counsellor’¹⁴. A “learning counsellor’s” responsibilities include 1) getting to know students well enough to be able to understand both their intention and their resources; 2) helping students clarify their intentions and developing their resources; and finally, 3) channeling student participation in a pedagogically useful direction. In addition, he emphasizes the development of students’ self-awareness as language learners, awareness of their learning goals, awareness of learning options, and students’ language awareness. Tudor emphasizes that learner training is a crucial part of the teacher’s role in a learner-centered approach. Although a learner-centered approach advocates the sharing of decisions regarding the content and form of teaching between teachers and students, it does not mean, however, that responsibility is wholly transferred to the students. Consequently, assessing how much and which areas of responsibility to transfer to students remains the teacher’s task, and is thus a key aspect to the teacher’s role.

The previous discussion in this current section has dealt with language classrooms focusing on general foreign language education. As the current study approaches foreign language teaching from the perspectives of content-based language instruction, namely ESP (English for Specific Purposes), Business English and Business Communication teaching, it is also necessary to examine the roles of participants in these specific settings. This examination is conducted from the perspective of research into teacher roles conducted in the field of ESP as this study considers it to reflect the other mentioned areas of teaching as well.

Swales (1985, cited by Hutchinson & Waters 1987) first introduced the term ‘ESP practitioner’ rather than ‘ESP teacher’ in order to reflect the varied scope of the ESP teacher’s role and how it differs from the role of the General English teacher. Dudley-Evans and St John (1998) have carried the description of the ESP teacher’s role further by first adopting the use of the term practitioner and then identifying five key roles of the ESP practitioner. These roles are the following: *teacher, course designer and materials provider, collaborator, researcher, and evaluator*.

When categorizing the ESP practitioner as a *teacher*, Dudley-Evans and St John (1998) point out that even though the methodology of ESP teaching may not

¹⁴ counsellor (Br; counsellor (Am)

differ radically from that of General English, they identify one basic difference, which becomes more pronounced as teaching becomes more specific. According to them, the difference is that the teacher may not be in the position of being the 'primary knower' of the so-called carrier content of the material, as the students in many cases may know more about the content than the teacher. They further point out that teachers who have clear objectives for the class and a good understanding of the carrier content of the teaching material remain the classroom organizers. They also argue that when teaching a specific course on, for example, how to write a business report, it is essential that the teacher adopt the stance of the consultant who has knowledge of communication practices, but who needs to 'negotiate' with the students on how best to exploit these practices to meet the objectives they have. In such a situation the relationship is much more one of partnership.

As for the ESP practitioner's roles of *course designer* and *materials provider*, Dudley-Evans and St John (1998, 16) state that as there often is no really suitable published material for certain identified needs, the role of the ESP teacher as 'provider of material' thus involves choosing suitable published material, adapting material when published material is not suitable, or writing material themselves. In their discussion of the ESP practitioner as *collaborator*, Dudley-Evans and Johns (1998, 16) point out that first, this may involve simply cooperation in which the ESP teacher finds about the subject syllabus in an academic context or the tasks the students have to carry out in a work or business situation. Secondly, they further point out that it may involve specific collaboration so that there is some integration between specialist studies or activities and the language. Their third possibility is that a specialist checks and comments on the content of teaching materials that the ESP teacher has prepared. Finally, as the fullest form of collaboration, they see a situation where a subject expert and a language teacher team-teach classes.

Finally, the arguments presented by Dudley-Evans and St John (1998) in support of the roles of the ESP practitioner as *researcher* and *evaluator* are perhaps not as strong those supporting the other roles they describe since the researcher and evaluator roles could be related to other general language teachers as well.

Table 2. Summary of FL Teacher Roles in Communicative Language Teaching as suggested by selected Authors.

Presented by	Teacher roles
Breen & Candlin 1980	Facilitator of the communication process Participant within the learning-teaching group Organizer of resources Resource Guide Researcher and learner
Littlewood, 1981	Facilitator of learning General overseer of students' learning Classroom manager Language instructor Consultant and advisor "Co-communicator" with learners
Harmer 1983	Controller Assessor Organizer Prompter Participant Resource Tutor Investigator
Gremmo & Abé 1985	Producer Consultant expert Research officer
Richards & Rodgers 1986, 76–78	Needs analyst Counselor Group process manager
Holec 1987	Councillor Resource person Facilitative role
Wright 1987, 1990	Manager Resource guide Evaluator Organizer Instructor
Tudor 1993	Learning counsellor Knower Activity organizer
Dudley-Evans & St John 1998	ESP practitioner's roles: Teacher Course designer and materials provider Collaborator Researcher Evaluator

The review of selected literature regarding teacher and learner roles in learner-centered settings presented in this section suggests that there are numerous metaphors that have been used to describe the various roles. Although seemingly different, many of the metaphors seem to be overlapping with each other in their implied meaning. The number of metaphors will be growing even more as teacher and learner roles are examined in network-based educational settings, which will be done next.

6.4 Roles in Network-based Learning Environments

Much of the discussion regarding participants' roles in network-based learning environments in recent years has centered on the aspect of "new" or "changing" roles of teachers and learners. In Finland, such discussion has been prolific and has largely been research-based (cf. e.g., Tella et al. 1998; DeVries & Tella 1998; Wager & Kynäslähti 1998; Vahtivuori, Wager & Passi 1999; Wager & Aalto 2000; Tella et al. 2001; Kiviniemi 2001; Tammelin 1998b; 1999; 2001; 2003). However, the argument for "new/changing" roles would seem to call for a set of "old" teacher and learner roles to be used as a basis for comparison. These "old" roles are often also referred to as traditional or conventional classroom roles, and they largely seem to reflect the conception of teaching as transmitting information. However, it can be argued that the implication of "old" can be somewhat vague and therefore drawing on the dichotomy between 'old' and 'new' may lead to misguided interpretations.

Tella et al. (1998) discuss two developments in connection with the use of ICTs that have contributed to the potential changes in the traditional classroom roles of the teacher. The first development is to be seen in the pedagogical issues that teachers are confronted with in technology-mediated environments. These issues are similar to those long dealt with by teachers in distance education long before the Internet and the Web. The second main development referred to by Tella et al. (1998) results from the change in the kind of communication and interaction taking place in a technology-mediated environment.

In his discussion of the instructor's changing role in distance education, Beaudoin (1990, 21) stresses that although facilitated by the new technologies, it was actually the emergence of increasingly student-centered learning activities in the 1970s that contributed to a dramatic evolution in faculty roles. Beaudoin (1990, 21) states, "Distance education revolves around a learner-centered system with teaching activity focused on facilitating learning." In *facilitating* students' learning, the teacher's role is *organizing* instructional resources that are suitable in content and format for independent study. Beaudoin (1990, 21) further points out, "Independent

study stresses learning, rather than teaching, and is based on the principle that the key to learning is what students do, not what teachers do.”

Relan and Gillani (1997, 43) describe this shift in roles by stating that the teacher “dethrones” him/herself as the disseminator of information, and becomes a *facilitator* for finding, assessing, and making meanings from the information discovered from a variety of media. Palloff and Pratt (1999, 36) maintain that as for roles, the designated facilitator serves a number of functions, from organizer to imparter of information. Palloff and Pratt (1999, 36) further argue that the emergence of these roles is an indicator of two specific points: first, that *community* is developing, and second, that members are beginning to look out for one another and to take care of the business of the course as well. In their analysis of the role of the learner in an online classroom, they emphasize that the successful learner in the online environment is active and engaged in knowledge generation.

In their discussion on teacher role in Web-based instruction, Reeves and Reeves (1997, 62) see teachers as facilitators, coaches, mentors, and guides. Furthermore, Sherry and Wilson (1997, 67) emphasize that as the Web extends learning beyond classroom walls to learning communities, so must roles and concepts of teaching and learning be restructured. They point out that when the community of learners is dispersed in time and space, and is engaging in computer-mediated communication within a computer-supported learning environment, it is crucial that instructors participate actively in the learning process by contributing interventions or providing distinctive tasks that help students transfer knowledge to new contexts. According to Sherry and Wilson (1997, 68), the instructor’s role then includes designing an infrastructure that supports not only transmission of information and management of roles and activities, but also social support for the efforts of the members of the learning community.

The views of Rasmussen, Northrup and Lee (1997, 342–343) regarding teacher roles are also in line with those focusing on the teachers’ facilitative roles. They point out that the instructor must adopt a variety of roles to facilitate the learning process. They maintain that the primary paradigm shift moves the instructor from direct deliverer of information to a *mentor* and *guide*. They stress that instructors need to design learning communities that require learners to be self-directed knowledge constructors. They also point out that a critical component in implementing web-based instruction is communication, which can be conducted in a variety of ways. This focus on communication promotes the new roles of instructor and learner as *collaborators* and *knowledge constructors* between instructors and learners or learner-to-learner.

Shotsberger (1997, 105) states that an open web-based instruction environment that promotes communication and collaboration can result in learners becoming *part-owners* in the instruction, greatly enhancing their sense of online community. Kook (1997, 57), in turn, speculates that teachers’ roles in the new

educational circumstances encompassing computers and communication networks will be transformed. Kook (1997) identifies five major roles for teachers in technology-enhanced educational settings. They are teachers as *information consultants, team collaborators, facilitators, course developers, and academic advisors*. Furthermore, Kook (1997, 57) points out that in a new system based on computers and communication networks, teachers' new roles represent the evolution of the teacher as an online professional *information-search consultant*. Westera (1999, 18), on the other hand, argues that the relationship between tutor and student will become more egalitarian; for instance, some tasks traditionally assigned to them are taken over by the students themselves. Westera (1999, 19) sees the tutor's role shifting to that of a coach, who provides meta-level guidance and support to stimulate and optimize each student's learning process. Westera concludes that the teacher's role changes from content specialist to process facilitator.

In his examination of the role of the online instructor/facilitator, Berge (1995, 24) cites Mason (1991) who points out that the role of online tutor combines elements of teacher, chairman, host, facilitator, and community organizer. Berge points out that with this shifting of control from teacher-centered to student-centered learning, the role of the teacher changes from expert presenter to discussion facilitator. As teachers in online environments increasingly act as discussion facilitators, for many teachers moderating such discussions, indeed, means acting in a new role that can have many different dimensions and functions. Berge (1995, 24) summarizes the main bulk of computer conference moderator roles presented in literature with the following metaphors: assistant, consultant, coordinator, discriminator, editor, entertainer, expert, explainer, facilitator, filter, firefighter, goal setter, helper, host, intermediary, leader, lecturer, manager, marketer, mediator, mentor, observer, pace-setter, participant, promoter, provocateur, and tutor.

Furthermore, Berge (1995, 24) categorizes the roles of moderation into four main, at times overlapping categories. They are the 1) pedagogical; 2) social; 3) managerial; and 4) technical categories. In the light of the prolific literature on teacher and learner roles in technology-mediated environments, this categorization is useful as it provides a framework for classifying the numerous metamorphical expressions often used to describe teacher roles in technology-mediated, multi-modal settings. Consequently, the categorization is utilized by the current study as a basis of grouping various teacher roles in network-based settings. As regards the pedagogical category, Berge (1995, 24) points out that some of the most important roles of online tutors revolve around their duties as educational facilitator. As for the social role, Berge (1995, 24) stresses that creating a friendly, social environment is also essential for successful moderating. The managerial role includes organizational, procedural and administrative functions implying strong leadership and direction. When describing the technical role, Berge (1995, 24) argues that the ultimate technical goal for the instructor is to make the technology transparent. He

considers it the facilitator's task to make participants comfortable with the technical facilities being used.

Drawing on Berge's categorization, the roles of the teacher in a network-based learning environment could be summarized as follows:

Table 3. Teacher Roles in Network-based Learning Environments.

Pedagogical	Social	Managerial	Technical
<p>Facilitator (e.g. Berge 1995; Relan & Gillani 1997; Rasmussen, Northrup & Lee 1997; Palloff & Pratt 1999; Westera 1999)</p> <p>Consultant (e.g. Kook 1997)</p> <p>Mentor and Guide (Reeves & Reeves 1997)</p>	<p>Builder of community (e.g. Mason 1991; Sherry & Wilson 1997; Shotsberger 1999; Palloff & Pratt 1999)</p>	<p>Organizer responsible for organizational, procedural and administrative functions (Berge 1995)</p>	

Despite the fact that although many of the views expressed above regarding teacher and learner roles call for moving the emphasis from the teacher on the learner, it seems that much of the discussion still centers on the teacher's roles. Squires (2000) represents an exception by discussing the issue from the learner's point of view. He points out that the advent of ICT in addition to the consequent development of interactive learning environments and networked communities has led to new roles for learners. He points out that many of these roles resonate with such basic principles of constructivism as the significance of learners' prior experiences and knowledge, learners' ability to construct idiosyncratic conceptual structures, and a recognition that context is highly influential in defining the nature of educational experiences.

Based on this constructivist interpretation of the educational use of ICT, Squires (2000) presents a framework for the impact of ICT on learning where he proposes a set of learner roles. As the basis for the framework he uses Kolb's (1984) Learning Cycle with its four phases. In the first phase, engagement in a practical authentic activity, the learner ideally adopts the roles of *explorer*, *constructor* and *researcher*. In the second phase, critical reflection on experience, the learner's desirable role is that of *reflective practitioner*. In the third phase, testing reaction and making observations against other perspectives, he sees the learner as *collaborator* and *judge*. In the fourth phase, applying new understanding to new situations, the learner acts as a *problem-solver*.

Based on Squires (2000), the learner's roles in a network-based learning environment are summarized in the table below:

Table 4. Learner Roles in Network-based Learning Environments (based on Squires 2000).

Phase 1	Phase 2	Phase 3	Phase 4
Explorer, constructor and researcher	Reflective practitioner	Collaborator, judge	Problem-solver

It does not appear from the cycle of learner roles presented by Squires (2000) how the teacher would support the construction of the learner roles. It could be argued that the teacher's roles are closely linked to the learner roles as if they were two sides of a coin and should therefore be presented together if possible.

In conclusion, the discussion on roles regarding both a learner-centered communicative language classroom and a network-based learning environment brings forward two specific observations. First of all, the range of metaphors used in connection with describing teacher and learner roles seems almost unlimited. Many of the writers seem to have the need to come up with a slightly or largely differing role set from the ones proposed by other writers. This leads to the second observation according to which many of the roles described in the two settings are very much alike, which could indicate that it might not be the ICTs used that make the roles look different or new but that the changes could result from the adoption of a learner-centered approach.

In traditional teacher-centered educational settings, it seems that it is generally the teacher who has or is assumed to exercise more power in the classroom than the students. However, the literature reviewing teacher and learner role relationships in network-based settings seems to imply that a shifting of power from the teacher to student takes place in such settings. However, it could be argued that this shift does not necessarily result from the use of technology-enhanced environments as such. Instead, the shift could be seen as resulting from the application of learner-centered educational principles—such as the basic tenets of communicative language teaching—rather than the traditional “teacher as an authority” ones.

7 Methodology

“Oh, Kitty, how nice it would be if we could only get through into Looking-glass House! I’m sure it’s got, oh! such beautiful things in it! Let’s pretend there’s a way of getting through into it, somehow, Kitty. Let’s pretend the glass has got all soft like gauze, so that we can get through. Why, it’s turning into a sort of mist now, I declare! It’ll be easy enough to get through...”

Carroll, *Through the Looking Glass*, 1872 (1962, 173)

This chapter will address the methodological issues that are central to the implementation of the current study. It will first review the basic principles of action research and then look into educational action research in particular. It will also deal with some of the aspects of ethnographic research and critical ethnography that are relevant from the perspective of this study. Then, by moving to use the first person singular, the chapter addresses the emergence of the teacher-researcher. Finally, the details regarding the amount and type of data and the data collection methods will be explicated.

7.1 Action Research

7.1.1 Defining Action Research

Action research—a form of research carried out by practitioners into their own practices (Kemmis 1993, 177)—has been gaining in popularity in education over the past two decades. It seems that action research orientations have also been well received among language educators (cf. e.g., Nunan 1990; Kohonen 1992; Wallace 1998; Burns 1999). The current usage of the term “action research” can be considered somewhat ambiguous. On the one hand, the term itself seems to be increasingly used, rather loosely, to refer to various kinds of professional development projects in general or one-off classroom experiments. On the other hand, action research refers to a specific research method that has had a place and its circle of advocates in the scientific community since the days of Kurt Lewin who introduced the phrase “action research” in the 1940s. An explanation for the term’s ambiguous usage may be partly drawn from the controversy implicit in the term itself. Cohen and Manion (1989, 217) point to the “implied tension in its name, *action research*, for *action* and *research* as separate activities in whatever context each have their

own ideology and modus operandi and when conjoined in this way, lie as uneasy bedfellows.”

Kemmis and McTaggart (1988, 6) see the linking of the two terms, ‘action’ and ‘research’, as characterizing the essential feature of the action research approach, which aims at improvement and increasing knowledge about the curriculum, teaching, and learning.

“The linking of the terms ‘action’ and ‘research’ highlights the essential feature of the approach: trying out ideas in practice as a means of improvement and as a means of increasing knowledge about the curriculum, teaching, and learning. The result is improvement in what happens in the classroom and school, and better articulation and justification of the educational rationale for what goes on. Action research provides a way of working which links theory and practice into the one whole: ideas-in-action.”

(Kemmis and McTaggart 1988, 6)

Nunan (1990, 63) considers Kemmis and McTaggart’s statement an important one, because, as he points out, it implies that action research is not simply research grafted onto practice, but that it represents a particular attitude on the part of the practitioner. This attitude demonstrates that the practitioner is engaged in critical reflection on ideas, the informed application and experimentation of ideas in practice, and the critical evaluation of the outcomes of such application. Furthermore, Kemmis (1993, 177) defines action research as a form of self-reflective enquiry undertaken by the participants in order to improve the rationality and justice of a) their own social or educational practices; b) their understanding of these practices; and c) the situations in which the practices are carried out.

According to Cohen and Manion (1989, 226), the use of action research is fitting and appropriate whenever specific knowledge is required for a specific situation or when a new approach is to be integrated into an existing system. They emphasize the situational, collaborative, participatory, and self-evaluative nature of action research as follows:

“action research is *situational*—it is concerned with diagnosing a problem in a specific context and attempting to solve it in that context; it is usually (though not inevitably) *collaborative*—teams of researchers and practitioners work together on a project; it is *participatory*—team members themselves take part directly or indirectly in implementing the research; and it is *self-evaluative*—modifications are continuously evaluated within the ongoing situation, the ultimate objective being to improve practice in some way or other.”

(Cohen & Manion 1989, 217; emphasis in original).

As for some of the specific characteristics of action research, Kemmis (1993, 185) also points out that action research is essentially participatory in the sense that it

involves participants in reflection on practices. It expresses a commitment to the improvement of practices, practitioners' understandings, and the settings of practice. He also states that action research is collaborative, involving co-participants wherever possible in the organization of their own enlightenment in relation to social and political action in their own situations.

Furthermore, Kemmis and McTaggart (1988, 21–22) have defined what action research is *not*. They first point out that it is *not* the usual thing that teachers do when they think about their teaching. They emphasize that action research is a more systematic and collaborative collecting of evidence on which to base rigorous group reflection. Second, they point out that action research is *not* simply problem-solving. It involves problem-posing, not just problem-solving. They also argue that it is *not* research done on other people but that it is research by particular people on their own work, to help them improve what they do.

According to Kemmis and McTaggart (1988, 10), “[t]o do action research, a group and its members undertake

- ❖ to develop a plan of critically informed action to improve what is already happening,
- ❖ to act to implement the plan,
- ❖ to observe the effects of the critically informed action in the context in which it occurs, and
- ❖ to reflect on these effects as a basis for further planning, subsequent critically informed action and so on, through a succession of cycles.”

Kemmis (1993, 184) emphasizes that what distinguishes action research is its method, rather than particular techniques. The method is based on the notion of a spiral of self-reflection consisting of four cycles that are considered the basic elements of modern action research: planning, acting, observing, and reflecting. These elements stem from Lewin's circle of planning, executing, and fact-finding. In Lewin's terminology, fact-finding has four functions: “It should evaluate the action by showing whether what has been achieved is above or below expectation. It should serve as a basis for correctly planning the next step. It should serve as a basis for modifying the ‘overall plan’. Finally, it gives the planners a chance to learn, that is, to gather new general insight” (Lewin 1952, cited in Kemmis, 1993, 178). In modern action research, fact-finding has diversified into observation and reflection. These two components can be considered the most crucial elements in combining action with research.

7.1.2 Educational Action Research

As regards the methodological context where the current study is situated, the constantly evolving field of action research studies conducted in education needs to be looked into. Limiting his analysis to English-speaking countries, Zeichner (2001, 273–276) identifies five major traditions of educational action research. First, there is the action research tradition in the USA that developed directly out of the work of Kurt Lewin. This first tradition flourished in the 1940s and 1950s, but, due to being severely attacked by academic researchers, it largely disappeared from the US educational literature until the 1980s when a new North American teacher research movement was launched. The second action research tradition started in the 1960s in the UK. This tradition, known as the teacher-as-researcher movement, emerged in the context of school-based curriculum development. Zeichner (2001, 275) describes the third educational action research tradition as being located in Australia where Stephen Kemmis as well as other Australian researchers further developed action research practices and epistemology. The Australian tradition has close ties to the British action research orientation.

Fourthly, Zeichner (2001, 275–276) points out that a new teacher research movement appeared in North America in the 1980s, which was not a derivative of the British teacher-as-researcher movement or a re-emergence of the co-operative action research movement of the 1950s. As for the fifth tradition, Zeichner (2001, 276) explains that it was in the 1990s that a growing acceptance of action research as a method for self-study within colleges and universities started gaining ground. This acceptance was apparent especially among teacher educators, which was seen in the growth in the number of self-study research publications by teacher educators. This still prevailing trend seems to be more universal in character than the earlier traditions; for example, several such studies have been carried out in the Finnish educational scene across the past decade (cf. e.g., Suojanen 1992; Kohonen 1993; Syrjälä 1994; Heikkinen 2001).

In Australia, Zuber-Skerritt (1992a; 1992b; 1996) has promoted the use of action research in the field of higher education. Zuber-Skerritt (1992a, 1) defines action research in higher education as collaborative, critical enquiry conducted by the higher education teachers themselves rather than expert educational researchers into their own teaching practice, problems of student learning and curriculum issues. Zuber-Skerritt (1992a, 2) describes action research as professional development through academic course development, group reflection, action, evaluation, and improved practice. Zuber-Skerritt (1992b, 114–121) introduces five reasons why action research by higher education teachers will have a direct and positive impact on the quality of their own teaching and professional development. She summarizes these reasons in the acronym CRASP as follows:

- ❖ Critical attitude;
- ❖ Research into teaching;
- ❖ Accountability;
- ❖ Self-evaluation; and
- ❖ Professionalism as teachers.

(Zuber-Skerritt 1992b, 114–115)

As regards the first dimension, critical attitude, Zuber-Skerritt (1992b, 115–116) describes the development of critical thinking in students as one of the major goals of higher education, which, as she argues, means that teachers should be masters of critical thinking themselves. Consequently, one of the salient features of action research is the development of critical practice of higher education teachers and their critical reflection. As for the second dimension provided by the CRASP model, research into teaching, Zuber-Skerritt (1992b, 115) strongly argues that the division between educational theory by researchers, on the one hand, and educational practice of higher education teachers, on the other, has resulted in ineffectiveness or the estrangement of theory and practice. She points out that by integrating theory and practice, action research by practitioners into their own teaching practice would seem more appropriate than educational research conducted by theorists and applied by practitioners.

The third reason for the appropriateness of action research, accountability, refers to the demands on higher education institutions to meet the requirements of accountability to the outside world through reports and publications. Through the fourth dimension of the CRASP model, self-evaluation, Zuber-Skerritt (1992b, 117) emphasizes that rather than outside control, self-evaluation of one's own teaching performance, individual courses or whole programs, is at the very heart of action research.

As regards the CRASP model's last dimension, professionalism as teachers, Zuber-Skerritt (1992b, 118) argues that action research can contribute to the professionalism of higher education teachers. She points out that unlike primary and secondary school teachers, higher education teachers have not normally had formal teacher training. It should be noted, though, that those with language teacher backgrounds are usually an exception in this respect.

In conclusion, an interesting parallel could be drawn between the goals stated in the CRASP model and the ongoing efforts to improve the quality of higher education teaching in the Finnish higher education sector, which could well apply the same goals. Zuber-Skerritt (1992b, 122) argues that although the goals have been stated and demanded frequently, they may not have been achieved satisfactorily, because they are difficult to put into practice. Therefore, action research may provide a practical solution to this problem. As Zuber-Skerritt (1992b, 122) states, "Through systematic, controlled action research, higher education teachers can be-

come more professional, more interested in pedagogical aspects of higher education, and more motivated to integrate their research and teaching interests in a holistic way.”

7.2 Action Research and Ethnographic Approach

The previous section first dealt with action research methodology from the particular perspective of educational action research in general, and then specifically, from the point of view of higher education. In an attempt to further expand the methodological framework employed in the current study, ethnographic research and critical ethnography are now turned to. Ethnographic research will be addressed from the perspective of an approach rather than a method and critical educational ethnography will be examined as an orientation within ethnographic research.

In qualitative research, both action research and ethnography could be treated as research designs of their own. As the dominant research design of this current study is that of action research, why, then, also focus on ethnography? This has been seen necessary for the purposes of the current study because of the methodologically overlapping nature of its research questions.

Ethnography—originally regarded as a branch of anthropology that deals with the scientific description of individual cultures—has over the years diversified into new areas including many different kinds of interpretive and participative research. The common ground shared by all these varieties is crystallized in Wolcott’s (1988, 188) statement indicating that ethnography literally means a picture of the “way of life” of some identifiable group of people. The same underlying idea is exemplified by Eskola and Suoranta (1998, 104), who define ethnography as a form of observation that takes place in the natural conditions of social reality. Ethnographic studies in education date back to the end of the 1960s according to Syrjäläinen (1994, 72), who also places the roots of school ethnography in cultural anthropology. As the use of information and communication technologies is increasingly being integrated into school environments, the ethnographic approach has proved to be appropriate for studying such environments as well. One of the earliest examples related to foreign language teaching is Tella’s extensive ethnographic study (1991; 1992a; 199b) on the introduction of international communications networks and electronic mail into foreign language classrooms. A more recent example is Kynäslahti’s (2001) ethnographic study of the Kilpisjärvi virtual classroom project.

As the process of doing ethnographic research typically involves field study in the form of such methods as participant observation and interviews, the two concepts—ethnographic research and field study—are often considered almost syn-

onymous. Are they then actually the same? According to Wolcott (1992, 21), they are not the same although he considers them to be interrelated. He explains that field study and ethnography draw upon the three techniques basic to all field-oriented research: experiencing, enquiring, and examining. He indicates that what distinguishes between them is that anyone doing ethnography makes a claim not only about procedures, but also that the result will be ethnography. Furthermore, he stresses that ethnography is the end-product for the culturally focused description and interpretation that characterize anthropological fieldwork. Wolcott summarizes his argument as follows:

“Ethnography, therefore, is field study *plus* something special in the nature of interpretive emphasis, just as field study, in turn, draws upon disparate fieldwork techniques but combines them into something more than the product of pursuing any of them alone.”

(Wolcott 1992, 21–22) (emphasis in original)

As regards the context of education, there are three main approaches to defining ethnographic research. The first approach is to hold ethnographic research almost synonymous with qualitative research in general. For instance, Hammersley (1992) uses the term ‘ethnography’ in a general sense that he considers broadly equivalent to ‘qualitative method’. The second approach to dealing with educational ethnographic research is to place it under the general umbrella of qualitative research among other areas of inquiry such as phenomenology, hermeneutics, grounded theory, and action research (Tesch 1990). The third approach, which seems to be the currently dominant one, draws on the definition of ethnography as both a product—a description of the life of a group of people in the form of a written ethnographic account—and a research process, a way of studying human life (cf. e.g., Wolcott 1988; LeCompte & Preissle 1993). It is this third approach that bears a resemblance to action research in its emphasis on the written account and the process itself. An ethnographer typically is a participant observer, whereas in action research, as Bryman (2001, 275) points out, the investigator becomes part of the field study. Consequently, in educational action research the investigator is the teacher-researcher. This leads to the question of the teacher-researcher’s own values and their impact on the process.

The question of the teacher-researcher’s own personal values and beliefs and their impact on the research process are reflected by his/her teacher personality. The issue does not seem to have been very clearly discussed in educational action research literature. Therefore, this study turns to the field of critical ethnography where the issue has received considerable attention.

7.2.1 Links to Critical Ethnography

Critical ethnography is one of the currently prevailing approaches within the ethnographic paradigm (cf. e.g., Carspecken & Apple 1992; Quantz 1992; Roman 1992). Quantz (1992, 448) demonstrates that critical ethnography is a recent development in educational research that is still evolving. He describes critical ethnography as an empirical project located within critical discourse rather than as a particular set of methods for conducting research. Quantz asserts that critical discourse can be best understood in its historical context. It is characterized by a set of themes that reflect particular approaches to knowledge, values, society, culture, and history. The approaches to these themes distinguish critical ethnography from other approaches to ethnography.

Critical ethnography is recognized as having conscious political intentions that are oriented toward emancipatory and democratic goals. While pointing out that critical ethnographers are occasionally criticized for imposing their values on the group they are studying, Quantz (1992, 471) considers this criticism unfair. He argues that it is never a matter of whether or not researchers impose their values but the implications of the values that they are imposing. He points out that research is never without vested interest and that all forms of research impose values. Quantz writes as follows:

“Research is never without interest; all forms of research impose values. Critical thought rejects the division of knowledge and interest as artificial and disingenuous. Critical ethnographers impose a value system that requires the researcher to place any culture into a wider discourse of history and power, which serves an emancipatory interest, whereas other ethnographers impose a value system that requires the researcher to treat every culture as if it were independent of or, at most, interactive with history and power. From a critical perspective, these studies ultimately serve the interest of the status quo.”

(Quantz 1992, 471)

Quantz (1992, 471) concludes his discussion of values and critical ethnography by stating that having an ethical orientation does not separate critical ethnographers from other educational ethnography; it is the pointed effort of critical researchers to reveal their own value perspective to the reader that may differentiate critical ethnography from other forms of ethnographic research. This openness about the researchers' values seems to prompt criticism more than anything else.

In his study on electronic literacies focusing on language, culture, and power in the online classroom, Warschauer (1999) uses a collaborative, critical ethnographic approach. In his study, Warschauer explores the role of the new digital technologies in the development of language and literacy and looks at how the nature of reading and writing is changing, and how these changes are addressed in the

classroom with culturally and linguistically diverse learners who are at special risk of being marginalized from the information society.

The critical ethnographic approach employed in Warschauer's (1999) study is based on the rationale that it is important to critical ethnographers not only to understand reality but also to work to change it. In the latter undertaking, he works in close collaboration with the classroom teachers involved in the study because as he says, "only in that way could any change be long-lasting and meaningful" (Warschauer 1999, 190). Warschauer also demonstrates that there also are many potential dangers in attempting to do critical collaborative ethnography. Ethnography is admittedly a subjective research process, so the point is not to carry out a "value-neutral study" but rather to be cognizant of, and to reflect on, the values that one brings to research. In line with this kind of rationale, he gives a description of himself as a person, his beliefs and values in connection with his discussion of research methods used (Warschauer 1999, 188–189).

Although the current study is not situated within the sphere of critical ethnography as such as it does not have the politically oriented intentions typically present in critical ethnography, this study, however, finds the openness of critical ethnographers about their values a very important factor in contributing towards the validity of such research. Similarly, it could be argued that in educational action research, the teacher-researcher needs to attempt to give a description of his/her teacher personality. For the current study, this will be done in the following section.

7.3 Emergence of the Teacher–Researcher

It is now time to give the reader of this action research account a fair warning as the curtain rises for the scene where the teacher-researcher enters the stage. The author of this account is putting on a new hat, so to say, and moving on to using the first person singular from here on. So having been warned, please bear with me:

I entered the world of computer technology in 1986 when I bought my first computer, a Macintosh Plus. As a lecturer of English¹⁵ at a university department¹⁶ where almost all teaching materials were produced by the lecturers themselves, I was first mainly fascinated by the computer's text processing facilities and the possibility to draw charts, boxes and tables, which features seemed "miraculous" at the time. Soon came along hypertext tools such as HyperCard, Guide and SoundEdit and I found myself wanting to know more about and experiment with the new tools

¹⁵ The name of the subject was "English" until the fall of 2001 when the name was changed into "English business communication".

¹⁶ The Department of Languages at the Helsinki School of Economics; in 1995, the name of the Department was changed into the Department of Languages and Communication.

as they became available. Concurrently with the emergence of new technical tools, a graduate student at our university wrote her Master's thesis (Toropainen 1989) on designing and implementing a computer-based language learning environment, for which she used and evaluated several tools then available. For the empirical section of her thesis, she created a self-study computer program for teaching and practicing the terminology and structures needed in describing economic conditions in English, an essential component of an obligatory course in the English program at the time. As she tested the computerized lesson in my class, I was able to observe the process and the reactions of my students. Consequently, I was intrigued by the potential that the computer technology seemed to have for offering learners new ways of interacting with the content they were studying. This new insight led, among other things, to my getting involved with developing a program called Grammar Time for teaching and practicing Business English grammatical structures in 1990–1992 (Tammelin & Äijälä 1992). The process taught me how difficult and very time-consuming it was to try to develop a pedagogically sound educational software program.

Another major turning point in my teaching career took place in the fall of 1990 when, on my initiative, our department joined the ICONS project, which I had heard about at an international conference earlier the same year. ICONS—International communication and negotiation simulation—was a simulation project run by the Department of International Politics at the University of Maryland in the USA. In the ICONS project, groups of students from universities located in various parts of the world represented a specific country (either their own or some other simulated country) and participated in both asynchronous and synchronous meetings and negotiations in English with the other country teams via the Internet. In their online meetings, the groups carried out negotiations on authentic preassigned topics, which dealt with current issues that were usually related to e.g. international politics, global trade or environmental issues. In their face-to-face local sessions, groups worked collaboratively when preparing for the online negotiations.

The Department's participation in the ICONS project in 1990–1995 was crucial in making me realize the potential that the Internet (e-mail, newsgroups, chat) might have in enriching the educational experience in the language classroom. The possibility of communicating without the restrictions of classroom walls seemed to open totally new horizons for both students and teachers.

My first emerging realization of this new potential is apparent in my private notes written while preparing a conference presentation on the ICONS project in the early 1990s. I had written the following comments:

“In August 1990 I logged onto the University of Maryland's ICONS simulation for the first time, using my home computer and my newly acquired modem. I was breathtaken when staring at the screen and realizing that I was actually logged onto a

computer system that was located some 4000 kilometers away. Stopping to take a deep breath, I glanced out of the window of my study at home. This very day I remember how to my amazement I had the feeling that the window of my room had grown in size and seemed many times bigger than before.”

Soon after first joining the ICONS project in 1990, I started to include online activities such as the use of e-mail and newsgroups in some of my other courses as well. From early on, the potential that telecommunications media seemed to hold was an area of constant curiosity to me as a teacher of a foreign language and business communication. It is therefore no surprise that, among all the embryonic research questions, this potential was an area that always stayed on my list when the actual research questions for this current study started gradually taking shape and crystallizing. My other research questions had their early roots in the latter half of the 1980s and the early 1990s when, along with the surge in developing computer-based teaching, there were voices suggesting that technology could replace teachers. While such reactions used to dismay me, they concurrently awakened a growing interest in the roles and tasks of both teachers and learners and the way in which teachers' and students' presence in network-based environments possibly differed from the involvement in classroom-bound, face-to-face encounters.

Provided there were no major technical problems, the real-time online ICONS meetings between as many as a dozen participating groups from all over the world were often good examples of how a learner-centered environment functioned at its best: motivated students working in teams in an enthusiastic atmosphere with the teacher certainly no more “the sage on the stage” but acting as a consultant or adopting a number of various other roles in accordance with the situational needs. In the ICONS project, the teachers of the participating groups were, in fact, not called teachers but facilitators, for whom the organizers of the ICONS project arranged training in addition to providing a comprehensive book of instructions for guidance. However, although I considered myself an experienced teacher, I felt at times somewhat confused about the new classroom scene and my role in it. As a result, I enrolled as a postgraduate student in the Department of Teacher Training at the University of Helsinki and took up studies in education in the fall of 1991. My purpose was to start doing research on the pedagogical aspects related to technology-enhanced environments as I felt that engaging in research would be an appropriate way to increase my pedagogical understanding of being a teacher in such an environment.

The preliminary object for my research was the ICONS project (Tammelin 1991; 1992a; 1992b; 1993; 1994; Kaufman, Tammelin & Landis 1993). Although my central research interest stayed the same, the rapid advances in the use of ICTs made me change the focus of my research from the ICONS project to a new network-based educational context that also included the use of other media besides e-

mail and computer conferencing. These new media included the WWW and video-conferencing, whose use had started gaining ground in the mid-1990s. As had already become clear to me during my efforts to integrate the ICONS project into the department's curriculum, the introduction of a pedagogical innovation comprises many obstacles, some of which perhaps would not have felt so frustrating and burdensome had I at the time been more familiar with studies on diffusion of innovations dealt with in Chapter 2 of the current study, and, consequently, had I had a better understanding of the kind of teacher I myself was. It seemed that through my teaching career I had been so busy with just doing things that I had not really thought of pausing to reflect on my teacher personality. All I knew was that, as a teacher, I seemed to get easily enthused over new ways of doing things and was eager to undertake experiments or projects as I called them. To be honest, not all my "projects" were welcomed with equal enthusiasm by my colleagues or family as the projects often tended to grow out of all proportion.

In the fall of 1995, I was able to find out a little more about my teacher personality somewhat unexpectedly. As a member at the time of a working group for a large-scale development project at my university, I had a chance to participate in a test whose purpose was to provide the working group members with a personal profile that provided information on one's approaches in working with others and one's key roles when working in a team. The Team Management Index used in the test measured four key issues in any work situation (Margerison & McCann 1992). These were 1) how people prefer to relate with others; 2) how people prefer to gather and use information; 3) how people prefer to make decisions; and 4) how people prefer to organize themselves and others. According to my Team Management Profile based on the test, my major role was that of creator-innovator and the related roles were those of explorer-promoter and assessor-developer. When then later I became acquainted with approaches to the diffusion of educational innovations, I recognized that the detailed descriptions of my asserted work preferences largely coincided with the characteristics of the early adopters of educational innovations, as identified by Geoghegan (1994) and Thompson's (1999) description of the "enthusiasts" (1999) (see section 2.2 in this study).

My 1994 (Tammelin 1994) study on the ICONS simulation represented an important step in my development from a teacher to a teacher-researcher. Using ethnographic participant observation as one of my main data collection techniques during the study, I was the researcher participant in an ICONS course run by two of my colleagues. However, in retrospect, I realized that having run the same course as a teacher myself, the "teacher" in me was at times frustrated as a result of my researcher position because of which I felt I had to stay as a neutral observer; on the other hand, my "unnatural" role as a researcher in class was also frustrating at times to the two long-time colleagues of mine whom I was supposed to observe. While then looking for a more suitable research methodology, I became acquainted

with the growing body of literature on the teacher-as-researcher movement, which convinced me that I would have the license to do research on my own teaching. This then led me to the world of action research, after which it was not difficult to decide that collaborative action research would be my choice for attempting to integrate a pedagogical innovation into the curriculum and to find answers to the research questions that had already started emerging.

7.4 Collection and Description of Data

Ethnographic data collection methods were employed during the actual action research project, which consisted of three action research cycles, each attended by a group from two different universities. At the beginning of each cycle, the students were first informed that they would be part of an action research project and their willingness to be so was ensured orally. The students participating in the first cycle of the project were most involved in the action research project itself, and they were thus considered the lead collaborators in the overall action research project. The data collected during the first action research cycle was more detailed and oriented to the action research purposes than the data gathered during the other two cycles as it also contained the participants' extensive feedback reports. Consequently, the participants in the first action research cycle had a more focal role in this study than the groups during the other two action research cycles, and, therefore, they could be regarded as the key informants.

Triangulation, the use of multiple data gathering methods, was employed during the action research project. The overall data collected during the project included videotaped recordings of the videoconferences held during each course. The recordings of the three 60-minute videoconferences held during the first cycle were also transcribed. Furthermore, the data included questionnaires answered by the participants, written messages sent by e-mail or via computer conferencing, students' written coursework, students' course reports and self-evaluations, and observations made by the two participating teachers—my partner teacher from the Lappeenranta University of Technology and myself—and the course assistants. A number of other people were also involved such as the subject matter specialists who were consulted about the topics dealt with during the course and technical support staff members.

Table 5. Number of Participants in the three Action Research Cycles.

	Number of HSE* students	Number of LUT** students	Teachers	Course assistants
Cycle 1	(10) 9	13	2	1
Cycle 2	9	11	2	1
Cycle 3	8	(10) 5	2	0

*HSE = Helsinki School of Economics ** LUT= Lappeenranta University of Technology

The following table (Table 6) illustrates the distribution of the main bulk of the data gathered:

Table 6. Distribution of the Data.

Data	Cycle 1	Cycle 2	Cycle 3
E-mail message exchanges between participants in the action research project	220	110	160
Discussion forum messages on the course site	160	148	98
Cycle 1 students' course evaluation reports which were written in order to address given topics and questions (see Appendix 1)	9		
Self-evaluations of both HSE and LUT students' own and their group's performances in the videoconferences	38	20	
HSE students' online academic papers and peer reviews of the papers written by Cycle 3 students.			8 papers 16 reviews
Videotaped videoconferencing session transcripts and tapes (each session lasting 60 minutes)	3 sessions	6 sessions*	6 sessions*
Meetings or phone calls with the partner teacher (notes)	16	10	8

*Unlike during Cycle 1, the HSE videoconferences were held in a studio that could not accommodate more than 4–5 participants at a time. For that reason the Cycle 2 and 3 students had to be divided into two separate groups during the videoconferences.

7.4.1 Description of the Participants

Two key participants in the action research project remained the same through all three action research cycles: my partner teacher from the other participating university and I myself, the teacher-researcher. The technical support staff also re-

mained the same. Three different groups of students from Helsinki and three from Lappeenranta participated in the three-year project at its various stages. The students participating in the very first action research cycle were considered the key informants from the perspective of this study as they tested the course structure and gave an active contribution to its further development. The students in my own group were considered the lead collaborators. They were third-, fourth- and fifth-year male and female business students from the Helsinki School of Economics with different major subjects (e.g. accounting, economics, marketing, logistics, International Business). The students in my second and third groups had similar backgrounds. The first Lappeenranta group consisted of male engineering students representing different fields of engineering, whereas the second and third Lappeenranta groups also had female students and business studies students in the groups. All Helsinki students had completed some prior environment-related studies as they were required as a prerequisite for enrolling on the course, whereas the Lappeenranta students did not have the same requirement.

7.5 Data Analysis Methods

As Creswell (2002, 257) explains, qualitative researchers first collect data and then prepare it for data analysis. I prepared the data so that both during and after each action research cycle I organized the data related to the specific cycle into its own database. This organizing was facilitated by the fact that most of the data was in digital form, e.g. logs of e-mail and computer conferencing messages. I didn't transcribe the hand-written field notes as their number was not that high, and, therefore, I felt that I was able to deal with the notes by just resorting to my notebook. I also had all data available in printed form as I felt more comfortable with dealing with paper than the screen. At an early stage, I had been tempted to try out some computer programs for analyzing qualitative data, but after experimenting with some, I gave up the idea as the programs seemed quite complicated, and I therefore was not convinced whether the time spent to learn to use them would bring added value to the analysis from the perspective of my particular study.

Creswell (2002, 257) specifies that after the data is organized, its analysis initially consists of first developing a sense of the data, and then coding description and themes about the central phenomena. The process involved is thereby primarily inductive in form, moving from the detailed data to developing general themes. In my analysis of the data, I largely employed qualitative content analysis that Bryman (2001, 381) regards as probably the most prevalent approach to the qualitative analysis of documents. He also emphasizes that such an analysis comprises a searching-out of underlying themes in the materials.

For the purpose of conducting qualitative content analysis, I used coding as my data analysis strategy. As explained by Miles and Huberman (1994, 56), codes are “tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study.” They further explain that codes are usually attached to “chunks” of varying size, e.g. words, sentences or paragraphs. Coding helps to retrieve and organize the chunks.

When creating the codes, I resorted to my three chosen research areas and the research questions related to them. The first research question was related to identifying issues and problems arising in connection with introducing ICTs as an educational innovation into higher education communication teaching. The data regarding this particular question consisted of the actual events and procedures involved during the project. Consequently, the ‘chunks’ to be coded were mainly ‘events’, not just words or paragraphs. In educational action research, in order for the teacher-researcher to be able to analyze such events, a narrative account of the entire action research project, a reliable ‘story’ so to say, needs to be written. Writing a detailed and vivid account is of the utmost importance because the account is expected to enable others to see how the researcher has arrived at his/her conclusions regarding the specific research question. Consequently, writing the account is a challenging task. Although the teacher-researcher has personally encountered the issues and problems arising in connection with the action research project, it still does not mean that he/she could be able to identify them or interpret their significance. Indeed, it is not until through attempting to write a coherent and accurate report about the events that the researcher can better understand the various aspects involved.

For writing my account I utilized various types of the collected data. The logs of the e-mail message exchanges between myself and my partner teacher or other collaborators in the project were particularly useful as they most often dealt with various types of issues that had come up or problems that needed to be solved. Re-reading the logs of the students’ messages in the discussion forums was also helpful in the sense that it helped me to follow the order of the events and also in that some of the messages confirmed my choices for what to include in the narrative account. As those choices are crucial from the point of view of the comprehensiveness of the account, I used the structure proposed by Cohen and Manion (1989) for writing my action research account. I was carrying out an analysis of the types of issues and problems already while writing my account and I then completed the analysis after the account was completed.

The other research questions were related to the affordances of the media and the pedagogical issues of social presence, community, and teacher and learner roles. My codes included directly research question-related codes such as ‘teacher role’, ‘learner role’, ‘presence’, ‘community’, but I also adopted new codes if they seemed to emerge from the data. One of my original codes included ‘features of the

media' as it was what I was originally looking for in one of my research questions. It turned out during the coding process that I had difficulty in finding chunks related to that theme, whereas instances of what the media enabled the participants to do seemed more evident. Consequently, this led to reformulating the research question for which I adopted the code 'affordances'.

I did my coding by hand, marking the codes with a pen in the margins of the printed material. I then copied the coded chunks from the database and organized the chunks with the same code into a file and named the file according to the code, e.g. 'teacher role'. The coding process also called for reading the materials over and over again. As pointed out by Creswell (2002, 258), qualitative researchers analyze their data by reading through it several times and by conducting an analysis each time. Some chunks to be coded seemed easier to find than others depending on how explicitly or implicitly they appeared in the documents. For instance, some chunks to be coded seemed to be more explicit and easier to identify, whereas coding social presence, for instance, seemed to be more subtle and therefore more complicated.

As is commonly known, qualitative data collecting often results in the accumulation of very large amounts of data. One of the problems with such material can be that some of the data collected may remain superfluous. So was the case with the data collected for the current study as well. For instance, during the analysis of the data, I did not end up utilizing the videotaped recordings of the videoconferences conducted during Cycles 2 and 3. First of all, to be of use, the sessions should have been transcribed the way my first course assistant had transcribed the recordings of the videoconferences during the first cycle. In the final analysis, even those transcripts did not provide as much specific content for the purposes of the current study that I had initially thought. Although I had read through the three transcripts several times and re-watched the tapes, it turned out that the more suitable method for analyzing them would have been discourse analysis as the content was not, by and large, really geared to accommodate the pedagogy-related research areas that I had in mind. Using a different method of analysis such as discourse analysis could have given information, for instance, on the students' communication strategies during videoconferences, which research area I had eliminated at an early stage from the sphere of the current study in order to limit the focus of the study.

Another issue that could be considered somewhat problematic is that the process of content analysis may involve interpretative problems, which could be said to be the case with all qualitative data analysis. As the teacher-researcher I was responsible for the coding and the interpretation of the themes arising. At the initial stages of the study I had hoped that in the final analysis I could use an inter-coder, but things did not work out that way, mainly because of the extended length of time I had spent on carrying out the analysis; as a result, the potential inter-coders were

not available any more. On the other hand, the use of inter-coders is not without problems either as the issue of inter-coder reliability may be an area of major concern. What compensated for the lack of an inter-coder at least to some extent was the fact that I had analyzed the process of the action research project extensively through discussions with my partner teacher from the other participating university during and after each action research cycle. Consequently, it was not only the matter of how I myself interpreted the events, but the mutual discussions seemed to help me validate many of my interpretations.

8 Results and Interpretations

“High quality teaching can take place anywhere and any time and it’s not to be connected only with a high-tech environment.”

(A comment in a student’s course report.
Action Research Cycle 1)

This chapter will deal with the current study’s main results and their interpretations in the order of the research questions presented in Sections 1.2 and 1.3. The first research question related to the research area focusing on ICTs as an educational innovation will be addressed through rendering an account of the actual action research project. Next, the second research area of affordances of educational ICTs followed by the third area centering on the pedagogical aspects of social presence and the roles of the teacher and learner in network-based learning environments will be dealt with.

8.1 Information and Communication Technologies (ICTs) as an Educational Innovation

In the current study, the integration of Information and Communication Technologies (ICTs) into higher education foreign language and business communication teaching has been regarded as an educational innovation. The introduction of such an educational innovation in the form of a collaborative network-based learning environment was conducted as an action research project consisting of three action research cycles. Efforts to identify the issues or problems arising during the process will be made on the basis of the following account of the action research project.

This account is rendered in a sequence of five stages. Based on their relevancy from the perspective of this study, the five stages were selected from the nine sequences of the action research procedures proposed by Cohen and Manion (1989, 231–234). The five selected stages are 1) identification, evaluation and formulation of the problem; 2) preliminary discussion and negotiation among the interested parties; 3) setting the scene; 4) implementation of the project itself; and 5) interpretation of the data.

8.1.1 Identification, Evaluation and Formation of the Problem

The incentive for launching this specific action research project in HSE's¹⁷ Department of Languages and Communication originated from two main sources. The first incentive stemmed from the arising of a new content area within the sphere of business communication in the first part of the 1990s. The new content area emerged from the growing awareness of the importance of environmental issues across society as a whole and the impact that this specific awareness had on the business sector in particular. The inclusion of environmental issues into companies' regular business activities also gave rise to new communication needs. Consequently, to meet some of the training needs arising from this new content area, the idea of developing a new course for the Department's English Business Communication¹⁸ program started to take shape.

A crucial stimulus for launching an environmentally oriented English business communication course actually came from the business sector itself. In 1995, the President of a large Finnish paper mill visited HSE and gave a presentation in which he focused on the growing importance of the communicative challenges that the Finnish forest industry was encountering from the point of view of environmental communication. Among these challenges were the growing communicative conflicts between the forest industry and environmental activists in particular. During his visit he also stressed that business students should be taught to realize that environmental issues in a company do not just belong to a special department; instead, it should be emphasized that such issues should be every employee's concern.

Interestingly enough, related signals had also already been sent by some environmentally conscious HSE students in connection with a course called Environmental English, an optional course in the English program, which aimed to increase students' environmental awareness and improve their writing skills in English through various types of argumentative, analytical and informative writing assignments. These signals appeared in some students' feedback forms regarding the course, which had increasingly started including suggestions for a more advanced environment-related follow-up course that would approach the topic specifically from the perspective of the business sector.

In line with the department's teaching focus, the new course to be developed was to center on the communication aspect of the companies' environmental activities. However, although having dealt with environmental issues for several years in my Environmental English courses, I realized that trying to develop the content for a new advanced course by myself would be too demanding a task and,

¹⁷ HSE = Helsinki School of Economics

¹⁸ English Business Communication as a subject was called 'English' at the time.

in fact, not even advisable for two main reasons. The first reason was simply that specialist subject knowledge would be needed for developing the course content. Secondly, because of the special interdisciplinary nature of environmental knowledge, the content of an environmental communication course would need to reflect multiple perspectives.

Planning ways in which to implement such multiple perspectives into the content of the new Environmental Communication course not only called for discussions with subject experts but also made me delve into literature on the nature of environmental education. For instance, Wahlström (1995) argues that environmental education in its very essence aims at teaching critical, reflective thinking, and that it involves understanding the principles and the language of several different disciplines because each discipline has its own way of looking at environmental problems and their solutions. This focus on critical thinking and interdisciplinary approach is in line with Honebein's (1966) pedagogical goal that calls for providing experience and appreciation for multiple perspectives when designing constructivist learning environments. Honebein explains the rationale for his views as follows:

“Problems in the real world rarely have one correct approach or one correct solution. There are typically multiple ways to think about and solve problems. Students must engage in activities that enable them to evaluate alternative solutions to problems as means of testing and enriching their understanding.”

(Honebein, 1966, 11)

Indeed, it has been argued that because of the value-laden nature of environmental knowledge, experiential learning activities seem particularly suited for “teaching” environmental communication (cf. e.g., Wahlström 1995; Charles & Tammelin 2000). My earlier environmentally oriented courses had also been carried out in learner-centered settings, emphasizing students' own contributions and providing students with the opportunity to directly experience the impact of their contributions. Consequently, in planning the format of the new course, the department's earlier experiences gained from the international Internet-mediated ICONS negotiation simulation project in 1990–1995 (Tammelin 1991; 1992a; 1992b; 1993; 1994; Kaufman, Tammelin & Landis 1993) were drawn from.

According to these earlier experiences gained from the ICONS project, the level of students' commitment and motivation increased as a result of the task-based course format that mainly consisted of students' own preparations for, contributions to, and evaluations of the communication and negotiation tasks, which involved communicating both asynchronously and synchronously with groups of students from other countries. Consonant with the views of experiential learning, the students who themselves were in charge of the communication tasks were thus

able to experience in a concrete way that their own input had a direct connection with the success or failure in the communication and negotiation process, while the teacher acted as a facilitator and a consultant. Consequently, it seemed appropriate to establish the format of the new Environmental Communication course on the concept of having other groups of students to communicate with, via using technology-mediated communication modes.

Concurrently with the emerging ideas for the new technology-mediated Environmental Communication course, there were rapidly growing developments in the use of technologies. First of all, in the mid 1990s, the educational use of the World Wide Web had started to grow at an exponential rate as educators quickly grasped its potential not only as an information search tool but also as an opportunity for building web-based course sites, which included various types of communication channels for interaction. The second development was seen in the growing use of videoconferencing, which afforded new educational opportunities. This led to the question whether videoconferencing could provide added value to the foreign language/business communication classroom as it enabled group-to-group communication between two or more groups located in geographically dispersed locations.

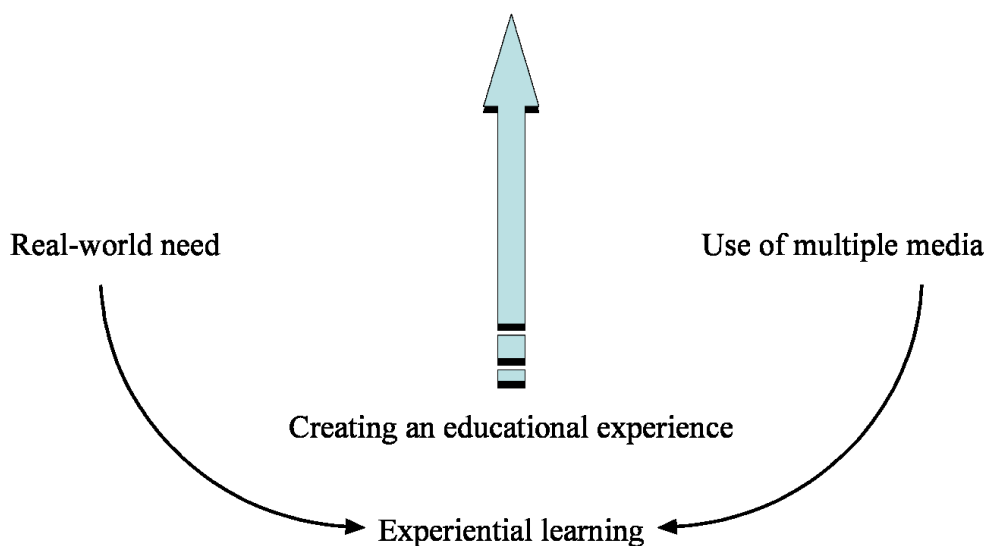


Figure 5. The Rationale for a Foreign Language/Business Communication Course conducted by using Multiple Media.

As both technological innovations, the WWW and videoconferencing, were new to HSE's Department of Languages and Communication, the question therefore arose as to how to gain experience in their relevant use not just for the sake of the new technologies themselves but also for the sake of a pedagogically justified purpose. Consequently, the implementation of the new course in a collaborative network-

based learning environment was also in line with the Department's efforts to seek and promote purposeful ways of using ICTs in its teaching. Based on the Department's experiences gained from the earlier, often experimental endeavors during the first part of the 1990s, it had become clear that it was time to launch a more systematic, sufficiently funded and research-related project. Therefore, in connection with the Department's budget negotiations with HSE's administration in November 1995, a grant proposal was submitted for a full-scale action research project called the Telematics Project.

Although uncertain about whether funding would be provided, I had been determined that we would go ahead with the plans regarding the new course even without the funding decision, thinking that we would manage somehow as the department had some funds left from a previous project. This type of thinking seems consistent with the characteristics of the foolhardy Early adopters/Enthusiasts identified by Geoghegan (1994), who classifies them as risk takers and experimenters. The situation also bore a resemblance to the situation that Bates (2000) describes as the Lone Ranger Model vs. the Project Management Model. According to Bates, the Lone Ranger¹⁹ is usually an individual faculty member working independently except for "Tonto" (the Lone Ranger's indian friend and helper), the computer-skilled graduate student, who provides technical help. Bates (2000) states that a characteristic of many Lone Ranger projects is that often there is never a final product. For instance, the Web site is not developed as a full teaching resource or is being constantly upgraded or improved or it has to be redesigned as a result of inappropriate or outdated technology decisions in the early stages.

The funding decision by the administration, however, turned me from a Lone Ranger to a Project Manager overnight and I started acting accordingly. Treating the undertaking as a project made it possible to make plans in a more systematic way and to include a budget, timetable and deadlines. In the Department's grant proposal we had also indicated that the project was to be a research project. Had the funding not been assured, the research aspect of it would have been made quite difficult and the project might have turned out just another experiment with no significant impact. Therefore, the institutional commitment in the form of funding was crucial as it totally changed the nature of the endeavor from "just another experiment" into a full-scale project. This generated an increased sense of responsibility and a commitment to prove that the institutional investment made was worthwhile.

¹⁹ Lone Ranger and Tonto were the main characters in a popular old Hollywood cowboy film and a television series. (Bates & Poole 2003)

8.1.2 Preliminary Discussion and Negotiation among the Interested Parties

In order to create a multi-perspective dimension for the new Environmental Communication course, I needed to look for a group or groups from other institutions, which could also participate in the project. It seemed that one of the main prerequisites for the teacher(s) of the potential other group/s would be a genuine interest in a new teaching format utilizing ICTs. Furthermore, the participating teacher/s should also appreciate the research aspect of the project. As regards the other participating group(s), it first seemed that it/they should be located in another country to make the need to communicate in English more authentic. I therefore did carry out preliminary negotiations with a couple of institutions outside Finland. However, it seemed that even though there would be a shared interest, there were too many incompatibilities and uncertainties involved, missing links so to say, resulting from the novelty of the course format and the availability of the media needed, videoconferencing equipment in particular. In the light of the department's earlier experiences, it seemed that if only Finnish universities were involved it might also make the potential technical problems easier to handle. Furthermore, because of their previous obligatory language studies, Finnish university students are familiar with using a foreign language in class with their own Finnish-speaking course mates.

Although the compatibility of technology between participating institutions is of crucial importance, even more so is the "human compatibility". As Bates (2000) argues, the biggest challenge in developing partnerships between higher education institutions is finding the right chemistry between academics that are going to work together. On the other hand, even that chemistry may be put to the test because of the often-unexpected technical problems. My own previous experiences with integrating technologies into teaching had shown how much the use of technology increases the teacher's dependence on its reliability, and consequently, on the circle of the few people who know how that technology works. Indeed, in technology-dependent collaborative projects, a close rapport between colleagues and a high tolerance for the uncertainties of technology are needed especially when launching a project that is novel to all those involved.

I found a colleague who was interested in joining the project from the University of Technology in Lappeenranta, from here on to be called Partner. My colleague not only shared my interest in integrating new technologies into his courses, but also seemed to have similar views on teaching as I did. I introduced my ideas to him in September 1995. As a result, we decided to plunge into the project during the winter semester of 1996. As neither institution had its own videoconferencing equipment or facilities at the time, funding by our respective institutions was essential for enabling us to rent videoconferencing facilities. I also needed funding

for hiring technical assistance for creating the web site and the computer conferencing forums because at the time providing such technical support did not yet seem to belong to anybody's range of duties. As the course content and the course materials were to be created from scratch and research data was to be collected, it meant that I also needed to recruit a part-time teaching and research assistant to help me.

8.1.3 Setting the Scene

Although plans to go ahead with the new course were already well under way, turning it into a full-scale project still depended on the acceptance of the funding proposal. As often typical of institutions such as universities, the notification of the funding decision never reached my ears until less than three weeks before the new project was due to start. What this meant was that there was not much time for the various preparations needed. The first thing to get done was the course web site. For that purpose I turned to a graduate student at HSE's computer center who had helped me previously on many occasions. I drafted my ideas for the web site, and he then designed the pages and put them up for me. After the web pages were ready, I turned to an old acquaintance at the university of Oulu about the task of creating the threaded discussion forums for the web site.



Figure 6. The Front Page of the Environmental Communication Course Site.

My newly hired part-time teaching & research assistant, from here on to be referred to as Assistant, was a graduate student in international business, who had already been working on other part-time projects in our department. We plunged into planning the timetable and looking into renting the videoconference facilities. There also were numerous e-mail exchanges and phone calls with Partner in Lappeenranta regarding mainly practical matters such as recruiting students for the first course at a short notice, the functioning of the Web site and the videoconferencing arrangements.

Furthermore, the plans for the course content needed to be finalized. I had already been in touch with the environmental management experts in HSE's Department of Management on several occasions with the purpose of consulting them about ideas regarding the course content. At their suggestion, we had chosen the main theme of the course to be the Finnish forest industry, which field was experiencing serious communicative controversies involving Finnish paper companies, environmental activists, and foreign paper buyers. Another theme included the focus on ethics and values as reflected by companies' environmental communication practices. As we also needed to have material on these issues to be placed on the web site and in the online course library, Assistant and I visited the Finnish Forest Association where we had a chance to interview their communication manager and get useful ideas for the cases to be included in the course.

The range of people that needed to be consulted for the purpose of starting the new course was very wide indeed. Geoghegan's (1994) (see Section 2.2 in this study) argument that the Early adopters tend to be "horizontally" networked with personal networks that have a high proportion of interdisciplinary and cross-functional links seemed to be exemplified by my case as the varied network of people representing different areas of skills and expertise was soon set up because of my earlier contacts.

8.1.4 Implementation of the Project

8.1.4.1 Description of the Course Format

Each of the three Environmental Communication courses held during the three-year action research project lasted one semester (=14 weeks). The two groups, one from the Helsinki School of Economics (HSE), and the other from the Lappeenranta University of Technology (LUT), had some six to eight face-to-face sessions during the semester with their local teachers, i.e. Partner and myself. The purpose of the face-to-face sessions was mainly to help students prepare for or give feedback on the three videoconferences that were held between the two groups at ap-

proximately one-month intervals. Consequently, in the face-to-face sessions with our local groups, Partner and I acted as advisors and coaches.

The students themselves were expected to plan the agenda for each conference and choose the chairperson to represent their own group during the conference. This also meant that they needed to do background reading and research into the topics that they planned to discuss. In planning the agenda, the groups first submitted suggestions to each other on a discussion list before reaching a decision regarding the final agenda. Partner and I emphasized to our groups that the conferences should be planned so that all participants in the conference could be involved and given a chance to participate in the discussion.

The course format during the three action research cycles remained more or less the same although the course content changed so that the topics covered in the discussion forums and the videoconferences were as current as possible. For instance, in the first Environmental Communication course, the theme of the first two videoconferences centered on issues related to the forest industry, with topics ranging from the clearcutting of old forests to forest certification systems.

Partner and I were present in our respective videoconference rooms as observers during the videoconferences and held face-to-face feedback sessions with our groups afterwards. The videotaped recording of each conference was available for the students to watch and they were asked to write an evaluation in which they would analyze the conference and their own performances. The students were also asked to suggest how they planned to improve their performances in the subsequent conferences. They sent their self-evaluations to their respective teachers who could then make individual appointments with the students and supply additional feedback or support material if needed.

Each videoconference theme had a related online discussion forum where the students were supposed to post ideas and questions before the conferences. Ordinary e-mail was also used in communication between the teacher and individual students and between Partner and myself as our ordinary web-based course site did not yet have the functions supporting such message exchanges that later have become common built-in features of the course management systems. There were other disadvantages caused by missing support functions. The biggest disadvantage was that students' written work, such as the research papers that the Cycle 3 students produced had to be first sent to me, who would then place it under the link 'Completed course projects'. Apart from such disadvantages, the functions of the course site—albeit simple—were sufficient for our purposes.

The web-based "classroom", called Learning Space, was divided into two 'spaces', the study space and the discussion space, as illustrated below:



Figure 7. Study and Discussion Spaces in the Environmental Communication Course.

In addition to the two threaded discussion forums in the discussion space focusing on the actual content of the course, there was also a café discussion forum for social interaction. As I was aware of the fact that such a discussion forum would not necessarily function by itself, Assistant was assigned the special task of monitoring the café conference. If discussion seemed to be drying out, her task was to try to initiate a new thread. In my role as the teacher, I also made an effort to keep the discussion rolling although I tried to refrain from taking any obvious moderator role in order not to interfere with Assistant's duties.

8.1.4.2 Progress of the Action Research Project

The action research spiral of the project itself consisted of three cycles of planning, acting, observing, and reflecting. These three cycles with their timelines are described in the table below:

Table 7. Progress of the Cycles.

Cycle 1	
Planning	Fall 1995
Acting and Observing	Spring term 1996 (January–May)
Reflecting	Overlapping with the acting and observing stage and the re-planning stage in the fall of 1996.
Cycle 2	
Planning	Fall 1996
Acting and Observing	Spring term 1997 (January–May)
Reflecting	Overlapping with the acting and observing stage and continuing in the fall of 1997.
Cycle 3	
Planning	Spring 1998
Acting and Observing	Fall term 1998 (September–December)
Reflecting	Overlapping with the acting and observing stage and continuing throughout the year 1999.

Cycle 1

The first Environmental Communication course started in January 1996 with high expectations although Partner and I shared our concerns about having to deal with so many novel aspects: the content of the course itself, the use of the Web, discussion forums, and the biggest novelty of all, videoconferencing. The more ICTs were involved, the more uncertainties were in the offing. I appreciated having Assistant to look after the various practical arrangements needed, ranging from room reservations for the face-to-face sessions to renting the videoconferencing facilities.

The first two videoconferences in the first course were built around a simulation in which the students represented various stakeholder groups such as the state, foreign buyers of paper, private owners of forests, consumers, environmentalists, and Finnish paper companies. Although the simulation was a good way to get everybody involved, the students themselves expressed the wish that they would like to represent their real selves in the last conference in which they discussed the topic of environmental ethics and values using a current real life case as the basis for their discussion. The case, which the HSE group had chosen and prepared, dealt with a well-known Finnish factory's way of handling an environmental accident in which poisonous discharges were emitted into the Vantaa River near Helsinki, which had resulted in the death of a large number of fish. As regards the other two

Environmental Communication courses, simulated situations were not used any more as students preferred to present their own views.

As the first sixty-minute videoconference between the two groups went without problems, the students also seemed to relax and were starting to look forward to the next one. Although both groups were well prepared for the second videoconference, the conference did not turn out to be very successful although for that very reason it was a good communication exercise. During the conference both groups seemed to stick to their own prepared agendas and were not really listening to what the other party was saying. Consequently, the discussion was not very fruitful. It was a good lesson to both groups as it actually showed how communication problems can arise if there is no genuine willingness to listen to and understand the other party's views. Everybody tried very hard to make the last videoconference a success, which then turned out well. This is how one HSE student describes the second and third videoconference:

In a way the second conference was better [than the first one] but on the other hand, there was a clear setback, too. A written agenda was understood in many different ways. The lesson was learned by everybody before the third conference, and then it was time to discuss. The atmosphere was encouraging in the third conference, and then the core idea of video conferences was understood. The main learning process was that you should listen to the other party carefully and try to clarify all the misunderstandings. Only after that it is possible to negotiate effectively.

(Student F4/Cycle 1)

As their final assignment my group wrote a lengthy course report analyzing various aspects of the course and the learning environment, thus giving me valuable data for my research purposes. I gave the students an outline of questions that they were expected to cover (see Appendix 1).

Cycle 2

Partner and I had planned to run our second course in the spring of 1997. In the fall of 1996 all faculty and staff had to move out from HSE's main building for a period of two years because of the full-scale renovation of the building. Although somewhat concerned about the functioning of technology in the temporary facilities, I was optimistic about starting the second course. Although there was not much funding left any more, I was also able to hire a new graduate student to help with some course-related tasks for a few hours a week. In fact, she was a student who herself had participated in the Cycle 1 course and therefore was already familiar with the course format and its goals.

Fortunately funding was not needed any more for renting the videoconferencing facilities as both universities had now purchased their own equipment. In their course feedback reports all Cycle 1 HSE students indicated their appreciation of the

three videoconferences, considering them useful learning experiences. Partner reported that his students had felt the same way. Consequently, I had taken every opportunity to make as much noise as possible about the opportunities that videoconferencing seemed to offer, thus hoping to contribute to speeding up HSE's decision to purchase the equipment, which decision then was made. In Partner's university, a similar purchase had also been made.

Various other problems that Partner and I had not thought of during Cycle 1 started surfacing, though. For instance, for administrative reasons Partner was not able to integrate the course into the language curriculum under the same name as we did—Environmental Communication—but had to come up with another name, “English for Videoconferencing”, which from their group's perspective somewhat shifted the focus of their course away from environmental communication although this was not a real problem with the groups then participating in the course. A somewhat more disturbing issue was that for administrative reasons the number of course credits could not be the same in his university as the number of credits allocated at HSE, which some of the students were quick to note. Consequently, he also had some problems negotiating the number of hours that the course corresponded to in his workload. These were the first indications of administrative issues that may arise in connection with such multi-site courses which may not directly accommodate certain department's own curriculum.

As the second Environmental Communication course actually started, my initial optimism regarding the functioning of technology started to fade as, indeed, we were faced with a host of technical difficulties. First, we had problems with the computer facilities as a result of our having had to move to temporary facilities. Even more importantly, there were problems arising from the incompatibility of the two different types of videoconferencing equipment that our two universities had. The following message, sent by me late in the evening to the course Café forum that was a popular place for all sorts of personal reactions, is an example of my venting my frustrations on having to be at the mercy of technology.

Environmental Communication: Café

To: envic-cafe@oyt.oulu.fi
From: Majja Tammelin <tammelin@hkkk.fi>
Subject: Technology is wonderful ...urghhh..
Date: Wed, 12 Feb 1997 22:44:31 +0200

What a day! First of all, I think the Oulu server has been down today since I couldn't get to our Cafe earlier today but now the server seems to be working again (22.30). I wonder if anybody else tried it today and had the same problem.

Today we were supposed to have a test conference with Lappeenranta and see how Lappeenranta's Videra equipment and our PictureTel system would go together - well they didn't. We could see and hear Lappeenranta and they could see us BUT not hear us - several people are looking into the problem - and we just have to hope for the best.

See you around.

Maija

If being at the mercy of technology seemed very stressful, there were also some positive developments during the course that helped to convince Partner and myself that, despite the frustrations caused by technology, the efforts made were still worthwhile. In the following message Partner is pondering over the students' learning outcomes after having come back from the annual educational ICT conference held in Hämeenlinna.

Hi Maija!

Yeah, greetings from Hämeenlinna. I thought this year's conference [the annual ICT conference in Hämeenlinna] was better than last year's. Difficult to say why. Perhaps because this time I got more information about research findings related to learning. In other words, from the perspective of our course it seems that this kind of constructivist approach to knowledge and learning seem to be more effective for reaching lasting learning outcomes. (translated from the Finnish original)

Of all three Environmental Communication courses, the two groups participating in this second course were most compatible with each other both with regard to their environmental interests and their level of communication skills in English. There were also more business students among the Lappeenranta participants than in the other two courses, which may also have contributed to creating a more balanced setting for the course. Despite the initial technical difficulties, the actual videoconferences worked out well. Again, according to the students' own comments and the observations of Partner and myself, attending the videoconferences were what the students appreciated most about the course.

Cycle 3

In the fall of 1998, HSE's Department of Languages and Communication was able to move back to the renovated main building and thus a two-year trial in dispersed locations and temporary teaching facilities was over. In the renovated building there certainly was no lack of technology; indeed, our department had four networked media labs at our disposal. To many of the department's teachers the

amount of technology seemed startling and almost scary. The videoconferencing equipment that was so essential for our course was now available in a state-of-the-art studio. The action research Cycle 3, the third Environmental Communication course with a new set of participants, thus started under promising signs.

Despite the promising start, problems soon started mounting. First, the amount of technology that had been installed in the renovated building turned out to be too much for HSE's network system, which broke down for several weeks in the middle of the term. The system that suffered most was the network that the students had access to. At the time, for most of the HSE group students, the Internet access from inside HSE was their only way to access the network. This technical disturbance had a direct impact on the frequency of the HSE students' visits to our web site and participation in any of the discussion forums.

Another problem occurred in connection with student enrolments. In the first Environmental Communication we had limited the HSE group size to nine because the videoconferencing premises used by the HSE group seated only nine participants. Keeping the group size at nine seemed wise in the second course as well because of the potential technical uncertainties involved. However, this time I was ready to increase the number of participants in the third HSE group to be more in line with the regular class size of 20–24 students, but for some reason or another only eight students signed up. The Lappeenranta group had its share of problems as well. Out of the ten students enrolled on the course, five students had to drop out for various personal reasons just as the course was about to start. Of the five left not all were able to attend the videoconferences which led to an imbalance between the number of participants in the videoconferences.

As the course was about to start I decided to make a change in the HSE group's course program. I had noticed from the students' course registrations that three students were actually in the process of writing their Master's thesis on an environmental management-related topic and there were some who were studying environmental management as their minor subject. Consequently, I introduced a new assignment to be included in the HSE group's course requirements as I had started suspecting that preparations for the videoconferences might not require as much work for these students as originally calculated. The students were to write an academic paper on an environmental topic that was in their own sphere of interest. Their topics ranged from certain companies' environmental policies and communication practices to questions of environmental legislation. The papers were placed on our course web site and they were peer reviewed by two other participants. The reviews were then also published. I gave my comments on the papers to the students individually as the comments also included suggestions on language improvements.

The assignment of writing an academic paper first seemed like a very traditional assignment. Yet, I discovered that technology did bring a new dimension to

the assignment. The fact the students knew that not only would the papers be published on our password-protected web site but also that they would be reviewed by two other course mates seemed to raise the quality of the papers as the students put a tremendous effort into writing them.

Despite the imbalances and frustrations caused by technical disturbances described above, the Cycle 3 participants seemed to complete the course in high spirits. As for myself, I noticed that as I didn't have a course assistant to help me with various problems any more, I was getting exhausted and for the first time started to wonder about the cost effectiveness of the course format.

8.1.5 Interpretations

Based on the selected sequences of the action research procedures proposed by Cohen and Manion (1989, 231–234), this account will now turn to its fifth and final stage: Interpretations.

As for the research question regarding the types of issues or problems that arise in connection with the action research process of introducing ICTs as an educational innovation into language and business communication teaching in Finnish higher education, the content analysis of the data on the action research project identified four specific categories of issues or problems. They can be categorized as *pedagogical*, *technical*, *administrative*, and *institutional*. Each area contains indications of such issues or problems that could be regarded as obstacles to the fruitful adoption of educational technologies in higher education. These issues and problems could at least partly explain why McNeil's (1992) term 'academic technology lag' still seems to be a relevant term in describing the slow rate at which technology adoption takes place in higher education.

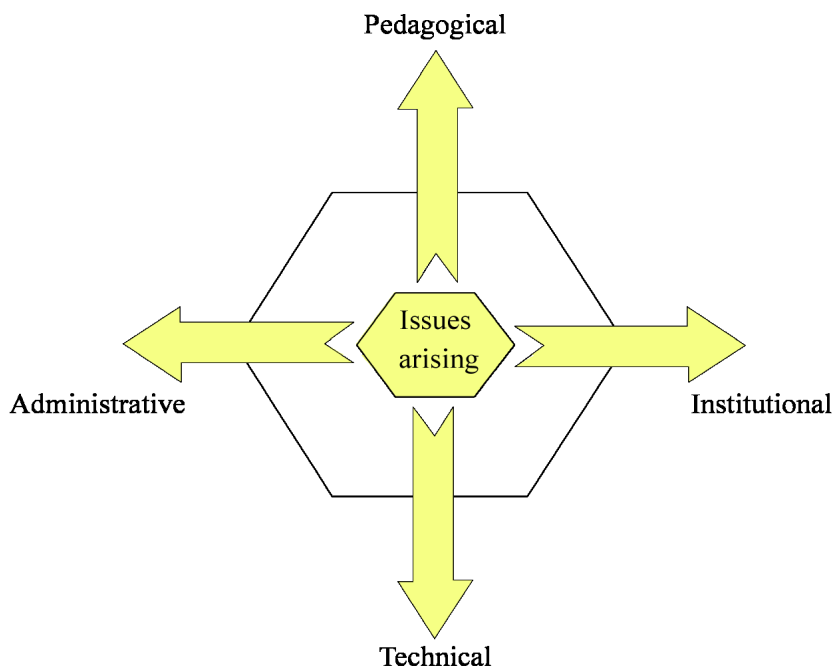


Figure 8. Types of Issues arising in connection with introducing ICTs as an Educational Innovation.

The following interpretations will center on the technical, administrative and institutional issues as the pedagogical issues are dealt with in connection with the other research questions regarding affordances of the media, social presence and community, and teacher and learner roles. The interpretations discussed below will also address action research methodology.

8.1.5.1 Technical issues

If among these four areas of issues the biggest hindrance to the adoption of educational technologies were to be elected based on the current study, the choice might fall on *technical issues* as they seemingly appeared to cause so many problems and frustrations. Paradoxically, if such an assumption were to be accepted, it would then seem that the biggest constraint on the realization of information technology's educational visions is imposed by technology itself. However, such an interpretation could be refuted by pointing out that the use of technology is not ultimately determined by technology itself but by people. For instance, in an institution of higher education, technology does not make decisions, but somebody or some body consisting of humans makes them for it. Consequently, it can be argued that although faculty members' practices with regard to the use of technology are indi-

vidually oriented and determined, these practices are nevertheless largely facilitated or hampered by the structures and systems of the surrounding institution.

During the reported action research process it frequently appeared that the problem teachers using technology face is not that they do not know the answer but that they do not even know the question, i.e. how to ask about or specify something that creates bewilderment and frustration. However, the process also showed that even if one actually knew the question, it was often laborious to find help because the support staff responsible for the various media was dispersed in several different locations within the organization. Consequently, the more different kinds of media were used, the higher the number of support staff members one needed to turn to.

Admittedly, the action research project coincided with the full-scale renovation of the university's main building and therefore inferences drawn from the findings of the current study need to be considered against the irregular conditions prevailing then. The two-year renovation project did involve many temporary arrangements, which had a widely disrupting influence on the organization's normal activities, and specifically, on the functioning of the networks. On the other hand, Viinamäki's (2002) recent study conducted under regular conditions indicated that many of the same problems continue to prevail. His study, based on faculty interviews regarding the use of educational ICT applications and conducted in the same department as the present study, also emphasizes the lack of sufficient technical support. Furthermore, his study indicated that teachers with technical problems often did not know where to look for help when faced with technical questions and that help was being disparately located so that responsibility for the use of various media was housed under a separate unit or a center, sometimes in another building altogether. At its worst, this sort of compartmentalization resulted in ambiguous communications received (or not received) from the support staff. The communications received could, for instance, notify the recipients of ongoing maintenance work, but they perhaps did not mention what the resulting technical complications meant in practice.

In consequence, it would seem that insufficient technical support systems might be a major constraint on the successful implementation of network-based courses. The enthusiasts with their Lone Ranger projects may not be completely hampered by the technical problems as they may go on with their projects regardless of such barriers albeit using their time and energy inefficiently. It is the risk averse potential new adopters who have to be ensured of the availability of technical support mechanisms if they are to start integrating the use of technologies into their teaching. Consequently, it can be argued that it is of the utmost importance that teachers have access to easily available competent technical support staff because teachers responsible for running network-based courses cannot be expected to be able to solve the unavoidably arising technical problems by themselves as

they most probably do not have the needed knowledge or skills. The implication for the institutions is that they should reorganize their technical support services in ways that would serve the teaching faculty efficiently and effectively.

8.1.5.2 Administrative and Institutional Issues

Parallel to technical issues, another set of issues which are categorized as *administrative issues* in this study, emerged. As technical issues arising during the action research process were usually concrete and immediate and therefore easily recognizable, administrative issues were seemingly less obvious. It simply seems to take longer to recognize such “below the surface” issues. Consequently, it would seem that administrative issues might actually be an even bigger hindrance to technology adoption than the technical issues as they involve solving more complex problems, resulting from inherent organizational structures and traditions.

One central administrative issue in network-based teaching arising from the current study was related to the organization of the teacher’s work. The issue could be approached from two perspectives, one perspective reflecting the teacher’s increased workload, and the second one to reorganizing the teacher’s work through collaborative practices. As for the first issue, it is commonly known among the faculty teaching network-based courses that such courses often involve an increased workload for the teacher. This was also shown by Viinamäki’s (2002) case study of teachers’ educational use of ICTs in HSE’s Department of Languages and Communication. It appeared from his interviews with the faculty that it was apparent that the use of ICTs increased teachers’ workload manifold. Viinamäki (2002, 53) pondered, “It would be useful to observe teachers’ work and analyze *what time is actually spent on.*” (translated from the Finnish original) (*italics added*)

The current study does not attempt to give conclusive answers to “what time is actually spent on” or to the question of the increased workload in general, because many of the tasks performed during the action research project itself were obviously particularly time-consuming because of their “first time” nature. On the other hand, because of the special funding that had been allocated to the project, I did not need to work alone, but had a team of collaborators. For instance, funding made it possible to recruit graduate students as course assistants and to get the needed technical support from both inside and outside the institution.

However, during the action research process there were indications of the types of tasks that seemed to increase the teacher’s workload. For instance, the teacher’s workload seemed to grow because the new tasks required learning new skills and gaining a new kind of pedagogical understanding. For instance, there was the task of writing the content for the Web pages. Project funding made it possible to recruit outside help for designing the layout of the web pages. In addition, help

was also needed for setting up the discussion forums, because at the time the university had no officially supported course management system available yet, which would have provided a solution to such a task. Moderating written discussions and giving individual feedback on students' work also seemed to be very time-consuming, largely resulting from students' high expectations regarding teachers' online availability and the amount of expected individual feedback.

One solution to the workload problem could be setting up collaborative teams consisting of members of faculty, support staff and perhaps a graduate student teaching assistant who could thus also gain valuable training experience. Through utilizing the skills and know-how of all team members, it could be more feasible to produce high quality network-based teaching than expecting the single teacher to be able to do everything alone. If setting up such teams might offer a solution to both more efficient management of the teacher's time and also to enhancement of the quality of network-based learning environments, why are such teams not in common use then? Could it be that it is very difficult to bring change into these two intertwined areas: faculty members' working practices and the universities' administrative systems.

As regards teachers' working practices, it seems that faculty members in general are so used to working alone in running their courses that collaborating with others can also present a real challenge. Faculty practices have usually been shaped by the way university systems work. Interestingly enough, problems resulting from such systems related to network-based teaching are recognized globally. For instance, Brabazon (2001) in New Zealand points out that there is currently no workload-based recognition of online courses or the updating of materials through multiple modes. In their discussion on barriers to change within universities, Garrison and Anderson (2000, 31) in Canada see as such a barrier a culture that emphasizes individual accomplishments and independence. They stress that although there is much talk about the need to collaborate, the in-built administrative practices often fail to recognize collaborative teaching or research even when this type of activity represents more efficient use of faculty time and energy. In addition, Garrison and Anderson (2000) stress the reliance on input measures such as the number of class hours and size of syllabus as the barrier to adopting new flexible and rewarding practices.

8.1.5.3 Methodological interpretations

In conclusion, this section dealing with interpretations regarding the actual action research project will now also deal with interpretations regarding action research methodology. Methodologically, the three action research cycles described in this action research account followed the action research cycles of planning, acting,

observing and reflecting as described in Section 7.1.1 of this research report. The well-known action research spiral diagram by Kemmis and McTaggart (1988, 11) in Figure 8 is often used to illustrate these cycles. However, based on this study, it can be argued that the diagram may not be quite accurate in describing the action research process. First, the arrow pointing the direction of the spiral has a closed end, which should not be the case, as the spiral should imply a continuing movement. Second, the start of a new cycle in the diagram, “revised plan”, is indicated with a gap separating the previous cycle from the starting one. It can be argued that the gap is misleading to a point. As demonstrated by this study, the cycles can follow each other in a continuous flow and development of ideas.

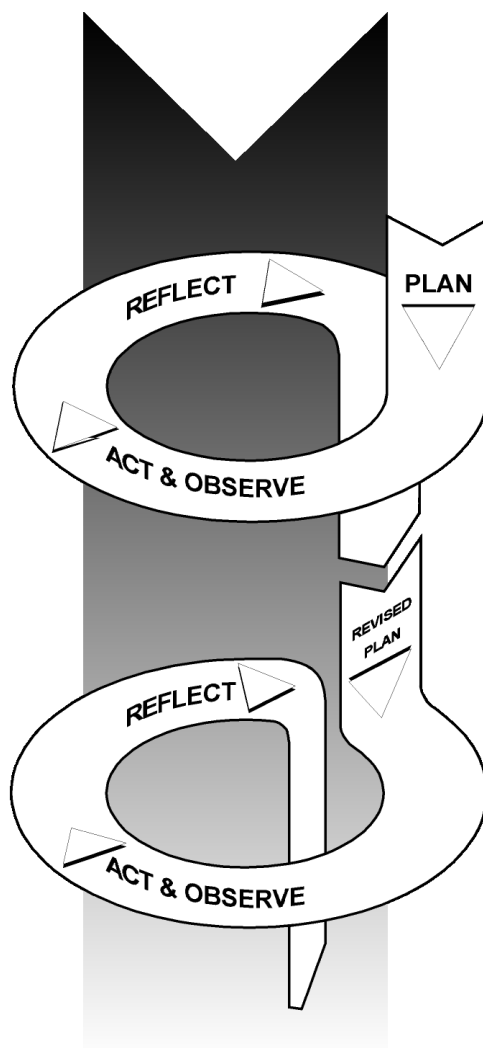


Figure 9. The Action Research Spiral (Kemmis & McTaggart 1988, 11).

In Zuber-Skerritt's diagram (1992, 17) demonstrating the spiral of her action research into developing student learning skills these two flaws have been avoided because of the use of arrows which focus on pointing direction and imply no gap or stop for the action. However, both the Kemmis & McTaggart and Zuber-Skerritt diagrams seem to have been built on the flow chart model, which represents sequences of action in the particular action research process. Typically, the movement in flow charts is downwards. Yet, although it is a fact that a spiral can move up or down, a spiral is commonly associated with the upward movement and a movement without a stop. Therefore using a downward spiral to depict the process of action research not only creates a semantic conflict but it also does not appropriately indicate the upward like nature of the action research spiral which implies that although the project itself may have officially come to an end, its effects continue to exist generating possible new spirals. Consequently, based on the present study, the Upward Spiral of Educational Action Research into introducing an educational innovation would look like this:

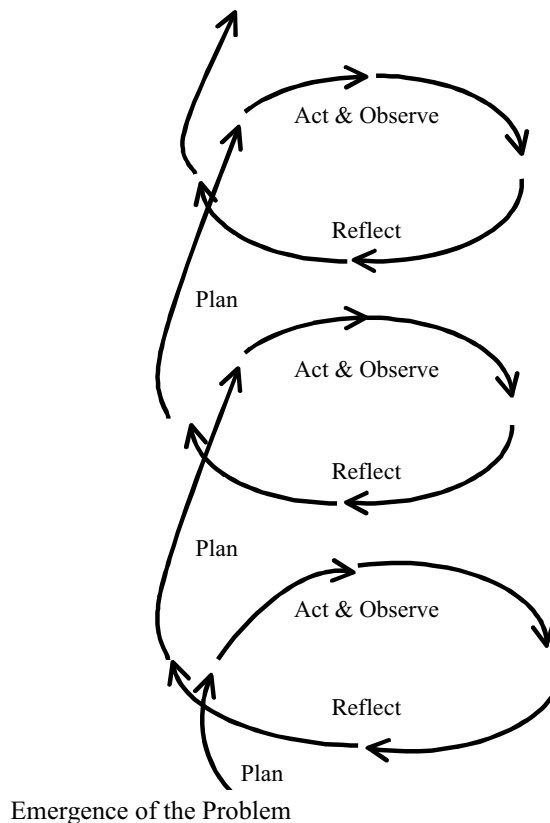


Figure 10. The Upward Spiral of Educational Action Research (modified from the spiral by Zuber-Skerritt 1992, 17).

The interpretations arising from the present action research project also generate another proposal for a spiral depicting the project (see Figure 11). The diagram draws from Salomon's (2000) concept of the "drip effect of technology", by which he refers to the long-range impacts of technology on society. As he explains, the drip effect contains effects nobody intended nor did anybody think them out. He argues that "they happened more or less all on their own, driven mainly by economic and efficiency considerations that capitalize on the new opportunities afforded by technology". Partly analogous to the drip effect, the impact of the action research project reported in this study could be referred to as "the ripple effects". The effects could refer to the unintended effects that can be assumed, though perhaps not proven, to have arisen from the project. The "ripples" may have had an impact on things like guiding the choice of the topic for a participating student's Master's thesis and his/her subsequent career choice or another colleague's (cf. e.g., Peltonen & Berglund 2000; Peltonen 2001) launching a course based on a similar format in Swedish business communication but centering on altogether different course content aspects.

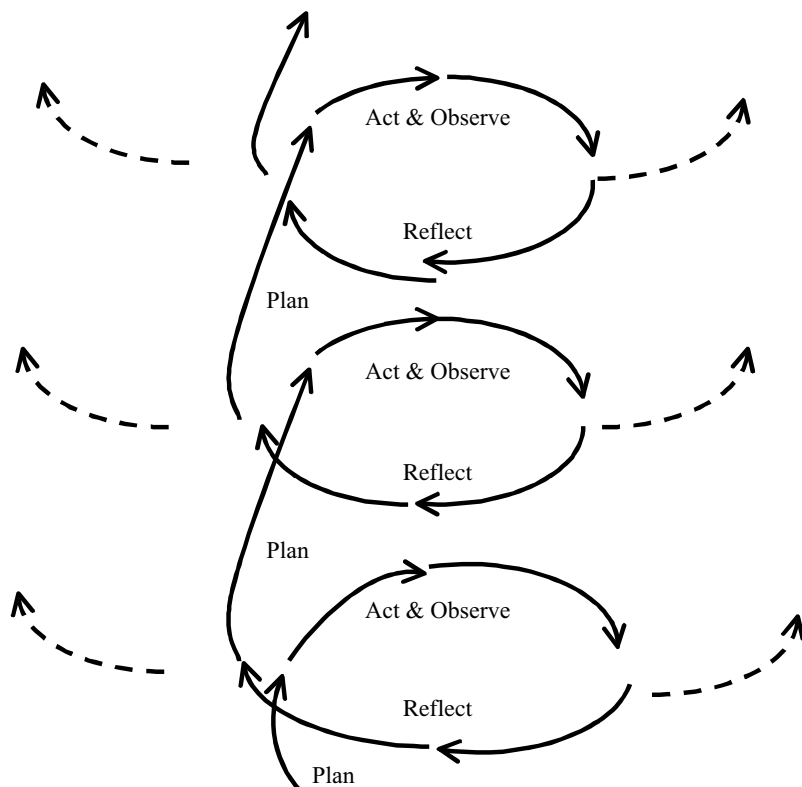


Figure 11. The Ripple Effects of the Educational Action Research Spiral.

8.2 Affordances of ICTs

Drawing from the interpretation in the previous section reporting challenges and barriers involved in the integration of educational ICTs into higher education teaching, one could ask with good reason whether it really is worthwhile to spend the time, money and energy spent in such a process. Specifically, do the various media actually provide such worthwhile affordances for the educational experience in the field of foreign language and business communication teaching that these affordances justify the efforts required?

The content analysis of the participating students' perceptions regarding the use of multiple communication channels indicates that some students emphasized their role from the point of view of the larger perspectives of working life and society. For example, one student writes in her course feedback as follows:

“... different communication channels played a vital role in our course. In the future, we will probably live in a more fragmented society—with more information but with the problem of finding the relevance.”

(Student F2/Cycle1)

Another student focuses on the requirements that the media and various communication channels set for communicators and analyzes the difference between videoconferencing and face-to-face meetings.

“Media and communication channels used to carry out the course gave me new ideas about the skills needed in the arising information society. Even though the new technology makes it easier to communicate and get contacts, it also places certain requirements to communicators. “

“Especially in the video conferences new technological environment forces the change in behavioral patterns used in the communication. By this I mean gestures and movements which are accentuated when seen through the screen, particularly if the camera is focused in a small area of the conference room. Video technique also sets limits to speaking which must be more disciplined than in face to face conferences or meetings. That is why video conferencing and its techniques have to be practised even though one was experienced in ordinary meeting situations.”

(Student M4/Cycle 1)

Among the multiple channels and media employed—e-mail, computer conferencing, face-to-face sessions and videoconferencing—videoconferencing was the mode that most students in all three action research cycles seemed to appreciate most. Although some students' voices were best heard through the written discussion forums or during the face-to-face sessions, all students seemed to recognize the affordances that videoconferencing provided for the learning environment.

These affordances could be divided into three main categories: 1) providing an opportunity to enhance the students' understanding of real world and working life problems through experiential participation; 2) providing an opportunity to improve one's own communication skills; and 3) providing an educational setting for including multiple perspectives and an opportunity to employ critical thinking skills.

The following two extracts emphasize the affordances related to the first category of enhancing the students' understanding of real world and working life problems through experiential participation. In the first example the student points out that videoconferencing seemed to make the situation closer to a real world situation.

“The video conferences and the preparation sessions for them made the learning situations closer to the real world situations. Of course we could have had the same roles in a classroom, but during the video conferences we had to communicate with people we didn't know and who had a very different view on environmental issues.”

(Student F2-Cycle 1)

Another student implies that videoconferencing provided a setting that was close to working life but this time one could afford to make mistakes.

“Video conferencing was the highlight of the course. There were many reasons for that. The settings were real, very close to working life lying close ahead, only this time you could afford to make mistakes. Active participation is still rather challenging, especially for a Finn....There is still some magic with the new type of high tech. Recording made it possible to go through it again and again.”

(Student M3/Cycle 1)

The students also assessed the usefulness of the various media and what they thought they had learned. Again, videoconferencing was rated highest as it provided an opportunity for practicing and improving one's communication skills in a new mode. The following four examples demonstrate students' views on the affordances provided by the use of videoconferencing in the category of communication skills.

Example 1.

“The course was very useful in learning communication skills. I have never practiced how to behave myself in front of the camera before this course. Although there are videos made during other language courses, they really give no guidance on for example hand or chair movement, eye contact etc. It was very difficult to react to people's messages so quickly in the video conferences. The cafe and video

conferences were the most useful in learning to communicate. The other discussion forums were used mainly to announcements.”

(Student M1/Cycle 1)

Example 2.

“Personally I learned most in the beginnings of the first two conferences and during the whole third conference. I’m sure that I have a lot more self-confidence to make a verbal statement after these video conferences, and I’m certain that I can be more convincing when giving presentations and communicating with people in general. Also the conferences developed my capability of thinking clearly in a situation where several people are involved.”

(StudentM1/Cycle 1)

Example 3.

“As I earlier wrote the most interesting part of our course was video conferencing. During our course I learned how to act in a “real” video conference. Without this kind of training you won’t be able to know how important is your eye-contact or how does your body talk look like. Also timing is very important at a video conference and time schedule have to be considered well beforehand.”

(Student M2/Cycle 1)

In the following example the student seems to imply that in the videoconferences the students learnt to shift the focus from themselves to the recipients of their messages and how *not* doing that affected the nature of the discussions.

Example 4

When analyzing all the video conferences, evidently they all have impact on learning. The first video conference was a first experience and therefore very exiting. Most of us were too concentrating on telling as much information as possible that the idea of discussion disappeared. Nearly everyone learned the lesson before the second video conference.

(Student F3/Cycle 1)

As for the third category of affordances, the students themselves perceived the opportunity provided by videoconferencing for arranging an educational setting that integrated multiple perspectives and in which one could employ critical thinking skills. One may argue, however, that it is not the medium alone that provides such opportunities as the topic of environmental communication in itself includes such multiple perspectives.

The following comments by a student demonstrate that critical thinking skills were needed in realizing that, indeed, there can be many different points of view when environmental issues are being deal with.

In our own conferences and discussions I realized that there can be millions of different opinions about what feels like the “right thing to do” in some cases. People have differences in opinions and priorities and that’s interesting to see and hear about! There is possibly not just one morally right decision or so—as you may think.

Environmental communication in a company means not just that they make a brochure and print it on a bleached paper (!) and - lie back and do nothing. They should be able to answer any questions concerning their operations and be prepared to inform about things also when something perhaps unwelcome happens—deal with it and the public.

(StudentF2/Cycle 1)

It would seem on the basis of the current study that each of the multiple modes of interaction in a multimodal collaborative network-based learning environment can enable a range of affordances, which Dede (1999) refers to as enhancements of human capabilities (see also Section 1.4 of this study). The findings of the current study would seem to be in line with those of Dede’s (1999) study on the use of multiple media in a graduate course in instructional technology which indicated that in the mixture of asynchronous and synchronous media including face-to-face interaction, all students found their “voices” in which they communicated best. Dede (1999) argues that as a result, the overall learning experience was richer for everyone, because each student made a full contribution. Dede points out, “Also, those students who felt hampered by a particular medium could watch others model effective expression and communication using its cognitive, affective, and social affordances. As a result, everyone’s fluency and comfort in all the media improved over time, although distinct preferences remained.”

In addition to providing the students the mode, the ‘voice’, in which they communicated best, another major affordance particularly relevant from the perspective of the goals of higher education learning was the issue of the increasing opportunities to communicate. Bates (2000) comments on the importance of the need to communicate as follows:

“Modern learning theory sees learning as an individual quest for meaning and relevance. Once learning moves beyond the recall of facts, principles, or correct procedures and into the area of creativity, problem solving, analysis, or evaluation (the very skills needed in the workplace in a knowledge-based economy, not to mention in life in general), learners need the opportunity to communicate with one another as well as with their teachers. This of course includes the opportunity to question, challenge, and discuss issues. Learning is as much a social as an individual activity.”

(Bates 2000, 13–14)

A collaborative network-based learning environment utilizing multiple modes does, indeed, provide learners with the opportunity to communicate with one another as well as with their teachers, and as was the case with the current study, this included the opportunity to question, challenge, and discuss issues—opportunities that Bates calls for in his comments above. Factors that may have an impact on the quality and significance of such communication are linked to pedagogical issues that will be discussed next.

8.3 Social Presence

During my teaching career I had never really thought too deeply about the meaning of ‘presence’ in the classroom before getting involved with the current study. Connecting ‘presence’ to the teacher’s and students’ physical presence in the classroom seems to be a deep-rooted axiom in many teachers’ thinking. As a teacher who had always enjoyed being physically present with my students in class, I was both curious and puzzled about the new mode of teaching which would involve only a few classroom sessions during the semester lasting 14 weeks. As it would seem that all dedicated teachers strive for creating a positive atmosphere in their classes, my concern was what would happen to the “class atmosphere” when the majority of the face-to-face sessions were to be replaced by communication modes that would take place through writing. I was also wondering to what extent it was possible to develop a sense of community—a sense of belonging to the same group—between two groups of students that met via videoconferencing or by using text-based communication modes with some students communicating much less frequently than others.

With such questions on my mind when first starting to design the web-based course environment I came upon two ideas that according to the understanding I had at the time were meant to enhance the social dimension to our network-based environment. The first idea of adding a Café forum among the discussion forums was a well-known idea in the literature on computer-mediated communication. The main purpose of the café conference is to establish a space where the participants can demonstrate their own social presence and sense the presence of the other participants. For instance, Feenberg (1993, 189) argues that through a café conference participants can feel fully represented as human beings on a system that welcomes them in this way, rather than excluding all but their professional contribution.

As the other two online discussion forums named after the course themes (Forest forum and Ethics & Values forum) were meant for exchanging messages about the assigned course themes, creating the Café conference which could be used as a social space seemed like a good idea. Although the data from the Café conference was not analyzed for the purpose of finding out the detailed frequency

of visits to the café, in all three courses there were some students who seldom or never posted a message to the café forum, whereas some other students frequented this social space by participating in discussions and carrying forward “life in the Café”.

There may have also been technical reasons that prevented some students from participating; for instance, during the semester when the first Environmental Communication was run, there were particularly many technical problems regarding accessing the internet connection in the student network system, not to mention the third course during which the HSE network the students had access to crashed and was out of use for several weeks.

On the other hand, the number of visits to not only the Café but the other discussion forums as well may have also been related to the personalities and differing communication styles of the students; some students simply seemed to appreciate communicating in the written text-based environment more than others. One particular example of the impact that participating in a written text-based environment can have on a student was obvious during the first course was when the highest number of messages sent to the discussion forums came from some students who were fairly quiet during the face-to-face sessions and the videoconferences. It would seem that the personalities and individual communication styles of the students had an impact on how they experienced the use of different media and the need for physical presence.

Contrary to the more quiet students who seemed to appreciate the text-based communication modes of computer conferencing and e-mail, there were also clearly other types of students whose sense of social presence seemed to arise from the face-to-face sessions and the three videoconferences held between the Helsinki and Lappeenranta groups. In his course report, one such student explains that the positive atmosphere prevailing in the face-to-face sessions and the videoconferences had motivated him to try his best:

“In the planning meetings and (video)conferences the atmosphere was so inspiring and ambitious, that it motivated me to do my best and work eagerly. Participants were very active in finding new information and also informed and helped others to find out more. This forced me to try my best to find material and state arguments for my points of view. In HSE group meetings the good spirit showed its presence. Even though discussion was lively meetings ended up in mutual understanding.”

(M2/Cycle 1)

Although participation in the Café conference forum was somewhat unevenly divided among the students, the number of messages posted to the forum was higher than the number of messages posted to the course content-related discussion forums. Typically, in the café forum the students first introduced themselves and then later on tried to keep up “small talk” in various ways, by for instance revealing

various personal details about themselves or by for instance asking questions or trying to introduce a new conversational thread. Although many of the questions never received any replies or the new threads were not followed, the café conference still seemed to fulfill its purpose as demonstrated by the following extract from a HSE student's final course report during the first course.

“Naturally the café was the most popular forum. It was a great idea to start this kind of discussion space so that everybody could say something, anything, because that really played a major role in creating the common atmosphere of this course.”

(F4/cycle 1)

Another student gives a vivid description of her perceptions of the multimodal network-based course environment. Interestingly enough, the student comments on the formation of the “tight union of people” and concludes by emphasizing the importance of also having some face-to-face meetings.

“The first image of the concept “virtual classroom” brings to mind an odd thought. First of all, the pupils (or students) are floating lightly somewhere in virtual space. No close contact exists between them—the class participants are distant to one another. The common spirit of that class is very weak and the spoken (written) words just disappear in that virtual reality. Most certainly there is no teacher around—what an earth would he/she be doing there!

But as it turns out quite on the contrary: this kind of a classroom and learning environment can become a very tight union of people. They feel that they have a special common space where they can talk to each other, discuss and even argue about things that they share interest in. A course that is organized in this way, through various telematic media, differs from other courses the students are taking at the same time. It is fascinating because it is new and different—and that's why it almost automatically creates a special connection (and motivation) between the students participating in this kind of course.

However, I feel that at least a few group meetings face to face are needed to create a certain atmosphere. A course where several communication channels are used is very different from a course where only for example e-mail would be used to communicate between the participants. If you never see what the others really look like, it somehow makes it all much more distant and so there will not be the same kind of a connection.”

(F3/Cycle 1)

Including a social space like the Café discussion forum in the course format does not automatically mean that it would serve its intended purpose successfully. In the three courses run during the action research project, the nature and popularity of the Café discussions seemed to differ widely between the groups. There could be

many different reasons for the differences one of them obviously being that the students in the groups were different and therefore the groups formed were different by nature.

External factors also had a significant impact. For instance, due to several concurrent incidents, the size of the Lappeenranta group during the third action research cycle first decreased from ten to five, and then for the five students' various personal reasons, not even all of them could attend the last videoconferences, which created an imbalance between the HSE and LUT groups. Consequently, it could also have had an impact on the low frequency of visits to the Café forum.

However, another even bigger reason for the inactiveness of the Café forum during the third Environmental Communication course in particular was most likely the fact that the students had difficulties in accessing the course site. The infrastructure of the newly renovated HSE's main building where students had plenty of opportunities to use computers could not handle the amount of new technology, and the network through which students logged onto the system was out of use for several weeks. During Cycle 1 when I had Assistant, a student herself, as my helper I would always hear of such happenings through her. Now nobody had informed me of the breakdown while I started to be quite concerned about the lack of interaction in our previously popular Café. Unlike in the first two courses, discussion in the Café forum had not only seemed slow getting started, but, in fact, seemed to expire altogether halfway through the course. Because in the third course I had no assistant any more, whose duties in the other two course had included acting as a "Café hostess", the responsibility of trying to liven up the Café forum was mine.

The following message is my first attempt to do so:

Message 1

- * Subject: Almost Halloween
- * From: Maija Tammelin <tammelin@hkkk.fi>
- * Date: Thu, 29 Oct 1998 14:18:59 +0000

We certainly deserve a huge cup of good coffee in this Cafe after yesterday's conferences. Was it actually snowing there in Lappeenranta? We had quite a storm here and it was raining heavily but right now the weather does not look too bad.

What sort of plans have you got for the All Saints' Day weekend?

Happy Halloween to you all!
Maija T.

A week later there still had not been a reaction to my message and I try again with a “small talk” type weather topic, accessing the course site from my study at my home.

Message 2

* To: envicom-cafe@hkkk.fi
* Subject: Winter is here.. or is it?
* From: Maija Tammelin <tammelin@hkkk.fi>
* Date: Thu, 05 Nov 1998 09:20:02 +0000

Our Cafe looks deserted - it seems that my cat and I are the only creatures around - the two of us are looking out of the window and yes, it looks WHITE indeed this morning at around nine. I have to leave for HKKK in an hour or so the Länsiväylä morning traffic should have quieted down by then. One never knows about the traffic though - the first snow always seems to come as a surprise for Finns.

Maija T.

Two days later one of the HSE group students, who has an Internet connection at his home, reacts to my message, perhaps more out of politeness than a real interest in the weather topic.

Message 3

* To: envicom-cafe@hkkk.fi
* Subject: Winter IS here
* From: Student 1
* Date: Sat, 7 Nov 1998 21:00:04 +0200 (EET)

It certainly is. I spent 20 minutes looking for my car on Friday. Last time I drove it was on Tuesday so I couldn't remember where the heck I had left it. Of course, all the cars looked the same as they were all covered with snow.

But anyway, it is great the Winter is finally here. I was already quite bored with rain and other negative aspects of Autumn.

Two weeks go by and still no other messages have been posted to our Café. I make another slightly desperate try to reach my students in our social space.

Message 4

* To: envicom-cafe@hkkk.fi
* Subject: Last week of November
* From: Maija Tammelin <tammelin@hkkk.fi>

* Date: Mon, 23 Nov 1998 07:32:34 +0000

Hello -

I don't think I dare to look out of the window of my study this morning - the BEATIFUL winter weather we had (all right, it was COLD) has now turned into that more typical wet, gray, gloomy etc November weather. It's around 7.30 am and luckily it's too dark outside to see anything yet.

Did you all see X's [a student in our group] nice picture in Helsingin Sanomat yesterday (Sunday)? There was an article about Dan Steinbock in Taloussivut and a huge picture of three students attending his course.

Have a good week! Next week it's December already.
regards
Maija T.

Yet another silent week goes by. I am getting very frustrated with my students who seem to have disappeared into cyberspace. My frustration can be implicitly felt in my message to the Café forum, in which I do not even mention the face-to-face session which is to be held that same evening.

Message 5

* To: envicom-cafe@hkkk.fi
* Subject: December is here!
* From: Maija Tammelin <tammelin@hkkk.fi>
* Date: Wed, 02 Dec 1998 09:00:59 +0000

What could be a better way to celebrate the first of December than spending one's evening at the opera. I saw Puccini's Tosca last night - its beautiful music is still in my ears on this December morning.

Maija T.

One student finally comes to my rescue, evidently feeling sorry for me because of my somewhat pitiful efforts to generate the sense of social presence in our course environment. This student works full-time and uses the Internet access from work. Studying for a second degree, the student is older than the other students in the HSE group. She posts the following message to the Café forum. In her message she also refers to our group's meeting to be held the same evening.

Message 6

- * To: envicom-cafe@hkkk.fi
- * Subject: Last week of November
- * From: Student 2
- * Date: Wed, 02 Dec 1998 10:39:17 +0200

Hello Maija and all others,
of course this is a little too late to come back to November, but ..
Well, the time runs faster than I do.
Anyway its wonderfull that there is one person faithfully coming to the
cafe to meet us - who do not show.
Maija really deserves BIG THANKS.

Yes, I did recognize X in the picture in Helsingin Sanomat and cut
the article as had not the time to read it right away.
I wonder if X would like to comment on the experience of attending
that kind of lecture. Does it offer a chance for real interaction or is
it more a question of transferring a lectures on line? How would it
serve better?
Looking forward to seeing you tonight.

In the evening of the day when messages 5 and 6 were posted, my group and I met for our face-to-face session. It was not until then I heard about the students' network system having been out of use for some weeks. At the time most of the HSE students still relied solely on the access to the network from inside HSE. Although I was partly relieved and partly stupefied to find out that it was this technical failure that had largely accounted for the almost non-existing interaction on the group's discussion forums, I was once again reminded of the vagaries of technology. It made life in the regular four-wall classroom look safe and predictable.

Besides adding the Café forum to the course environment as an attempt to enhance its social dimensions, another idea came about by pure chance. When first planning the course web site I had at my disposal a collection of my retired colleague's nature-related photographs out of which I chose the picture for the course front page. Having made my choice, I started wondering what to do with the rest of the twelve beautiful pictures as they so well seemed to support the environmental theme of our course. As using them merely for decorative purposes did not seem to be enough, the idea of creating a Shakespearean photo gallery came about. My retired colleague combined each picture was combined with a Shakespeare quotation, that had a link to the original Shakespeare play. Most of the quotations seemed to have an implicit link to Nature or to our course theme of ethics and values.

During the course both Helsinki and Lappeenranta students' were invited to visit the photo gallery and choose the combination of a photo and a quotation that

they liked best, give their reasons for their choice, post their comments to me who then put their nameless comments up on the course site for everybody to read. Each time all students submitted their comments. Their comments were not graded, but at the end of the final videoconference a small prize was given to the writer of the “best” reasons. As there really were no “best” reasons, the choice of the winner was made on the basis of how closely the writer demonstrated “the Shakespearean spirit” in his/her reasoning.

Although the Photo Gallery was originally created just for the fun of it, it turned out that the students’ expressed thoughts about their chosen picture and Shakespeare quotation contributed to the enhancement of social presence to the extent that I had not even anticipated. Many of the students’ contributions revealed intimate details about their lives ranging from childhood memories to philosophical ponderings. The two examples below represent the latter category:

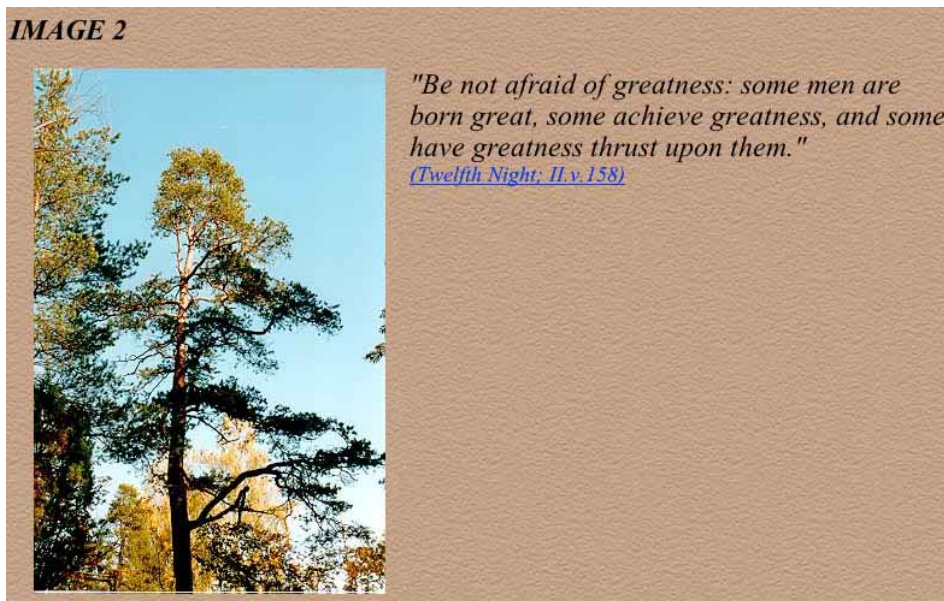


Figure 12. Example 1 from the Photo Gallery.

Student reaction 1:

*Here you have my choice: IMAGE 2: "The sky's the limit!"
The image and the quotation both remind me of the greatness of life, all the great things we so often forget or neglect, the beauties and riches of nature and live itself. They are great gifts which we ought to nourish and respect. In this image I see my favorite "landscape"—after the sea, of course—dark strong green pine trees reaching up to the heights against clear and blue skies. I lie, sit or stand still looking*

up and listening to a mighty silence or powerful voices of the surrounding nature—the rest of the world diminishing and loosing its significance. "The sky's the limit!"

Unfortunately, I do not know the context of the Shakespeare quotation but I like the idea of connecting it to the greatness of life as such. How often we people fell in a trap of fearing good things, in ourselves and in other people. We fear to recognize the greatness in ourselves and we envy the greatness of the others.

The image and the quotation encourage me to recognize and remember all the great things in life, in other people and in myself. Consequently, reminding me of our responsibility to save the riches and greatness of nature to the generations not born so that they will be able to enjoy the same gifts and possibilities we got. Dreaming—and the sky's the limit!



IMAGE 8



*"At Christmas I no more desire a rose / Than wish a snow in May's new-fangled mirth."
([Love's Labour's Lost; 1.i.105](#))*

Figure 13. Example 2 from the Photo Gallery.

Student reaction 2:

My favourite was the picture nr. 8. Not because of the picture itself, they were all fine and I could not make a difference between them. It was the quotation that reflected my thoughts: one

of the biggest lessons that I've learnt so far is that it is nothing more than waste of time to dream about something whose time has already gone or is still to come. Most is made of time when the fruits currently available are enjoyed instead of sitting in a sorrow and looking back to see something vanishing in the horizon.

Interestingly enough, reading such very personal comments written by the students seemed to increase the sense of affinity and immediacy in a class where some half of the students only met each other through videoconferencing and text-based computer conferencing. This seemed to heighten a sense of social presence among the participants in general, which, in turn, contributed to the sense of belonging to a mutual community.

8.4 Roles

The question of teacher and learner roles was specifically focused on during Cycle 1 of the action research project when the participating students had the important task of testing and developing the new course format, both in terms of content and methodology. In their final course report, the HSE students were asked to describe the roles of the teacher and the learner during the course as they perceived them. During Cycle 2, the HSE group was not specifically asked to address the topic mainly because the technical difficulties regarding the functioning of the network and the prevailing irregular conditions and lack of functioning classroom space resulting from the renovation of HSE's main building led to the tightening of the course timetable. During Cycle 3 we had our share of difficulties as well, but the HSE group did have a face-to-face discussion at the end of the course where I introduced my then prevailing view of the classroom roles and the students commented on it, either confirming my perceptions or suggesting some additions. In the following, the roles described will therefore mainly focus the views presented by the HSE Cycle 1 group in particular, with some additions from Cycle 3 group.

The Cycle 1 students were aware of being participants in an action research project and they were also explained the basic terminology and concepts used in the research project. The students were surprisingly quick to adopt the terminology that I in my researcher's role was providing them regarding notions such as telematics, learning environment, teacher and student roles. In fact, I was most taken with their ability to reflect on their experiences from these perspectives which were still very new at the time. No doubt the instructions that I gave for their final reports were quite helpful because they were structured and provided the essential scaffolding (See Appendix 1). However, I was still very surprised at the mature and analytical approach with which they tackled the topics.

Teacher roles

When discussing the teacher and learner roles in a collaborative network-based learning environment, some of the students' comments were directly describing my role as they saw it whereas other comments were meant to describe what kind of teacher is needed for a network-based course.

Most of the comments centered on the non-authoritarian role of the teacher, the facilitative role and the organizer role. In the following excerpt, the student depicts the non-authoritarian role of the teacher. When using the word "instructor" it is likely that the Finnish-speaking student may have a translation of the Finnish word in mind and is thinking of 'somebody giving instructions', i.e. advisor.

"I find that the role of the teacher in a virtual classroom is more like an instructor rather than a leader or a ruler. It is not the same role as 'in the old days' when the teacher taught and the pupils listened to what he or she had to say. The teacher gives the frame for the video conferences and WWW discussion forums but in the end the students are those who make (create) the actual learning and teaching event."

(Student F3 – Cycle 1)

Another student also indicates that the teacher's role is not authoritarian.

"It is really difficult to try to analyze the impacts of the learning environment on the classroom roles. The learning environment was more positive than in some other courses. You were encouraged in a nice and positive way, and the role of the teacher was not an authoritarian one.

(Student F4 Cycle 1)

The teacher was also described as 'more or less just *another participant*.'

"The teacher's role wasn't anything like in conventional situations, where the teacher tells exactly what to learn. In a telematics-based environment the teacher is more or less just another participant, though very active one and the teacher's role as an organizer is greatly emphasized. So in this way it is much more efficient to learn to communicate, and learning is not just a one-way street."

(Student M1 Cycle 1)

Another student, also emphasizing the teacher's organizing tasks, describes the role of the teacher that of *a coordinator*.

"The role of the teacher seemed to be more like a coordinator between participants and HSE group and LUT group. This enabled the participants to plan their actions more freely and practise their teamwork. The concept of this course could be altered to any course that deals with the negotiations or requires information (e.g. case assignments)."

(Student M4 Cycle 1)

One student aptly gets to the heart of the matter in her analysis of the role of the teacher, by pointing out that the teacher's giving 'the room' to the students is not an easy task. This is what Underhill (1989; discussed in Section 6.1.1) implied in his discussion of teachers' ability to move between the authoritative and autonomous uses of power in the classroom.

"The role of a teacher is not an easy task. It requires courage to give the room to the students and let us "hit the head to the wall" and learn by doing almost everything ourselves.

The teacher must still have an active role in the background and steer the situations somehow.

Telematics-course needs an enthusiastic teacher, devoted to a special subject maybe. Couraging [sic] strong, democratic with an authoritative touch."

(Student F1/ Cycle 1)

Based on my own teaching experience, I appreciated the students' discerning comments as they did not seem to be intended to please me or necessarily support my enthusiasm about the use of educational technologies. For instance, in the following excerpt, the student is highlighting the essence of good teaching by de-emphasizing the role of technology while also implying that students should be given the opportunity to experience different kinds of learning environments:

"Traditionally the roles of the teacher in relation to the students have been very unambiguous and one-sided. Nowadays there is a certain change towards bilateral learning and mutual development. To my mind this development seems healthy and reasonable but it is not bound to the learning environment. High quality teaching can take place anywhere and anytime and it's not to be connected only with a high-tech environment.

Instead, an unexplored learning environment will probably motivate and inspire both the teacher(s) and the student(s) just by being something new. In my opinion, every student should have a possibility to experience different kinds of learning environments – just for the sake of it."

(StudentF2/Cycle 1)

In the middle of Cycle 1 I received an e-mail message from an acquaintance from a training organization telling me about tutor training they were going to arrange for a network-based training project in their organization. She asked for my comments on the characteristics of a good tutor. For my answer, all I needed to do was to stop and think how I saw the teacher's role being right then in the midst of running a network-based multimodal course myself. I sent the following reply:

“In my opinion a good tutor is like a chameleon who is able to adapt himself/herself in versatile ways to various roles during the course, for instance on this continuum: organizer – advisor – expert – group leader – coach.”

(Translated from the Finnish original)

My views of the teacher’s roles were further expanded and confirmed through discussions with Partner in which we compared and shared our perceptions. We based our initial identification of various teacher roles largely on the basis of the various tasks and duties that we as teachers were involved with during the courses. Berge’s (1995) categorization of online moderator roles into pedagogical, social, managerial and technical roles gives an appropriate basis for categorizing teacher roles in a network-based multimodal learning environment as well.

Managerial roles

Based on the content analysis of the data, the teacher’s role as an **organizer** seemed to arise as the role that belonged to one of the central roles in the teacher’s role set. Although it could be argued that the organizer role belongs to almost every teacher’s role set, it does, however, seem that in a multimodal, collaborative network-based learning environment the organizer functions are multiplied because of the many modes involved. Interestingly, the managerial roles also included a **producer’s** role. In the producer’s role Partner and I as teachers needed to look for and assure funding for e.g., renting the videoconferencing facilities, which were costly at the time. In the producer role we also needed to develop and utilize the contacts with various specialists within and outside our universities.

Pedagogical roles

The “multi-mode” teacher’s pedagogical role set seemed to be varied as well. The role of being a **resource specialist** emerged in a new light as the books and handouts were largely replaced by web links and writing course material and instructions which were to be placed on the course web site. Writing material could include for instance writing a case as I had to do in a hurry during Cycle 2 when the students just simply could not reach an agreement on what topic to discuss during their last video conference on ethics and values (See Appendix 2).

Most importantly, there was the teacher’s role as a **facilitator**, which included a range of facilitative functions ranging from acting as an **advisor**, a **consultant** and a **coach**. The purpose of the facilitative functions was to help students improve their presentation and argumentative skills in particular. Finally, there was the teacher’s role as an **evaluator** whose role included the double functions of directly evaluating the students’ performances and participation and indirectly through the students’ own self-evaluations.

As for the teacher's roles, there is a difference between what could be considered the ideal roles based on the constructivist principles and the reality. Goodfellow (1999) points out that, on the one hand, the constructivist, facilitative and knowledge construction roles can create expectations in the learners that tutors would be peers as well as mentors, contributing equally to subjective and unstructured, as well as structured, discussion with the community of learners. On the other hand, as he points out, the assignment-marking and student support roles force the tutors into the position of expert and assessor, with the consequent pressure of objectivity and accountability. Goodfellow (1999) also maintains that this kind of conflict means that roles have to be performed independently, which again results in an increased workload. He pinpoints the problem as one arising from a conventional teaching role being forced onto an unconventional teacher-learner relationship by institutional requirements. As possible efforts to alleviate the conflict, he sees e.g. the tutor role being separated from moderator and technical help function.

During the three action research cycles I did not start feeling the effects of the role strain resulting from the conflicting types of roles that I was expected to play until the last cycle when I did not have a course assistant any more who could do some of the moderating in the discussion forum, for instance. During the final face-to-face session with my Cycle 3 students I presented them my then prevailing ideas concerning the teacher and learner roles in a multimodal, network-based learning environment. I asked the students whether they agreed to the suggested roles and whether there was anything they would like to change or add. Two additions were proposed to the teacher roles: one role was that of a "cheerleader", and the other one that of "an assessor". I could see the cheerleader role as one of the social roles and found it appropriate. The assessor role was an eye-opening experience to me. As I evidently looked surprised, the student who suggested it added, "But you are an assessor. You give us the final grade." I then understood why I had been feeling the effects of a role strain and that it is this strain caused by conflicting roles that Goodfellow (1999) above is referring to.

Social roles

Perceived on the basis of the experiences arising from the three action research cycles, the teacher seemed to have the important role as being ultimately responsible for the creation of an atmosphere of trust and respect in the multimodal network-based environment involving the participation of another geographically dispersed group. Again, this would be the case in a conventional classroom as well, but as, apart from the few face-to-face sessions with their local groups, communication is mediated through writing or videoconferencing, the social role aspect presents new challenges for teachers.

Technical roles

Whether the teachers like or not, they are also faced with having to play a technical role when they move from the safe conventional classroom to a network-based environment utilizing multiple media. As it seems unrealistic to be able to have technical assistance and support available all the time, the teacher would need at least a basic understanding of what the technical problem might be in order to be able to look for help from the right people. Even more importantly, the teacher would need to have an understanding of the affordances of the media in order to be able to support their students better.

Learner Roles

The task of analyzing their roles as learners did not seem to be as easy for the students as the task of outlining their perceptions of the teacher roles. For instance, they seemed to approach the topic from the perspectives of what they thought they had learnt and how the course was different from a “regular” course. Interestingly, however, some of the Cycle 1 students seemed to emphasize the use of multiple channels in the learning environment, pointing out the opportunity thus given to the students to communicate more effectively.

“My role as a student certainly became more active because of the different learning environment. In my opinion the discussion forums offer the verbally not so talented people a chance to express their opinions as well, and a chance to other people to hear about them. I think that any course that involves self-studying will benefit from a telematics-based learning environment, particularly from the e-mail and WWW. The main difference compared to other courses was that the students could participate in building the course, and in this way it is possible to motivate people more efficiently.”

(Student M1/Cycle 1)

The Cycle 1 students’ full-hearted participation in the action research project seemed to reflect their exceptionally high level of motivation and enthusiasm. Although the groups during the other two action research cycles also seemed to be actively involved, the Cycle 1 group still seemed to stay in a class of its own, perhaps because of factors that can only be assumed. Among such factors could be the following: first, the students truly seemed to enjoy the responsibility of being involved in course development and being participants in the action research project. This, on the other hand, perhaps depended on the fact the because of its special nature and the “newness” of the technologies used appealed to the particular students who signed up for the course. Importantly, most of them shared a deep personal interest in the subject itself, environmental communication. Indeed, one student seemed to experience the participatory process during the course as an optimal flow experience as apparent in the following excerpt:

“... This proves something interesting when it comes to the roles: I lost my role as a regular student and took the topic personally. I as a student had a way more channels to express myself than in a regular course. I also learned that we are all only people: even those, who create and write those fine environmental policy-reports in the companies.

The topic made the learning so easy. Surfing in the www-pages in the learning space was like food for the hungry, drink for the thirsty. I lost my sense of time, never actually had to make any effort on learning. Somehow it just happened.

I know it has happened, because my sister keeps commenting it every time we talk about her special subject.... She claims that not only my knowledge of the things happening in the world has increased, but also my argumentation amazes her: “you sound as if you believed in that!”

(Student F1/Cycle 1)

On the basis of the content analysis of the data, the following main learner roles seemed to emerge. First of all, in the multimodal, collaborative network-based learning environment the learners' main role appeared to be that of a **communicator**. Obviously, the whole course format was built around the very theme of communication, but it does seem, indeed, that without the use of the various communication channels not everybody would have had an equal opportunity to make their presence known and their messages expressed and heard.

An altogether new learner role compared with a conventional classroom setting seemed to be that of a **broadcaster**. Apart from private e-mails, everything that the participants posted was transparent, readable and recorded for all the other participants as well. Oral communication taking place in a conventional classroom does not leave such a record nor does the students' written work as it would be rare that everybody's written work would be copied for all other participants to read. The recording of both written interaction and notably the oral interaction during the videoconferences provided the student with the opportunity of acting as an **evaluator** of his/her and the whole group's communicative performance.

The learner could also be seen as a **builder** and an **owner** in the sense that the opportunity to give a contribution as the “builder” of the course also seemed to increase the participant's sense of ownership of his/her own learning, thus leading towards a fruitful and satisfying learning experience.

Finally, the learner's role as a **collaborator** seemed to be a distinct one as a result of the membership in two in-built groups: first, the working together of the local group, and then the learning encounters with the group from the other participating university. The endeavor relied on sharing and collaboration with others, not only on the participants working or studying alone.

In conclusion, this final section of the chapter presenting results and interpretations, has now dealt with the question of teacher and learner roles in a collaborative network-based learning environment. The findings are largely in line with the bulk of previous research into the issue, especially as regards the role of the teacher. As for the roles of the learner, this study stresses the learner's communicator and broadcaster roles, which can also largely be explained by the context of the study which is foreign language and business communication teaching, with a specific focus on environmental communication.

9 Trustworthiness of the study

“In another moment Alice was through the glass, and had jumped lightly down into the Looking-glass room. The very first thing she did was to look whether there was a fire in the fireplace, and she was quite pleased to find that there was a real one, blazing away as brightly as the one she had left behind. “So I shall be as warm here as I was in the old room,” thought Alice: “warmer in fact, because there’ll be no one here to scold me away from the fire. Oh, what fun it’ll be, when they see me through the glass in here, and can’t get at me.”
Carroll, *Through the Looking Glass*, 1872 (1962, 173)

How “true” is the representation of reality that Alice so vividly describes while examining life through a looking-glass? How trustworthy is Alice’s account? Is her story replicable? Can her findings be generalized? In other words, do others encounter the same adventures if they jump through the looking-glass? Such questions play a central role when assessing the quality and credibility of qualitative research. In this study, the assessment of quality and credibility has been placed under the rubric “trustworthiness”. According to Lincoln and Guba (1985, 290), the basic issue in relation to trustworthiness is simple: “How can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?”

Conducting assessments of quality and credibility requires the application of specific criteria. As applying common positivist assessment criteria may prove to be problematic or inadequate when applied to qualitative inquiry, alternative sets of criteria have been proposed for assessment purposes regarding qualitative studies. In arguing that the conventional criteria for judging the trustworthiness of naturalistic qualitative inquiry are inappropriate, Lincoln and Guba (1985, 294–301) propose the following criteria to replace them: *confirmability*, *dependability*, *credibility* and *transferability*.²⁰ They also point out that these alternative criteria have analogous connections to the conventional concepts of objectivity, reliability, internal validity and external validity.

The criteria proposed by Lincoln and Guba (1985) have been widely adopted (e.g. Miles & Huberman 1994, 278–279) and further expanded (e.g. Patton 2002,

²⁰ Elsinen (2000) uses the corresponding terms in Finnish as follows: confirmability = vahvistuvuus, dependability = varmuus, credibility = uskottavuus, and transferability = siirrettävyyys.

542–546). The current study chooses to use the terminology proposed by Lincoln and Guba (1985) to describe the assessment criteria for establishing trustworthiness, which term they use as an overall term for combining the four criteria.

Based on Lincoln and Guba (1985, 294–301), the criterion areas and the criteria applied in quantitative and qualitative research are summarized in Table 8.

Table 8. Criteria for establishing Trustworthiness (based on Lincoln & Guba 1985, 294–301).

Criterion areas	Quantitative research	Qualitative research
<i>Neutrality</i>	Objectivity	Confirmability
<i>Consistency</i>	Reliability	Dependability
<i>Truth value</i>	Internal validity	Credibility
<i>Applicability</i>	External validity	Transferability

According to Miles & Huberman (1994, 280), dependability can also be referred to as auditability, credibility as authenticity, and transferability as fittingness. They also add a fifth criterion to the list presented above, which they refer to as utilization/application/action orientation.

Confirmability/Objectivity

In action research the action researcher is part of the research itself (e.g. Leino 1996, 88). Consequently, the same level of objectivity as in another type of research setting cannot be reached. Objectivity in qualitative research arises from the identification of one's own subjectivity (Eskola & Suoranta 1998, 17). Therefore the researcher should reveal the factors attributing to subjectivity as closely as possible including personal and professional biases. In the current study, efforts to do so were made by describing the features of my teacher personality and by rendering a detailed action research account.

Confirmability in qualitative research can be further strengthened through triangulation, i.e. by comparing different kinds of data and by employing different kinds of data gathering methods to see whether they corroborate one another (cf. e.g., Lincoln & Guba 1985; Silverman 1993; Miles & Huberman 1994). As regards the first method, during the action research project different kind of data was gathered and compared. The data included e-mail messages, computer conferencing postings, participants' own self-reflections in the form of course reports, their evaluations of their own performances during the videoconferences, taped videoconferencing sessions with transcripts of the first three conferences and field notes.

Dependability/Reliability (auditability)

LeCompte & Preissle (1993, 332) define reliability as the extent to which studies can be replicated. Replicability assumes that a researcher using the same methods can obtain the same results as those of a prior study. LeCompte & Preissle (1993, 332) also point out that qualitative research occurs in natural settings and that it is often undertaken to record processes of change. Replication can be only approximated, never achieved, as unique situations cannot be reconstructed precisely because even the most exact replication of research methods may fail to produce identical results. The current study is a case in point, because conducted as action research involving a process of change, it cannot be precisely replicated. Therefore the concept of dependability is more suitable for the dimension of the study's trustworthiness that assesses the rigor with which the study has been conducted.

Kemmis (1993, 185) emphasizes that the rigor of action research does not derive from the use of particular techniques of observation or analysis or the use of particular metatechniques such as techniques for establishing the reliability or validity of measures. Instead, he argues that rigor derives from the logical and empirical coherence of interpretations in the reconstructive moments of the self-reflecting spiral (observing and reflecting) and the corresponding coherence of the justifications of proposed action in its constructive or prospective moments (planning and acting). In an attempt to pursue such rigor as Kemmis advocates, I was in close consultation with other observers (also called collaborators in the project) all through the action research project. The main co-observer was my partner teacher from the site representing the other participating group of students. My partner teacher was involved in the action research project through the whole process and we had several consultations both during each one of the three action research cycle stages involving planning, acting and observing, and most importantly, sharing interpretations of our observations during the reflection stage of every cycle. A number of other observers were also involved who at different stages of the action research process confirmed some of my interpretations or introduced new perspectives that I had not thought of. These observers included the two course assistants, representatives of HSE's technical support staff, course content specialists, and most importantly, the students who participated in the three action research cycles.

Credibility/Internal Validity (Authenticity)

Validity in research deals with the crucial questions of whether the findings of the study are credible to both the people that have been studied and the readers of the study and whether an authentic portrait of what was looked at is provided. Validation, as defined by Kvale (1989, 77), means investigation that includes continual checking, questioning, and theoretical interpreting the findings. Validity is commonly divided into two kinds of validity, internal and external validity. The first

kind, *internal validity*, is referred to when answering the question whether researchers observe and measure what they think they are observing and measuring (LeCompte & Preissle 1993, 341). *External validity*, in turn, refers to the extent to which the results of the study can be generalized to other populations or settings (Cohen & Manion 1989, 200).

Transferability/External Validity (Fittingness)

As explained by Cohen and Manion (1989, 218), the focus of action research is a specific problem in a specific setting. Therefore, the emphasis in action research is not so much on obtaining generalizable scientific knowledge as on precise knowledge for a particular situation and purpose. In the current reported study, various triangulation methods were used in attempting to ensure the sufficiency of internal validity. In principle, *triangulation* refers to the use of multiple methods of data collection and to multiple approaches to analyzing the data. In collecting the data for the current study, computer-mediated communication provided the researcher with an advantage compared with, for instance, observing classroom teaching and taking notes. E-mail messages and computer conferencing logs provided authentic data. Videoconferencing from the researcher's point of view was more cumbersome as special arrangements were needed to videotape the actual videoconferences. Although all the recorded tapes from the three cycles were available, only the tapings done during Cycle 1 were transcribed.

As for the stage regarding the choice of the evaluation procedures, the initial plan was to engage in a continuous evaluation process that would engage the various parties involved, i.e. the participating students and teachers, course assistants, technical support persons and course content specialists. In addition to the implementation of this plan, it turned out that particularly during the reflection stages of the three action research cycles, the results from the evaluation processes were shared with other colleagues, some representatives of HSE's administration on various occasions and colleagues at international conferences.

Utilization/application/action orientation

In addition to the criteria for assessing qualitative research discussed above, Miles and Huberman (1994, 280) also point out that one would also need to know "what the study does for its participants, both researchers and researched—and for its consumers." In other words, the questions arising in this connection would be: Was it worth it? What was the practical value of it all? Speaking for myself as a teacher-researcher, the answer to the first question would be that the action research project was valuable in the sense that it greatly expanded my understanding of the pedagogical concepts studied. When assessing its value on the practical level, one is faced with the limitations of action research as in connection with the current study

one can only talk about some of the potentially perceived ripple effects (section 8.1.5 in this study). However, such effects are only assumptions as they would be difficult to prove scientifically. For example, on the institutional level one such ripple effect might be the launching of an extensive pedagogical training program in the use of ICTs for the faculty of HSE's Department of Languages and Communication in 1999–2001.

10 Discussion and conclusions

“It can perhaps be said that the most important pedagogical innovation is the teacher, with his or her pedagogical thinking and personal qualities.”
(Kohonen 1992, 39)

This final chapter will provide an evaluation of the action research project as a whole by presenting conclusions drawn from the interpretations of the results of the conducted study. In conclusion, the chapter will discuss implications arising for teacher training and offers suggestions for further research.

10.1 Evaluation of the Action Research Project

10.1.1 Methodological Choices

In the context of evaluating the action research project that the current study has focused on, methodological choices will be considered first. As regards such choices, two main conclusions can be drawn. The first conclusion is a general conclusion related to the suitability of the chosen methodology of the study. The second more specific conclusion is concerned with the interdisciplinary nature of the study.

From the perspective of a higher education teacher-as-researcher, it can be concluded that the two research orientations employed, collaborative action research and ethnography, would seem well suited for examining such foreign language and business communication teaching in higher education that takes place in a network-based learning environment. Consequently, teachers-as-researchers on the lookout for a method for investigating their own work could be well advised to resort to these research orientations or their combination. If the research is related to improving, changing, or introducing new educational practices, the methodological focus could be that of action research. On the other hand, an ethnographer who aims to study classroom life or discourse could also benefit from the emphasis of action research on critical reflection or the perspectives offered by critical ethnography.

The methodological choices made in connection with the current study have enabled the participation of the teacher-as-researcher in the “way of life” of the participants in an educational setting at a much deeper level than just the level rep-

resented by the teacher's unrecorded everyday experiences. However, observing, experiencing and recording this "way of life" can also involve some major limitations in a study such as the current one. The large amount of qualitative data gathered over an extended period of time can be cumbersome and time-consuming to deal with although the reflective elements built into the action research spiral provide the teacher-as-researcher with an opportunity to sort the data and reflect on it at regular intervals.

With reference to methodological choices, the second conclusion arises from the combined theoretical and methodological orientations of the current study. Drawing from them, it would seem that research into foreign language and business communication teaching in a collaborative network-based learning environment is conspicuously interdisciplinary by nature. Indeed, such research would seem to call for several interdisciplinary approaches, as no single discipline alone seems to suffice to account for the multidimensional complexities involved.

From the perspective of the present study, the need for interdisciplinary methodological approaches would seem to result from the developments within the rapidly evolving research area of the study: network-based foreign language and business communication teaching. Drawing from the discussion in Chapter 4 regarding this research area, these developments could be summarized as centering on the following aspects: 1) the expansion of focus within foreign language teaching pedagogy towards communicative proficiency and interculturalism; 2) the shift of focus from teaching language to teaching communication, notably seen in the development from Business English to English business communication; and 3) the expansion of educational settings for language and/or business communication teaching from conventional classrooms to network-based environments utilizing various ICTs.

As regards the first development related to foreign language pedagogy, a major shift took place when research into foreign language pedagogy started diversifying into other disciplines than linguistics. Paradoxically enough, one such "new" discipline seemed to have been the science of education. This paradox was referred to by Stern (1983, 419) when he pointed out that, although among various disciplines it is perhaps the study of education that is the closest to language pedagogy, the science of education may not actually have received the same consideration in language teaching theory as other disciplines. Stern (1983) even goes as far as calling science of education probably the least recognized and the most neglected of the disciplines from the perspective of language teaching theory. The prolific literature on language teaching and learning especially in the eighties and early part of the nineties supports this view as the general emphasis then seems to have been on disciplines such as linguistics and psychology, not on education. The second-language acquisition theorists in the field of applied linguistics may have further strengthened this development.

The second development also demonstrating an increasing emphasis on interdisciplinary approaches is seen in the diversification of focus from research into teaching a foreign language to teaching business communication *using* a foreign language. Researchers into business communication discourse increasingly argue (cf. e.g., Charles 1994; Louhiala-Salminen 1999b) for the adoption of an interdisciplinary approach rather than a purely linguistic methodology because of the various situational factors involved in the extralinguistic business context. For instance, Charles's (1994) seminal study on the interdependencies between discourse and the business relationship in business negotiations also drew from several other disciplines such as business management, sociology, and social psychology.

The third development accentuating the necessity of an interdisciplinary approach in the context of the current study is linked to the evolving pedagogy of network-based learning, which—like foreign language pedagogy—draws on the science of education, media education in particular. As regards media education, Tella (1997, 26–27) identifies some interesting similarities between foreign language learning methodology, on the one hand, and media education, on the other. He argues that although the two fields have advanced along different paths, they seem to have common features that help the two to gradually converge towards each other.

Tella (1999, 30) explains how foreign language methodology has advanced during the past twenty years. He writes as follows:

“There has been a drastic shift from a closed linguistic system towards an open system of knowledge and communication, underlining the importance of pragmatic, communicative and cross-cultural proficiency, intellectual challenges embedded in the use of language, and the trend towards authentic, genuine and immediate/online/real-time communication, enriched with mediated modes of communication.”

(Tella 1999, 30)

In accordance with Tella's (1998b) analysis, media education is grounded in the theoretical basis of the systemic study of education and didactics. Media education is interdisciplinary in its very essence as media education has links to several domains of science such as education, psychology, sociology, philosophy, culture, and technology. Consequently, the methodological orientations of the current study could be described as being closest to the domain of media education, especially on account of the interdisciplinary approach of the study.

In conclusion, this identification of common features between foreign language methodology and media education leads to the question whether the two fields share mutual *goals*. Based on the current study, it could be argued that the goals of foreign language methodology should be re-examined in the light of the goals of media education, which emphasize the importance of media competence

(Varis 1998). It would seem that the notion of media competence should also be integrated into the language learner's/user's competences discussed in section 4.1 under the broad concept of communicative language proficiency. Such an integration would be even more crucial for the language user who has to handle several kinds of literacies in the contexts of business communication and changing working life. As for teachers of foreign languages and business communication, media competence should be considered part and parcel of the teacher's professional expertise.

10.1.2 Constraints and Affordances

Constraints

The current study identified four emerging areas of issues in connection with the introduction of ICTs as an educational innovation into higher education foreign language and business communication teaching. These areas consisted of institutional, administrative, technical, and pedagogical issues. As regards the institutional issues, the main conclusion arising is that special attention should be paid to encouraging higher education faculty members to carry out both small-scale and large-scale action research projects on their own teaching. Such projects seem to enhance both teachers' and the institution's understanding of the complexities involved in the teaching-studying-learning processes in network-based learning environments. As the lone rangers' era seems to be over, these projects should be given concrete support via financial arrangements and/or release time through strategic institutional commitment. In the midst of universities' tight financial situations and such major shake-ups as the upcoming degree reform, the efforts needed to improve higher education teaching through such projects should not be depreciated but, instead, they should be given high priority.

On the basis of the administrative, institutional, technical, and pedagogical issues arising during the action research process it can be concluded that in order to create high quality network-based teaching, it is essential to recognize the demands such teaching makes on teachers. Teaching in network-based settings requires learning new technical and pedagogical skills. On the other hand, such teaching also easily leads to increases in teachers' workload. Administrative flexibility would therefore be needed in order to keep the new requirements and developments in balance. The same collaborative practices that are enabled by collaborative learning environments themselves should also be integrated into the organization of teaching in such environments. Setting up 'teaching teams' could provide a solution because increased expertise could thus be utilized and unreasonable demands on one single teacher could be alleviated. In addition to administrative

flexibility, attitudinal changes would also be required as teachers used to working on their own are not necessarily accustomed to working in such teams. It is perhaps somewhat paradoxical that teachers increasingly engage their students in collaborative practices but are perhaps not encouraged or even able to work collaboratively themselves.

Affordances

The national evaluation report on the use of ICTs in Finnish educational sectors (Sinko & Lehtinen 1998) emphasized that higher education should take the challenges and demands of working life better into account than it does. In this connection, the report claims that ICTs could be utilized in a significant way to deepen the interaction between education and working life. Considering how ICTs have been rapidly transforming the workplaces that the students will soon be entering further supports this claim.

The current study showed that the use of ICTs in foreign language and business communication teaching would seem to enable the creation of such authentic educational contexts that are close to real working life. The results of the study seemed to indicate that a network-based learning environment that uses multiple media could offer learners new, versatile opportunities to study both content and practice their communication skills by offering a variety of communication modes where the learners could find the “voice” that suited them best. The practical experience gained during the action research project gave support to the often-expressed notion that technology should not be integrated into the academic classroom—or in any other classroom—just for the sake of technology. The curricular goals should always be the starting point against which the suitability of using information and communication technologies for educational purposes should be considered.

Pedagogical issues

The current study focused on the selected pedagogical questions of social presence, community and roles in a network-based learning environment in the context of teaching English business communication for Finnish university students. The study demonstrated the importance of building social presence and, along with it, a sense of community among students who study in a network-based learning environment. The study also seemed to indicate that the teacher’s roles in a network-based environment were not new as such because the roles largely appeared to match the already previously identified roles in the language teacher’s role set in a communicative language teaching classroom. What was new was that because of the technology-enhanced learning environment, the teacher’s role choices were emphasized differently from those in “traditional” teaching.

The multiple interactive media also seemed to influence the type of role that the teacher chose. The teacher seemed to need to be able to perform role switching more consciously than in the conventional classroom. To use the term introduced by Charles (1994), it could be concluded that in order for the teacher to act successfully in a collaborative network-based learning environment, the teacher's role is basically that of a *situational specialist* who needs to be able to perform conscious *role switching*. Although in a network-based learning environment there seems to be a clear shifting of focus from the teacher onto the learner, it does not mean that the teacher's importance would diminish. On the contrary, as Varis (1998, 199) implies, the role of the teacher is even more central in technology-enhanced settings.

Where then?

Finally, it is time to return to the beginning of this research report where the terminological flux regarding the concepts and terms currently used in describing network-based education was discussed in Section 1.4. It could be speculated that as a result of the emergence of new, more advanced technologies, yet new terms and concepts are to be seen to appear—and disappear—in the future. After the period of transition is over, it also may be that the issue of varied terminology will not be an issue any more. Efforts to distinguish between network-based education and classroom-based education may not be needed as there perhaps will be no reason to make the distinction any more.

10.2 Implications of the Study

10.2.1 Implications for Teacher Training

Implications for teacher training arising from the current study are not only relevant to the teachers of language and business communication in higher education but to teachers representing other subjects as well. The implications regarding network-based teaching-studying-learning center on the need to intensify teacher training efforts in three particular areas. They are 1) providing training in action research methodology; 2) expanding teachers' awareness of teacher and learner roles, presence and sense of community; and 3) improving teachers' technical skills and enhancing teachers' understanding of the affordances of the media.

1) Training in action research methodology.

Nunan (1990, 63) points out that one of the problems with teachers as researchers is that they often lack appropriate training in the collection and interpretation of

classroom data. Improving such skills should therefore be seen as an issue of priority in the training provided for language teachers in higher education interested in researching their own work.

2) Teachers' awareness of teacher and learner roles, presence and sense of community.

In teacher training, special attention should be paid to expanding teachers' awareness of the characteristics of teacher and learner roles, social presence and sense of community in network-based learning environments. Such expanded awareness is important for creating successful educational experiences. The question arises in this connection whether all teachers' teaching styles and personalities are suited to network-based teaching. Kearsley (2002) states that this is not the case. He argues that online teaching is much more reflective and demanding than most forms of traditional classroom instruction and that teachers have to be willing to spend a good deal of time interacting with students, having to spend a lot of time sitting in front of their computers reading and responding to student messages. He claims that many teachers who are excellent at classroom teaching will not make good online teachers. On the other hand, one could argue that such teachers' expertise could be brought into a teaching team discussed in the previous section.

It can be argued that it is through a sustained effort to gain an increased understanding of the processes of teaching, studying and learning that higher education faculty, not only the faculty members teaching languages and international business communication, can become better capable of addressing the demands for raising the quality of teaching in universities so that it would better benefit the learners.

3) Teachers' technical skills and enhancing teachers' understanding of the affordances of the media.

Technical issues are often contrasted with issues related to pedagogy. Drawing from the study, it would seem that the two sets of issues are best seen as fields overlapping with each other rather than as two separate entities. It could even be argued that such compartmentalization might work against enhancing network-based learning, as there is the danger that teachers and students let such a division guide their thinking and attitudes. On the one hand, Salomon (2000; 2002) speaks about the 'technocentric focus', which leads to the expectation that computers will bring about change all on their own. On the other hand, drawing from this current study, it could be argued that teachers who claim that they are not interested in technology—just pedagogy—are likely to be unable to get the full benefit out of their experiences if they do not have an understanding of the affordances of the

media. The negligence of the recognition of technopedagogical thinking might, in fact, lead to the ‘faculty’s digital divide’.

10.2.2 Implications for Further Research

Salomon’s (2002, 74) warning for misguided research on educational media offers a useful starting point for canvassing issues for further research. He argues that misguided research includes the many attempts to show whether the use of medium Y (technology-enhanced teaching) leads to better results than the use of medium X (teacher-led teaching), producing ‘the no significant difference’ results. According to Salomon (2002, 74), such research only reinforces the belief that it is the medium that ought to make the difference, not anything else in conjunction with the medium. He also warns against the outcomes measured or observed being largely routine, traditional achievement, by making the valid point that the new technology should not be considered just another means to attain the *same* old goals traditional education has tried to serve. He further claims that comparing media on the same old criteria of achievement really reduces the comparison to its lowest common denominator.

Salomon’s (2002) point taken, it seems, however, that such research topics abound that could actually produce worthwhile new knowledge about network-based learning environments and the use of ICTs in teaching foreign languages and business communication. Indeed, the present study would seem to have research implications particularly for applied linguistics and media education. Considered first from the perspective of research in the field of applied linguistics, an area of particular interest would be the written discourse of the teacher and the learner in the asynchronous text-based communication mode. Unlike earlier studies into ‘teacher talk’ and ‘learner talk’ requiring special arrangements for recording speech in the classroom, the text-based computer-mediated communication mode has the inherent capability in itself of recording the messages posted, thus eliminating the need for time-consuming transcription procedures.

From the perspective of the current study, a question to be studied through the analysis of the teacher’s written discourse could, for instance, focus on the linguistic means used to create or enhance the sense of social presence and community, on the one hand, and immediacy and affinity among the participants, on the other. The linguistic features of “learner talk” in such text-based environments could be similarly analyzed. Furthermore, as clearly formulated instructions are of particular importance in the text-based communication mode where there is neither an immediate opportunity to ask for a clarification from the teacher as during a face-to-face encounter in a regular class nor does the teacher see the potentially puzzled look on the student’s face which might give the teacher a cue about the need for clarifica-

tion, an analysis of messages giving instructions and the potential indications of the ways the students have understood or misunderstood them would provide practical help especially for teachers who may not yet have such wide experience with text-based communication modes.

Furthermore, along with the incorporation of more and more sophisticated tracking tools into course management systems, it is possible to track and analyze both the paths that learners take through a lesson and the paths of interaction between the participants. Many such tools have already been introduced and have been successfully used. As Savenye and Robinson (1996) demonstrate, ICTs enable researchers to study learners and learning processes in new ways. Therefore, they argue that new technologies may require that researchers also ask new questions in new ways and that there may be a need to expand one's views of what one should investigate and how, which poses research challenges to media education.

10.3 Concluding Remarks

The current study set out to introduce ICTs as an educational innovation into higher education foreign language and business communication teaching. In order to accomplish that purpose, the study was conducted as an action research project. Action researchers share the basic dilemma of Alice in Wonderland presented at the beginning of Chapter 1 of this research report. Alice, lost as she is, asks the Cheshire Cat the way. Like many action researchers, Alice is seeking for a solution in her problematic situation. She does not know where exactly she wants to go just as long as she gets somewhere. The Cat's reassuring answer—that Alice will get there if she only walks long enough—resonates comfortingly with the distinguishing features of action research. It is not certain how and where action research projects end up either, but they do eventually provide answers to carefully considered and explicitly stated questions.



“Your Red Majesty shouldn’t purr so loud, “Alice said, rubbing her yes and addressing the kitten respectfully, yet with some severity. “You woke me out of oh! such a nice dream! And you’ve been along with me, Kitty—all through the looking-glass world. Did you know it, dear?”

Carroll, *Through the Looking Glass*, 1872 (1962, 313)



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Appendices

Appendix 1

Dear HSE Environmental Communication Pioneers,

FINAL ASSIGNMENT

During our feedback sessions you have already made many comments on the various aspects of our course. Now as your final assignment, it's time to put your thoughts on paper and write a Course Report. The length of the report is about 7–10 pages. The length may vary depending on whether you have already written the reports on the video conferences or not.

Please send your report in an electronic form, in other words by email or on a disk that it can be copied from (the disk will be returned). As some of you still have major exams coming up, I'd like to suggest that the deadline for the course reports is postponed until the last week of May to Thursday May 30. (Marko will be sending his report next week: he is going to graduate on June 7!)

Your report should focus on the areas outlined below, but you can naturally include anything else that you consider relevant. To make your task easier I have suggested topics and questions that you should discuss and analyze critically in your report. Some of the suggested issues may be overlapping with each other so please feel free to reorganize the order of the given topics and the format of the report the way you like.

DEFINING KEY TERMS

To make sure that we are talking about the same things (“that we have the same agenda”), here is my definition of some terms that I have used:

- ❖ Telematics = e-mail, WWW, video conferencing
- ❖ Virtual classroom = a “classroom” which is not bound to time and place, i.e. class hours or a physical building
- ❖ Learning environment = an abstract concept of the space where learning takes place. The term “learning environment” emphasizes learning rather than teaching and it focuses on the learner's own needs and interests.

SUGGESTED TOPICS AND QUESTIONS TO BE DISCUSSED:

I A TELEMATICS-BASED COURSE AS A LEARNING ENVIRONMENT

- ❖ The media and the communication channels (e-mail, WWW discussion forums, video conferencing, face to face sessions and group meetings) used during the course and their impact on
 1. you as a communicator and a learner
 2. on interaction between the participants
 3. interaction between the teacher and the participants
- ❖ "Voiko Internetissä halata?" In what ways is interaction between people different when it takes place via telematic media such as Internet (WWW, email) and video conferences? How have these media affected you as a communicator in general and in this course specifically?
- ❖ The impact of the learning environment on the classroom roles:
 - your role as a student
 - the role of the teacher
- ❖ The differences between this course and other language courses or subject matter courses; what other courses might possibly benefit from the use of a telematics-based learning environment?

II REFLECTIONS ON YOUR LEARNING PROCESS

1. Environmental communication—the subject matter
 - ❖ What did you learn about environmental communication, in other words, about the subject matter of the course? At the beginning of the course you were asked to define "environmental communication"—how would you define it now at the end of the course? In your opinion, in what ways do you think your learning process was possibly different had you attended the same course in a regular classroom-based course?
 - ❖ Suggestions for developing the contents of the course.
Suggestions for tasks to be included?
2. Environmental communication—communication, presentation and argumentation skills
 - ❖ What did you learn regarding the skills of communication, presentation and argumentation? In your opinion, do you feel that you made progress in demonstrating those skills during the course and how was the progress shown?

For practicing various communication skills, which activities were most useful/ not so useful to you?

- ❖ Analyze the three video conferences as a learning process
 - a) from your personal point of view
 - b) from the other participants' point of view
- ❖ Suggestions for developing the practice of communication skills during the course.

III EVALUATION OF THE VIRTUAL CLASSROOM ON THE WEB

For this you might want to sit down in front of the screen and go through the main WWW links once again. Suggestions for improvement and all other comments on the virtual “classroom” are welcome so that this course can be developed further. To refresh your memory, the links are listed here:

a) Info Space

- Announcements
- Course description
- Timetable
- Participants' Home Pages

b) Learning Space

1. Study space

- Course material
- Writing tools
- Environmental Web sites
- Completed student projects (this link doesn't lead into anything)

2. Discussion space

- Forest forum
- Ethics and values forum
- Cafe

Please also comment on your accessing and utilizing our Web classroom. Some of you were more active users of the virtual classroom (and the discussion forums in particular) than others. Why? Discuss possible technical, logistical or other reasons. Furthermore, did you explore the Writing tools and Environmental Web sites and if you did, what links did you consider useful if any? Comments and suggestions regarding ways to improve the virtual classroom.

c) Photo Gallery

Please comment on the attempt to “humanize” the technology-based environment and include suggestions for improvement.

IV CONCLUSIONS

❖ Reflections on improving university teaching and learning

This topic was already touched upon in our feedback session at my place. Furthermore, in our Cafe discussion some of you discussed courses at our school that you have enjoyed. What made them good courses in your opinion?

Reflect on your expectations, your learning style and the education that you have received so far and include comments and suggestions for improvement concerning university teaching and learning in general and specifically at the HSE.

Based on your previous experience and the experience gained during our course, discuss the role of technology in university teaching and learning
b) in your future jobs c) in society?

❖ Evaluation of the course as a whole

Appendix 2

Environmental Communication: Ethics and Values

[\[Date Prev\]](#)[\[Date Next\]](#)[\[Thread Prev\]](#)[\[Thread Next\]](#)[\[Date Index\]](#)[\[Thread Index\]](#)

REAL LIFE CASE

- ❖ **To:** envic-values@oyt oulu.fi
 - ❖ **From:** Maija Tammelin <tammelin@hkkk.fi>
 - ❖ **Subject:** REAL LIFE CASE
 - ❖ **Date:** Thu, 17 Apr 1997 08:48:58 +0300
 - ❖ **Reply-To:** tammelin@hkkk.fi
-

Cases are normally based on real life happenings—by a real life case I mean that the happenings “happened” to me personally. The case that I promised to you goes like this:

Monday evening April 14 I left the KY building (where my office is) on Pohjoinen Rautatiekatu, hopped into my car (I’m afraid I’m one of those who drives to work), remembered all of a sudden that I had not eaten all day and that I needed some kind of snack—fast. There is a McDonald’s in the next block (Autotalo) just opposite the metro station and I drove there looking for a parking place.

While waiting for the traffic lights to change just in front of McDonald’s in the corner of Freda and Salomoninkatu, two police cars pulled up in front of the metro station on the other side of the street. Moments later a very strange looking noisy crowd of some fifty demonstrators walked across Freda towards McDonald’s (and also the traffic lights where I was sitting in my car). The demonstrators (who were perhaps around 15–18 years old, hard to tell because most of them had hairdos and clothes that I don’t usually see in the place where I work) were carrying banners and shouting slogans (some of them couldn’t shout because they had brown tape pasted over their mouths). I rolled

down my window to hear their message: "McDonald's riistää, sitä ei voi kiistää".

The traffic lights never seemed to change and I was able to witness the demonstrators walk right by my car. Because my window was down, one of them handed a leaflet to me. The heading on it said "McDonald's boikottiin!" Further information was promised by "the McGarbage campaign". The lights finally changed and the demonstrators who by then were standing between my car and the door (or should I say doorman) of the MacDonald's restaurant kept on shouting their slogans. As I started driving, the last thing I saw were the faces of some customers inside who were trying to pretend as if nothing special was going on. As to myself, I had all of a sudden lost my appetite and gave up the idea of trying to find a parking place.

Later on I read the text on the demonstrators' leaflet. It contained accusations against "the crimes committed by McDonald's against the world and the environment". Its main points were as follows—some starving countries in South America are producing grain that is used to feed cattle that ends up as meat for hamburgers in the USA and Europe.

- this cattle is being raised in the former rain forest areas
- the indigenous peoples in those areas have been forced to move away
- this kind of farming increases methane emissions and the consequent cargo traffic increases carbon dioxide emissions
- the waste generated by the throw away dishes increases the load on the environment

The leaflet then described the McLibel court case that has been going on since 1994 and is expected to come to an end this spring. The battle is between London Greenpeace which published a list of accusations against McDonald's which then took them to court for libel. (I later search the internet for more information and there seems to be plenty of it ...)

The third point mentioned in the leaflet was the exploitation of young people working for McDonald's (low salaries, uncomfortable working hours, little chance for promotion etc).

Finally, the leaflet appealed to all Finns to stop eating at McDonald's and by so doing, the Finns would help to stop the exploitation of the third world and the destruction of the environment.

Having read the leaflet, I realized that this could be our case for discussing environmental ethics and values.

Please send in your opinions.

Maija T.

-
- ❖ Prev by Date: [Visions?](#)
 - ❖ Next by Date: [re: Visions](#)
 - ❖ Prev by thread: [Visions?](#)
 - ❖ Next by thread: [re: Visions](#)
 - ❖ Index(es):
 - ❖ [Main](#)
 - ❖ [Thread](#)

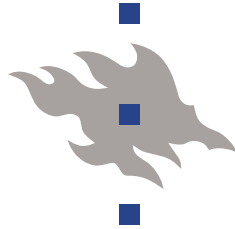
[Lähetä viesti keskusteluryhmälle](#) | [Main Index](#) | [Thread Index](#) | [kurssin kotisivu](#) |

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