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**DEVELOPMENT OF SECOND LANGUAGE PRAGMATIC COMPETENCE:
THE DATA-DRIVEN TEACHING OF GERMAN MODAL PARTICLES
BASED ON A LEARNER CORPUS**

A Thesis in

German

by

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ABSTRACT

Interlanguage pragmatics is the study of how learners behave as social actors using their second language knowledge to accomplish specific communicative goals. This field is constantly growing, however, relatively few longitudinal studies have been published to date in which changes in learners' second language pragmatic competence have been monitored closely over time and explored in relation to particular types of instructional activities. This dissertation aims to fill this gap.

I analyze the influence of form-focused instruction on the development of pragmatic competence in German as a foreign language by American university students. I suggest a data-driven approach to teaching an important pragmatic feature of German, modal particles, and track the development of the comprehension and use of this feature by the learners over time.

This pedagogical intervention was administered during a tutored course where learners participated in electronically mediated email and chat exchanges with native speaker peers. The novelty of the proposed approach is that the instruction materials were created on the basis of the participants' own modal particle use, and where each succeeding stage of the intervention was based on gains made by learners in the previous stage.

The research data was elicited from learners' electronic writings, awareness questionnaires, course portfolio entries, class observations, and surveys. The application of the research methodology of contrastive corpus analysis allowed for valid comparisons of learner and native speaker written data since they come from the very same

interactions between participants of similar age and social background. The use of the methodology of microgenetic analysis facilitated tracking the development of learners over time as well as the analysis of quantitative and qualitative data in its entirety and interconnection.

The results showed a significant increase in frequency, range, and accuracy of modal particle use by learners in approximation to the native speaker baseline as well as a significant improvement in pragmatic awareness. This study contributes to developmental SLA research by suggesting a new method of teaching pragmatic competence; by widening the scope of teachable pragmatic features; and by providing quantitative and qualitative characteristics of pragmatic development by American intermediate college-level language learners.

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“The baffling discrepancies that used to occur at this point remained uninvestigated for centuries simply because no one took them seriously. They were at the time put down to such things as politeness, rudeness, meanness, flashiness, tiredness, emotionality or the lateness of the hour, and completely forgotten about on the following morning. They were never tested under laboratory conditions, of course, because they never occurred in laboratories – not in reputable laboratories at least.”

Douglas Adams,

“The Ultimate Hitchhiker’s Guide to the Galaxy”

Chapter 1

Introduction

1.1 Statement of the Problem

The main research objective within the field of Second Language Acquisition (SLA) during its forty-year-long history has been the investigation of how people learn a second language¹ and how their L2 competence and abilities develop in the process of learning. However, as Ortega and Ibarra-Shea, (2005) notice in their recent review, studies that closely track learners' development over an extended period of time still remain scarce, especially developmental interventional studies investigating the effectiveness of different L2 instructional methods. This holds true for various SLA sub-disciplines including L2 pragmatics, or interlanguage pragmatics, that explores "the way [non-native] speakers and writers accomplish goals as social actors who do not need to just get things done but must attend to their interpersonal relationships with other participants at the same time" (Kasper and Rose, 2001, p. 2). Although teaching pragmatics has been generally recognized as essential for development of L2 pragmatic competence (see Alcón Soler & Martínez-Flor, 2005; Bardovi-Harlig & Mahan-Taylor, 2003; Kasper & Rose, 2002), relatively few longitudinal studies have been published to date in which changes in learners' L2 pragmatic competence have been documented closely over time

¹ The term "second language" (henceforth, L2) is used to refer to any language other than the "mother tongue" (Mitchell and Myles, 1998, p. 1), which can be a second, foreign, or heritage language.

and explored in relation to particular types of instructional activities (see 2.1 for a review).

The purpose of this dissertation is to fill in the serious gap addressed above by bringing together interventional and developmental research in L2 pragmatics. The influence of form-focused instruction onto the development of pragmatic competence in German as a foreign language by American university students as demonstrated by their use of German in telecollaboration (see 1.3), or electronically mediated, project-based intercultural communication with their native speaker (henceforth, NS) keypals (Belz & Thorne, 2006) is explored. I suggest a data-driven approach to teaching one of the most important pragmatic features of German - modal particles (see 1.2; 2.3) – and track the development of this feature in learners longitudinally by analyzing a complex of process data, awareness data, and ethnographic metadata. Both the pedagogical intervention and the research design of the study have a developmental character that was afforded by the learning configuration of telecollaboration (see 1.3) and by the methodologies of contrastive learner corpus analysis and microgenetic analysis (see 4.2) applied to the material of *Telekorp*, a new bilingual learner corpus (see 1.3).

In the sections that follow, I provide the rationale for choosing the German modal particles as the focal pragmatic feature (1.2); describe the learning environment and the learner corpus under study (1.3); discuss the research purposes and questions (1.4); clarify the theoretical framework (1.5); demonstrate the importance of the study (1.6); and finally, outline the organization of the dissertation (1.7).

1.2 German Modal Particles

1.2.1 Modal Particles as a Pragmatic Feature

The modal particles (henceforth, MPs) such as *ja*, *denn*, *doch*, *mal* (for a comprehensive list, definitions, and literature review, see 2.3) are uninflected “smallwords” (“*Wörtchen*”, Weydt, 1969, p. 68) in German that function as important carriers of interpersonal meaning because they index the speaker’s attitude toward particular propositions or interlocutors. MPs, which “abound in German” (Abraham, 1991, p. 2), lack a direct counterpart, and therefore a direct translation, in English (e.g. Abraham, 1991). MPs are also known as flavoring particles, *Abtönungspartikeln* (shading particles), *Flickwörter* (patch words), *Würzwörter* (spicy words), or *Füllwörter* (filling words) (Prorokova, 1991, pp. 3-4). All these terms are somewhat derogatory because they imply that modal particles are not very important, supplementary, and additional. However, Abraham (1991, p. 5) points out that modal particles are highly important for the “felicity conditions of the utterance. Although eliminating a MP does not render the respective sentence ungrammatical, the absence of a MP does alter the information that the listener has about the attitudinal position of the speaker.” Weydt (1969) illustrates the importance of the MPs for a German interlocutor as follows:

Der deutsche Hörer erwartet nämlich eine Partikel. Fehlt sie, so erhält der Satz dadurch einen stilistischen Wert: ohne die Partikel wirkt er

abgehackt, barsch, unfreundlich, seine Aussage apodiktisch, schroff, krass unverbindlich² (p. 20).

These features make the MPs important “indicators of pragmatic competence” (Möllering & Nunan, 1995, p. 41) for learners of German as an L2. Moreover, they function as indicators of fluency, one of the components of advanced L2 proficiency, similarly to other “smallwords” (see Hasselgren, 2002).

1.2.2 MPs as a Genre Characteristic

The MPs are generally acknowledged to be especially characteristic of spoken genres of German (Helbig, 1994; Held, 2003; Hentschel, 1986, 2003; Möllering, 2001, 2004; Weydt, 1969; 1981; 2003; 2006). Due to their interpersonal meaning, they tend to occur in conversational speech registers that until recently were considered bound to the spoken mode. However, with the advance of technology during the last decades, new electronically-mediated communicative genres such as email and Internet relay chat with a hybrid written-spoken nature have emerged (see McCarthy, 1993; Herring, 1999; Kern, 2000; Crystal, 2001; Hewings and Coffin, 2004). Research on the material of other languages rich in MPs has shown that computer-mediated discourse is replete with them. For instance, James (2001) discovered that Cantonese-speaking learners of English regularly inserted Cantonese MPs in their computer-mediated communication (henceforth, CMC) in English. James (2001, p. 11) calls MPs “lexical equivalents of

² ‘The German listener expects a particle. If it is absent, the sentence acquires a specific stylistic value: without a particle it sounds choppy, harsh, unfriendly, its utterance is apodictic, abrupt, blatantly noncommittal.’

smileys”, ideographic interpersonal symbols widely used in CMC (see 3.5 on the commonalities between MPs and smileys). Additionally, interpersonal features other than MPs (discourse particles and 1st and 2nd person pronouns) have been shown to occur with higher frequency in the CMC context in comparison with not only written, but also spoken registers (Yates, 1996; Ko, 1996). These findings lead one to assume that MPs might frequently occur in CMC registers in German. This assumption was confirmed in the pilot study advancing this research (reported on in Belz and Vyatkina, 2005; Vyatkina & Belz, 2006; Belz, Vyatkina, & Hundley, 2005), which showed that NSs regularly used MPs in their computer-mediated discourse.

1.2.3 MPs and Language Pedagogy

As Götze, 1993, p. 232) suggests, MPs are “ungemein wichtig im kommunikativen Deutschunterricht” or ‘extremely important for the communicative teaching of German’. However, teaching German MPs to L2 learners is connected with a number of difficulties. First, all German MPs have homonyms in other word classes, which have an identical phonetic and typographical shape but express different, although often similar meanings (see 3.3.2). These fine nuances of meaning are very hard to capture by means of rules of thumb and to explain to L2 learners. Second, there is no “corresponding form-function mapping” (Kasper, 1997) between German and English with regard to this pragmatic feature. Interpersonal meanings expressed by MPs in German are rendered in English with help of intonation, tag questions, and other linguistic and extralinguistic means (see 3.5). The third difficulty is connected with the

context of tutored language learning setting, which lacks informality and privacy of the conversational environment. However, precisely such an environment was found highly conducive to frequent particle use (see Hentschel, 1986) and termed a “particle-friendly climate” (Harden & Roesler, 1981). Finally, MPs are treated in many textbooks and grammars for learners of German in “stepmother-like” fashion (Weydt, 1981, p. 164). At best, these materials provide constructed dialogues that include MPs. The personae of the textbook dialogs mostly remain characterless which means that their performance has no consequences for their relationships with their partners in presented conversations (Roesler, 1983, p. 295). Additionally, textbooks contain neither adequate explanations of the context of use of MPs nor sufficient practice materials for learners.

In order to overcome some of these difficulties, the use of authentic materials taken from NS corpora for teaching MPs has been proposed. This innovative approach was suggested and piloted by Fernández-Villanueva (1996), Möllering (2004), and St. John (2001). The pilot studies yielded promising results but no experimental studies testing the efficacy of this approach have been designed to date. In general, research on effects of instruction on the appropriate use of MPs remains scarce (see 3.4.2 for review). In this respect, the available research on the teaching and learning of the MPs in German closely parallels the general situation in L2 pragmatics discussed in 1.1: a number of studies are developmental and others are interventional but there are no studies in which both perspectives are combined (see, however, Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). Nevertheless, research has indicated that explicit instruction is facilitative and even necessary for learner development in this area of L2 pragmatics (Möllering, 2004; Möllering & Nunan, 1995; Weydt, 1981, 2003).

1.2.4 MPs as a Focal Feature

German MPs were chosen as a focal feature for this research for a number of reasons. First, they are important carriers of pragmatic meaning but lack any overt morphological features (i.e. affixes or inflexions). These characteristics let Kasper (2001) suggest German MPs as interesting candidates for research on developmental pragmatics: “It would be insightful to investigate how these particles emerge in learners’ performance and how they are used to modify specific speech acts or convey specific interpersonal functions in discourse” (p. 510). The reason for that is that in the process of acquisition of MPs by an L2 learner, grammatical difficulties would not interfere, and the researcher can ascertain a picture of pragmatic development *par excellence*³. Second, they appear to occur with high frequency in CMC but there is almost no research to date on this issue. Third, they are considerably undertreated in L2 pedagogy. Finally, the pilot study demonstrated drastic underuse of the MPs by learners in comparison to their NS keypals in their intercultural CMC exchange⁴ before the instruction, thus providing a numerical justification of the study (see Vyatkina & Belz, 2006). This study suggests and tests a new method of teaching MPs to learners of German in a telecollaborative classroom environment (see 1.3) while using the bilingual learner corpus *Telekorp* (see 1.4).

³ As opposed to, e.g., both grammatically *and* pragmatically complex German pronouns of address, the development of which by L2 learners was explored by Belz and Kinginger in a number of publications (see, e.g. Belz & Kinginger, 2003; Kinginger & Belz, 2005).

⁴ In the first four weeks of the computer-mediated correspondence in 2004, the NSs used the focal MPs 158 times and the learners only four times, all of the latter by one and the same most proficient student.

1.3 Research Design

1.3.1 Challenges of Teaching Pragmatic Competence

It is generally recognized that the focus of pragmatics is on social interaction in various communicative contexts. However, what is lacking in a traditional classroom is precisely this variety of communicative contexts, also known as “discourse options” (Kinginger, 1998, Kramsch, 1985). Typically, learners are exposed to “[c]lassroom discourse [that] is institutionally asymmetric, non-negotiable, norm-referenced, and teacher-controlled” (Kramsch, 1986, p. 369). Under these circumstances, learners cannot engage in a joint meaningful and successful interaction that presupposes, among other things, “the construction of a shared internal context or “sphere of inter-subjectivity” that is built through the collaborative efforts of the interactional partners” (Kramsch, 1986, p. 367). Similarly, Kasper and Rose (2002) cast doubt that even the richest and most complex classroom tasks such as role plays “provide valid representations of pragmatic practices in authentic contexts” because of “the absence of social consequences” (p. 88). As a result, students’ L2 pragmatic competence remains underdeveloped or perhaps even unrealized.

1.3.2 Telecollaboration

In light of the problem outlined above, Belz and Kinginger (2003) call for expanding “the range of discourse options available to learners” in tutored L2 instruction via a learning arrangement known as “telecollaboration” (pp. 591-592). Elsewhere,

Kinginger (1998) notices that contemporary students already have this access to a broad spectrum of real language use by means of telecommunication technologies, above all the Internet. During the last decades, various ways of incorporation of computer-mediated technology into foreign language teaching have been suggested. One of the new computer-assisted language learning (CALL) settings, telecollaboration, has recently been on the rise (see Belz, 2002, 2003a, 2003b, 2004, 2005c, 2006; Belz & Kinginger, 2002, 2003; Belz & Thorne, 2006; Furstenberg *et al.*, 2001; Kinginger, 1998, 2000, 2004; Kinginger & Belz, 2005; Kinginger *et al.* 1999; Kern 1996, 1998; Kern, Ware, & Warschauer, 2004; Kötter, 2003; Müller-Hartmann, 2000; Tella, 1992; Thorne & Payne, 2005; Ware & Kramsch, 2005; Warschauer 1996). Belz (2003a) describes this learning configuration as follows: “Telecollaboration involves the application of global computer networks to foreign (and second) language learning and teaching in institutionalized settings. In telecollaborative partnerships, internationally dispersed learners in parallel language classes use Internet communication tools such as e-mail, synchronous chat, threaded discussion, and MOOs (as well as other forms of electronically mediated communication)” (p. 2). According to Belz (*ibid.*), the core of telecollaborative foreign language instruction is “institutionalized, electronically mediated intercultural communication under the guidance of a languacultural expert (i.e., a teacher) for the purposes of foreign language learning and the development of intercultural competence”.

1.3.3 Telecollaboration and Blended Learning

One of the important methodological principles of instruction for L2 pragmatic development is “learning by doing, combining language learning and action at various levels” (Silva, 2003, p. 68). Telecollaboration is precisely a learning environment that makes such combining possible. In particular, it lends itself to the pedagogical approach called blended learning. Dziuban, Hartman, & Moskal (2004, p. 2) explain that the term “blended learning” (alternatively, “hybrid learning” or “mixed-mode instruction”) refers to “courses that combine face-to-face classroom instruction with online learning and reduced classroom contact hours”. Belz (2006) argues that a telecollaborative learning configuration is amenable to blending in a very unique way: it affords “the alternation of Internet-mediated *intercultural* sessions with face-to-face *intracultural* sessions” (p. 214, emphasis in original). This form of blending, however, does not aim at reducing the class seat time unlike original forms of hybrid learning (cf. Dziuban *et al.*, 2004). In contrast, according to Belz (2003, p. 92), the role of the contact between teacher and learner “increases rather than diminishes in Internet-mediated intercultural foreign language education” because teachers need “to discern, identify, explain, and model culturally contingent patterns of interaction in the absence of paralinguistic meaning signals”. On the other hand, telecollaborative pedagogy is consistent with the other goal of blended learning: its aspiration for combining “the effectiveness and socialization opportunities of the classroom with the technologically enhanced active learning possibilities of the online environment” (Dziuban *et al.*, 2004, p. 3). In telecollaboration, the teacher provides instruction in various L2 grammatical, pragmatic, and cultural topics during traditional

classroom sessions, while during CMC sessions, learners practice their acquired knowledge in real-life interactions with native speakers. During subsequent instruction sessions, the teacher gives the students an opportunity to observe their own accurate and inaccurate L2 uses in excerpts from their computed-mediated discourse as well as to discuss it in plenum or individually with the teacher. The instructor thus acts as a “facilitative teacher” (Rogers, 1983) who provides guidance to learners during both intercultural and intracultural sessions. This form of blending is especially conducive to the development of pragmatic competence because of the enhanced opportunities for noticing and practice. The experiment design in this study (see Chap. 5) follows the methodological approach of blended learning integrated with the telecollaborative pedagogy as proposed by Belz (2006).

1.3.4 Design Context: Telecollaboration and *Telekorp*

The pedagogical experiment for this study was designed in the framework of the Fall 2005 intermediate German course entitled “Intercultural Foreign Language Learning”, the most recent iteration of a six-year series of telecollaborative German language courses taught each fall since 2000 at a major North-American university. In this course, American undergraduate students who learn German as an L2 were paired electronically with German university students who study English as an L2. In a series of teacher guided tasks, the partner groups communicated with each other about various intercultural topics via email and live chat using German half of the time and English the other half (see Chap. 5 for a detailed description of the participants and the course).

Both the pedagogical intervention and data collection were administered concurrently. The process of data collection for this study was facilitated by the use of the electronic learner corpus called *Telecollaborative Learner Corpus of English and German*, or *Telekorp* (see Belz, 2005c). *Telekorp* consists of the full contingent of the CMC discourse and associated metadata (see Chap. 5) produced throughout the six years of the telecollaborative (henceforth, TC) partnership. With the help of two other graduate assistants, I comprised the 2005 subset of this corpus.

1.3.5 Learner Corpora and Corpus Analysis

Granger (2002, p. 7) defines a learner corpus as an electronic collection of “authentic [foreign language/second language] textual data assembled according to explicit design criteria for a particular SLA/FLT purpose. [A learner corpus is] encoded in a standardised and homogenous way and documented as to [its] origin and provenance.” Recently, researchers have begun to use learner corpora as material for language instruction as well as for assessment of L2 proficiency by means of an analytical method termed contrastive learner corpus analysis (Altenberg & Granger, 2001; see 4.2 for review). The application of this method enables the comparison of learners’ L2 performance, as represented in the learner corpus, with the first language performance of NSs, as represented in a(n external) NS corpus, in order to discover differences and similarities in the language use of these two populations. Based on such comparisons, teachers and researchers can draw conclusions about those areas of the L2 where learners might be having difficulties and therefore require focused instruction.

There are a number of limitations associated with learner corpora, “a fairly recent phenomenon” (Nesselau, 2004, p. 127), and contrastive corpus analysis. First, the majority of the existing learner corpora are monolingual, i.e. researchers require an *external* NS comparison corpus in order to conduct contrastive learner corpus analyses. This procedure is problematic because it means that the data to which learner productions are compared were produced at a different point in time, under different circumstances, and in different contexts (Belz, 2005c; Cobb, 2003; Granger, 1998). This limitation is especially detrimental for research into pragmatics, “the study of communicative action in its sociocultural context” (Kasper & Rose, 2001, p. 2), where context plays the major role. Kasper and Rose (2002, p. 272) notice that determining a baseline norm for NS-NNS comparisons “is difficult because of the sociolinguistic variability in the language use of native speakers. Selecting the variety or varieties most relevant for a particular learner population in a principled manner is not a straightforward task for any target language.” Second, the existing corpora “tend to describe L2 use only at a particular point in time” (Belz *et al.*, 2005a) and therefore do not lend themselves to longitudinal developmental analyses. Finally, they are highly restricted with respect to genre (most of them include only written argumentative essays) and language (predominantly English as an L2). In contrast, *Telekorp* is free of the limitations described in 1.3.5 because of a number of its characteristics described in the next section.

1.3.6 Advantages of *Telekorp* for Research into L2 Pragmatic Development

1.3.6.1 *Telekorp* as an Integrated Bilingual Corpus

The first advantage can be attributed to the integrated bilingual nature of *Telekorp*. This feature makes its NS and learner discourse fully comparable because members of both populations participate in status-equal encounters. It thus satisfies the condition of comparability formulated by Kasper and Rose (2002) as follows: “it would seem important to compare native and nonnative speakers in the same discourse roles” (p. 86). Additionally, Kasper and Rose (2002) convincingly argue that “a defensible standard against which [learners’] pragmatic ability is measured must be derived from successful multilingual speakers’ interactions in activities relevant for a given learner population” and that it is “unrealistic to posit an ideal communicatively competent native speaker as a target for L2 learners” (ibid.). Following this line of argument, *Telekorp* NS discourse represents such “defensible standard” because all participants are multilingual speakers participating in activities that are relevant for them unlike an abstract external NS corpus. Moreover, the “defensibility” of the baseline standard is even more enhanced in *Telekorp* because German students act as native speakers for their American peers not only in relevant but also in the *very same* interactions (see also 2.6.1 and 2.6.3).

1.3.6.2 *Telekorp* as an Annotated Longitudinal Corpus

The second advantage of *Telekorp* is its longitudinal and annotated nature. TC partnerships typically span several months and therefore provide developmental data for

each individual learner. Additionally, telecollaborative data are archived electronically, which means that researchers have access to the full contingent of learners' L2 process data (Chapelle, 2003, p. 98) for the duration of the intercultural exchanges. Such access is especially valuable for longitudinal studies tracking development over time because no intermediate stages remain unaccounted as opposed to cross-sectional designs employing only two or three data elicitation time points, as Kasper and Rose (2002, p. 76) remark (see Chap. 2).

Next, it has been repeatedly pointed out that corpus analysis studies rarely address individual differences between participants while exploring discourse patterns (see, e.g. O'Halloran & Coffin, 2004; Poos & Simpson, 2002). Granger (2002, p. 9) proposes that “the usefulness of a learner corpus is directly proportional to the care that has been exerted in controlling and encoding [learner and task] variables”, in other words, the degree of its metadata richness. In *Telekorp*, metadata including about 30 learner and task variables are systematically linked to the process data. Belz (2005c) lists the types of metadata recorded in *Telekorp* (see also Chap. 5)⁵: “language (e.g., English, German), medium (e.g., email, electronic chat, paper-and-pencil writing diagnostic, survey, written essays), partnership year (2000, 2001, 2002, 2003, 2004⁶), the date of production (October through December for each data collection cycle), student type (e.g., expert speaker in Germany, learner in experimental section in US, learner in control section in US), learner proficiency level (e.g., heritage learner, advanced, intermediate high,

⁵ There is a certain variation in metadata types collected in each year.

⁶ As explained in 1.3.4, the data for the 2005 cycle have been collected in the course of this dissertation project.

intermediate, etc.), age, gender, and individual student name.” Additionally, these data are supplemented by (non-CMC) process data (e.g. learners’ written portfolio entries and oral interview transcripts, see Chap. 7), biographical survey data, as well as researcher and instructor’s field notes.

At present, the corpus contains telecollaborative correspondence between 105 learners and 104 NSs. The possibility of linking contextualized process data to rich metadata enables the researcher to posit and answer a variety of research questions about differences in developmental patterns not only between groups but also between individuals (see also 2.6.4).

1.3.6.3 *Telekorp* as a Corpus of Intercultural Communication

The third advantage of *Telekorp* is connected with the content and register characteristics of its process data. These data come from project-based teacher-guided computer-mediated intercultural discussions about “a wide variety of contemporary topics in both English and German” (Belz, 2005c). Telecollaborative partnerships have been found to provide learners ample opportunities to engage in various pragmatic speech acts such as requests, apologies, agreement, disagreement, and even flirting (see Belz, 2002, 2006; Belz & Reinhardt, 2004; Kötter, 2003; O’Dowd, 2006) and thus participate in communicative acts under real-life conditions. The ability to perform these acts successfully is generally accepted to be the essence of pragmatic competence (see 2.3). Therefore, *Telekorp* can be said to be uniquely conducive to exploration of development of pragmatic competence as opposed to the majority of learner corpora, which are

comprised of student writing in the register of monologic argumentative prose (see for review Pravec, 2002). In a similar vein, Kasper and Rose (2002) call studies where the targeted features of instruction in L2 pragmatics are applied by the learners in real communicative situations “a rarity in the research literature” (p. 241). Although *Telekorp* process data are produced according to classroom tasks, they nevertheless come from real-life discussions on topics collaboratively chosen by the transatlantic partners themselves and represent authentic interactional data (see also 2.6.2).

1.4 Research Purpose and Research Questions

The main purpose of this research is to explore intermediate L2 learners’ pragmatic development with regard to German MPs and to suggest a new method of fostering this development. This purpose arises from two basic needs, one general and one specific. The general need was established on the basis of a literature review showing a serious gap in the area of developmental interventional research on L2 pragmatics (see Chap. 2). The specific need was established in the pilot study of the current research (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). During the pre-intervention stage of the Fall 2004 TC course, the American learners demonstrated a failure to use the focal pragmatic feature, German MPs, while the NSs used the same feature repeatedly in the very same interactions.

To pursue the main research purpose, I investigate the effects of instruction on learners’ pragmatic development while aiming for two objectives: measuring change (1) and deeper understanding of the complex phenomenon of development (2). In particular,

I focus on linking micro-gains in change to specific time points in implementing instructional activities. I follow Newman, Ridenour, Newman, and DeMarco (2003) in their proposal that a complex research purpose necessitates the formulation of multiple research questions and the use of mixed research methods (see Chap. 4). At this point, I formulate two main research questions (RQ) to be fine-tuned with sub-questions and answered in the next chapters. RQ1 arises from the first objective, and RQ2 is informed by the second objective.

1) What is the relationship between use of the target forms by the learners and NSs at different stages of the pedagogical intervention? (See Chap. 6)

2) What are particular developmental patterns followed by each learner with regard to his or her L2 pragmatic performance and awareness? (See Chap. 7)

The first research question lends itself to more quantitative research methods and will be addressed by the method of contrastive learner corpus analysis (see 4.2.1). The second research question lends itself to more qualitative research methods and will be approached by means of microgenetic analysis (see 4.2.2). The general theoretical perspective, or the researcher's "lens" (Newman *et al.*, 2003, p. 187) for this study, is outlined in the following section, with a special emphasis on the theoretical construct of development, which is central for this dissertation.

1.5 Theoretical Framework

1.5.1 Sociocultural Theory

This study is conceptualized in the general theoretical framework of sociocultural theory (SCT), also known as cultural historical psychology, originally elaborated by the prominent Russian scholar Lev Vygotsky in the 1920-30s (see Vygotsky, 1978, 1986) and put forward by modern cognitive psychologists and applied linguists (see, for instance, Kozulin, 1990; Lantolf, 2000; Lantolf and Thorne, 2006; Leontiev, 1981, 2001, 2003; Rommetveit, 1992; Wertsch, 1985; Zinchenko, 1996). To account for the developmental and interventional nature of this study, three basic tenets of SCT are of primary importance: mediation, the genetic approach, and the role of instruction in learners' cognitive development. These principles are discussed in the following sections.

1.5.2 Mediation and the Genetic Method

The most fundamental theoretical principle of SCT proposed by Vygotsky is that all human activity is mediated. Mediation captures the notion that humans do not interact directly with the surrounding world, instead, they make use of labor tools to assist their physical activity and, in the same fashion, of symbolic tools to assist their mental activity. According to Lantolf (2000, p. 1), these tools “are artifacts created by human culture(s) over time and are made available to succeeding generations”. The most important symbolic (or psychological) artifact mediating human social and mental activity is language. This argument is in line with the conceptualization of language by Halliday

(1978) who suggested that “the exchange of meanings is a creative process in which language is one symbolic resource – perhaps the principal one we have” (p. 4).

The development of higher mental functions in humans, mediated by symbolic tools such as language, is the core research subject of social psychology. Since a human is defined by SCT theorists as an “individual-in-society-in-history” (Dunn and Lantolf, 1998, p. 427), they consider the only valid approach to research in human development to be the historical one, termed the genetic method (Vygotsky, 1978; 1986). Lantolf and Thorne (2006, p. 28) outline the essence of this method as follows:

Because culture is constructed and reconstructed by humans over time, history, or ‘genesis’ to use Vygotsky’s term, comes to play a central role in sociocultural research methodology. Vygotsky thus argued that the only appropriate way of understanding and explaining higher, culturally constructed, forms of human mental functioning, was by studying the process and not the outcome of development.

The genetic method thus seems the most appropriate approach to developmental research. Vygotsky suggested four genetic domains for the study of higher cognitive functions: phylogenesis, sociocultural history, ontogenesis, and microgenesis. The microgenetic domain was chosen in this study as a site for observing the process of interest “in flight” (Vygotsky, 1978, p. 68). Lantolf & Thorne (2006, p. 29) explain that microgenesis (the development of a specific process) constitutes part of ontogenesis (the development of an individual). Kasper and Rose (2002, p. 36) term microgenesis “a developmental category that is translatable into analysis”, in other words, it may be applied both as a general research methodology and an analytic method (see 4.2). Microgenetic method is best suited for capturing micro-gains of development of L2

pragmatic competence because it “closely examines the particular features of interactive settings as development takes place” (Kinginger & Belz, 2005, p. 3).

Another aspect of the sociocultural conceptualization of the human being as an “individual-in-society-in-history” is the mediated nature of development. Lantolf and Thorne (2006, p. 157) propose in this regard that:

Even though the individual is the locus of change, the source of development resides not in the solipsistic individual but in the person-acting-with-mediational-means (Wertsch 1998), including mediation provided by other individuals. Thus, the environment is not a resource to be used as needed but is in fact the source of development.

This point of view is in sharp contrast to other cognitive theories of SLA that conceive of learning as an intramental process where the environment plays only a subsidiary role (see, e.g., Gass, 1997; Long, 1997). The sociocultural take on development is especially relevant for pragmatics, termed by Rose and Kasper (2001) “the study of communicative action in its sociocultural context” (p. 2). Elsewhere, Kasper (2001) comes to the conclusion that “[s]ociocultural theory is [...] particularly suited to the study of pragmatic development” (p. 516). The reasons for that are summarized by Kasper and Rose (2002, p. 36):

First, [...] great priority is given to observing learners in authentic settings rather than in laboratories. [...]

Second, because social interaction plays a prominent role as a locus of learning, particular focus is given to the interactions in which learners participate: how learning happens through collaboration is a central research issue. [...]

Third, implementing the genetic approach on different levels of analysis, sociocultural studies are often longitudinally designed in order to observe development over time. But even where a single-moment design is adopted, researchers will trace the microgenesis of L2 knowledge and skills in situ. In either case, microanalysis of interactions in which learners

participate affords the analytical tool by which microgenesis and development over time become apparent.

All these features of SCT theoretical framework and microgenetic analysis as method are well compatible with the design characteristics of *Telekorp* as a longitudinal, bilingual, richly annotated corpus of authentic interactions (see 1.3.6) and the research purpose of the present dissertation: longitudinal investigation of pragmatic development of learners in authentic social interactions.

1.5.3 Sociocultural L2 Pedagogy

Lantolf and Thorne (2006, p. 32) propose that “learning an additional language is about enhancing one’s repertoire of fragments and patterns that enables participation in a wider array of communicative activities. It is not about building up a complete and perfect grammar in order to produce well-formed sentences”. Additionally, “[i]t is about learning, and internalizing, patterns of language use available in the affordances provided by a particular language community” (ibid., p. 35). In this account, SCT theorists align themselves with scholars advocating usage-based grammars (see Hopper, 1998; Tomasello, 2003) and frequency-based accounts of SLA (see, e.g., Sinclair, 1991; N. C. Ellis, 1994, 1996, 2002; R. Ellis, 2002, 2004) For instance, N. C. Ellis (1996) argues that “[s]peaking natively is speaking idiomatically using frequent and familiar collocations, and learners thus have to acquire these familiar word sequences” (p. 97). Following corpus linguist Sinclair (1991), Ellis refers to this principle as “the idiom principle” (ibid.). Additionally, he points out the importance of communicative context and practice because learning is “more than mindless repetition”, in contrast, it is “[m]indful repetition

in an engaging communicative context by motivated learners” (ibid., p. 177). In this regard, Schmitt and Carter (2004) also write about “socio-cultural integration” that is necessary for development of formulaic speech (pp. 15-16). Not only efficiency or economy is the main reason for using formulas, or “chunks”: a very important reason is pragmatic appropriateness. As Schmitt and Carter (2004) notice, there is “a link between the need and desire to interact and the use of formulaic sequences” (ibid., p. 11). All these accounts are well compatible with principles of the corpus-based approach and blended learning combined with the telecollaborative pedagogy. During intercultural sessions, learners are exposed to idiomatic language patterns used by their NS partners and have ample opportunity for practicing these patterns in meaningful interactions as rightful participants of a particular language community.

However, before practicing idiomatic patterns, learners must notice them. Schmidt (2001), proposing a “noticing hypothesis” of SLA argues in favor of focused instruction and learning: “since many features of L2 input are likely to be infrequent, non-salient and communicatively redundant, intentionally focused attention may be a practical (though not theoretical) necessity for successful language learning” (p. 23). In contrast, SCT theorists consider explicit instruction a matter above mere practical necessity. As Lantolf and Thorne (2006) argue, instruction does not follow but instead leads development. Although learners’ proficiency can initially lag behind, they are able to comprehend complex concepts from the very outset of the learning process. That is why “[c]oncepts must not be simplified but must be presented to learners in their full and most coherent form from the beginning. (...)What needs to change along the way is not the concept but the assistance and mediation provided by the teacher” (ibid., p. 16). The SCT framework

provides the most appropriate theoretical footing for this study's pedagogical experiment. The material for explicit instruction was presented to the learners in a comprehensive and systemic fashion from the very outset. Teacher's assistance and mediation "changed along the way" in correspondence with micro-changes in development that were ascertained by concurrent process data analysis. Additionally, this dissertation is motivated by Lantolf and Thorne's (2006) call for more genetically-based research in this field.

1.5.4 Internalization and Recontextualization

From the perspective of SCT, development occurs via internalization. As Lantolf and Thorne (2006) explain, this process involves increasing automatization by the learner of conscious conceptually-based knowledge originally mediated by the teacher. During automatization, "it loses its status as the goal of learning and takes on the status of operation in carrying out linguistically mediated actions" (Lantolf & Thorne, 2006, p. 15). These operations first serve as the basis for the actions of perception and monitoring of performance, but gradually develop into a basis for performance. Leontiev (2001, 2003) notes that this process is dialectically spiral-shaped: the learners proceed from awareness-raising and conscious application of learned knowledge to automatization in order to include the automatized patterns into more complex structures of performance, which are, in turn, consciously built. Key stages of internalization and automatization are considered orientation, execution, and control (Gal'perin, 2002; see also Negueruela, 2003).

Furthermore, Lantolf and Thorne (2006, p. 176) propose that “internalization occurs through imitation, which is not a mindless copying activity, but an intentional, complex, and potentially transformative process”. The concept of imitation originates in first language acquisition, where research has shown that young children can delay imitation of their language models for several days (e.g. repetition of phrases previously uttered by their parents), thus having an opportunity to analyze them “off-line” (Meltzoff & Gopnik, 1999; Tomasello, 2003). Lantolf and Thorne (2006) propose that a similar process takes place in L2 development, where delayed imitation may be connected to the process originally termed by Vygotsky ‘decontextualization’. As Wertsch (1985, p. 33) points out, Vygotsky considered this process very important for development of psychological tools (including language). More recently, the same concept has been alternatively termed by some researchers ‘recontextualization’. Lantolf and Thorne (2006), following Cobb (1998), explain that recontextualization is a process through which “signs can be imported, although often with modification, from one concrete situation to another” (p. 58). For example, when learners use knowledge they have learned in school in real-life everyday activities, recontextualization is at play (Leontiev, 2001). A number of scholars working in research paradigms other than SCT have described L2 learning process in similar terms to recontextualization. For example, N. C. Ellis (2002) explains the mechanism of learning as follows: “instead of shaping discourse according to the rules, one really pulls old language from memory [...] and then reshapes it to the current context: ‘context shaping,’ as Bateson puts it, ‘is just another term for grammar’” (p. 156). Similarly, R. Ellis (2004) suggests that with time, learners refine their explicit knowledge not only in breadth but also in depth, “making it more precise

and accurate and applying it more consistently across different contexts and languages” (Ellis, 2004, p. 237).

Therefore, ability to recontextualize and reapply knowledge in situations other than the original situation where it was first used appears to represent evidence of development. Facts that are considered evidence of development in this study are discussed in the next section.

1.5.5 Evidence of Development

The multifaceted concept of development has triggered much controversy in various research areas and paradigms. One of the central questions is what counts as evidence of development or learning. For instance, some scholars in L2 pragmatics research contend that only increased awareness (also knowledge, declarative knowledge, controlled knowledge, perception, comprehension) provides evidence of development. Others propose that only on the basis of improved performance (also production, use, procedural knowledge) can one state that development has occurred. Yet others consider both awareness and performance necessary indicators of development (see Chap. 2 for a review of the literature on pragmatic development).

In this dissertation, primary evidence of development is considered approximation to the NS baseline in the use of the targeted instruction feature – German MPs. NS discourse from the very same interactions with the learners is considered a “defensible standard” (see 1.3.6.1) for comparison. Quantitatively, development is measured in MP frequencies, frequencies of MP distributional and collocational patterns, and other

numerical units. However, based on the principles of microgenetic analysis, multiple data sources are used for ascertaining micro-gains of development. The concept of recontextualization may help ascertain such micro-gains. In the context of blended instruction during telecollaboration, recontextualization may occur when a target L2 feature is first explained by the teacher and practiced in class and as homework assignment and later used by the learners in CMC. Furthermore, recontextualization may also occur when a new target feature is first used by the learner in an email and later in chat. The latter use would present evidence of a higher level of automatization because the genre of chat is more spontaneous than email. Furthermore, even a learner who produced no process data may exhibit raised metapragmatic awareness in self-reflected comments. This would provide evidence that the development has already begun, although it is still at the orientation and not the execution stage (see Negueruela, 2003). In sum, this study aims at providing as rich picture of the development of particular learners in a particular context as possible, which is afforded by the use of twin methodologies of microgenetic analysis and contrastive learner corpus analysis.

1.6 Justification of the Study

This dissertation adds to the body of knowledge on L2 pragmatic development by implementing a longitudinal interventional study, thus bridging the existing gap between developmental research and L2 pedagogy. Most importantly, this study microgenetically ties developmental gains achieved by the learners to specific stages and activities of the pedagogical intervention.

The main purpose of this dissertation is bringing together “the study of L2 development and instructional activity” (Negueruela, 2003, p. 30), which is at the very core of pedagogy based on sociocultural theory. The SCT perspective adapted here allows for looking at L2 pragmatic development from a new perspective, rarely attempted to date. The focus here is on the mediating role of the innovative blended methodology applied to the telecollaborative learning environment, where learners’ development is evidenced by their increased pragmatic awareness and target L2 use in specific communicative contexts.

This study reports on the developmental pedagogical intervention carried out on the material of the German-English learner corpus *Telekorp*. While focusing on German MPs, it supplements a series of microgenetic analyses of other target pragmatic and grammatical features from this corpus (see Belz & Kinginger, 2003; Belz, 2004; Belz, 2006; Belz *et al.* 2006b).

A number of research design features afforded by the longitudinal and bilingual nature of *Telekorp* as well as the pedagogy of blending applied in the telecollaborative classroom configuration strengthen the internal validity and the construct validity of the study (see 4.4). First, the longitudinal scope of the data allows for calculated developmental pedagogical intervention in response to underuse of particular L2 features in the course of the telecollaborative exchanges themselves as tracked via *Telekorp*. Second, a longitudinal research design including numerous measurements and observations of the full contingent of the production data improves the internal validity, or the inference quality, of the study because one may more confidently attribute any post-intervention development to the treatment than in the case of single pretest/posttest

designs where other factors may intervene (see Mellow, Reeder, & Forster, 1996). Third, the bilingual nature of *Telekorp* data guarantees full comparability of the learner and NS data because they come from the very same interactions in the same CMC genres (email and chat), from participants of similar age and social background. Finally, the fact that learners work with their own L2 productions in the context of interactions with native-speaking interlocutors and not with constructed examples from textbooks or from external comparison corpora where participants may have quite different sociocultural background and occupy different discourse roles (cf. Möllering, 2004) reinforces the construct validity of the study since the central construct to be measured - pragmatic competence - relates to spontaneous language use in real-life situations, not prompted production on a test.

The results of the study can be generalized to the population of intermediate L2 learners in a university setting. Following the premises of SCT, a direct causal relationship between a specific instructional approach and language development is not argued (see Negueruela, 2003, p. 2). However, a number of developmental trends are ascertained, contributing factors accounted for, and methodological recommendations for L2 pedagogy made (see Chap. 8).

1.7 Organization of the Dissertation

This dissertation consists of eight chapters. In Chapter 1, I have stated the central problem, provided the rationale for choosing the target pragmatic feature, described the learning setting and the corpus under study, discussed the main research purpose and

formulated the research questions, clarified the theoretical perspective, and demonstrated the importance of the study.

Chapters 2 and 3 include the literature review. Chapter 2 reviews literature pertinent to L2 pragmatic development, outlines various theoretical frameworks, the concepts of explicit and implicit learning, and discusses the findings of studies on development of pragmatic awareness and performance. Chapter 3 discusses the target pragmatic feature – the German modal particles, issues in their meaning, functions, syntactic and distributional properties, and homonymy. It also reviews literature on teaching of the German MPs to L2 learners.

Chapter 4 deals with the research methodology and research design. It provides a rationale for using mixed methods and reviews literature on two main methodologies used in the study: contrastive learner corpus analysis and microgenetic analysis. Further, it outlines the research design, describes the data collection and data analysis methods, and addresses validity issues. Finally, it presents the coding taxonomy of the focal features.

In Chapter 5, I present the participants and the course and describe in detail the pedagogical experiment.

In Chapters 6 and 7, the data analysis procedure is outlined and the results presented. Following Belz (2003, p. 76), I analyze the data both in aggregation and in sequence (see also Fowler, 1996; Gee, 1999). Chapter 6 contains analysis in aggregation. I address the first research question and explore the relationship between the target forms use by the learners at different stages of the pedagogical intervention in comparison with the NS use by means of quantitative methods. The results are presented in terms of

frequency counts from *Telekorp*. In Chapter 7, I aim to answer research question 2 by means of data analysis in sequence. Pragmatic awareness and performance development of individual learners at different stages of the pedagogical intervention is tracked by means of microgenetic analysis of process data, learner self-reported comments, answers to questionnaires and biographical surveys, as well as researcher and instructor observations.

Finally, Chapter 8 summarizes the main findings, evaluates the methodology, and addresses limitations and implications for future research and L2 pedagogy.

Chapter 2

The Development of L2 Pragmatic Competence

2.1 Introduction

This chapter presents a review of the literature on the development of L2 pragmatic competence. First, the concept of pragmatics as a discipline is defined and its scope is addressed (2.2). Next, the concept of pragmatic competence is discussed with relation to SLA (2.3). The remainder of the chapter reviews studies exploring L2 tutored and untutored pragmatic development. In general, the available research to date is either longitudinal or interventional, but none of the available studies combines both design features. Longitudinal studies are reviewed in (2.4), while interventional studies are examined in (2.5). Further, a number of design issues in L2 pragmatics developmental research are addressed (2.6), including research design, instrument validity, comparability of learner and NS data, and design of pedagogical interventions. The contents of the chapter are summarized in the last section (2.7).

2.2 Definition and Scope of Pragmatics

The definition of pragmatics adopted here has been proposed by Crystal (1997): “the study of language from the point of view of users, especially of the choices they make, the constraints they encounter in using language in social interaction and the effects their use of language has on other participants in the act of communication” (p.

301). This definition distills many theoretical achievements in pragmatics as a linguistic sub-discipline since its inception in the 1930s (see Morris, 1938). Early studies in pragmatics based on speech act theory (Austin, 1968; Searle, 1969) drew attention to the importance of the contextualized meaning of linguistic utterances. In his seminal work “How to do things with words”, Austin (1968) suggested that “to say something is in the full normal sense to do something” (p. 94). Such a conceptualization represented “a fundamental departure from the truth-conditional semantics prevalent at the time” (Barron, 2003, p. 11). Speech act theory has been criticized in more recent research. For instance, Kasper and Rose (2002, p. 4) term the speech act approach a rather narrow “component perspective”, where an isolated speech act serves as the unit of analysis. In contrast, Kasper and Rose (*ibid.*) advocate broader approaches emphasising “centrality of action” and social context (see also Garcia, 2004). Nevertheless, Searle’s (1979) classification of pragmatic categories remains a useful analytical tool in the scholarship on the subject and has been widely applied in cross-cultural pragmatics (e.g. Blum-Kulka, House, & Kasper, 1989) and interlanguage pragmatics (e.g. Bardovi-Harlig & Mahan-Taylor, 2003; Alcón Soler & Martínez-Flor, 2005).

More recent researchers describe pragmatics as more than just action through speaking. As Rose and Kasper (2001) propose, interlocutors participate in a communicative act as social actors “who do not just need to get things done but must attend to their interpersonal relationships with other participants at the same time” (p. 2). As a result, Searle’s (1979) classification of pragmatic functions that included five main speech act categories – directives, expressives, commissives, representatives (assertives), and declarations (performatives) - has been enriched by the participation dimension, i.e.

the acknowledgment of “the multi-party nature of communication” (Garcia, 2004, p. 22, following Hancher, 1979). Thus, contemporary pragmatics takes into account the speaker’s intention (illocutionary force of the communicative act), the perceived effect of the utterance on the hearer (perlocutionary force of the communicative act), and the interpersonal component (Halliday, 1978) of language in use (Hymes, 1972).

If pragmatics is understood to be a discipline “that takes into account the full complexity of social and individual human factors, latent psychological competencies, and linguistic features, expressions, and grammatical structures, while maintaining language within the context in which it was used” (Garcia, 2004, p. 8, see also Verschueren, 1999; Yule, 1996), then it is interrelated in complex ways with other linguistic sub-disciplines as well as various other disciplines such as philosophy, psychology, and sociology. Inside pragmatics, such subdisciplines as cross-cultural pragmatics, intercultural pragmatics, and interlanguage pragmatics have been singled out. Kecskes (2004, pp. 1-2) describes the research object of two former sub-areas as follows: “While cross-cultural communication is usually considered a study of a particular idea(s) or concept(s) within several cultures that compares one culture to another on the aspect of interest, intercultural communication focuses on interactions among people from different cultures.” For this study, the most relevant area of pragmatic research is developmental interlanguage pragmatics. Kasper (1998, p. 184) defines interlanguage pragmatics as “the study of nonnative speakers’ comprehension, production, and acquisition of linguistic action in L2” (p. 184). The latter part of this definition relates to L2 pragmatic development. Pragmatic competence is generally accepted to be the outcome of pragmatic development and will be discussed in the next section.

2.3 Pragmatic Competence

The concept of pragmatic competence was originally identified by Canale and Swain (1980) under the term “sociolinguistic competence” and considered a component of the overarching construct of communicative competence (Hymes, 1972). The term “pragmatic competence” was suggested later by Bachman (1990) as part of her model of communicative competence. Even today pragmatic competence, although widely used, remains a fairly broad and vaguely defined term.

Two aspects of pragmatic competence that different scholars emphasize are pragmalinguistics and sociopragmatics, initially introduced by Leech (1983) and Thomas (1983). Rose and Kasper (2001, p. 2) explain these concepts as follows:

“[p]ragmalinguistics refers to the resources for conveying communicative acts and relational or interpersonal meanings”, whereas “sociopragmatics refers to the social perceptions underlying participants’ interpretation and performance of communicative action”. However, Rose and Kasper (ibid.) point out the dialectic unity of both components while stating that pragmatics is concerned with social behavior where specific linguistic choices have consequences in “real life”. Bardovi-Harlig (1999, p. 686) extends this distinction to the notion of pragmatic competence, explaining that “pragmalinguistic competence [is] the linguistic competence that allows speakers to carry out the speech acts that their sociopragmatic competence tells them are desirable”.

One of the debated issues is related to interconnections between pragmatic and grammatical competence. Bardovi-Harlig and Dörnyei (1998), following Levinson (1983), contrast pragmatics with grammar: “[g]rammar relates to the accuracy of

structure, including morphology and syntax, whereas pragmatics addresses language use and is concerned with the appropriateness of utterances given specific situations, speakers, and content” (p. 233). Kasper (1997), however, points out that pragmatic competence is neither isolated from nor subordinated to grammar “but co-ordinated to formal linguistic and textual knowledge and interacts with ‘organizational competence’ in complex ways”. In her comprehensive review, Kasper (2001) distinguishes between two “scenarios” of the correlation between grammatical and pragmatic development of learner interlanguage: “grammar precedes pragmatics” (as shown by Robinson, 1992; Salsbury and Bardovi-Harlig, 2000; Takahashi and Beebe, 1987) and “pragmatics precedes grammar” (as examined by Schmidt, 1983; see also Cameron and Williams, 1997). Concluding the review, Kasper (2001) points out that most of the reviewed studies consider pragmatic ability an autonomous component of communicative competence. Kasper (2001, p. 506) argues that “this approach does not tell us how a *particular* pragmalinguistic feature is related to the *particular* grammatical knowledge implicated in its use” and claims that there is urgent need for studies of this nature (see Belz & Kinginger, 2003; Kinginger & Belz, 2005 for a response to this call).

Most researchers agree that pragmatic competence includes the components of pragmatic performance (production) and metapragmatic awareness (see Kasper & Dahl, 1991). Pragmatic performance is typically associated with learners’ ability to produce pragmatically appropriate speech acts (or actions, see above) in their L2 speaking and writing (Kasper & Rose, 2002). Metapragmatic awareness has been defined as “knowledge of the social meaning of variable L2 forms and awareness of the ways in which these forms mark different aspects of social contexts” (Kinger & Farrell, 2004).

Typically, both performance and awareness are considered important and interrelated aspects of L2 pragmatic competence (see Kasper & Rose, 2002; Kinginger & Belz, 2005; Schauer, 2006). For example, Garcia (2004, p. 16) states that “[p]ragmatic competence refers to a language user’s ability to produce language for different purposes and to comprehend speaker intention. It also refers to a language user’s knowledge of social rules of appropriacy [...] and awareness of how utterances are strung together in coherent discourse”. The present study follows these premises and explores learners’ development of both L2 pragmatic performance and metapragmatic awareness.

Despite the fact that the acquisition of pragmatic competence is one of the core research objects in L2 pragmatics, a lack of a developmental scope has been ascertained in many reviews of the scholarship on the subject (see Schmidt, 1983; Kasper, 1996, 2001; Kasper & Schmidt, 1996; Kasper & Rose, 2002; Alcón Soler & Martínez-Flor, 2005). Bardovi-Harlig and Dörnyei (1998, p. 235) point out that “most research in interlanguage pragmatics has focused on language use rather than on development”. Bardovi-Harlig (1999) states that L2 pragmatics is “fundamentally not acquisitional” (p. 677) and suggests that increased attention to the measurement of change in L2 pragmatic systems is a “necessary stage in the maturing of the field of [L2] pragmatics research” (p. 680). Kasper and Rose (2002, p. 117) even remarked that “this imbalance has been acknowledged with such frequency in recent years that it is fast achieving cliché status”. The studies addressing this call are reviewed in the following sections.

2.4 Longitudinal Studies in L2 Pragmatic Development

The characteristic feature of longitudinal research is that it “involves the observation of the same participant(s) over an extended period” (Kasper and Rose, 2002, p. 75). Additionally, longitudinal studies employ multiple observation points over the entire observation period (ibid.). While terming longitudinal case-study research “a classic approach to first language acquisition”, Kasper and Rose (2002, p. 54) also recommend it as one of the best designs for developmental L2 studies because “[t]he most obvious advantage of a longitudinal design is that it allows for the direct observation of developmental patterns over time” (ibid., p. 75).

One of the first and most seminal longitudinal studies of L2 pragmatics is Schmidt’s (1983) study of Wes, “the most celebrated adult learner” in SLA literature (Bardovi-Harlig, 2006, p. 7). The researcher observed a participant named Wes during a three year period of residence abroad. During this time, Wes received no formal instruction in his L2 English. At the end of the sojourn, Wes’s pragmatic competence developed significantly more than his grammatical competence. This study became a classic example of the developmental scenario “pragmatics precedes grammar” (see 2.3).

Most of the studies employing a longitudinal research design in reporting on L2 pragmatic development followed Schmidt (1983) in focusing on sojourn abroad (see Kasper and Rose, 2002, for a detailed review). These studies vary with respect to length of observation (four months to four years), L1 and L2 (English, Brazilian Portuguese, Japanese, German, and Indonesian), age, and ethnic background of participants. Participants in Schmidt (1983), Schmidt and Frota (1986), Cheon-Kostrzewa and

Kostrzewa (1997a, 1997b, see 3.4.1) and Rost-Roth (1999, see 3.4.1) are adults working in untutored L2 environments; DuFon's (1999, 2000) and Bardovi-Harlig and Salsbury's (2004) L2 learners are university students during study abroad; Kutsch (1985, see 3.4.1), Ellis (1992), Kanagy and Igarashi (1997), Kanagy (1999), and Achiba (2003) investigate the L2 pragmatic development of children. However, all participants in these studies have in common their L2 proficiency level – all of them were beginners at the outset of the sojourn abroad.

Ohta's (2001a, 2001b) longitudinal research, as opposed to the studies addressed above, investigates development of L2 pragmatics in a classroom setting. Kasper and Rose (2002) point out that Ohta "is one of few researchers who have posited a developmental sequence for a pragmatic feature" (p. 129). Ohta (2001a) follows two learners of Japanese in a FL classroom over a one-year period and tracks the development of their ability to use listener responses in Japanese. Ohta's (2001a) results "show the variability of the developmental pace of the two learners, but suggest that they follow a similar developmental sequence moving from expressions of acknowledgment to alignment" (p. 103). This finding provides evidence that learning is idiosyncratic with respect to pace but develops in the same general direction, a result supported by more recent studies (see Belz & Kinginger, 2003; Belz, 2004, 2005; Vyatkina & Belz, 2006). Ohta's (2001a, 2001b) conclusions also corroborate the results achieved earlier by Hall (1995, 1998) who showed that the students' differential participation opportunities in the same teacher-fronted classroom setting play an important role in the development of their L2 pragmatic ability. Notably, all of the studies addressed in this paragraph are conceptualized in the SCT framework. Kasper and Rose (2002) suggest that combining the sociocultural

theoretical framework with microanalysis is especially suited for demonstrating “how differently structured classroom activities promote and obstruct pragmatic learning and how it develops (or does not develop) over time” (p. 42). Summarizing the findings of the available longitudinal studies, Kasper and Rose (2002) ascertain that there is “a marked tendency for learners to rely on unanalyzed formulae and repetition in the earliest stages of development, which gradually gives way to an expansion of the pragmatic repertoire characterized by analyzed, productive language use” (p. 125). Bardovi-Harlig (2006) confirms this general claim in her recent overview of the studies exploring the acquisition of L2 pragmatic formulas, but points out some caveats that are in order: 1) developmental (or interlanguage) formulas need to be distinguished from targetlike (or native-like) formulas; 2) the use of formulas is idiosyncratic. The author calls for more longitudinal and individual case studies in order to fine-tune the L2 pragmatics developmental sequence.

Additionally, many reviewers (e.g. Kasper & Rose, 2002; Bardovi-Harlig, 2006) indicate the lack of longitudinal studies investigating the development of pragmatic awareness, or comprehension. Kinginger and Belz’ (2005) recent study is a step toward filling this gap. The authors describe their methodological approach as “corpus-assisted, microgenetic analysis with a longitudinal scope” (p. 381). The essence of this approach is the integration of corpus research within a socio-cognitive framework while combining analysis of performance data with analysis of metalinguistic awareness data and other ethnographic data. The study builds upon the authors’ earlier work (see Belz & Kinginger, 2002, 2003) and explores address form use (or the ability to say “you”) as one of the most salient features of pragmatic competence in German and French on the

material of two case studies situated in a telecollaborative learning environment.

Although the choice of an appropriate address form can present a considerable pragmatic difficulty even for native speakers, the context of telecollaboration was ascertained by the authors as an unambiguous context for selecting the T-form (from the French *tu*) expressing solidarity in favor of the V-form (from the French *vous*) expressing formality between students. One of the focal students, Grace, developed her use of the T of solidarity gradually over the length of the course. At first sight, her production data seem to provide evidence for the positive influence of exposure to NS input in her German partners' writing. However, close microgenetic analysis reveals a more complex picture. It turns out that Grace continued to inappropriately use the V-forms even after being repeatedly advised by her German partners to use the T-form (cf. Barron, 2003).

Additionally, when the learner ultimately began using sociopragmatically appropriate T-forms, she kept making declension mistakes until the late stage of the correspondence. In other words, the "moments of peer assistance" (Kinging & Belz, 2005, p. 378) seem to have not played the role of "critical incidents" (the term introduced by Kasper & Schmidt, 1996, p. 165) for Grace's focal feature use. Awareness data elicited by means of a post-course interview helped shed light on this issue. During the interview, Grace reported that her partners' explanations were confusing to her, and she learned more while "visually eavesdropping" (Kinging & Belz, 2005, p. 403) on her more proficient American partner's writing with whom she was paired in one collaborative group. The authors conclude that "[Grace's] expert-speaking keypals direct peer assistance with the address forms played less of a role in her eventual mastery of the pragmalinguistics of the plural T forms than her peripheral (and somewhat serendipitous) participation in the

production of her American partner's mails and chats" (ibid., p. 401). Thus, by combining microgenetic analysis with a longitudinal scope, the authors were able to integrate the interpretation of corpus-contingent quantitative data and qualitative data. As a result, an evolving performance-based linguistic profile for each focal learner was constructed and their sociopragmatic and pragmalinguistic development was attributed to different factors played out idiosyncratically in their personal histories.

None of the longitudinal studies reviewed above have investigated effects of instruction in L2 pragmatics by means of an experimental study, although many of them imply the necessity of pedagogical interventions. Although Kinginger and Belz (2005) explore the effects of telecollaborative pedagogy, they do not employ a teacher intervention in their study. The present dissertation aims to supplement L2 pragmatic developmental research while combining longitudinal and interventional research design features. Interventional research in interlanguage pragmatics relevant to the present study is reviewed in the next section.

2.5 Interventional Studies in L2 Pragmatic Development

The majority of the studies in recent collections of work on L2 pragmatics in instructed settings (Rose & Kasper, 2001; Alcón Soler & Martínez-Flor, 2005) have theoretical and methodological underpinnings from information-processing. They typically employ quasi-experimental cross-sectional designs that "involve the collection of data from two (or more) cross-sections of a sample, based, for instance, on differences in level of proficiency in the target language" (Kasper & Rose, 2002, p. 76). Furthermore,

the object of most studies is the teaching and learning of specific speech acts (see 2.2), although a number of them explore the development of a range of different pragmatic features (e.g. Lyster, 1994).

In his overview of instructional L2 pragmatics research, Rose (2005, p. 390) distills three basic questions that all studies in this area to date have sought to answer:

[F]irst, is the targeted pragmatic feature teachable at all? Second, is instruction in the targeted feature more effective than no instruction? And third, are different teaching approaches differentially effective?

The following sections provide a review according to these three questions explored in a number of studies.

2.5.1 Is the Targeted Pragmatic Feature Teachable?

Studies focusing on this research question typically employ a one-group pretest – posttest design independent of the length of the pedagogical intervention (from two 20-min sessions to a 9-week period, see Rose, 2005, p. 390). Many studies explore the influence of teaching various speech acts: apologies by Olshtain and Cohen (1990), politeness strategies in group discussion by LoCastro (1997); and requests by Safont (2003) and Salazar (2003). In contrast, the object of investigation of Möllering and Nunan (1995) is a pragmatilinguistic feature: German modal particles (see 3.4.2 for a detailed review). As Rose (2005) points out, the type of instruction in the majority of these studies can be characterized as explicit, “which, according to DeKeyser (1995), requires that metalinguistic generalization be part of the instruction, whether it is provided by the teacher or the learners themselves” (p. 390). Assessment measures are

discourse completion tasks (DCTs), role plays, and observations of small group interactions.

One representative study in this category is Liddicoat and Crozet (2001). The authors explored the influence of instruction on the acquisition of an L2 interactional routine. Participants in the study were ten second-level university-level students studying French as a FL in Australia, no control group was used. The cross-sectional design of this study included a pre-test, an immediate post-test, and a one-year-delayed post-test. Kasper and Rose (2002) consider delayed post-tests highly desirable design features of interventional studies, (although they are rarely employed) since without them “it is not possible to determine whether the gains that students made through instruction are durable” (p. 272). The treatment included awareness-raising by means of explicit instruction, practice, and feedback (a group discussion). The tests were administered in the form of an open role play. The findings show that learners demonstrated a target-language approximation after instruction. However, in the delayed posttest, some attrition was noted. The learners retained elements related to the content of the conversation better than to the formal ones. Liddicoat and Crozet (2001) conclude that content elements “are more amenable to conscious control; that is, speakers have greater control over aspects of language use such as topic selection and information content than they do over aspects of language form” (pp. 143-144). In general, the study demonstrated that interactional routines can be taught and acquired in an FL context but that without regular conversational practice, developmental gains are subject to attrition. Furthermore, Liddicoat and Crozet (2001) go beyond a quantitative analysis and report on qualitative findings for the development of metapragmatic awareness from the analysis of the

“feedback” instruction stage. During this stage, the learners discussed such questions as “Should we be speaking like the French?” (Liddicoat and Crozet, 2001, p. 137) The authors point out that the discussion “led to the understanding that learning to speak in a foreign language is not a matter of simply adopting foreign norms of behavior, but about finding an acceptable accommodation between one’s first culture and the target culture” (ibid., pp. 137-138). Pragmatic awareness studies by Barron (2003) and Kinginger and Farrell (2005) report on similar realizations made by students during their study abroad.

Overall, all studies addressed above provide convincing evidence of the teachability of pragmatic features.

2.5.2 Is Instruction in the Targeted Feature More Effective than No Instruction?

Studies falling under this category are similar to the ones discussed in the preceding section in that they also employ pretest-posttest designs and put to test the influence of explicit instruction. However, they also use control groups which do not receive explicit instruction that allows them to compare differential effects of instruction and simple exposure. As Rose (2005, p. 392) suggests, “[t]hese studies provide a direct means of testing Schmidt’s (1993) noticing hypothesis: the extent to which instruction which serves to draw learners attention to the targeted features proves to be more beneficial than simple exposure to the target language is the degree to which the noticing hypothesis is supported”.

A number of such studies focus on teaching and learning speech acts. For example, Billmyer (1990) explores complimenting behavior and Félix-Brasdefer (2005)

investigates refusals. Others choose pragmalinguistic features as targeted units. For example, Lyster (1994) focuses on the use of address forms in French; Wishnoff (2000) is interested in hedging devices; and Yoshimi (2001) examines Japanese interactional markers. The instruments include multiple-choice tests as well as written and oral DCTs. Billmyer (1990) and Félix-Brasdefer (2005) use learner production in actual face-to-face interaction as a measure of instructional effects.

One of the first studies in this area that has been widely cited is Lyster (1994). A robust cross-sectional design with three experimental, two control, and one NS comparison groups is employed in this study. Lyster (1994) suggests a teaching method which combines content-based and form-based instruction in L2 pragmatics (referred to by the author as the “functional-analytic approach”). Effects of this approach after a five-week period of instruction implemented in three eighth-grade French immersion classrooms in Canada are examined. The results lead the author to conclude that students' pragmatic competence (termed by Lyster “sociolinguistic competence”) improved in a number of ways, although the level of improvement varied for different pragmatic features and remained lower than the NS level. Lyster (1994) attributes this result to the fossilization phenomenon typical for immersion environments. One interesting finding is that features which are less complex grammatically but difficult pragmatically were the ones successfully acquired by the learners. Lyster (1994) concludes that such features are more amenable to explicit instruction and “may indeed *require* some instruction” (p. 283, emphasis added). This finding lends support to the assumption that German MPs, which lack morphological complexity but are complex pragmatically for L2 learners, require explicit instruction (see Chap. 3).

Silva's (2003) study differs from the studies addressed above in that it explores not only pragmatic performance but also pragmatic awareness. The author focuses on the development of English L2 pragmatic competence in a collegiate setting as facilitated by explicit task-based instruction in pragmalinguistics and sociopragmatics (namely, in the speech act "invitation refusal"). Role-play and immediate retrospective recall questionnaires are used as data collection instruments. Silva (2003) points out that using the latter instrument is particularly important for investigating metapragmatic awareness because otherwise it is "not possible to identify whether the participants acted that way because they did not know how to perform appropriately (pragmalinguistic ability) or whether they did not know that they should perform more politely in a given situation (sociopragmatic ability)" (pp. 59-60). Silva claims that the results of the study suggest a "considerable degree of improvement in [participants'] choices of refusal strategies towards the norms of native speakers of American English" (p. 77). As regards metapragmatic competence, Silva points out that the "answers to the questions in the self-report were quite brief, not yielding a substantial body of information" (p. 81) and "[m]ost participants rated themselves low even though the data from the role-play show that they were able to incorporate the content of the instruction into their performance" (ibid.). The latter finding parallels low self-ratings in self-assessment questionnaires in Rose and Ng (2001, see 2.5.3). Although Silva (2003) concludes that participants "exhibited a considerable degree of L2 pragmatic awareness", he makes no claims about their "gains" in metapragmatic *development* because the participants were not presented with a retrospective recall questionnaire after the pre-test (see discussion of the instruments in 2.6.2).

To summarize, all studies falling in this category have found that instruction is more beneficial than simple exposure (see also Rose, 2005; Félix-Brasdefer, 2006).

2.5.3 Are Different Teaching Approaches Differentially Effective?

Similar to the studies reviewed in 2.5.2, the studies in this category are based on the premise of Schmidt's (1993, 1994, 1995, 2001) noticing hypothesis. Schmidt (2001) proposed that any target L2 feature needs to be noticed by the learner for learning to occur: "while there is subliminal perception, there is no subliminal learning" (p. 26). Because more attention results in more learning, "attention must be directed to whatever evidence is relevant for a particular learning domain, i.e. that attention must be specifically focused and not just global" (ibid., p. 30). For example, "[i]n order to acquire pragmatics, one must attend to both the linguistic form of utterances and the relevant social and contextual features with which they are associated" (ibid.).

Studies reviewed in this section aim to ascertain what type of instruction leads to noticing by learners while comparing explicit and implicit teaching methods. DeKeyser (1995, p. 437) explains the difference between these methods as follows:

An L2 instructional treatment [is] considered to be explicit if rule explanation [comprises] part of the instruction [...] or if learners [are] directly asked to attend to particular forms and to try to arrive at metalinguistic generalizations of their own. [...] Conversely, when neither rule presentation nor directions to attend to particular forms [are] part of a treatment, that treatment [is] considered implicit.

Rose and Ng (2001) compare the effects of inductive and deductive teaching of English compliments and compliment responses to university-level learners of English in Hong Kong. Inductive and deductive methods roughly correspond to the implicit and explicit conditions (see Kasper & Rose, 2002, p. 265). The study has a pre-test/post-test

cross-sectional design that includes two experimental groups, one control group, and two native speaker comparison groups. Both experimental groups received instruction in the target speech acts, but for the deductive group, explicit instruction preceded practice activities, while the inductive group was given pragmatic analysis activities after the completion of which it was supposed to come to generalizations. The treatment was delivered to the experimental classes during six lessons lasting 30 minutes each. All groups, including NS comparison groups, completed three types of written questionnaires used for data collection. The results demonstrated development of the pragmatic production ability for both experimental groups, but there was no difference between the experimental and the control groups with respect to post-test metapragmatic awareness. Next, the deductive teaching approach yielded better results than the inductive approach. Moreover, Rose and Ng (2001, p. 167) conclude that “the inductive instruction actually had a negative impact on sociopragmatic development, perhaps by raising difficult issues without providing unambiguous solutions”. Rose and Ng’s (2001) findings are corroborated by many other studies (e.g. House, 1996; Rose & Ng, 2001; Takahashi, 2001; Tateyama et al., 1997). As Kasper and Rose (2002) sum up in their review of interventional research on different teaching approaches, this uniformity of findings “provides support for noticing: in most cases, learners who received explicit instruction in the form of metapragmatic information regarding the target features outperformed those who did not” (p. 264).

However, the findings in a number of studies in the recent collection “Pragmatics in instructed language learning” by Alcón Soler and Martínez-Flor (2005) seem to contradict Kasper and Rose’s (2002) aforementioned conclusion. Koike and Pearson

(2005) ascertain that the production of the implicit condition group improved significantly more than the production of the explicit condition group for the case of L2 Spanish suggestions and suggestion responses. Martínez-Flor and Fukuya (2005) found that both explicit instruction and implicit instruction were equally beneficial for L2 English learners' production of "pragmatically appropriate and linguistically accurate" (p. 463) speech acts of suggestion and downgraders in their L2 in emails and telephone conversations (see also Martínez-Flor, 2006). Similarly, Alcón Soler (2005) found no significant difference between the effects of explicit and implicit instruction on the development of awareness of requests in L2 English learners at a high school in Spain, although her results related to the production data showed that explicit instruction was more beneficial.

These seemingly contradictory results, however, can be explained by some terminological confusion. Authors of the earlier studies reviewed by Kasper and Rose (2002) considered implicit instruction as mere exposure to the input without drawing learners' attention to the targeted forms in any way. However, the contributors to Alcón Soler and Martínez-Flor's (2005) collection classified the enhanced condition as a form of implicit instruction. The enhanced condition involves "pragmalinguistic input enhancement" (Martínez-Flor & Fukuya, 2005, p. 465), e.g. printing the focal features in bold or capital letters on the instructional materials. Additionally, recast activities were employed by a number of authors as part of implicit instruction (Martínez-Flor & Fukuya, 2005; Koike & Pearson, 2005). However, Robinson (1997) categorizes the enhanced condition as a form of explicit instruction because it involves focusing learner's attention on the targeted forms.

Takahashi (2005) differs from the studies discussed above because the author uses qualitative methods and compares not explicit and implicit instruction conditions, but differential degrees of the enhancement condition (form-comparison and form-search). Takahashi's (2005) results indicate that a greater degree of input enhancement led to greater learner awareness, which, in turn, correlated with more production. Thus, Takahashi's (2005) finding is in line with the results from the previous studies reviewed by Kasper and Rose (2002).

To sum up, the answer to the third main research question, "are different teaching approaches differentially effective?" appears to be "yes". Furthermore, many studies investigating different teaching approaches also confirm the positive answers to the first and the second questions, i.e. that pragmatics is indeed teachable and instruction in pragmatics is better than no instruction (see 2.5.1. and 2.5.2). Furthermore, it seems reasonable to follow DeCoo (1996) (see also Alcón Soler, 2005; Takahashi, 2005) and view instruction conditions as a continuum rather than a dichotomy where the enhancement condition is placed between the most explicit (rule explanations) and the most implicit type (mere exposure). On this continuum, more explicit conditions appear to be more beneficial to instruction in pragmatics than more implicit conditions, if the role of explicit instruction is "to direct learner's attention to relevant features of the input and to gain insights into mappings of linguistic form, meaning, and context" (Félix-Brasdefer, 2006, p. 170).

2.6 Design Issues in L2 Developmental Pragmatics Research

2.6.1 Research Design

The majority of the studies reviewed above employ cross-sectional research designs. Data in these studies are elicited at two or three points during the period under investigation, usually in a pre-test prior to the treatment and in one or two post-tests following the treatment, although some studies may span a longer period of time up to several months. Kasper and Rose (2002, p. 119) point out that even studies reporting on up to one-year-long sojourns abroad (see e.g. Bouton, 1988, 1994; Barron, 2003; Schauer, 2006) that are termed “longitudinal”, are, in fact, cross-sectional because they employ only two to three data collection waves. Ortega & Iberri-Shea (2005) ascertain a similar trend in SLA research in general and note that they were able to locate only one longitudinal study employing a time-series design during the last decade, namely, Ishida (2004). Similarly, in the reviewed interventional L2 pragmatics studies (see 2.5) that employed several instruction modules, no measures were taken in between the instructional sessions. For example, Koike & Pearson (2005) administered three treatments at three individual points over a six-week period. Martínez-Flor & Fukuya (2005) delivered 12 hours of instruction over 16 weeks, and Alcón Soler’s (2005) treatment included 15 weekly lessons. However, no data have been collected *between* experimental treatments in any of these studies. As a result, the analyst’s knowledge of developmental events located between data elicitation points is limited (see Kasper & Rose, 2002). Rose (2005) maintains that more observations are especially necessary for tracking pragmatic productive ability “because it is possible that participants lacked

ample opportunity to demonstrate what they might have learned in a single session” (p. 391). Kasper and Rose (2002) point out that “cross-sectional designs do not allow for direct observation of developmental patterns” (p. 76). Therefore, although many of these studies provide valuable insights into changes in learner L2 pragmatic competence from one point of time to another, the longitudinal design component is largely missing from them (see, however, Kinginger & Belz, 2005). To account for this design issue, Kasper and Rose (2002, p. 75 ff.) suggest employing a mixed methods approach represented by a combination of longitudinal and a cross-sectional designs, therefore taking advantage of the strengths of both configurations. The present study follows this suggestion (see Chap. 4).

2.6.2 Data Collection Instruments

Another major issue in the scholarship on L2 pragmatics is instrument validity. The majority of the studies reviewed above used a single instrument or a combination of the following data collection instruments: discourse completion tasks (DCTs), role plays, and written questionnaires. According to research comparing these instruments, they provide useful information related to pragmalinguistic and sociopragmatic knowledge of the participants as well as to certain aspects of natural language use (Brown, 2001; Hudson, 2001; Eisenstein & Bodman, 1993; Norris, 2001). However, comparison of the data elicited by means of these instruments and authentic discourse data has shown that the latter are richer and differ from the former in many respects (Eisenstein & Bodman, 1993). Taking into account that pragmatic competence assumes ability to perform successful communicative acts under real-life conditions (see 2.3), this finding raises

issues of instrument validity in L2 pragmatics research to date. Many researchers who used the abovementioned instruments in their experimental studies have addressed these issues in their discussion sections. For instance, Liddicoat and Crozet (2001), who use role plays, point out that they “are not ideal for the study of interaction” (p. 127). Kasper (2001) adds that role plays are “quite taxing in absence of contextual support” (p. 513). Rose and Ng (2001) suggest that “questionnaires are indirect measures – that is, the data resulting from responses to questionnaires are not the result of direct observation, but instead are mediated, most obviously by respondents but also by a host of other potential variables” (p. 154). Most authors agree that questionnaires and DCTs are suited only to measuring knowledge and attitudes of learners but not their productive ability (Rose & Ng, 2001; Barron, 2003). However, according to Rose and Kasper (2001), “a central problem of construct validity” in analyses of production data is whether or not tests elicit samples of candidate’s performance “that allow valid interpretations of their L2 sociolinguistic and pragmatic abilities” (p. 245). Kasper and Rose (2002) maintain that role plays can provide the richest production data among all data elicitation instruments but there is still “no guarantee that role plays provide valid representations of pragmatic practices in authentic contexts” (p. 88).

To remedy these issues surrounding the collection of production data, compilation of learner corpora has been suggested (see Chap. 4). This approach is used in the present study, where L2 production data are collected without subjecting the participants to any external tests. Instead, electronic data produced by learners in CMC interactions with their NS interlocutors are automatically saved in computers and then organized into a database in form of an electronic corpus. The present study thus responds to Kasper and

Rose's (2002) concern, who call studies where the targeted features of instruction are applied by the learners in real communicative situations, "a rarity in the research literature" (p. 241; see, however, Billmyer, 1990; Wishnoff, 2000). This study also follows Bardovi-Harlig's (2006) recent suggestions for furthering research into interactional competence, where she proposes that "learners should be observed in action in conversation when the communicative pressure is on" (p. 21).

The interactions analyzed in the present study are task-based, but the topics of discussion are chosen by the participants themselves according to their interests. Additionally, participants not always attend to the task and are often "concerned about other matters such as developing good personal relationships and practicing the target language", as Ishida (2006, p. 61) aptly remarks about NS-NNS interactions in her study. Similar to Ishida (2006, *ibid.*), the interactive discourse in this study is considered authentic data and "analyzed as spontaneous talk-in-interaction that resulted within the constraints of an institutional setting" (see also 2.6.4).

2.6.3 Native Speaker Comparison Data

Kasper and Rose (2002) convincingly argue that "it would seem important to compare native and nonnative speakers in the same discourse roles" (p. 86). Moreover, "a defensible standard against which their pragmatic ability is measured must be derived from successful multilingual speakers' interactions in activities relevant for a given learner population" (*ibid.*, see also House & Kasper, 2000). Furthermore, the authors argue that the same standard should also be used as a model for imitation by learners, who, as multilingual speakers, may not "aspire to L2 native-speaker [monolingual]

pragmatics as their target” (ibid.). In a similar vein, Götze (1993, p. 231) contends that if authentic examples are used in classroom, their content should be relevant to students’ interests and experiences.

The “defensible standard” described above is precisely met in the telecollaborative learning configuration because both populations (NSs and learners) represent multilingual speakers who participate in bilingual interactions with each other. Moreover, all participants are students of similar age, which also reinforces the comparability of the NS and learner data (see Chap. 5).

2.6.4 Learner Individual Differences

Kasper and Rose (2002, p. 275) notice another lacuna in research on interlanguage pragmatics, viz. that “the role of individual differences in the acquisition of L2 pragmatics has rarely been addressed” (see, however, Belz, 2003, 2004; Belz & Kinginger, 2002, 2003; DuFon, 1999, 2000; Kinginger & Farrell, 2004; Schauer, 2006). Rose (2005) warns that developmental gains ascertained in many SLA studies cannot always be attributed to the instructional method alone. Rather, “[i]t may be greatly influenced by the learners individual requirements and interests, i.e., individual differences factors” (Rose, 2005, p. 455). A number of authors reviewed in this chapter come to a similar conclusion (Bardovi-Harlig, 2006; Schauer, 2006; Takahashi, 2005) and call for more research in this direction: “since the effect of different instructional treatments may vary depending on learning style, the analysis of learners’ preferences regarding different instructional approaches and their learning outcomes is an issue that requires both observational and empirical research” (Alcón Soler, 2005, p. 430).

The present study addresses this issue by integrating the methodologies of microgenetic analysis and corpus analysis, which supplements aggregate quantitative analysis and allows for close tracking of the developmental paths of individual learners and the inter-illumination of this close tracking and a variety of ethnographic metadata.

2.6.5 Pedagogical Interventions

Kasper (1997) summarizes activities that are “indispensable for pragmatic learning”: receiving authentic input; increasing pragmatic awareness; practice. Access to authentic input in a FL classroom can be achieved by inviting native speaker “classroom guests”, watching videos of authentic interaction or feature films, and using other fictional and non-fictional written and audiovisual sources (Kasper, 1997; Silva, 2005; Alcon Soler, 2005). Activities “aiming at raising students' pragmatic *awareness*, and activities offering opportunities for communicative *practice*” (Kasper, 1997, emphasis in original) can involve transcription and interpretation of excerpts from authentic texts (Rösler, 1983); language-observation activities, problem-solving, cross-linguistic comparisons (McCarthy & Carter, 1995; Kothoff & Cole, 1985; James, 2001) and student-centered activities such as small group interaction, roleplay, simulation, and drama (Kasper, 1997).

However, the main obstacle for pragmatic development in a traditional classroom remains the lack of a sufficient range of discourse options available to learners (Bardovi-Harlig & Dörnyei, 1998; Belz & Kinginger, 2003; Kramersch, 1985) and of social consequences of the learners' linguistic behavior in real life (Bardovi-Harlig & Dörnyei,

1998; Kasper and Rose, 2002). In contrast to the observational studies (see 2.4), the majority of the interventional studies were conducted in “contexts where students had little benefit of second language input and interaction outside the classroom” (Rose, 2005, p. 389).

The telecollaborative pedagogy (Belz, 2006) employed in this study allows for alleviating these concerns and is well suited for the implementation of all three core activities of pragmatic development. First, authentic input is received by the learners from their electronic interactions with the NS keypals. Second, raising their awareness takes place during traditional instructional sessions which include reflections on and metapragmatic explanations and discussions of the electronic discourse produced by the learners and their NS partners in previous, electronically mediated intercultural sessions. Third, communicative practice in the form of subsequent Internet-mediated intercultural interaction immediately follows the awareness-raising sessions so that learners can apply their knowledge in real-life interactions.

Therefore, an integration of all three activities can be achieved that has been previously possible only in study abroad contexts where “the pragmatic awareness of the ESL learners may have come from the friction of their daily interactions: the pressure not only of making themselves understood but also of establishing and maintaining smooth relationships with native speakers in the host environment” (Bardovi-Harlig & Dörnyei, 1998, p. 253). In contrast to the L2 environments, however, the TC learning configuration provides the benefit of the explicit instruction that may give the learners a ‘shortcut’ to awareness-raising.

2.6.6 Form-Focused Instruction in Pragmatics

Finally, “focus on form instruction” (FonF) (Long, 1991) and its application in L2 pragmatics interventional studies merits some discussion. This methodology “overtly draws students attention to linguistic elements as they arise incidentally in lessons whose overriding focus is on meaning or communication” (Long, 1991, pp. 45–46). FonF instruction has been widely advocated in the framework of communicative language teaching as opposed to “focus on formS” (FonFS) instruction oriented towards accumulation of individual language items by learners. However, as Kasper and Rose (2002, p. 260) remark, the FonF method has been defined only vaguely which has led to a “conceptual confusion”. Originally, FonF was associated mostly with explicit grammar instruction because, by definition, it was connected with drawing students' attention to targeted forms. However, a number of recent studies considers explicit instruction that provides “metapragmatic information through description, explanation and discussion of a target linguistic form” a FonFS method; and vice versa, implicit instruction with no metalinguistic explanations is considered a FonF method (Fukuya & Martinez-Flor, 2005, p. 465). This classification contrasts with Kasper and Rose’s (2002, pp. 262-263) account, who explain:

According to Long and Robinson (1998), form and formS focused instruction differ not so much in substance--what kinds of metalinguistic information is given--but in the role and contextualization of metalinguistic information in the syllabus and class activities. As long as the metalinguistic information is embedded in meaningful activities, triggered by an actual learner problem, and teachable at the learners' current stage of interlanguage development, the intervention would be considered FonF.

Moreover, Kasper and Rose (2002, p. 263) warn against a direct transfer of the FonF – FonFS distinction, which was originally suggested in the area of grammar, into the realm of pragmatics:

Where pragmatics is concerned, then, it is not the quality of the metapragmatic information provided that determines whether a particular intervention provides focus on form or formS, but the role of metapragmatic information in the syllabus and its relation to practice activities. Metapragmatic comment generated by students' pragmatic action or observations would seem to be compatible with FonF.

Kasper and Rose (2002, p. 263) suggest a new term for the application of the FonF methodology to pragmatics: FonFF, or “a focus on form and *function*” (emphasis added). However, the authors point out that most studies comparing the effectiveness of different teaching approaches (e.g., Kubota, 1995; Rose & Ng, 2001; Takahashi, 2001; Tateyama, 2001; Tateyama et al., 1997) are in fact concentrating on forms rather than on form because “[a]lthough most of this research involved treatment that incorporated meaningful interaction, the pragmatic issues they addressed were planned as the core of the instructional treatment and did not arise from student problems encountered during meaningful language use. Instead, meaningful language use was an arena for the application of particular, predetermined forms” (ibid., pp. 263-264).

The present study accounts for the key criteria of FonFF instruction formulated by Kasper and Rose (2002) in that “any attention paid to form be done in the context of meaningful interaction, and that the forms themselves are not the organizing principle for the syllabus” (p. 263). The need for the pedagogical intervention in this study was ascertained on the basis of specific students’ problems encountered during meaningful language use (ongoing interactions with native-speaking netpals) – a drastic underuse of

the focal feature by the learners in comparison with the NSs. The suggested instructional method includes metapragmatic explanations concerning specific targeted forms that revolve around their meaningful use in context. Indeed, pragmatic features do not lend themselves to teaching by means of “rules of thumb” (Belz & Kinginger, 2003) but remain “the “secret rules” of language” (Bardovi-Harlig, 2001, p. 13) that have to be revealed to learners step-by-step in the context of particular real-life interactions.

2.7 Summary

The review of L2 developmental pragmatic research has shown that it can be subdivided into two main categories: longitudinal studies and interventional studies. Longitudinal studies are primarily situated in a study abroad context (see, however, Belz & Kinginger 2002, 2003; Belz & Vyatkina, 2005; Kinginger, 2000; Kinginger & Belz, 2005; Ohta, 2001a, 2001b; Vyatkina & Belz, 2006). Longitudinal studies employing a multiple-observations design allow “for the direct observation of developmental patterns over time” (Kasper & Rose, 2002, p. 75) which can yield insightful results revealing concrete developmental paths taken by individual learners (Kinger & Belz, 2005; Ohta, 2001; Belz, 2004). The reviewed longitudinal studies provide ample evidence that pragmatic competence takes a long time to develop in untutored settings which suggests necessity of instruction. The results of the reviewed interventional studies situated in classroom settings have fairly uniformly shown that pragmatic competence is indeed teachable; that instruction is more beneficial than simple exposure to NS input; and that more explicit teaching conditions are generally more beneficial than implicit ones.

Several design issues have been ascertained as characteristic of many L2 pragmatics studies. The present study aims at filling in existing research gaps and strengthening the validity of interventional L2 pragmatics research. It aims at inter-illumination of a longitudinal and an interventional approach largely missing to date and explores the effects of explicit teaching of German modal particles to L2 learners in the framework of telecollaborative pedagogy. Literature on the targeted pragmatic feature of modal particles is reviewed in Chapter 3.

Chapter 3

German Modal Particles

3.1 Introduction

This chapter reviews literature on the targeted pragmatic feature: German modal particles. The review begins with the definition of the concept “particle” in a broader and in a narrower sense (3.2). Next, modal particles (MPs) as a member of the larger particle word class are described (3.3). This subsection includes discussion of the general definition, origins of research, and main issues connected with German MPs (3.3.1). It is pointed out that one of the major challenges is the delineation of MPs from their homonyms. Criteria for this delineation, suggested in scholarship on the subject, are discussed in the following subsections, viz. criteria based on semantic features (3.3.2), syntactical-distributional features (3.3.3), and discursive-pragmatic features (3.3.4). The next part of the chapter (3.4) reviews literature dealing with aspects of learning and teaching German MPs. The situation in this research area mirrors the general situation in L2 pragmatics (see chapter 2): a number of studies are longitudinal and others are interventional but there are no studies in which both perspectives are combined. Respectively, longitudinal studies are reviewed in 3.4.1 and interventional studies in 3.4.2. The final section of this part (3.4.3) discusses available pedagogical materials for teaching MPs. Further, the role of MPs for characterization of genres is discussed, with

special emphasis on computer-mediated communication modes (3.5). Finally, the literature review is summarized in relation to the present study (3.6).

3.2 Particles as a Word Class

“Particle” is a term designating a word class and is used sometimes in a broader and sometimes in a narrower sense. In a broader sense, particles are defined as a word class encompassing all uninflected words of a language with such subclasses as prepositions, conjunctions, adverbs and others. Möllering (2004, pp. 16-17) points out that this definition “stems from a structural approach to categorising the various parts of speech into word classes” and is based on a purely morphological criterion “declinability”. This tradition goes back to early Greek linguists (see Vinogradov, 1972; Weydt & Ehlers, 1987). Russian grammarians of the middle of the 20th century were the first to separate particles (first of all, from adverbs) into a narrower word class (Vinogradov, 1947, see also Admoni, 1955; Schendels, 1952). Currently, most of the grammars refer to particles in a narrower sense⁷, applying a number of syntactic-distributional and semantic criteria for their delimitation from other indeclinables as well as for further subcategorization. The following subclasses of particles have been suggested: focus/logical particles, scalar/grading particles, answering particles, negation particles, infinitive particles, comparative particles, discourse particles, modal/pragmatic particles (e.g. Abraham, 1991; Helbig, 1988; Möllering, 2001, 2004; Vinogradov, 1947). However, different classifications vary in their delineation criteria sets and therefore, in

⁷ Hereafter, only particles in a narrower sense will be denominated by the term “particle”.

resulting categories. It should be noted that a fair number of accounts are grounded in the material of the English language. However, languages other than English such as e.g. German, Dutch, Russian, Serbian, Croatian, Japanese, and Cantonese are richer in particles both in frequency and range, and therefore lend themselves to a finer particle classification. For instance, Abraham (1991) points out: “As opposed to English as well as other Germanic and Romance languages [...] particles of either type [...] *abound* in German” (p. 2, emphasis added). Modal particles are the most salient particle category that distinguishes the languages mentioned above from English. In particular, German and Dutch are called by Abraham (ibid.) “the modal particle languages par excellence”. The rest of this section addresses the ongoing debate on the category of modal particles with a special focus on German.

3.3 Modal Particles as a Word Class

3.3.1 General Definition, Origins of Research, and Issues

One of the first summative definitions of modal particles was given by Weydt (1969, p. 68), who terms them “*Abtönungspartikeln*”, or ‘shading particles’:

Abtönungspartikel sind unflektierbare Wörtchen, die dazu dienen, die Stellung des Sprechers zum Gesagten zu kennzeichnen. Diese Wörtchen können in gleicher Bedeutung nicht die Antwort auf eine Frage bilden und nicht die erste Stelle im Satz einnehmen. Sie beziehen sich auf den ganzen Satz; sie sind im Satz integriert. In anderer syntaktischer Stellung oder anders akzentuiert haben sie alle eine oder mehrere andere Bedeutungen.

In dieser anderen Verwendung gehören sie dann anderen Funktionsklassen an.⁸

Different researchers have suggested lists of German MPs that include from 15 to 22 words. The core members of this subclass generally acknowledged to be able to fulfill the MP function are *aber, auch, bloss, denn, eben, eigentlich, etwa, doch, halt, ja, mal, nur, schon, vielleicht, wohl*, although the suggested lists vary depending on the respective definition and delineation criteria (e.g. Helbig, 1994; Möllering, 2001, 2004; Prorokova, 1991; Weydt, Harden, Hentschel, & Rösler, 1981; see also the discussion below).

The interest to modal particles (MPs) arose at the time of the general pragmatic turn in linguistics (see 2.2), when phenomena of spoken language were acknowledged as legitimate research objects. The research on MPs was launched by Russian scholars as part of research on particles in general (see 3.2). MPs were originally described as a separate word subclass by the prominent Russian linguist Vinogradov (1947). The first comprehensive investigation of MPs was the dissertation by another Russian scholar, Krivonosov, defended in 1963 at the Humboldt University. However, because Krivonosov's work remained unpublished until 1977, Weydt's (1969) monograph is generally recognized as the first milestone in the scholarship on the subject that has grown to a substantial body by present (see Aguado, 2003; Möllering, 2004 for comprehensive reviews). One fact about MPs is generally accepted: they are especially characteristic of spoken genres. However, the debate concerning a scientific definition

⁸ Shading particles are uninflected smallwords which serve to express the position of the speaker on what is being said. These smallwords, when used in the same meaning, cannot constitute an answer to a question and occupy the initial position in a sentence. They relate to the whole sentence; they are integrated in a sentence. In a different syntactic position or differently accentuated, all of them have one or more other meanings. In this other use, they belong to other functional classes.

and description of the constitutive and distinctive features of MPs is ongoing until present. This controversy is reflected in the plethora of the terms used by different scholars for labeling them, e.g. flavoring words, intentional particles, pragmatic particles, toning particles, etc. (Möllering, 2004, p. 15)⁹. The most widely accepted term, however, is “modal particles” (Abraham, 1991; Möllering, 2001, 2004) or, in German, “*Modalpartikeln*” (Weinrich, 1993) and “*Abtönungspartikeln*” (Weydt, 1981; Helbig, 1988). The term “modal particles” is adopted in this study. This label reflects the fact that MPs, along with modal verbs, modal adverbs, and some other linguistic features, are part of the modality system “concerned with subjective characteristics of an utterance” (Palmer, 1986, p. 16, cited in Möllering, 2004, p. 40).

The first challenge for defining MPs is the vagueness of their general lexical meaning. As Möllering (2004) explains, “[t]he meaning of modal particles is dependent on context and co-text, and features of both need to be taken into account to interpret meaning” (p. 11). Another yet related issue is the rampant ambiguity of particles. Words with an identical phonetic and typographic shape “which could potentially function as modal particles” (Möllering, 2001, p. 137) fulfill different functions in different contexts. For instance, the German word *ja* can function as an answering particle, an intensifying logical particle, and an MP. Additionally, MPs are subject to complex syntactic restrictions in their use. In order to resolve these issues and to define MPs, different researchers have relied on sets of lexical, syntactical-distributional, and pragmatic-discursive criteria (see Weydt’s definition at the beginning of this section), bringing one

⁹ Weydt (2006) provides a list of more than 30 terms in English, German, and French referring to MPs.

or another set to the foreground. The literature applying these criteria to MPs is reviewed in the next sections (3.3.2 – 3.3.4).

3.3.2 Semantic Features

One of the main issues in MP research, their inherent homonymy and polysemy¹⁰, has been explored in relation to grammaticalization, one particular process of language change. The rationale for this view as formulated by Diewald (2006, p. 409) is in line with the SCT genetic approach (see 1.6): “a look at the diachronic development of an item may well help to clarify the problem of discriminating among different functions on a synchronic level”. Traugott and Heine (1991) explicate the diachronic and synchronic aspects of grammaticalization as follows. From the diachronic perspective, grammaticalization is indicative of the path of historical development of certain linguistic forms; from the synchronic perspective, it “points to relative indeterminacy in language and to the basic non-discreteness of categories” (Traugott & Heine, 1991, p. 1). Importantly, grammaticalization theorists consider homonymy and polysemy not exceptional phenomena but rather “the natural outcome of constant and pervasive language change” (Diewald, 2006, p. 409).

¹⁰ Researchers who consider particles polysemantic units propose that each particle with a unique phonetic (and typographic) contour (‘Lautkörper’ in Weydt, 1977, p. 218) is one complex lexeme (one lexicon entry) that can fulfill different contextual functions. On the other hand, researchers who argue for homonymy consider all different particle contextual realizations separate lexemes (see Aguado, 2003, for discussion).

Abraham (1991b, p. 372) summarizes the “most prominent and indispensable characteristics” of grammaticalization¹¹ (for a comprehensive list of characteristics, see Lehmann, 1985, pp. 307 – 308):

1. syntagmatic shift from less grammatical to more grammatical status;
2. loss of semantic complexity;
3. reduction of syntagmatic variability;
4. emergence of a formal paradigm, of which the arising form is a member.

Abraham (1991b) convincingly demonstrates that MPs represent a showcase of grammaticalization both in its diachronic and synchronic aspect. He applies a historical analysis to four German MPs (*doch*, *halt*, *eben*, *ja*) attested in Gothic as well as in Old, Middle, and New High German written texts and comes to the conclusion that “a common line of development of MPs cannot be traced through time” (ibid., p. 369). In particular, the source lexemes (“Spenderlexeme” or ‘spender lexemes’, Molnar, 2000, p. 75) of all four MPs have had different categorial characteristics: a lexical adjectival for *eben*; a comparative particle for *halt*; a vocative interjection and an adverbial for *ja*; and a logical adverbial for *doch*. However, Abraham (1991a, p. 372) ascertains that despite these differences in origin, all MPs followed a similar grammaticalization path that keeps the four main characteristics described above. On the way of departure from their historical “spender lexemes”, all MPs:

1. lose their linear freedom although they do not reach a full grammatical status of a clitic or an affix;

¹¹ Abraham (1991b) uses the term ‘grammaticization’ instead of ‘grammaticalization’. On the use of both terms, see Traugott and Heine, 1991, pp. 1-2.

2. lose a referential meaning (or show “systematic bleaching of the semantic content”) in favor of illocutive force;
3. become increasingly constrained by grammatical rules such as co-occurrence with particular sentence types;
4. become bound to the sentence middle field.

Abraham (1991b) concludes that the grammaticalization of MPs is “a highly specific type” (p. 373) because “the rise of particle functions does not entail total semantic bleaching of the morpheme or the reduction to purely grammatical morphemes”, in contrast, it “is coupled with a rise of pragmatic complexity” (p. 371). These conspicuous peculiarities of the process of grammaticalization when applied to particles have led to opposing views on the subject. For instance, Ocampo (2005) argues that “movement towards discourse is not grammaticalization” and labels this process ‘discoursivization’. Yet other scholars suggest the term “pragmaticalization” (e.g. Aijmer, 1997; Pusch, 2003) and argue in favor of sharp delineation between this process and grammaticalization. However, according to Traugott and König (1991), the feature “increase of pragmatic significance” does not contradict the unidirectionality of grammaticalization (semantic > pragmatic > less semantic-pragmatic) but rather represents an intermediate stage of one diachronic process. The majority of researchers seem to agree that pragmaticalization is a subtype of grammaticalization and too similar to it to be treated as a separate process (see Abraham, 1991b; Barth & Couper-Kuhlen, 2002; Diewald, 2006; Lima, 2002).

From the synchronic perspective, the process of grammaticalization of MPs is reflected in the concurrent existence of several forms of the same phonetic shape. As

Abraham (1991b) notices, for each MP “with at most some fluid lexical meaning component” (p. 333), there exists a counterpart with “a full referential (=adjectival or adjunct) or explicit syncategorial (=conjunctive, scalar particle, or interjection) meaning” (p. 332). Abraham (1991b) contends that existence of such pairs is the best evidence of the occurred grammaticalization process, although the status of MP counterparts as their full homonyms or rather functional variants of one and the same lexeme remains questionable. He suggests that “the distinction between a polysemous or a homonymic lexical relation will have to be based purely on synchronic linguistic intuition” (ibid., p. 375). For example, he argues that the meaning of the MPs *ja*, *halt*, *eben* cannot be inferred from the meaning of their full-meaning counterparts in the modern language and, therefore, each pair should be considered homonyms, whereby such MPs as *aber*, *auch*, *mal* and their counterparts are polysemous, i.e. represent different meanings of the same lexeme.

The terminological confusion in this research area remains an issue until present. For example, Abraham (1991b) discusses homonymy or polysemy of the units with the same *phonetic shape*; Diewald (2006, p. 424) writes about “polyfunctionality of the particle *lexemes*”; whereby Fischer (2006b, p. 432) contends that “[t]he same *morpheme* may thus function in different word classes, from which different lexemes, i.e. discourse particles, modal particles, connectives, etc., may result” (emphases added). Fischer (2006a), in her introduction to the recent collection “Approaches to Discourse Particles” (of which MPs are considered a subset), divides the plethora of perspectives and methodologies into two large categories: a polysemy-based approach and a monosemy-based approach. The monosemy-based approach, adopted in the present study, is

considered in more detail below. The essence of this approach is concisely summarized

by Diewald (2006, p. 405):

It postulates a core meaning inherent in a lexical item and found in all its uses. The synchronic polyfunctionality of the particle lexemes is due to the reinterpretation of the basic semantic template, which – depending on frequency, stereotypicality, distance of semantic domains, and functional specifications – can result either in a distinction of word classes (i.e. different ‘heterosemes’) or in polysemy within a particular word class or in contextually triggered pragmatic interpretations.

In the area of the application of the monosemy-based approach to German MPs, the work published and edited by Harald Weydt that spans almost forty years (e.g. Weydt, 1969; 1981; 2003; 2006; Weydt *et al.*, 1983) has become classic. For Weydt, a constitutive feature of particles is that they possess a synsemantic meaning, viz. “they do have a semantic content which they deploy in connection with other elements of the utterance” (Weydt, 2006, p. 206). Weydt (2006) explicates his monosemantic position in “seven general theses on particle meaning” (p. 208), the essence of which is formulated as follows:

Every particle can be assigned a constant basic meaning, which appears in every occurrence of that particle. This meaning may be conceived of as a set of semantic features. (p. 209)

Throughout his work, Weydt has attempted to define this “single semantic nucleus” preserved in each particle occurrence and to present it in form of “either notations in symbolic logic or paraphrases” (Weydt, 2006, p. 212). Other scholars working in the monosemy-based paradigm such as Fischer (2006a) and Diewald (2006) also posit the existence of an invariant meaning component common among all particle instantiations and adopt ‘Natural Semantic Metalanguage’ elaborated by Wierzbicka (1986, 1996) for the description of this meaning. Although this approach is applicable to

the area of pragmatics, it presents a didactic challenge because the core meaning of a pragmatic concept is hard to describe “in an understandable form” (Weydt, 2006, p. 212). Additionally, as Weydt (2006, p.211) points out, “[t]he overall meaning, which holds for all occurrences, is relatively abstract. It explains the coherence of all uses and guarantees its identity. The specific meaning is richer and deploys more subtle semantic rules which control differentiated usages”. To account for these richer specific meanings, an array of syntactical-distributional and discourse-pragmatic criteria need to be applied which are addressed in the next sections.

3.3.3 Syntactic-Distributional Features

MPs as a grammatical category are typically defined in negative terms. For example, Götze (1993, p. 228, following Helbig, 1988, pp. 20-21) suggests a following definition:

[E]ine Restgruppe der unflektierbaren Wörter, die weder Satzwert (wie die Interjektionen) noch Satzgliedwert (wie Adverbien) noch Fügungscharakter (wie Präpositionen oder Konjunktionen) haben¹².

Prolonged lists of formal criteria containing syntactic and distributional patterns have been used by different scholars “commonly, and often cumulatively” (Fischer, 2006, p. 430), for describing MPs. The constraints on the MP use suggested by a number of scholars (Abraham, 1991a; Cheon-Kostrzewa & Kostrzewa, 1997a, 1997b; Helbig, 1988;

¹² A residual group of the non-declinable words that possess neither a sentence value (as interjections) nor a sentence constituent value (as adverbs) nor a combinational value (as prepositions or conjunctions).

Hentschel, 1983; König & Requardt, 1991; Thurmair, 1989; Weydt, 1969) are summarized below. According to these constraints, the MPs cannot:

- be placed sentence-initially;
- carry semantic (contrastive) stress;
- occur as single-word utterances;
- be coordinated;
- be negated;
- be isolated by intonation;
- answer a question.

However, a number of positive features have also been suggested to characterize MPs (see Hentschel, 1983; König & Requardt, 1991; Thurmair, 1989). According to these characteristics, MPs:

- are optional elements;
- have as their scope units larger than sentence constituents;
- depend on the sentence type;
- occur exclusively in the so-called ‘middle field’ (see below);
- follow all pronominal elements, but may occur at all major constituent breaks within the middle field;
- partition the sentence into a thematic and a rhematic part without being a part of either (mostly occur before the rheme);
- can be combined with one another.

A moot point that remains is the question of the MP constituent status. A number of researchers have suggested that MPs have the syntactic status of a VP adjunct (Abraham, 1991a; Meibauer, 1994; Ormelius-Sandblom, 1997) or of a functional head (Platzack, 1995). Others (e.g. Helbig, 1988, Weydt, 1969) have represented an opposing view and denied MPs a constituent value. The third position is taken by Hentschel (1983) who proposed that MPs can have the whole sentence as their scope in some cases but particular sentence constituents in other cases. More recently, the second view appears to be claimed more strongly. Many researchers (e.g., Diewald, 2006; Fischer, 2006b; Weydt, 2006) contend that MPs are syntactically integrated into the sentence structure, viz. they only occur in certain syntactic positions (see below), but nevertheless lack a constituent value. They argue that MPs are constituents of discourse and not sentence structure (see 3.3.4).

On the other hand, there is general agreement on the fact that MPs can only be used in the middle field of the German sentence (see, however, Ormelius-Sandblom, 1997), i.e. in a position inside the so-called ‘verbal brackets’ (Fox, 1990, p. 248) built by the finite verb and the non-finite verb form of a complex predicate. Abraham (1991a, p. 7) calls the middle field a “topological characteristic” of German as opposed to English and Romance languages. He also notices that languages exhibiting the feature of the middle field also “display a rich array of modal particles” (ibid.).

Syntactic-distributional criteria alone can in some cases help resolve the issue of particle ambiguity. For instance, researchers have for some time discussed the relations between the modal and discourse particles. Biber, Johansson, Leech, Conrad, and Finegan (1999) define discourse particles (such as *well*, *you know*, *kind of*) as important

units of spoken grammar that signal “a transition in the evolving process of the conversation” and “an interactive relation between hearer, speaker and message” (p. 1086). Hasselgren (2002) terms these particles “smallwords” defined as “small words and phrases, occurring with high frequency in the spoken language, that help to keep our speech flowing, yet do not contribute essentially to the message itself” (p. 150). Although German MPs demonstrate resemblance to ‘smallwords’ (“kleine Wörter”, Helbig, 1988; “Wörtchen”, Weydt, 1969) in that they are also typical of spoken language, serve as an indicator of fluency, and do not contribute to the propositional meaning of the message, a syntactic criterion shows a clear difference between the two categories. As has been shown, MPs are bound to the middle field. In contrast, discourse particles “tend to occur at the beginning of a turn or utterance” (Biber *et al.*, 1999, p. 1086). According to Diewald (2006, p. 408), the feature “syntactically integrated – syntactically non-integrated” is distinctive for MPs and discourse particles along with discourse-functional features.

Other syntactic-distributional criteria listed above are not further discussed here (for a review, see Möllering, 2004). However, criteria relevant for this study, such as MP position inside of the middle field and restrictions related to sentence type, are used for the elaboration of the MP taxonomy (see 4.5).

3.3.4 Discursive-Pragmatic Features

Möllering (2004) argues that criteria such as position in the sentence (see 3.3.3) provide information about word class membership, whereby features of context and co-text “need to be taken into account to interpret meaning” (p. 11).

It is generally accepted that MPs are an inherent and important characteristic of spoken genres of German (e.g. Rudolph, 1991; Möllering, 2001, 2004) and occur especially frequently in private conversations, which show a high level of informality and familiarity between speakers (Hentschel, 2006, p. 59).

From the outset of the research on MPs, it has been noted that they lack propositional meaning but rather express illocutionary force and are of vital importance to the accurate interpretation of interaction in German because they index the speaker’s attitude toward particular utterances and interlocutors (e.g., Abraham, 1991a; Cheon-Kostrzewa & Kostrzewa, 1997a, 1997b; Götze, 1993; Helbig, 1988; Hentschel, 1986; Thurmair, 1989; Weydt, 1969). As Abraham (1991a, p. 5) points out, MPs are highly important for the “felicity conditions of the utterance. Although eliminating a MP does not render the respective sentence ungrammatical, the absence of a MP does alter the information that the listener has about the attitudinal position of the speaker.” Möllering and Nunan (1995, pp. 42-43) demonstrate the role of MPs by comparing the following examples:

a) Es ist nicht einfach, dieses Problem zu lösen.
‘This problem is not easily solved.’

b) Es ist *ja* nicht einfach, dieses Problem zu lösen.
‘This problem is not easily solved (as you know).’

c) Es ist *doch* nicht einfach, dieses Problem zu lösen.
 '(But you know) that this problem is not easily solved.'

The authors comment on these examples: "Whereas native speakers might perceive (a) as a turn in a discussion as quite abrupt, (b) and (c) involve the interlocutor's anticipated point of view. In (b) a shared opinion is assumed, while (c) expresses the wish to overcome a perceived difference of opinion" (ibid.).

Furthermore, the function of MPs as a cohesive device has been pointed out early on. Krivonosov (1977, p. 282) termed MPs "Mittel der kommunikativen Gliederung des Satzes", or 'means of the communicative deployment of the sentence'. In the Duden "Textgrammatik der deutschen Sprache", or 'Text Grammar of German', MPs are defined as textual contact signals that are strongly partner oriented (Weinrich, 1993, p. 841), whereby Hentschel (1986, p. 31) refers to them as to 'metacommunicative deixis' elements.

Different scholars bring to the foreground either the illocutive or the discourse-cohesive functions of MPs. A number of researchers consider the role of MPs as "illocutive indicators and/or modifiers" (Helbig, 1994, cited in Möllering, 2004, p. 35) the primary one (e.g. Helbig, 1988; Weydt, 1969). However, there is considerable controversy with respect to what particular illocutionary force they bring about. Faerch and Kasper (1989) suggested that MPs are "downtoners" that mitigate face-threatening acts (e.g. requests or commands) and make them more polite. This suggestion triggered a number of publications, where MPs are considered politeness markers. Recently, this assumption has been examined by contributors to Held's (2003) collection "Partikeln und Höflichkeit", or 'Particles and Politeness'. Strong opponents of the view on MPs as

politeness markers are Weydt (2003, 2006) and Hentschel (2003). Weydt (2003, 2006) demonstrates by means of the analysis of the core meanings (see 3.3.2) of different particles that none of them has the components “polite” or “friendly”. Moreover, Weydt (2006) argues that MPs are not “down toners” that make the meaning imprecise (as argued by Faerch and Kasper, 1989). The MPs “do not express weakening (or extenuation), but they have a precise meaning which is not extenuating” (Weydt, 2006, p. 208). Instead, MPs are for Weydt cooperation markers which “show that the actual speaker takes into account his partner’s perspective on the subject, that he cooperates” (p. 209). Weydt (2006, p. 215) explicates this common pragmatic function of all MPs as follows:

These particles have in common that they create a network of relationships between the actual hearer and the actual speaker. They transform the dialogue into a common speech [...]. The actual speaker, A, expresses that he not only makes his contribution in an authentic way but models it in such a way that it takes into account the other’s, B’s, perspective. Instead of making an independent statement, he continues B’s idea. He is aware of what B thinks and believes, and he bases his contribution on B’s assumed state of mind. [...] When such a dialogue occurs, it conveys to the partners a feeling of profound satisfaction. The feeling exists, even if they disagree in content, because they realize that the one understands (or at least tries to understand) the other. They cooperate in their effort to understand each other and try to make each other understood. It is this very feeling which is an important factor in bringing about the features of friendliness and amiability.

In essence, Weydt (2003, 2006) argues against the confusion of the MP meaning and the meaning of the context. Indeed, as Hentschel (2003) demonstrates, the utterances containing MPs do not always create the feeling of friendliness; these particles can also “become cheeky”. However, it should be noted that the definition of MP meaning is contingent on the interpretation of the concept of politeness. While Weydt (2003, 2006)

considers politeness primarily social rules of communication functioning in rather formal contexts, Bublitz (2003, p. 181) interprets politeness as willingness to co-operate and to take into account the interests of the communication partner, which is precisely in line with the MP 'core meaning' suggested by Weydt. As Fischer (2006b, p. 446) notices, MPs "may serve politeness functions, for instance, in dispreferred seconds, by showing that the speaker does not reject anything presented by the communication partner thoughtlessly". Thus, MPs can still be considered politeness markers and mitigators which 'reduce interference in self-determination rights of the hearer' (Bublitz, 2003, p. 180).

Other researchers (e.g. Diewald, 2006; Fischer, 2006b; Aijmer, Foolen, & Simon-Vanderveken, 2006) argue that the primary pragmatic function of discourse particles and MPs among them is to serve as discourse connectors. Moreover, Diewald (2006) contends that pragmatic functions are in fact genuine grammatical functions although characteristic of discourse and not sentence grammar. She terms MPs and discourse particles "grammatical markers of spoken dialogical language use which are analogous to grammatical markers of written monological language use" (p. 414). Diewald explains that MPs perform their primary cohesive function by "relating two items through an indexical procedure, i.e. through a process of linguistic pointing" (ibid., p. 406). More specifically, she considers MPs connectors relating "the utterance to a proposition or speech-act alternative" (ibid., p. 407). The feature of scope is used by Diewald (2006) for discriminating among modal particles, discourse particles, and conjunctions which she considers separate word classes though belonging to one broader category of discourse markers. Diewald (ibid., p. 417) abstracts the central function of all MPs as referring back

to “a proposition that the speaker treats as pragmatically given, but that has not yet been explicitly expressed before”, thereby, the MP marks the utterance containing it as “non-initial”. Thus, Diewald (2006) considers MPs anaphoric and exophoric indexicals, or grammatical units pointing backwards to extralinguistic context. Developing this argument, Fischer (2006b, p. 445), however, considers the discourse and the illocutionary function to be interrelated:

[T]he general pragmatic function of discourse particles can be held to mark a contribution by the speaker as noninitial, as grounded in the utterance situation. That is, by relating the current utterance to some aspect of the communicative context, they minimize the speaker's role in the contribution by presenting the utterance as a natural consequence of the already given situation.

Möllering (2004, p. 11) also brings both pragmatic functions together:

German modal particles fulfill pragmatic functions in that they reveal the speaker's attitudes about the context and/or seek to affect the listener's perspective of it but [...] they also perform discursive functions in that they help to create coherence (e.g. Schiffrin 1987) in a text.

This literature review has shown that ascertaining meaning and functions of MPs presents considerable challenge and remains an object of discussion for specialists on the subject. Therefore, one can assume that learners of German as an L2 may feel even more challenged in the process of their acquisition. Literature on this topic is reviewed in the next section. The available research on the teaching and learning of the MPs in German mirrors the general situation in L2 pragmatics (see chapter 2): a number of studies are developmental and others are interventional but there are no studies in which both perspectives are combined (see, however, Belz & Vyatkina, 2005; Vyatkina & Belz, 2006).

3.4 The Teaching and Learning of the German Modal Particles

3.4.1 Longitudinal Studies

All longitudinal studies on the MP development are case studies situated in untutored L2 acquisition environment.

Kutsch (1985) tracked acquisition of German particles by a Turkish girl (aged 11 years at the end of the study) during three and a half years in everyday interactions. The transcribed data were then compared to a native speaker child of the same age. The author concludes that the learner acquired roughly half of the German MPs and that frequency and range of her MP usage lagged behind the native speaker. Kutsch (1985) was the first author to attempt defining the MP acquisitional path: based on her findings, she hypothesized that each particle is acquired first in one of its functions; once this use is stabilized, more functions are added, and the particle begins to appear in combination with other particles.

Cheon-Kostrzewa and Kostrzewa (1997a, 1997b) and Rost-Roth (1999) report on untutored MP development by adult immigrant learners. The data for both studies come from the P-MoLL project exploring the acquisition of modality in German. The participants were five men and three women of Polish background in the first study and an Italian woman in the second study. The Polish participants had spent in Germany one year before the study began, and Rost-Roth (1999) observed the Italian participant from the outset of her sojourn. Oral DCTs that included various discourse types such as giving instructions, narratives, free conversations etc. were used as data elicitation instruments. Data were collected in regular intervals approximately one month in length during two

and a half years by Cheon-Kostrzewa and Kostrzewa and over a three-year period supplemented with a number of additional data from the fifth and sixth year by Rost-Roth. Cheon-Kostrzewa and Kostrzewa (1997a, 1997b) focused on the acquisition of *aber* and *doch* and ascertained that the first MP *aber* appeared in their data in month 10 of the participants' sojourn in Germany and the first MP *doch* in month 15. Rost-Roth (1999) explored the whole range of the German MP and found the first unambiguous MP use (of *mal*) in month 18, whereby the second MP (*ja*) was used for the first time in month 31. In contrast, the MP *mal* appeared in Cheon-Kostrzewa and Kostrzewa's (1997b) production data since the second monthly observation. However, although used from early on and frequently, the MP *mal* only occurs in highly conventionalized fixed expressions *Moment mal* ('wait a moment *mal*') and *guck mal* ('look *mal*'). The MP *doch* was also used until month 24 only in the formula *Das ist doch egal* ('it doesn't *doch* matter'), with other functions added after that.

The findings from both studies confirm the acquisitional sequence suggested by Kutsch (1985): particles are learned first in one function with more functions accumulated in later stages. Moreover, the acquisition path of MPs is also consistent with the general L2 pragmatics developmental sequence: from formula, through low-scope pattern, to construction (see 2.4). Both studies show that the development was uneven. Cheon-Kostrzewa and Kostrzewa (1997b) demonstrate that after the stabilization stage that lasted until month 38, the MP *doch* development occurred *explosionsartig*, or 'explosion-like'. Rost-Roth (1999) employs a native speaker comparison baseline and concludes that MPs most frequently used by her participant were the ones most frequently used by NSs. However, the participant drastically differed from NSs in range

and frequency of MP use. For example, some MPs were overused even at an advanced stage of proficiency (see Belz, 2005a, for similar pattern of use for pronominal *da*-compounds among English-speaking learners of German). On the other hand, some MPs were not acquired at all. A salient example of how divergent acquisitional paths in an untutored setting might be is the acquisition of the MP *doch* which, along with *ja* and *mal*, is considered one of the MPs most frequently used by NSs (Hentschel, 1986). Whereas *doch* was the second frequent MP in Cheon-Kostrzewa and Kostrzewa's (1997b) data, Rost-Roth's (1999) participant has not acquired this particle in its MP function during six years of her sojourn.

Cheon-Kostrzewa and Kostrzewa (1997b) propose that findings about the acquisitional sequence of MPs and challenges that learners face with in untutored settings may serve as a point of departure for instructional purposes. The interventional studies reporting on teaching the German MPs to L2 learners are reviewed in the next section.

3.4.2 Interventional Studies

Weydt's (1981) early pilot study has revealed conspicuous differences in MP learner and NS usage, which has led the author to strongly argue that MPs must be taught to learners, especially before residence abroad. A number of descriptive studies and case studies support Weydt's (1981) call. Harden and Rösler (1981) found that learners of German as a FL were not able to appropriately evaluate the emotive and expressive force of the MPs. They conclude that traditional "norm-oriented" instruction suppresses "natural language behavior" (ibid., p. 72) and call for changing the "forced communication" in a traditional classroom (p. 75) to an informal, "particle-friendly"

climate (p. 79). Kotthof and Cole (1985, p. 2) ascertain that even advanced learners of German (their participants have learned German for about 10 years in their home country and spent one year in Germany) “barely use MPs”. On the other hand, the authors state that instruction in MPs is always very well received by learners and suggest a language-contrastive explicit instruction method. Luchtenberg (1987) argues that MPs can be taught at all levels, but instructors should begin with more frequent MPs and present them not as separate words but in “natural communicative contexts”. In contrast, Jiang (1994) considers explicit MP instruction only appropriate for advanced learners. Eppert and Špokienė (1997, p. 73), following Weydt *et al.* (1983), argue in favor of introducing MPs to beginning learners in a “punctual” fashion and of teaching them to intermediate and advanced learners in a systematic fashion. In general, all researchers consider MPs amenable to explicit instruction. The studies that experimentally explored the efficacy of instruction are reviewed below.

All such studies are situated in FL learning university settings. Two earliest studies exploring the effects of instruction in MPs are Paneth (1981) and Rall (1981). Paneth (1981) applied audio-lingual and translation methods to teaching students with English as their L1. The effects of the instruction are reported on in very general terms, namely, that translation turned out to be easier to learners than paraphrasing. Rall (1981) examined the effects of instruction in 25 MPs to advanced learners in Mexico. A wide variety of tasks was used for instruction, including role plays and conversations with NSs. Rall (1981) attested the use of 15 out of 25 particles in the production data. The author concludes that interaction in German was crucial for the acquisition of MPs, although the students had difficulties with using them spontaneously in conversation.

Möllering and Nunan (1995) explore the effects of instruction on the development of both pragmatic awareness and use of the MPs by intermediate undergraduate students of German in Australia. Learners experienced a three-part instructional unit for one MP (*doch*) over a five-week period. In order to produce instructional materials, the authors used authentic oral texts taken from “taped interviews and conversations of the debate style” (Möllering & Nunan, 1995, p. 60). The learners in question were already familiar with these texts because they had been used previously in the same course in the context of another classroom activity. The examples containing the MP *doch* were accompanied by detailed explanations of its functions in different contexts (p. 50). At the posttest, the researchers found that the overall suppliance rate of *doch* rose from 4.5 to 10.5 in written cloze text exercises; however, the inappropriate suppliance also rose from 3.9 to 4.5 (p. 57). Nearly half of the students demonstrated increased metapragmatic awareness with respect to the MP *doch*. A number of limitations apply to the assessment measures employed in this study. First, the main data elicitation instrument, the DCT, was administered in written format, whereas the instructional materials were based on an oral NS corpus. Additionally, the contexts for the individual test items were not well defined; this contextual vagueness may account for the increase in inappropriate uses (p. 59). Nevertheless, Möllering and Nunan (1995) make a valuable contribution to interventional research because their study is the first one to demonstrate positive effects of explicit MP instruction by means of an experimental study. Moreover, the authors were the first to employ a NS corpus in the production of pedagogical materials for the teaching of the MPs; they thereby anticipate Bardovi-Harlig’s (1996) call for the use of NS corpora as a

source of authentic materials for the classroom-based instruction of L2 pragmatics (see 3.4.3).

Another study reporting on the use of a NS oral corpus for teaching German MPs is Fernández-Villanueva (1996). Her participants were L1 speakers of Spanish or Catalan and advanced learners of German, and were enrolled in a specialized seminar on German pragmatics and grammar. The instruction was oriented towards awareness-raising and operationalized on the basis of Helbig's (1988) "Lexicon of German Particles" so that students were taught to take successive steps for disambiguation of particle meaning in the context of the excerpts from the "Freiburg Corpus". The results are presented in a descriptive format: for 10 of the 15 particles, "the students could identify them without too much trouble and could interpret their function in the text in all its complexity" (Fernández-Villanueva, 1996, p. 90). In sum, this study did not explore the effects of the instruction but rather put to test the suitability of Helbig's (1988) "Lexicon" for delineation between particle meanings.

One more study in which data from NS corpora are utilized as mediators of learners' classroom-based MP development is St. John (2001). The author conducted a pilot case study exploring how the use of corpora assisted a beginning learner in reading comprehension of L2 vocabulary and grammar in "an unsupervised environment" (p. 185). As opposed to the studies discussed above, the corpus in St. John (2001) is a parallel corpus which means that it consisted of "the original German source texts and their English translations" (p. 185). The participant's task was to search for specific words and phrases in the German corpus (including four particles – *wohl*, *also*, *eben*, *doch*) and then to find their translations in the parallel English corpus with the help of

specific software. Further, the student had to look for emerging patterns of translation of the target words and to take notes about his observations. The participant was not given explanations about the meaning and functions of the target words, for instance, the difference between the MPs and their homonyms. After the learner had received the instructions concerning the task and the software use, his work was unguided: “there was no student/teacher interaction during the project time” (St. John, 2001, p. 196) and “[t]he parallel corpus and the parallel concordancer were the learner’s only resource” (p. 189). In the course of the experiment, the participant was able to document some observations about the meaning of certain MPs, e.g. that *doch* “had a positive modifying effect on a sentence” (p. 193). In sum, the study argues in favor of inductive learning by presenting an example of the potential usefulness of corpora and concordance lines at the beginning stages of L2 study. One potential caveat with respect to the effectiveness of the proposed methodology that is acknowledged by the researcher, however, is the fact that only one learner who is called “untypical” because of his linguistic background (p. 197) was examined. It might be the case that other learners would require a higher degree of teacher guidance in order to make use of corpus materials and, in particular, to develop meta-pragmatic awareness of MP use.

To the best of my knowledge, there are no more recent interventional studies on the subject. However, in the era of more communicative approaches to language teaching, MPs have been included, to far or less extent, into language curricula as well as teaching materials. Available materials for teaching German MPs in the North-American collegiate setting merit therefore some discussion.

3.4.3 Pedagogical Materials for Teaching MPs

Rösler (1983) presents an overview of widely used (at the time of writing) textbooks of German as a FL such as *Grundkurs Deutsch* and *Lehrkurs Deutsch*. These textbooks contain neither adequate explanation of the use of MPs nor sufficient practice materials for learners. Moreover, Rösler states that authors of traditional textbooks had a fear of including MPs in their dialogs. According to Rösler, the newer teaching materials (e.g. “Deutsch Aktiv”) showed a reduction of this fear, but the MPs still remained “*unbekannte Wesen*” or ‘unknown creatures’ (Rösler, 1983, p. 295) for learners because of the lack of explanations as well as exercises. Furthermore, the personae of the textbook dialogs mostly remained characterless, and their performance had no consequences for relationships with their partners in presented conversations (ibid.). Rösler (1983) argues that despite the fact that the “communicative approach” had become a buzz word at the time of publication of the textbooks under consideration, such important features of communicative competence as MPs still did not receive the attention they deserved.

It should be noted that not much has changed since Rösler’s (1983) review was published. MPs have not received much attention in more recent teaching materials. For example, the textbooks “Kontakte” (Terrell, Tschirner, & Nikolai, 2000) and “Kaleidoskop” (Moeller, Adolph, Mabee, & Berger, 2007) do not mention MPs at all, although “Kontakte” is provided with the subtitle “A communicative approach”. The textbook on the development of the reading strategies “Schemata” (Moser, Young, & Wolf, 1997) invites the reader to find “particles” in a constructed dialogue without giving explanations of what is meant by this term. In many textbooks, a few MPs are presented in boxes scattered throughout the text (Widmaier & Widmaier, 2002; Otto, von Schmidt,

Goulding, & Jorth, 2003; DiDonato, Clyde, & Vansant, 2004). Each box contains a short semantic explanation along with one or two example sentences. Some of these boxes are followed by a fill-in-the-gap drill. For example, the authors of the textbook “Sichtwechsel” (Jenkins, 2000) handle the MPs used in declarative and in interrogative sentences separately. For each type, a list of six and five MPs respectively is provided. Every MP is accompanied with an example in form of a separate sentence and a very short explanation of the “Sprechintention”, or ‘speech intention’. E.g.: ABER – “*Verstärkt die Aussage. Hier Ironie!*”, or ‘Enhances the utterance. Here irony!’ (p. 135). Further, the learners are given a transformation exercise and a speech production exercise where they have to insert given sentences with MPs in short dialogues. Apparently, such an explanation is not sufficient for fostering comprehension of MPs or for stimulating speech production on part of the learner. Additionally, some items on the list as “überhaupt” do not belong to the category of MPs.

Many descriptive grammars of German, even the ones described as “communicative” (e.g. Klapper & McMahon, 1996), do not mention the modal particles at all. In contrast, “A Practical Review of German Grammar” by Dippmann & Watzinger-Tharp (2000), designed for English-speaking learners at intermediate and advanced levels, contains a section on the MPs. However, although the authors claim that the “exercises are in natural German and are frequently in conversational form” (p. XV), the section on MPs (called flavoring particles in this text) is put in the appendix and contains only a few examples of some MPs in separate sentences without any broader context. As Kasper (1997) argues, most language development is function-driven. The

lack of social function in constructed textbook dialogues is the obstacle that prohibits the enhancement of the pragmalinguistic ability of the learners.

The last edition of Durrell's (2002) descriptive grammar is an example of a more functional approach. The very title of the book is "Hammer's German Grammar and Usage". The author states in the preface that "more attention has been paid to registers other than formal writing or literature and details given on spoken usage" (Durrell, 2002, p. XIV). An entire chapter is devoted to modal particles. MPs are considered "a typical feature of German, especially, if not exclusively, of everyday colloquial speech. ... They act as a kind of lubrication in dialogue, making sure that the speaker's intentions and attitudes are not misunderstood. German has a far richer repertoire of such words than English" (ibid., p. 175). Durrell (2002) provides a "practical account" of all words "which have some claim to being considered as modal particles" (ibid.). The total list of these words contains 36 items. Durrell (2002) points out that the functions of these words are not always well determinable, that is why he gives an account for all the functions of the listed lexical items. For every instance, the grammar provides a short explanation of the meaning, a translation into English (where possible), and several examples in form of separate sentences. For these specific instances, Durrell (2002) does not explicitly point out whether they contain modal or grading particles. His explanations are rather general, e.g. "[s]ometimes "eigentlich" can signal that the matter is still a little open" (ibid., p. 185). Considering the lack of attention to MPs in many grammars of German, Durrell's (2002) functional approach marks a positive trend in his attempt to encompass as many particles and their functions as possible. On the other hand, Durrell's concept of MPs seems to be too broad because he includes in his list such words as "also", "allerdings",

“immerhin”, “übrigens” and others, which rather belong to the category of modal adverbs or logical particles. Additionally, separate sample sentences do not provide context necessary for interpretation of the meaning of the particles.

Weydt *et al.*'s (1983) “*Kleine deutsche Partikellehre. Ein Lehr- und Übungsbuch für Deutsch als Fremdsprache*” (‘Small German Particle Theory. A Textbook and Workbook for German as a Foreign Language’) is organized around twelve speech acts and presents 26 particles, including MPs, with the explanations how they bring about the illocutionary force of expression of opinion, command, commentary, surprise, and others. This account is grounded in the monosemy-based approach (see 3.3.2). Brief semantic, syntactic, and pragmatic explanations are followed by drill and gap exercises. Importantly, the book pays much attention to intonation and is accompanied by an audiotape. The textbook is written in accessible style, avoids linguistic jargon, and its materials can be used as separate modules at different instruction stages. In sum, this package remains until present the most comprehensive and useful collection of teaching materials on the topic although published back in 1983.

To summarize (for review of more textbooks, see Möllering, 2004), the MPs are typically not treated adequately in commonly available teaching materials (Götze, 1993; Kotthoff and Cole, 1985; Rösler, 1983) but rather in “stepmother-like” fashion (Weydt, 1981, p. 164). However, this situation is not unique for MPs but rather typical for features of pragmatic competence in general. As early as in 1996, Bardovi-Harlig points out in her discussion of textbooks appropriate for teaching pragmatics that invented dialogues and other examples are “hard to get right” because “pragmatic or sociolinguistic competence is not amenable to introspection” (Bardovi-Harlig, 1996, p. 27, citing Wolfson, 1989) as

opposed to grammatical competence. Bardovi-Harlig (1996) concludes: “we need to observe language use in order to provide reasonably authentic – and representative – models of language use” (ibid.) and proposes that such observations can be made by looking at the existing language corpora. Bardovi-Harlig (1996) gives an example of comparison between a textbook and a corpus: “Larry Bouton showed that 80% of the invitations in one ESL textbook used a form of invitations which appeared only 26% of the time in a published corpus on native-speaker invitations” (p. 24). In her concluding remarks on bringing pragmatics and pedagogy together, Bardovi-Harlig (1996) points out: “The materials should not only utilize authentic language, but must take into account distribution and frequency of occurrence of the alternative forms presented to learners” (p. 36).

Möllering and Nunan (1995), Fernández-Villanueva (1996), and St. John (2001) respond to Bardovi-Harlig’s call in that they use NS corpora as materials for MP teaching (see 3.4.2). In later work, Möllering (2001; 2004) developed further the method of data-driven teaching of MPs in the classroom via handouts containing authentic NS data from oral corpora. Following this method, examples from corpora are put onto special worksheets, whereby “patterns of collocation can be established and made salient for learners of German” (Möllering, 2001, p. 132). In class, the learners are then confronted “with the task of distinguishing particle meanings in context” (ibid., p. 144). In order to obtain an evaluation of this suggested teaching approach, Möllering (2004) conducted a pilot study with a single snapshot design where 19 upper-intermediate to advanced university students of German as a FL were engaged with sample worksheets on the MP *eben* and asked to comment on their experience in writing and in a group discussion

immediately afterwards. The results were generally positive and showed that the learners very much “valued the explorative nature of the task” (p. 246). However, all but one student found working with concordance lines “slightly overwhelming” (ibid., p. 245). For example, one student remarked: “[t]he sample text lines were difficult to understand at first because they were very colloquial and we didn’t see the whole sentence” (ibid.). Indeed, unlike the participants in Möllering and Nunan (1995), who were familiar with the excerpts from previously used pedagogical materials, the students in this study were faced with an unknown situational context. Additionally, if authentic examples are to be used in classroom, their content should be relevant to students’ interests and experiences (Götze, 1993, p. 231) that was not the case in this study. Möllering (2004) concludes her book with a call for investigation of the ways to increase learner engagement that “would make for truly student-centered learning and would be a valuable extension to the approach proposed in this study” (p. 251).

This study adopts Möllering’s (2004) method of utilizing corpus materials for MP teaching and responds to her call because it deals precisely with the ways of making learners active agents in their own learning. The learners in this study analyzed examples not from an external abstract corpus but from an integrated NS-learner corpus produced by their partners and themselves in meaningful interactions. Additionally, although Möllering’s (2001, 2004) data-driven suggestions for the teaching of the MPs go a long way in addressing the known challenges posed by the tutored instruction of L2 pragmatic competence, she does not report on an experimental study designed to test the effectiveness of the use of the suggested corpus-based pedagogical materials. This study aims at filling this gap as well.

3.5 German MPs as a Genre¹³ Characteristic

With no exception, all researchers whose studies were reviewed above consider MPs characteristic of spoken texts (e.g. Rudolph, 1991; Möllering, 2001, 2004). All teaching materials suggested to date (see 3.4.3) include constructed or authentic examples representing spoken conversations. However, the opposition “written – spoken” has been repeatedly criticized for its narrowness. Indeed, MPs have also been attested in written media, e.g. in literature. However, when occurring in literature, MPs are invariably used to render the speech of personages or to invoke the impression of a dialogic interaction with an imaginary interlocutor (see Liefländer-Koistiner, 1988; Möllering, 2004; Prorokova, 1991). Notably, CMC genres (e.g. email and chat, among others) that have emerged during the last decades incorporate features of both written and spoken discourse (e.g. Crystal, 2001). To account for this issue, McCarthy (1993, p. 171) suggests a multidimensional classification including the categories “medium” and “mode”, whereby the former “is concerned with how the message is transmitted to its receivers” and the latter “is concerned with how it is composed stylistically, that is, with reference to sociolinguistically grounded norms of archetypical speech and archetypical writing. These norms are norms of appropriacy, culturally conditioned on a cline of 'writtenness' and 'spokenness'.” Kern (2000) supports this claim, positing that synchronous CMC “combines the temporal immediacy of spoken interaction [...] with the social distancing allowed for by writing”, and “incorporates many features of spoken

¹³ The term “genre” is used here in a broad meaning: to describe any text type. Different CMC text types are also typically referred to as “CMC genres” or “web genres” (e.g. Beißwenger and Storrer, to appear). For a discussion, see Lee (2002).

mode within a written *medium*” (p. 238, emphasis in original). One more dimension is added by Biber (1988), who suggests to classify texts on the continuum “interactive” – “edited”, whereby the feature “interactiveness” is more characteristic of synchronous CMC (such as chat) as opposed to the feature “edited text” that is more characteristic of asynchronous CMC (such as email). Herring (2002) attributes the differences between the two CMC genres primarily to temporal constraints: “synchronous CMC appears to be better suited for social interaction and asynchronous CMC for more complex discussion and problem solving” (p. 135).

Biber *et al.* (1999) in their “Corpus-based grammar of spoken and written English” compile frequency-based lists of linguistic features of different text types. Discourse markers are ascertained as one of the most salient features that are “rare outside of the conversational genres” (Biber, 1988, p. 241). Since CMC genres demonstrate conversational qualities (see above), they share certain linguistic features with spoken genres. Indeed, interpersonal features such as discourse particles and 1st and 2nd person pronouns have been shown to occur with high frequency both in spoken genres and in CMC (Condon & Cech, 1996; Ko, 1996; Yates, 1996). These findings lead one to assume that MPs may be one of the CMC genre characteristics in German.

Furthermore, the nature of CMC requires the use of additional pragmatic markers because, as Herring (2004, p. 339) aptly points out, “language is doing, in the truest performative sense, on the Internet, where physical bodies (and their actions) are technically lacking”. Elsewhere, Herring states that CMC is characterized by “a relative lack of physical and social cues, [...] due to its text-only nature” (Herring, 2002, p. 136). To fill this gap, specific compensatory strategies have been developed in CMC, e.g.

“creative uses of language, such as novel spellings, repeated punctuation, and ASCII graphics designed to create attitude, nonspeech sounds, and facial expressions” (Herring, 2002, p. 140). As Schulze (1997) points out, “the substitutions for nonverbal and paraverbal cues also lessen the medial anonymity - thus creating a perceived presence (or virtual presence) of interlocutors, a presence which is substantial enough to be the start of friendships or even marriages.” Interestingly, Weydt (1969, p.61) contends that German MPs act similarly to features of speech-external, physical context and intonation. This claim is supported by evidence that the meaning inflexions equivalent to the meaning of German MPs are rendered in other languages by means of laughter, gesture, pitch, accent, intonation, speech tempo, volume, and the like (ibid.). Based on this description, it may be assumed that MPs are good candidates for substituting physical and social cues in CMC.

Furthermore, there is evidence that CMC is generally highly emotionally loaded (Rice & Love, 1987; Herring, 1999) and that even professional discussion lists contain more opinions and emotional debate than facts (Herring, 2002, p. 134), which makes CMC similar to face-to-face (F2F) interactions. Similarly, German MPs are said to be means for expressing emotions and attitudes (e.g. Abraham, 1991a; Harden & Rösler, 1981; Hartmann, 1986; Held, 2003; Hentschel, 2003; König & Requardt, 1991; Möllering, 2004) and to be bound to informal interactional registers (Harden and Rösler, 1981; Hentschel, 1986; Luchtenberg, 1987).

The features discussed above align MPs with a salient attitudinal marker in CMC - ideographic symbols called smileys, or emoticons. James (2001, p. 11) even refers to MPs (in Cantonese) as to “lexical equivalents of smileys”. Moreover, the history of the

perception of CMC emoticons and MPs demonstrates striking parallels. When smileys began to appear more and more in CMC, they were often stigmatized as bad style: “They’re the smallpox of the Internet; smoke signals on the information highway”; “[g]ood writing needs smileys like the Mona Lisa needed lipstick and eye shadow” (Andrews, 1994, quoted in James, 2001, pp. 10-11). However, the sociolinguistic significance of the emoticons was gradually recognized. For example, Garner (2000) acknowledges playfulness and economy inherent to the use of smileys: “Internet English is surely relaxed and playful and creative. The so-called smileys (...) show a delightful imagination at work. And the immediacy of modern communication demands a saving of keystrokes” (cited in James, 2001, p. 11). Similarly, MPs were for a long time considered a feature of bad style in German: “Alle diese Flickworte wimmeln wie Läuse im Pelz unserer Sprache herum”¹⁴ (Reiner, 1959, p. 183, quoted in Weydt, 1969, p. 83). The very terms coined for MPs at the time when only truth-conditional semantics was considered important (see 2.2) carry a pejorative connotation, e.g. *Flickwörter* (‘patch words’) or *Füllwörter* (‘filling words’) (Prorokova, 1991, pp. 3-4). However, along with the advance of pragmatics (see 2.2), the importance of MPs has been getting more and more recognition. Nowadays, MPs are considered “indicators of pragmatic competence” (Möllering & Nunan, 1995, p. 41; see also Harden & Rösler, 1981; Kotthof & Cole, 1985) and, consequently, “*ungemein wichtig im kommunikativen Deutschunterricht*”, or ‘extremely important for the communicative teaching of German’ (Götze, 1993, p. 232; see also Eppert and Špokiené, 1997; Jiang, 1994; Kotthof & Cole, 1985; Luchtenberg,

¹⁴ ‘All these patch words swarm like flees in the fur of our language’

1987; Möllering, 2004). The striking resemblance between emoticons and MPs builds one more argument in favor of the likelihood of MPs to frequently appear in CMC. This assumption has been confirmed during the pilot study (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006).

3.6 Summary

This chapter contains a review of the literature on German MPs. Sections 3.2 – 3.3 have addressed the definition and description of modal particles as a word class. Modal particles have been described as indeclinable words that function as discourse indexicals and important carriers of interpersonal meaning in German because they index the speaker's attitude toward particular propositions or interlocutors. This definition of their general pragmatic function appears to be the point of consensus among researchers despite the 'terminological salad' (Eppert & Špokienė, 1997, p. 72) persisting to date in MP descriptions. This study adopts the monosemy-based approach to MPs, assuming that each lexeme with a unique phonetic and typographical shape, which can potentially function as an MP, possesses a diachronically established core meaning. MPs are considered here to constitute a separate word class representing a variant on the abovementioned continuum. For the current research and instructional purposes, only the delineation between MPs and their homonyms is relevant without further disambiguation of homonyms into homonyms proper and polysemes (see 4.5). Motivated by the call for examination of more empirical data to fine-tune the meaning and functions of the German MPs. (e.g. Diewald, 2006), this study suggests a taxonomy of the four focal MPs

based on the NS corpus data (see 4.5) produced in two CMC genres (email and chat), which allows for a comparison with existing taxonomies based on spoken corpora (Möllering, 2004).

Sections 3.4.1 – 3.4.3 have reviewed studies exploring learning and teaching German MPs as well as available pedagogical materials. From the pedagogical perspective, the German MPs are notoriously difficult for English-speaking learners of German to master for a variety of reasons. First, English does not possess a similar set of corresponding particles. Second, the MPs typically are not treated adequately in commonly available teaching materials. Third, it is often difficult for learners as well as teachers to disentangle the various meanings of the MPs as well as to exactly state their domain and functions. Finally, learners and teachers may not have access to authentic materials in which the MPs occur because they are generally found in more casual spoken interaction as opposed to written texts. As an innovative approach for alleviating this concern, corpus-based teaching of MPs has been suggested (Möllering, 2001, 2004), however, the efficacy of this method has not been yet experimentally explored. In general, very little is known about the effect of instruction on the appropriate use of MPs by learners (e.g., Möllering and Nunan, 1995) and even less is known about the ways in which tutored learners develop competence in their use over time. Nevertheless, research (Weydt, 1981, 2003; Möllering & Nunan, 1995; Möllering, 2004) has demonstrated that teaching MPs is necessary and feasible. Moreover, Weydt *et al.* (1983, p. 9; see also Weydt, 2003, 2006) claim that learning MPs is “economical” for development of pragmatic competence:

Von einem gewissen Kenntnisstand des Deutschen an ist es viel ökonomischer, die immer wiederkehrenden Abtönungspartikeln zu lernen, als noch weiter an der Grammatik oder am übrigen Vokabular zu arbeiten. Man wird mit einem vergleichsweise geringen Aufwand an Arbeit ein erhebliches Mehr an Fähigkeit erreichen, idiomatisches Deutsch zu sprechen¹⁵.

Finally, the status of German MPs as a genre characteristic has been discussed (3.5). Such features of German MPs as boundness to interactional (conversation-like) and informal registers, potential for economical expression of attitude, and striking similarities to CMC-specific markers make them very likely candidates to be a distinctive genre feature not only of spoken conversations but also of CMC, more so for synchronous than for asynchronous modes. However, this hypothesis has not been tested, to the best of my knowledge, in research to date. This provided an impetus for carrying out a pilot study advancing this research (reported on in Belz and Vyatkina, 2005; Vyatkina & Belz, 2006; Belz *et al.*, 2005b). The pilot study has shown that German NSs indeed used many MPs in their CMC discourse, which justified the design of this dissertation. Finally, CMC as a spoken mode within a written medium (Kern, 2000, p. 238) triggers high MP occurrences but also allows for preserving these occurrences for perusal by learners in a language learning setting. As Herring (1999) points out, “even the least persistent synchronous interface is more persistent than spoken language”. Therefore, CMC interactions provide learners with mediational support for cognitive processing of linguistic features to be learned and can serve as basis for creation of

¹⁵ ‘Beginning from a certain level of the knowledge of German, it is much more economical to learn shading particles that pop up over and over again than to work further on grammar or the rest of vocabulary. One can reach a considerable gain of ability to speak idiomatic German with relatively minor work costs.’

pedagogical materials. This CMC potential has not been used for teaching German MPs to date, and the present study aims to fill this gap.

Chapter 4

Methodology

4.1 Introduction

The main research purpose of this study is investigation of the development of L2 pragmatic competence (1.5) in the experimental context of the telecollaborative learning configuration (1.3) from the general theoretical perspective of sociocultural theory (1.6). Based on these premises, a mixed methods research methodology was selected. The pedagogical intervention was designed on the basis of the methodological principles of data-driven learning and form-focused instruction; and for data analysis, the twin research methodologies of contrastive learner corpus analysis and microgenetic analysis were employed.

In this chapter, I outline the two general research methodologies applied in this study (4.2): contrastive learner corpus analysis (4.2.1) and microgenetic discourse analysis (4.2.2). Further, I describe the research design (4.3) including general premises (4.3.1), design of the pedagogical experiment (4.3.2), and data collection instruments (4.3.3). Finally, the operationalization of the coding of the targeted features for the analysis is presented in 4.4.

4.2 Research Methodology

4.2.1 Contrastive Learner Corpus Analysis

The usefulness and necessity of using corpora for instruction in pragmatics has been brought up by Bardovi-Harlig (1996) in her article entitled “Bringing pragmatics and pedagogy together”. The author argues that “we need to observe language use in order to provide reasonably authentic – and representative – models of language use” (p. 27) and that “materials should not only utilize authentic language, but must take into account distribution and frequency of occurrence of the alternative forms presented to learners” (p. 36). However, this approach focusing on distribution and frequency, termed corpus analysis, had already been successfully implemented in descriptive and contrastive language studies (see Biber, 1988, 1993; Sinclair, 1987, 1991). Moreover, the tool of data-driven learning, or DDL, based on using NS corpora for the purposes of language instruction, was suggested (Johns, 1986, 1990). Since that time, a substantial body of corpus analysis studies has emerged, focusing on language variation, on the one hand, and on L2 pedagogy, on the other hand. The first category comprises investigations of variation of grammatical and pragmatic features as used by NSs of different languages (although predominantly English) across different genres. In particular, the usage of such pragmatic features as expressions of modality, formulaic patterns, hedging devices, and discourse connectors has been explored (e.g. collections of works by Partington, Morley, & Haarman, 2004, and Reppen, Fitzmaurice, & Biber, 2002; the dissertation by Garcia, 2004). The use of modal particles by NSs of German has been investigated using the material of a spoken telephone conversations corpus

(Möllering, 2004) and a written newspaper language corpus (Lemnitzer, 2001). A separate branch of this research is oriented toward comprising corpus-based grammars (Biber *et al.*, 1999; Carter & McCarthy, 2006). These grammars, among other uses, are suggested for applications in L2 pedagogy. In this sense, they build a bridge to the second category of studies concentrating on DDL, namely, the production of specific pedagogical materials based on NS corpora or techniques that can be used by learners for direct searches of NS corpora (e.g. the work collections by Coffin, Hewings, & O'Halloran, 2004; Kettemann & Marko, 2002; Sinclair, 2004). However, more recently, the DDL methodology has been developed to include not only NS corpus data but also "learning-driven data" (Seidlhofer, 2002, p. 213) for application in the L2 classroom. For using this methodology, learner productions in their target L2 are compiled into electronic learner corpora, defined by Granger (2002, p. 7) in the following way:

Computer learner corpora are electronic collections of authentic FL/SL textual data assembled according to explicit design criteria for a particular SLA/FLT purpose. They are encoded in a standardised and homogenous way and documented as to their origin and provenance.

Seidlhofer (2002, p. 215) advocates using learner corpora for instructional purposes by explaining that, in this fashion, learners act "not just as perusers and purveyors of textual data, but as participants and analysts in the discourse process of drawing on the potential of corpus linguistics via their own texts and their own questions". Seidlhofer (*ibid.*) further explains that learner L2 data from learner corpora may be compared to NS reference corpora, thus giving the learners an impression of "where they are, i.e. situated in their L2 learning context, and where they eventually (may) want to get to, i.e. close to the native speaker language using capacity captured by

L1 corpora”. This method has been termed contrastive learner corpus analysis. Learner corpora and contrastive learner corpus analysis, being “a fairly recent phenomenon” (Nesselhauf, 2004, p. 125), have been on the rise during the few last years and have yielded a sufficient number of publications to be delineated as a separate avenue in corpus analysis research (see, e.g., Flowerdew, 2002; Granger, 1994, 1998; Granger *et al.*, 2002; Granger, to appear; Meunier, 2002; Nesselhauf, 2004; Nesselhauf, to appear; Pavlenko & Driagina, to appear; Pérez-Paredes, 2004; Pravec, 2002).

This study draws on the methodology of corpus analysis as applied in both types of studies: variation studies comparing linguistic features across genre and contrastive learner corpus analysis studies. However, the perusal of the full contingent of studies from the collections mentioned above, all of which fall under the general methodological category “corpus analysis”, has shown that actual analytical methods applied in the work of different authors vary considerably. Granger (2003, p. 541) states that contrastive learner corpus analysis studies seek to uncover “qualitative differences (misuse) and quantitative differences (over- and underuse)” of the targeted features by learners in comparison to NSs. Similarly, variation studies explore qualitative and quantitative differences with regard to targeted features between genres (this is the area made famous by Biber’s work). For example, Garcia (2004) terms the methodology of her dissertation exploring variation of pragmatic function in a NS corpus “inclusive” and describes it in the following way:

[...] speakers do not convey pragmatic function merely *indirectly*; but rather, pragmatic function is *embedded* in the context of the conversation, the situation, and the goals and background knowledge of both speaker and hearer. Therefore, the exploration of pragmatic function must involve an inclusive methodology consisting of elements of analysis from

conversation analysis (CA), discourse analysis (DA), and, for large-scale analysis, corpus linguistics techniques. (p. 35, emphasis in original)

It can be concluded that the design feature common to the majority of the studies addressed above is application of mixed methods, i.e. combination of quantitative and qualitative analyses¹⁶. This study follows this general methodological approach while integrating analytical methods of contrastive learner corpus analysis and microgenetic discourse analysis. These methods are addressed in the next section.

4.2.2 Microgenetic analysis

One of the main contributions of this study to L2 pragmatics research is incorporation of the element of time into the research design (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). The analytic method of microgenetic analysis (already addressed in Chap. 1) was chosen as the most appropriate strategy for addressing this issue and capturing micro-gains of development of L2 pragmatic competence because it “closely examines the particular features of interactive settings as development takes place” (Kingtoner & Belz, 2005, p. 3). Kasper and Rose (2002, p. 42, see also 1.5.2) suggest that combining the sociocultural theoretical framework with microanalysis is especially suited for demonstrating “how differently structured classroom activities promote and obstruct pragmatic learning and how it develops (or does not develop) over time”. Ishida (2006, p. 59) also advocates the microgenetic method because it affords observations of how “participants in social interactions are co-constructing meanings on a moment-to-moment basis”. This method was developed, applied, and validated by Belz

¹⁶ It should be noted that these methodological premises are very often not explicitly stated in the studies addressed above, which is typical of SLA studies in general (see Rocco *et al.*, 2002, p. 605).

and Kinginger in a series of works (see Belz & Kinginger, 2002, 2003; Kinginger & Belz, 2005; Belz, 2004; Belz, 2006; Belz *et al.* 2006b). Belz and Kinginger (2003) define microgenetic analysis as applied to research into L2 development as “the observation of skill acquisition during a learning event” (p. 594), including the examination of “the precise, concrete social practices leading to change in learner language over time” (p. 601). In their most recent work, the authors combine this approach with corpus analysis to achieve an integrated methodological framework of “corpus-assisted, microgenetic analysis with a longitudinal scope” (Kinging & Belz, 2005; see also Belz, 2006; Belz *et al.*, 2005a, 2005b; Vyatkina and Belz, 2006). The present study is placed on the methodological footing of this work.

Microgenetic analysis is well compatible with contrastive learner corpus analysis as afforded by *Telekorp* and the telecollaborative pedagogy (see 1.3). In this study, target features in the learner and NS usage were automatically retrieved from *Telekorp* (after initial manual coding of these features) and analyzed quantitatively using corpus analysis techniques. After that, each particular usage was linked back to the specific context of its production and analyzed microgenetically under consideration of this context as well as a variety of awareness data and learner metadata linked to *Telekorp*. In this fashion, an integrative analysis of emerging developmental patterns capturing different facets of the process was completed. The research design is described in detail in the next section.

4.3 Research Design

4.3.1 Mixed Methods Design

Mixed methods are advocated by many scholars (Tashakkori & Teddlie, 2003) as an approach that is especially well suited to social studies. This approach represents a “dialectic stance” which assumes that “the use of multiple paradigms contributes to greater understanding of the phenomenon under study” (Teddlie & Tashakkori, 2003, p. 22). More specifically, this study adopts an “interactive model of design” (Maxwell & Loomis, 2003) that follows the logic of the research purpose, theoretical framework, and the course of the experiment rather than choosing a model “from a fixed set of possible arrangements or sequences in the research process” (ibid., p. 245). Following the theoretical and methodological premises of this study and its main research purpose, both quantitative and qualitative research methods were applied in order to analyze the process of L2 pragmatic competence development.

4.3.2 Design of the Pedagogical Experiment

The intervention for the tutored instruction of the MPs was implemented by the researcher. It followed the general procedures employed by Möllering and Nunan (1995) and included awareness-raising, explanation, and practice. However, this design was elaborated as a form-and-function-focused instruction (Kasper & Rose, 2002) that progressed from enhanced condition to explicit condition (Robinson, 1997, p. 224) to fine-tuned condition. The pedagogical experiment is described in detail in 5.3.

As opposed to Möllering and Nunan (1995), the pedagogical intervention in this study was learner data-driven and based on the main principle of telecollaborative pedagogy as suggested by Belz (2006): “the production of process data and its critical, meta-lingual examination and discussion” (p. 214; see also 1.3.3). For this reason, it was constituted by four cycles each including the following components: the instruction sessions followed by intercultural CMC sessions with concomitant data collection and analysis (see Fig. 4-1).

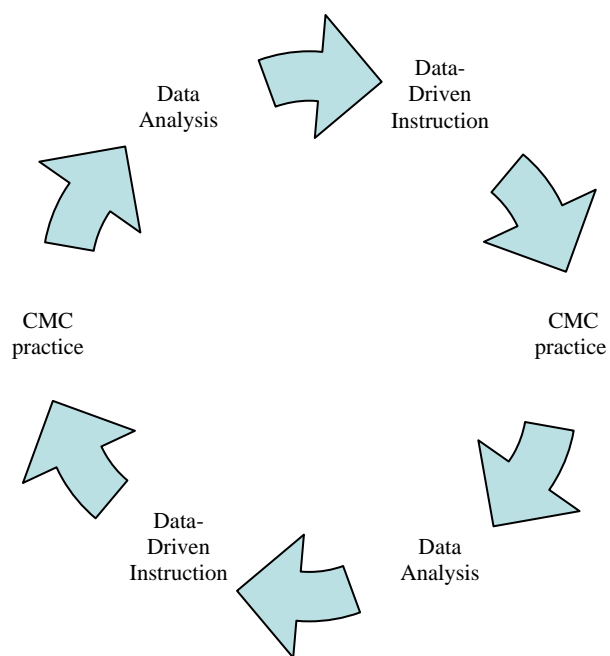


Figure 4-1. Experiment design,

The detailed outline of the course of the pedagogical intervention is presented in Chapter 5.

4.3.3 Data Collection Instruments

4.3.3.1 Process Data

Process data in form of telecollaborative electronic discourse were initially saved by the participants themselves and automatically archived by means of teleconferencing software FirstClass (see Belz & Müller-Hartman, 2002). On a weekly basis, another coder and I copied all process data produced by the students and entered them into *Telekorp* organized in form of a database by means of FilemakerPro software (see Fig. 4-2).

The screenshot displays the TELEKORP: Basic/Search view interface. The main content area is divided into several sections:

- Record Information:** record id 12607524, modified on 11/1/2005, by Jon. Semester week 8, date of event 10/20/2005, time of event.
- Activity Type:** email. Chat desig., chat turn no., email content. Checkboxes for correspondence (checked), corr. corrections (checked), project (unchecked), and proj. com (unchecked).
- Learner Information:** section American/experimental, year 2005. name 1 Christie, gender female, prof. level learner/advanced. name 2, name 3.
- Statistics:** no. words all found data 155336, no. all corresp. words 84535, no. all english words 76842, no. all german words 44778.
- data words:** 370. The data field contains text in English and German, including corrections and a note about participants.

On the left side, there is a sidebar with navigation options: Browse, Layout: basic/se:, Record: 11, Found: 6165, Total: 33340, and Unsorted.

Figure 4-2. Snapshot of a record retrieved from *Telekorp*.

More specifically, the process data were entered into the “data” field of the “basic” database and supplemented with a range of metadata: semester week and date of production; activity type (email, chat, survey, etc.); correspondence type (general correspondence, project discussions, error corrections, etc.); and a unique pseudonym of

the author(s). Furthermore, the pseudonym of the first author (the person who typed the respective CMC entry) was linked to the participant database compiled at the beginning of the course that allowed for automatic display of the following learner metadata in the respective record: year of participation in the TC course, section (German, experimental), gender, and proficiency level. Finally, the program performed automatic record count and raw word count in each record and cumulatively. Each email constituted one record for emails, and each turn produced by each participant constituted one record for chats. The full contingent of the 2005 electronic correspondence dataset contains 330 emails (108,729 tokens) and 30 chat sessions consisting of 5,800 turns (37,286 tokens) total.

After that, two other coders and I separated “general correspondence” of each record data from all other process data such as “project”, “corrections”, etc. Finally, all general correspondence process data were separated into the fields “English words” and “German words”. After that, the program automatically performed raw word counts for each language. (See Belz *et al.*, 2005a for more information on the structure of *Telekorp*). In this analysis, only the German word subset is taken into consideration, which comprised 44,840 tokens.

After the completion of these operations, the database was ready for finding any search word or string by means of the “Find” function and performing different types of analyses.

4.3.3.2 MP Coding

Data for the quantitative analysis were expressed in MP frequencies, therefore, the data collection process consisted of retrieval of these frequencies from *Telekorp*, that is arranged in the format of a database with the help of FilemakerPro software (see Fig. 4.2). First, I coded all words inside the “Correspondence in German” process data records in order to disambiguate the MPs from their homonyms that had an identical typographic shape (see 4.4). In order to do that, I used the FilemakerPro “Find” tool to find each instance of each of the four focal words (*ja, mal, denn, doch*) with the potential of having an MP meaning. MPs were assigned the index 1, and their homonyms the index 2. Thus, a qualitative method was necessary at this stage of the quantitative data collection. The latter were not further disambiguated for the current research purpose, but this preliminary tagging facilitates more fine-tuned tagging should it become desirable for future analyses. I tagged 586 features (MPs and their homonyms) for the focal 2005 *Telekorp* email + chat subset and 579 features from the *Telekorp* chat subset for all previous years (2000-2004) for comparison purposes (see 6.5 for analysis). As a result, 1,165 features total were tagged. Coding was the necessary initial step that enabled the data analyses performed later (see Chapters 6 and 7).

4.3.3.3 MP Frequencies

Concurrent with the coding process, MP frequencies for each participant were manually entered into an Excel table (see Fig. 4-3).

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	
1	Pseudonym	L1	Week	Medium	Tokens	ja	H mal	H denn	H doch	H ja	MP	mal MP	denn MP	doch MP	ja err	mal err	denn err	doch err
2	Christie	English	8	email	350	0	0	0	0	0	1	0	0	0	0	0	0	0
3	Christie	English	9	email	243	2	0	0	0	0	0	0	0	0	0	0	0	0
4	Christie	English	9	chat	99	2	0	0	0	0	0	0	0	0	0	0	0	0
5	Christie	English	10	email	796	1	1	0	0	0	0	0	0	0	0	0	0	0
6	Christie	English	10	chat	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Christie	English	11	email	324	0	0	0	0	1	0	0	0	0	0	0	0	0
8	Christie	English	11	chat	170	3	0	0	0	0	0	0	0	0	0	0	0	0
9	Christie	English	12	email	123	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Christie	English	12	chat	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	Christie	English	13	email	299	2	0	0	0	0	0	0	0	0	0	0	0	0
12	Christie	English	14	email	154	0	0	0	0	2	0	1	0	0	0	0	0	0
13	Christie	English	14	chat	53	1	0	0	0	1	1	0	0	0	0	0	0	0
14	Christie	English	15	email	1	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Christie	English	15	chat	57	2	0	0	0	1	0	0	1	0	0	0	0	0
16	Christie	English	16	email	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	Christie	English	16	chat	275	6	1	0	0	5	1	0	0	0	0	0	1	0

Figure 4-3. Frequencies of focal features produced by one participant.

It was decided to keep the category values as minimal as possible to allow for their subsequent aggregation according to different analysis types. Therefore, frequencies of each MP were retrieved for each participant as produced by him or her during each semester week in each CMC genre (chat and email). Additionally, learner frequencies were calculated separately for accurate and inaccurate uses. For instance, the total count of the MP *ja* accurately produced by Christie in SW16 chat is 5 (see Fig. 4-3). Furthermore, total German word (token) frequencies were entered for the same categories. For instance, the total count of German words produced by Christie in SW16 chat is 275 (see Fig. 4-3). The retrieval of the raw token counts was fully automatic and performed directly within the *Telekorp* database with the help of FilemakerPro (see 4.3.5.1).

The collected frequencies served as the basis for carrying out contrastive corpus analysis (see Chapter 6).

4.3.3.4 Awareness Data

Awareness data were collected in written format, by means of questionnaires and cumulative course portfolios in which the learners reflected on their experiences in the course in general and during the MP intervention in particular. They were collected at three points in time: immediately before the intervention, after the first week of the intervention based on the enhanced instruction condition, and after the end of the course. The instruments and the data analysis are described in detail in Chapter 7.

4.3.3.5 Ethnographic Metadata

For all six data collection cycles archived in *Telekorp*, ethnographic metadata were obtained using a variety of methods and instruments. The primary source for the elicitation of background participant information for both the experimental and comparison group was a pre-course biographical online survey (henceforth, bio-survey) that contained ca. 50 closed and open-ended questions related to participants' language learning history, residence abroad and travel experiences, family life, computer literacy, computer ownership, course expectations, and career plans (see Belz, 2001; Belz 2002). The sociocultural history data were supplemented by further information disclosed in participants' websites, face-to face (henceforth, F2F) classroom discussions accessed via participant observation on the part of the researcher and the instructor, learners' formative and summative course portfolios, individual meetings with the instructor in which portfolios were presented and discussed, and the electronic correspondence

between the netpals¹⁷ (Belz *et al.*, 2005a). Ethnographic data were used in the course of the microgenetic analysis (see Chapter 5 and 7).

4.3.3.6 Observation

Throughout the course, I was acting as a participant observer during almost all class periods. I was observing the class, taking field notes, and giving occasional consultations related to the use of German to the learners. Additionally, one more colleague performed the same role. I was also occasionally performing the role of the instructor. Later in the course, I administered the experimental treatment as the instructor. In other words, I spent an extensive amount of time inside the learner group and informed the participants that they were being studied (see Johnson & Turner, 2003, p. 313). In this way, the learners became accustomed to my (and the other colleague's) presence and behaved as they would normally do in class. Although the classroom setting still remains more conducive to "frontstage behavior" (what people allow an observer to see) rather than more natural "backstage behavior" (Goffman, 1959), their performance was more natural than it would have been if a complete stranger played the role of the researcher. Observation field notes were used for the microgenetic analysis (see Chapters 5 and 7).

¹⁷ In previous data collection cycles before the experimental year (2005), ethnographic data were also obtained via post-semester focus group interviews in which learners were shown excerpts from their TC discourse and asked to comment on particular episodes and linguistic behaviors,

4.4 Coding Taxonomy

4.4.1 General Approach

The impetus for developing the taxonomy for coding the focal MPs in the corpus under investigation was the general postulate of their inherent ambiguity as ascertained on the basis of the literature review (see Chapter 3). On the one hand, the words with the potential of functioning as MPs can be easily found automatically using the electronic search function of *Telekorp* because they are by definition indeclinables (see 3.2) and always appear in the same typographical shape¹⁸. On the other hand, disambiguation of the word class membership of these MP candidates and “weeding out” (Poos & Simpson, 2002, p. 8) the homonyms with non-MP meaning can be performed only manually. In this regard, MPs in CMC discourse can be referred to “semantic CMC phenomena”, about which Herring (2004, p. 360-361) makes the following remarks:

Coding such phenomena necessarily involves an interpretive, subjective component; in most cases it can only be carried out by human coders. Despite the greater challenges they pose for empirical investigation, semantic phenomena are often the most interesting to study. Empirical rigor can be maintained if the researcher operationalizes and defines each coding category in explicit terms and applies the codes consistently to the data.

In this section, I outline the operationalization procedure I applied for coding of 586 focal features found in the 2005 experimental subset of *Telekorp* (see 4.3.5.2). Following the approach used by Garcia (2004), a variety of disambiguation criteria from the literature (see 3.3) were applied. The resulting taxonomy categories were established

¹⁸ Phonologically reduced variants (e.g. *ma'* for *mal*) and typographical errors were not attested in the data.

on the basis of the emerging corpus data and subsequently mapped back to previously suggested taxonomies.

The preliminary taxonomy was developed before the pedagogical intervention based on the data from the subcorpus produced by NSs during the first three weeks of the transatlantic correspondence. This preliminary taxonomy was used for creation of the pedagogical materials used in the intervention as well as for the classification of the emerging learner MP uses. The fine-tuning of the taxonomy was an ongoing process during the experimental semester. When the performance data collection was complete at the end of the semester, the taxonomy was finalized. These final results are presented here (see the following sections).

The coding for the purposes of the quantitative analysis included two categories for each candidate word: MP and MP homonym¹⁹. The MPs were assigned the index 1 and MP homonyms the index 2, immediately following the word (e.g. *jal*; *mal2*). The MPs were further classified (into accurate and inaccurate uses etc.) for the purposes of qualitative analysis (see Chapter 6). No further disambiguation among MP homonyms (e.g. into answering particles, grading particles, conjunctions, adverbs, etc.) was performed.

The disambiguation procedure, as applied to each of the four focal word-forms, is described in the following sections (4.4.2 – 4.4.5).

¹⁹ Hereafter, both homonyms and polysemes are called homonyms without further fine-tuning of these meaning distinctions.

4.4.2 JA

Möllering (2004) describes the general pragmatic meaning of the MP *ja* as follows. Using the MP *ja*, “the speaker is trying to establish “common ground” by marking a proposition as known to the hearer, thus inviting him/her to either accept the proposition as premise for the following exchange or to ask for clarification” (p. 237). König and Requardt (1991, pp. 72-73) term the MP *ja* an evidential marker, or “an indicator of the fact that clear evidence is available for an assertion”.

For example, in ex. 4-1, Nils²⁰ expresses regret that the partners could not have had a chat session because of a holiday in Germany. However, he thinks that the fact that they can still email each other makes up for the missed chat. He uses the MP *ja* to refer to the common knowledge among the partners that they have an alternative medium of email and is seeking for Jeremy’s support of this justification. Jeremy picks up this topic in his response to Nils’ email and supports Nils in providing his own justification of the missed chat: “you probably needed a break”. In fact, the adverb “probably” in this English utterance could be substituted by the same MP *ja* in an equivalent German phrase for expression of a higher level of mutual understanding.

Extracts 4-1:

a) Nils to Jeremy; email; 10/29/2005

Nächste Woche haben wir einen Feiertag am Dienstag und werden wohl keinen Chat mit euch haben können. [...] Aber dafür haben wir **ja!** die mails.

²⁰ Each participant (out of 209 individuals in *Telekorp*) has been assigned a unique pseudonym that is being used hereafter instead of the real names.

*Next week, we will have a holiday on Tuesday and will probably have no chat with you. [...] But we have **ja1** the mails instead.²¹*

b) Jeremy to Nils; email; 11/3/2005

Hey Nils

[...] It was a bummer that we couldn't have chat on Tuesday. However, you probably needed a break.

The following homonyms of the MP *ja* were attested in the corpus: the answering particle ('yes') and the discourse particle ('yeah'), as demonstrated in ex. 4-2. For the disambiguation of the word class affiliation of *ja*, the distributional criteria alone turned out to be sufficient. The focal words in the NS subcorpus were reliably identified as MP homonyms if they appeared in the initial field of a sentence (for chats, very often turn-initially):

Extracts 4-2:

a) Jeremy, Laura, Alma-Lora, Carine, Nils, Sonja, Soren; chat; 11/15/2005

Nils: reden wir heute im großen Kreise? Laura: **ja2** Alma-Lora: **ja2** wegen dem projekt. (*answering particles*)

Nils: are we speaking today in a big circle? Laura: yes Alma-Lora: yes because of the project.

b) Tamara; email; 11/16/2005

Wir sehen uns später im Chat. Ach **ja2**, und grüß wieder Deine Familie und Deine Freunde. (*discourse particle*)

We are going to see each other later in the chat. Oh yes, and say again hi to your family and your friends.

²¹ Translation into English is given after each German extract in cursive.

These results were confirmed after the application of discourse-functional criteria. All remaining *ja* instantiations were ascertained to fall under the definition of the pragmatic meaning of the MP *ja* (see above) and were coded as *jaI*.

It should be noted that Möllering (2004) singles out a second functional meaning of the MP *ja*. The first meaning is syntactically bound to assertives (see also Weydt & Hentschel, 1983, p. 13), whereas the second meaning is bound to exclamatives and “marks the proposition as a subjective appraisal by the speaker” (Möllering, 2004, p. 237). The first meaning is exemplified in ex. 4-1-a and the second meaning in 4-3. Most frequently, *ja* in the latter function collocates with the verb “sein” (‘to be’) and is used in the formulaic pattern ‘this + is + *ja* + attribute’, as in Sonja’s utterance in 4-3 (see Möllering, 2004, p. 234). Although both meanings were attested in the NS subcorpus, they are considered here as two realizations of one overall pragmatic meaning of the MP *ja* defined above because the core pragmatic meaning component “presupposed agreement” remains intact in both cases (with the added component “subjective appraisal” in the second case). Additionally, exclamatives build a subclass of declaratives so that the syntactic frame “declarative sentence” also holds for both MP *ja* subfunctions²². For example, the first occurrence of *ja* in (4-3) follows the formulaic pattern closer than the second one. However, both *ja* uses maintain the pragmatic meaning component “presupposed agreement” and are used in declaratives sentences in a medial position. Additionally, the pragmatic meaning of both utterances is very similar:

²² Some researchers (Helbig, 1988; Weinrich, 1993; Weydt and Hentschel, 1983) single out one more variant of the MP *ja* that carries emphatic stress and is used in imperative sentences. These occurrences were not attested in the NS subcorpus.

expression of appraisal. Consequently, both occurrences are considered to be instances of the MP *ja* and are coded as *ja1* without further subdivision:

Extract 4-3: Jeremy, Alma-Lora, Carine, Sonja, Soren; chat; 12/13/2005

Carine: Did your professor [say] something about the webpage yet? [...]

Jeremy: um, meine Professor hat das es ist gut gesagt. [...]

um, my professor said it is good.

Sonja: Echt? Das ist **ja1** super. Habt ihr schon eine Note?

*Really? This is **ja1** super. Do you already have a grade?*

Carine: Sie ist **ja1** auch wirklich gut geworden

*It has **ja1** become really good.*

The discussion above helps contribute to fine-tune the speech act classification (see 2.2). In her revised version of Searlean taxonomy of speech act categories, Garcia (2004, pp. 60-61) suggests to distinguish between “personal” and “interpersonal” pragmatic utterances (see also 2.2). For example, the speaker provides the hearer with information by means of “personal representatives” and expresses personal feelings and opinions about something such as “likes/dislikes, difficulty/facility, approval/disapproval” by means of “personal expressives” (pp. 60-61). On the other hand, the speaker “evaluates the hearer’s information” by means of “interpersonal representatives” and “expresses an evaluation of the hearer” by means of “interpersonal expressives” (ibid.). Although the inclusion of the “participation dimension” (Garcia, 2004, p. 22; see also 2.2) is a necessary and important supplement to speech act classification, it seems that the interpersonal component should be interpreted not only as evaluation of the hearer’s information or of the hearer him/herself on the part of the speaker but as consideration of the hearer’s point of view in general. In this sense, declarative statements containing the MP *ja* can be considered “interpersonal representatives” and

exclamatives in form of the formulaic pattern of appraisal with the MP *ja* “interpersonal expressives”.

4.4.3 DENN

The MP *denn* is referred to by Thurmair (1991, p. 30) as the “most non-specific” of the MPs (along with *ja*). The general pragmatic meaning of this MP (see Diewald, 2006; Helbig, 1988; König & Requardt, 1991; Luchtenberg, 1987; Möllering, 2004; Weydt & Hentschel, 1983) can be summarized as follows: the MP *denn* creates anaphoric reference to the content of the preceding utterances or to the context of situation; renders the question more natural and friendly; and emphasizes the interest of the speaker in the interlocutor’s response. This latter function may be of particular importance in a telecollaborative partnership where learners often are trying to establish positive interactional rapport with their keypals, among other things. The homonyms of the MP *denn* can be represented by the coordinating conjunction (‘because, since’) and the temporal adverb (‘then’).

Similar to *ja*, the word category membership of *denn* can be easily disambiguated by means of distributional criteria only. As opposed to the MP *ja* that cannot appear in interrogatives, the MP *denn* “is bound to the sentence type “question”, which considerably limits the contexts of its use” (Möllering & Nunan, 1995, p. 60). Thurmair (1991), on the other hand, considers the MP *denn* to be bound distributionally to the interrogative illocutive type rather than the interrogative sentence type. In both cases, the sentence type can be used as a formal explicit criterion sufficient for the disambiguation

of *denn*. The analysis of the NS subcorpus according to this criterion alone allowed for designation of all *denn* uses in declarative sentences as MP homonyms. Additionally, all MP *denn* homonyms in the data, used as temporal adverbs (4-4-a) or coordinating conjunctions (4-4-b), occurred in the initial field (the term suggested by Abraham, 1991a, as an equivalent for the German grammar term *Vorfeld*), i.e. in the first or second sentence position²³.

The general pragmatic meaning of the MP *denn* (see above) is preserved in both of the two available variants: in wh-questions and in yes/no questions. According to Möllering (2004), utterances containing either variant of the MP *denn* “ask for further specification of available information” (p. 148), but the second variant of *denn* includes the additional meaning component “astonishment, surprise”. However, the MP *denn* was only attested in the NS subcorpus in wh-questions (4-4-c) except for one usage in a chat. Because of this low frequency, these nuances of meaning are not considered relevant for this study.

Extracts 4-4:

a) Tilo to Chip; email; 10/31/2005

Nun ***denn2***, das war’s für heute. (*temporal adverb*)
Well ***then***, this was it for today.

b) Vera to Christie; email; 11/2/2005

Ich werde jetzt versuchen alle deine Fragen zu beantworten, ***denn2*** es freut mich, dass du so neugierig bist. (*coordinating conjunction*)
Now, I’m going to try to answer all your questions ***because*** I’m glad you are so curious.

²³ Although the temporal adverb *denn* (‘then’) can potentially occur in the middle field of interrogative sentences (i.e. in the same position as the MP *denn*), it was not represented in the NS data.

c) Nina to Paula; email; 11/1/2005

na, wie geht es dir **denn1** heute? [...]
 Ah, du schwimmst. Wie oft machst du das **denn1**? (MP)
 so, how are you **denn1** today? [...]
 Oh, you swim. How often do you do that **denn1**?

Garcia (2004, p. 61) classifies pragmatic utterances relating to direct or indirect requests of information or clarifications “queries”. Taking into account the “participation dimension” (see 4.4.2), pragmatic utterances containing the MP *denn* may be classified as “interpersonal queries”, i.e. requesting for information while expressing high interest in the hearer’s response.

4.4.4 DOCH

The pragmatic meaning of the MP *doch*, according to literature (see Helbig, 1988; König & Requardt, 1991; Luchtenberg, 1987; Möllering, 2004; Weydt & Hentschel, 1983), can be summarized as follows. This MP

- refers to shared knowledge while at the same time states a slight contradiction between opinions/facts and expresses the wish to overcome this contradiction (in declaratives, ex. 4-5-a);
- expresses positive evaluation of a fact as a contrary to a previously expressed or assumed negative evaluation in formulaic patterns “*doch + sein + attribute*” (in exclamatives, ex. 4-5-b);
- emphasizes a contrast between what the speaker asks the hearer to do and a possible objection to this request on the part of the hearer (in commands, ex. 4-5-c).

Extracts 4-5:

a) Christie, Constanza; chat; 11/8/2005

Constanza: we are using one pc

Christie: should we use just one too?

Constanza: Sorry, das betrifft **doch1** nur uns. Ihr solltet separate PCs benutzen.

*Sorry, this concerns **doch1** only us. You should use separate PCs.*

b) Laura, Carine, Alma-Lora; chat; 12/8/2005

Carine: do you have to write it in German?

Laura: Ja, es fällt mir ein bisschen schwer.

Yes, it is a bit difficult for me.

Carine: aber du bist **doch1** wirklich gut!

*but you are **doch1** really good!*

c) Saul, Carlotta, Juliana; chat; 10/25/2005

Carlotta: Juliana, fang du **doch1 mall** an!

*Juliana, begin **doch1 mall**!*

The homonyms of *doch* are represented by an answering particle ('yes' in response to questions with a negative polarity, ex. 4-6-a) and a modal adverb ('still', 'nevertheless', exx. 4-6-b, 4-6-c).

Extracts 4-6:

a) Chip, Stella, Tilo; chat; 10/25/2005

Chip: aber ich denke, dass meine deutschkenntnisse nicht so gut ist
but I think that my knowledge of German is not so good

[...]

Tilo : **Doch2**, das sind sie. Ich habe deine Mail gelesen und werde sie heute Abend korrigieren. Für's Erste hast du ganz gut geschrieben.

Yes, it is [good]. I read your mail and will correct it tonight. For the first time, you have written very well.

b) Tamara to Christie; email; 10/26/2005

Auch wenn ich geschrieben habe, dass ich gerne jogge oder Rad fahre, ist das **doch2** leider nicht sehr regelmäßig.
*Even if I wrote that I like jogging or bike riding, it is **still** unfortunately not very regular.*

c) Constanza to Paula; email; 11/8/2005

Eigentlich kann man sich von Anfang an bei beiden Büchern denken, dass es kein „Happy End“ geben wird, und **doch2** ist man letztendlich total vor den Kopf gestoßen.
*Actually, one can think from the very beginning of both books that there is going to be no „Happy End“ but one is **nevertheless** totally snubbed at the end.*

The lexeme *doch* was more difficult to disambiguate because the MP *doch* is not bound to any specific sentence type or sentence position. Additionally, all attested occurrences in the NS subcorpus except one (as an answering particle) were in the middle field, and therefore could potentially function as either an MP or a homonym. Finally, the word *doch* is a salient example of lexical ambiguity where variants do not belong to two strictly delineated word classes but are rather positioned on a meaning continuum (see Helbig, 1988; Diewald, 2006). As Eppert and Špokienė (1997, p. 79) aptly remark, “*doch* ist und bleibt eine harte Nuss” (‘*doch* is and remains a hard nut [to crack]’). All variants of *doch* include the meaning component “modal contrast”, or, more specifically, two components “already known” and “correction” (Thurmair, 1989, p. 119). Indeed, as Helbig (1988, p. 119) demonstrates, the difference between two variants of *doch* – the MP and the modal adverb (‘nevertheless’) - is often realized only by the strength of the adversative component that is expressed by accent in speech (the MP is unstressed whereby the adverb is stressed). Since the type of CMC under investigation here takes place in the written medium, intonation cannot play a role in the disambiguation of the

data. Instead, semantic and pragmatic criteria were applied. First, the method of substitution (see, e.g., Thurmair, 1991) was used. If *doch* could be substituted by the adverb *jedoch* or *trotzdem* ('nevertheless'), it was considered to be an adverb and coded as *doch2*. In contrast, if it could be substituted by the MP *ja* because both MPs are considered in part synonymous (see Möllering, 2004, p. 56; Weydt *et al.*, 1983), it was coded as the MP *doch1*. Furthermore, the "participation dimension" (see 4.4.2, 4.4.3) was taken into consideration for the disambiguation. If *doch* was more partner-oriented, i.e. used in interpersonal representatives, expressives, or queries, it was coded as an MP. In particular, interpersonal representatives with the MP *doch* can be considered a showcase of this pragmatic category as defined by Garcia (2004, p. 61): "Speaker evaluates the hearer's information, either positively or [negatively]. In the case of corrections, speaker provides information that is contrary to the hearer's information, or negates something the hearer just said. In the case of concession, the speaker gives in after arguing with the other".

In the chat subcorpus, all instances of *doch* except for one use as an answering particle were unambiguously partner-oriented and coded as *doch1* (ex. 4-5). This finding corresponds to Möllering's (2004) analysis of an oral dialogic corpus where the author did not discover any adverbial *doch* uses in the total of 174 occurrences. A formal distributional criterion for ascertaining the MP function was the use of *doch* as a component of two formulaic collocational patterns: 'this + is + *doch* + attribute' in appraisals (ex. 4-5-b, see Möllering, 2004, p. 176; see also 4.4.2 for a formulaic use of *ja*) and 'imperative + *doch* + *mal*' in commands (ex. 4-5-c, see Möllering, 2004, p. 181).

The coding of the *doch* occurrences in emails required a more detailed analysis. For example, the word-form *doch* in (4-7-a) is used by a German partner in a narrative about her personal experience. This pragmatic utterance can be categorized as a “personal representative” that does not contain any reference to the interlocutor’s opinion. The meaning of *doch* in this case can be ascertained in the co-text of one single sentence: it can be substituted by the adverb *trotzdem* (‘nevertheless’). Therefore, this instance was coded as *doch2*. On the contrary, (4-7-b) requires consideration of the situational context that can be ascertained only in the framework of the co-text including at least a few preceding sentences. *Doch* in (4-7-b) is used in the context of an emotional expression of a personal opinion taking place as part of a discussion of interracial dating. *Doch* indicates here a contradiction between the proposition expressed in two preceding exclamative sentences (the content of which can be roughly described as ‘people have racial prejudices’) and the author’s opinion expressed in the third assertive sentence (‘if people are happy together, race does not matter’). On the other hand, using *doch*, the German partner indicates her belief that her American interlocutor shares her opinion as opposed to the existing prejudice. Therefore, this pragmatic act was categorized as an interpersonal expressive. In this use, the MP *doch* is in part synonymous to the MP *ja* (meaning component “presupposed agreement”, see 4.4.2) while adding another component (“attempt to overcome existing contradiction”). Respectively, *doch* is coded in (4-7-b) as *doch1*.

Extracts 4-7:

a) Natalie to Juana; email; 10/31/2005

Ich wollte auch *mal* Ärztin werden- am liebsten Kinderärztin- aber dann entschied ich mich **doch2** für Lehrerin. (*modal adverb*)
I also wanted mal to become a doctor – preferably a childrens’ doctor – but then I still decided to become a teacher.

b) Carlotta to Saul and Chip; email; 11/3/2005

Wenn man aber auf dem Land oder in einer kleinen Stadt wohnt, in der jeder jeden kennt, haben die Menschen viele Vorurteile! Das ist nicht in Ordnung, aber auch zu schwierig es den Menschen abzugewöhnen! Ich kenne viele Pärchen die verschiedener Nationalität sind und sie sind glücklich miteinander und das sollte **doch1** das Wichtigste sein. (*MP*)

When one lives in a rural area or in a small town, where everybody knows everybody, people have many prejudices! This is not alright but it is also too difficult to break people of this habit! I know many couples of different nationality and they are happy with one another and this should be doch1 the most important thing.

4.4.5 MAL

The general pragmatic meaning of the MP *mal* has been described as a downtoner mitigating imposition in direct and indirect requests that makes the respective proposition unobtrusive, incidental, and friendly (House & Kasper, 1981; Helbig, 1988; Möllering, 2004; Weydt & Hentschel, 1983). Möllering (2004, p. 193) points out that the MP *mal* “lends a ‘matter-of-fact’ element to the request/suggestion, thus leaving the hearer the option to decline without any loss of face”. Bublitz (2003, p. 185) terms the MP *mal* a “petitesse”, or a downgrading particle *par excellence*. Finally, Weydt and Hentschel (1983, p. 14) summarize the pragmatic function of the MP *mal* in requests as follows:

In Verbindung mit Aufforderungen gewinnt die Partikel eine perfektivierende Wirkung, die zugleich als ‘freundlich’ empfunden wird, da damit nicht eine Forderung nach einer dauerhaften Handlung, sondern

nach einer einmaligen, zeitlich begrenzten erhoben wird. Die Bitte erscheint dadurch kleiner und leichter zu erfüllen²⁴.

Indeed, the ‘perfectivizing’ meaning component of the MP *mal* is confirmed on the material of Slavic languages, where similar nuances of meaning are rendered with the help of perfective verbs (see Hentschel, 2003).

As an MP homonym, *mal* can occur as a noun²⁵ (‘point in time’, ‘moment in time’) or as a truncated form of the temporal adverb “einmal” (‘once’, ‘one time’).

Similar to *doch*, the lexeme *mal* occurred in the NS subcorpus only in the middle field which eliminated the possibility of its disambiguation on the basis of the distributional criterion “position in a sentence”. A different distributional criterion was applied instead: collocation with words from the semantic field “time”. Based on this criterion, *mal* was identified as a noun in collocations with cardinal and ordinal numbers (‘ten times’, ‘first time’, ‘second time’), temporal adjectives (‘next time’, ‘last time’), and pronominal adjectives (‘each time’, ‘this time’) (ex. 4-8-a). Furthermore, the collocations with temporal adverbs such as “schon” (‘already’) and “noch” (‘still’) generally indicated that *mal* was used as a temporal adverb (see Bublitz, 2003, p. 195) (ex. 4-8-b).

Extracts 4-8:

a) Christie, Paula, Constanza, Simone, Tamara, Vera; chat; 12/13/2005

Tamara: Ich schaue gerade zum ersten *mal* unsere Webpage an. (*noun*)
I am looking up our webpage for the first time now.

²⁴ ‘In connection with commands, the particle acquires a perfectivizing [sic] effect, which, at the same time, is perceived as ‘friendly’ because, [with the help of the particle], a request not for a prolonged action but for a solitary, temporary limited action is expressed. For this reason, the request seems smaller and easier to fulfill.’

²⁵ In this variant, *mal* is a typographical variant of the noun *Mal* that must be capitalized in standard written German but often occurs in CMC in its lower case realization.

b) Jeremy, Laura, Alma-Lora, Carine, Sonja, Nils, Soren; chat; 12/6/2005

Jeremy: seht ihr die Homepage fuer unseren Projekt?

Do you see the homepage for our project?

[...]

Carine: Ja ich habe mir sie schon **mal2** angeschaut (*temporal adverb*)

*Yes I have already looked it up **once**.*

However, the disambiguation of the MP *mal* and its historical source (see 3.3.2), the temporal adverb *mal*, is not always clearcut (see Bublitz, 2003; Helbig, 1988; Möllering, 2004; Weydt *et al.*, 1983). The overarching meaning of the lexeme *mal* ‘incidental, momentary characteristic of an action’ is preserved in these two variants to a comparably high extent, although Bublitz (2003, p. 185) pins down the fine meaning shift from the adverb to the MP as from “temporal” to “temporary”. Helbig (1988) and Weydt *et al.* (1983) apply an additional distributional criterion “syntactic frame” for the ultimate disambiguation of *mal*, whereby they limit the potential occurrences of the MP *mal* only to imperatives and yes/no interrogatives. However, Möllering (2004, pp. 192-195) convincingly demonstrates that the MP *mal* is not syntactically bound but rather expresses the illocutionary force of a request or suggestion, which can be syntactically expressed by means of an imperative, a declarative, and a yes/no interrogative; in the two latter cases in collocation with modal verbs.

All criteria outlined above were applied to the NS subcorpus: clear nominal and adverbial uses of *mal* collocating with other temporal modifiers were coded as *mal2* (4-8) and MPs *mal* in suggestions and requests were coded as *mal1* (4-9).

Extracts 4-9

a) Jeremy, Laura, Alma-Lora, Sonja, Nils; chat; 11/28/2005

Sonja: Dein Deutsch ist super
Your German is super
 Carine: SAg das **mal** deinem Professor!
*Tell this **mal** your professor!*

b) Jeremy, Laura, Alma-Lora, Sonja, Nils; chat; 11/28/2005

Alma-Lora: du musst **mal** für eine [weile] nach deutschland.
*you must **mal** [come] for a while to Germany*

However, a considerable number of unclassified occurrences of *mal* still remained after the application of these criteria. This residue was analyzed with respect to their syntactic frame, collocations, and meanings. First, it was ascertained that all host sentences of the remaining *mal* uses were declaratives except for one wh-question. Second, the majority of the remaining uses collocated with first person pronouns, modal verbs, the verb *werden* (the auxiliary verb used in future tense constructions, ‘will’), and verbs in the subjunctive mood. Third, the content of the utterances containing the unclassified occurrences of *mal* turned out to be related to the future in one way or another. Finally, the substitution test showed that *mal* could not be substituted by the adverb *einmal* (‘once’) in the absolute majority of these cases. Therefore, it was decided to classify these occurrences as MPs and to code them as *mal*. The validity of such an approach is justified by Bublitz (2003, p. 185) who contends that *mal* may be used as an MP not only in directive but also in representative speech acts. According to Bublitz (ibid.), the general function of *mal* in the latter case is similar to the former one: the meaning of temporariness assigned to an action, a proposition, or an attitude. Furthermore, Bublitz (ibid., p. 186) proposes that the MP *mal* contributes to the realization of two conditions:

Zum einen wird die Aussage als eher weniger wichtig und relevant charakterisiert, zum anderen die Einschätzung der Wahrheit relativiert (und also ausgedrückt, dass der Sprecher sich nicht in vollem Maße für die Wahrheit verpflichtet und verbürgt). Beides verringert den Stellenwert der Aussage, die als eher nebensächlich und jedenfalls wenig belanglos hingestellt wird.²⁶

The approach suggested by Bublitz (2003) is adapted here as a rationale for the classification of the remaining occurrences of *mal* as MPs. Indeed, in the majority of the utterances containing these occurrences, speakers make a commitment to complete an action in the future, i.e. these utterances can be categorized as “speaker-action commissives” (Garcia, 2004, p. 60). However, they do not commit themselves to this completion to a full extent. Similar to directive utterances with the MP *mal*, when the speaker leaves her interlocutor the option not to fulfill the request, the commissives with *mal* leave the speaker herself the option not to fulfill the intention. This interpretation is reinforced by a number of transition cases where the pragmatic categories cannot be strictly delineated from one another. For example, (Möllering, 2004, p. 194) considers *mal* in (4-10) as an MP expressing the illocutionary force of the speech act “suggestion”.

Extract 4-10:

Taken from Möllering (2004, p. 194), telephone conversation

machen mer²⁷ das so an irgendnem Abend *mal* aus?
should we arrange it mal some evening?

²⁶ ‘On the one hand, the utterance is characterized as rather less important and relevant, on the other hand, the evaluation of truthfulness is relativized (and therefore, it is expressed that the speaker does not commit and vouch to the truthfulness to a full extent). Both [aspects] reduce the significance of the utterance, which is situated as rather secondary and, in any case, not very consequential.’

²⁷ Möllering’s (2004) data are transcriptions of spoken conversations, which reproduce contractions and other pronunciation peculiarities of the spoken register, as well as dialectisms. In ex. 4-9-a, *mer* stands for the 1st person pronoun *wir* (‘we’).

However, the illocutionary force of this utterance is very similar to the one in (4-11), which can be considered a “joint-action commissive” (Garcia, 2004), when “[s]peaker suggests an activity for the speaker and hearer to do in order to accomplish a task; speaker asks the hearer to participate in a social activity; often presupposes that a suggestion has been made that brought about a cooperative plan” (p. 60).

Extract 4-11:

Juana, Natalie, David; chat; 11/28/2005

Natalie: Müssen uns auch **mall** wieder so unterhalten...über unser
 "everyday life"..
*[We] must also talk **mall** again just so... about our “everyday life”*

Ex. 4-12 has a meaning very similar to a “joint-action commissive” although formally, it is rather an “expressive”:

Extract 4-12:

Saul, Carlotta, Juliana, Tilo; chat; 12/12/2005

Carlotta: Vielleicht hört man sich **ja1 mall** in First class!
*Probably [we] are going to hear from one another **ja1 mall** in First class!*

Taking the argument one step further, the illocutionary force of the utterances containing *mal* in 4-13 is similar to 4-9 – 4-12 – a directive with a low level of commitment – although directed to the speaker herself. This pragmatic utterance type is called by Garcia (2004) a “speaker-action commissive”: “Speaker [...] tells hearer that speaker will perform some action for the benefit of either the speaker or the hearer” (p. 60):

Extract 4-13:

Christie, Paula, Constanza, Tamara, Simone, Vera; chat; 12/13/2005

Simone: ich war noch nie in einem mitternachtsgottesdienst [...] muss ich **mal** meinem vater vorschlagen. der geht aber immer so früh ins bett
*I have never been at a midnight mass [...] I should suggest it **mal** to my father. But he goes always so early to bed*

In sum, although exx. 4-9 - 4-13 belong to different pragmatic categories (see Garcia, 2004, p. 60), their illocutionary force is very similar to one another in the sense that all these utterances express a wish to fulfill an action in the future, either as a commissive or as a directive. It appears that the use of *mal* indicates that the speaker does not want to impose commitment to a future action either on herself or on her interlocutors. In this respect, commissives are not much different from directives, both pragmatic categories may be rather considered parts of one continuum “directive” with hearer-oriented directives on one end (4-9) and speaker-oriented directives on the other end (4-13). For the purposes of the delineation of the MP *mal* from its homonyms, the illocutionary force component “low level of commitment/imposition in relation to a future action” appears thus more important than boundedness to specific speech acts or syntactic frames. This criterion also accounts for ex. 4-14, which contains *mal* in a wh-interrogative, a syntactic frame not mentioned as a potential MP *mal* host in the literature:

Extract 4-14:

Jeremy, Laura, Alma-Lora, Carine, Sonja, Soren; chat; 10/25/2005

Soren: Wann kommst Du **mal** nach Deutschland?
*When are you going to come **mal** to Germany?*

Finally, this interpretation is confirmed by the fact that the mitigating meaning of *mal* is frequently reinforced by other mitigating devices. As Bublitz (2003, p. 179)

demonstrates, the MP *mal* typically collocates with other “semantically and functionally synonymous” indicators of indirect speech acts such as epistemic and deontic modal verbs and other MPs. Bublitz argues that the MP *mal* is a “catalyst” that triggers the accumulation of these combinations and concludes: “The resultant stock of particle-centered fixed patterns is a pivotal means of polite downgrading” (ibid.). Following this premise, collocations with personal pronouns and verbs expressing modality and intentions as well as with other MPs in formulaic combinations were taken into account as an additional indicator of the MP function performed by *mal* (4-15).

Extract 4-15

Christie, Paula, Constanza, Tamara, Simone, Vera; chat; 12/13/2005

Simone: da *hätte ich ja1 auch1 mal1* lust drauf
I would also ja1 mal1 like to do that

4.5 Summary

This chapter has outlined the research methodology of this study. A mixed methods approach is adopted as the best strategy to address the research questions from the theoretical perspective of SCT. The twin general methodologies of contrastive learner corpus analysis and microgenetic analysis are applied.

The research design was characterized as a mixed methods design dialectically integrating quantitative and qualitative parts. Furthermore, it was explained that the pedagogical intervention constituting the core of this study was implemented concurrently with data collection and the first stages of data analysis. The research design

has been further discussed in relation to data collection instruments and analytical methods.

The final part of the chapter outlined the procedure and results of the operationalization of the targeted features. Based on the relevant literature and on the NS subcorpus data, a taxonomy of the MPs and their homonyms was established for the current research purposes. It was found that, although German MPs possess a complex of syntactic-distributional, semantic, and pragmatic constitutive characteristics, it is not feasible to apply all of them for their delineation from other word categories. Instead, only a limited number of criteria suffice to serve as distinctive features for each particle.

The distributional criteria alone proved to be sufficient for the disambiguation of the MPs *ja* and *denn* from their homonyms. The medial sentence position of *ja* provided enough evidence of its MP status. For *denn*, occurrence in interrogative sentences served as the sufficient distinctive criterion. Additional criteria (semantic substitution and pragmatic meaning description) were used to validate the reliability of the initial disambiguation based on the formal criteria.

On the other hand, the disambiguation of the lexemes *doch* and *mal* required the application of semantic and pragmatic criteria because the respective MPs are not bound to certain structural types. In both cases, the method of lexical substitution was used. When the ambiguity still persisted, a careful analysis of pragmatic function was carried out and distinctive pragmatic meaning components ascertained. Finally, distributional collocational features were used for reinforcing the validity of the disambiguation procedure.

The resulting taxonomy partially confirms and partially supplements and fine-tunes MP taxonomies suggested in the scholarship to date. Some findings are restricted to the nature of the present data subset, e.g. the absence of the MP *denn* occurrences in yes/no questions (cf. Möllering, 2004). Other findings, in particular, the expansion of the MP *mal* domain, can be generalized to other settings and registers because some uses have been attested in literature but not yet accounted for.

Chapter 5

Pedagogical Intervention

5.1 Introduction

This chapter describes the design and the implementation of the pedagogical intervention constituting the core of this dissertation project. The chapter is subdivided into three main parts and a summary. Section 5.2 describes the participants in the experiment. First, I outline the general ethnographic information (5.2.1). After that, I present the transatlantic partner groups that participated in the TC exchange (5.2.2, Table 5-1). In 5.2.3, I discuss in detail factors contributing to L2 proficiency as well as the procedure used for proficiency assessment in this study (5.2.2). Next, the concept of computer literacy is described and the values for this learner variable given and compared between groups (5.2.4, Table 5-2). Section 5.3 outlines the focal course content (5.3.1) and organization (5.3.2) and explains the principles of language choice during telecollaborative correspondence (5.3.3). Section 5.4 describes the pedagogical intervention itself, including the general procedure (5.4.1) and its six stages (5.4.2 – 5.4.7). Since the delivery of the pedagogical intervention was dialectically intertwined with the collection and *in vivo* analysis of the data, which served as a basis for ongoing intervention and materials design (see 4.3.2), some intermediate results of this analysis are discussed in 5.4.2 – 5.4.7. The summary (5.5) provides a link from this chapter to the data analyses in chapters 6 and 7.

5.2 The Participants

5.2.1 General Ethnographic Information

The focal learners in this study were 7 American students of German (4 female, 3 male) enrolled in a telecollaborative German language and culture course at a major North-American public university (the Pennsylvania State University) and their 16 German keypals (12 female, 4 male) enrolled in an English teacher education seminar at a teachers' college in Germany (Pädagogische Hochschule Heidelberg). These students build the entire participant cohort in the sixth data collection cycle (2005) for *Telekorp*. The US students ranged in age from 18 – 22, while the German students were 20 – 30 and therefore on average older than the Americans, which mirrors the situation for previous data collection cycles for *Telekorp* (see Belz, 2005c).

5.2.2 Partner Groups

The German partner class had 16 participants and the American partner class consisted of only 7 participants. The low number of the participants in the experimental section (2005 *Telekorp* subset) is in part due to the fact that the instructor was required to offer the course as a special topics course that is not well known to undergraduates at the institution in question. In the pilot study (2004 *Telekorp* subset) the number was considerably higher (16) when the course was offered under a different rubric that formed a required course in the departmental German major. Additionally, the disparity between the number of American and German participants provides evidence of the popularity of

English in Germany (see also 5.3.3.6). In every *Telekorp* year, several German applicants were competing for each one TC course seat, and a number of the applicants were turned down.

Prior to the beginning of the TC correspondence, the instructor has paired American students based on the principles of mutual scaffolding (see Belz & Müller-Hartmann, 2002). After that, the Germans chose a pair of American students based on mutual interests as ascertained via perusal of the web-biographies prepared by the American partners prior to the beginning of the TC exchange (Belz, 2005c). However, one American participant dropped the course right after the beginning of the correspondence, and his partners were assigned to Laura and Christie who were thus paired with three partners instead of two (see Table 5-1).

Table 5-1. Transatlantic Partner Groups

Groups		Americans	Germans
1	1.1	Christie	Vera
			Constanza
			Tamara
	1.2	Paula	Nina
			Simone
2	2.1	Saul	Carlotta
			Juliana
	2.2	Chip	Stella
			Tilo
3	3.1	Jeremy	Soren
			Nils
	3.2	Laura	Alma-Lora
			Carine
			Sonja
4	4	Juana	Natalie
			David

It was left up to the students to decide if they wanted to write individual or collective emails to one or more of their partners within their group or if they wanted to chat individually or collectively. Students opted for different configurations on different days which broadened the range of discourse options to which they were exposed and which they had to employ (e.g., use of singular or plural pronouns of address, see Belz & Kinginger, 2003; Kinginger & Belz, 2005). Therefore, a number of 2005 emails have more than one author, although most of the students decided to write individual emails inside smaller groups from the very beginning. The number of chat participants (in each of the total of 30 sessions) varies from 2 to 7 respectively. However, any member of any group could read the correspondence of any other group (which was archived in a central location in FirstClass) that widened the exposure to various models of language use for all participants.

5.2.3 L2 Proficiency

5.2.3.1 Assessment Criteria

Following Granger (1998) and Belz *et al.* (2006), both external and internal criteria were applied in the assessment of the L2 learners' proficiency level. The L2 proficiency level of the participants at the beginning of the course was assessed by the instructor of the course (Prof. Julie A. Belz) on the basis of student performance on written essays and quizzes as well as in-class face-to-face (henceforth, F2F) communication. Next, learner performance during the TC correspondence allowed for

fine-tuning of the initial categorization. The crucial factor was comparison between learners with regard to their use of particular linguistic features that were taken to be indexical of more advanced proficiency (see Belz, 2005c). The ratings also draw on the instructor's nearly 20 years of experience as a German teacher and on comparison with the performance of learners in TC partnerships in previous data collection cycles. Furthermore, the analysis of electronic process data produced at the beginning of the course in combination with participant in-class observation was performed by both the instructor and the researcher. The proficiency rankings assigned by the instructor and the researcher were compared and a 100%-agreement was reached. To reiterate, the primary criterion was learners' performance in oral in-class conversations and their performance on initial inclass writing diagnostics.

In regard to the external criterion "institutional seat time", the focal students were enrolled in a German course that corresponds to the first or the second semester beyond the foreign language requirement at the focal American university. According to the standard North-American undergraduate curricular classification, they were at the 'intermediate' stage (Belz *et al.*, 2005a). However, this criterion provides very little information about the actual proficiency level of the participants because the actual length of L2 study varied considerably among participants.

In contrast to this not very informative external criterion, the following internal criteria were taken into account for fine-tuning the results of the primary in-class performance assessment of the proficiency level: actual length of L2 study; depth of L2 study; knowledge of additional languages; L2 contact experience; and especially, travel experience. The data related to these factors were elicited from the bio-survey and, in

part, from the content of the partner correspondence. These data are analyzed in the next subsections.

5.2.3.2 Length of L2 Study

The first factor contributing to L2 proficiency elicited from the bio-surveys is the actual length of L2 study. In general, German participants have learned their L2 English longer than their American counterparts their L2 German. In the American group, Jeremy, Chip, and Juana reported to have learned German since middle school that added up to seven years at the beginning of the TC course. Christie, Laura, and Paula studied German since high school, in sum, for five to six years. Finally, Saul had had no exposure to German prior to the summer 2005 when he participated in a six-weeks-long intensive summer course that is equated to completion of three beginning L2 semesters at the university in question. In contrast, most of the German participants began learning English in middle school and continued this study until graduation from high school (*Abitur*). For example, Alma-Lora remarks in her bio-survey: “I had the normal English learning process. That means I started in the 5th grade”. As a result, all 2005 German partners had learned English for 7-10 years before enrolling in college according to their survey responses (which mirrors the findings from other five *Telekorp* years).

5.2.3.3 Intensity of L2 Study

The next important factor along with the actual length of the L2 study is its intensity, related to the academic goals of the participants. First, students in the junior and senior year of the German *Gymnasium* (high school) choose their major (*Leistungskurs*) similarly to college students. Many of the 2005 German participants chose English as their major in high school, which means that they had studied it intensively during two years before going to college. Furthermore, all but one of the German students were studying in college to become teachers of English at the primary or secondary level in the German educational system, while the US students were pursuing a variety of undergraduate degrees. For all the Germans, the focal course was only one course among many dealing with different aspects of the English language. Moreover, while the majority of the Germans were studying towards becoming secondary teachers of English (a degree, which is generally completed in five years), one participant (Constanza) was already pursuing a Master's degree above her degree of a certified teacher of German and English. In contrast, only one American student (Christie) was majoring in German, three students had it as a minor (although Jeremy was considering taking it as a major), and three students elected it to fulfill their foreign language requirement (in other words, learning an L2 was required from them, but they chose German voluntarily from a variety of foreign language options). Many of the participants pointed out that they enjoyed learning foreign languages in their bio-surveys answers. An especially strong opinion was expressed by Saul as a response to the question about the L2 importance to the learners:

Extract 5-1:

Saul, bio-survey

It's what I do. I study Latin and Ancient Greek for my major, and, since I'm considering pursuing a PhD in classics, I'll need to learn as many modern european languages as I can -- which is good. I enjoy learning languages.

Saul has proven his determination to excel in L2 studies during the TC course. His general proficiency level impressively improved from low intermediate to high intermediate. Taking into consideration that he first took German in the summer immediately prior to the TC course, it can be stated that he progressed in German from zero to high intermediate during six months of study.

5.2.3.4 Other Languages

The third factor that may influence proficiency is knowledge of languages other than the L1 and L2. Six of the students on the US side were monolingual NSs of English, while one student (Juana) was a bilingual speaker of English and Spanish. Additionally, Saul and Chip had had additional experiences as language learners. Saul was majoring in classical languages and knew Latin and Greek, while Chip had learned French and Spanish as his L3 and L4. One student on the German side of the exchange (Sonja) was a Czech-German bilingual, the other 15 were monolingual NSs of German. However, all German participants had learned additional foreign languages in the course of their studies. All 16 had learned French as their L3, four students had learned Spanish as their L4, and two students had learned an L5 (Latin and Italian). All German students' self-rated proficiency in their L3, L4, and L5 (including Sonja's heritage Czech) was lower than in their L2 English. It should be noted that although in general, the knowledge of

additional languages contributes positively to the level of proficiency in each respective L2, this was not the case with Juana. Although this American learner was a heritage speaker of Spanish (and learned German for seven years prior to the course and traveled to German-speaking countries), her proficiency level was rated as low. One of the disturbing factors for Juana's development may be attributed to a negative rapport that she had had with her previous teacher(s) of German which can be concluded from her self-reflections in the bio-survey (ex. 5-2).

Extract 5-2

Juana, bio-survey

I am still in the class but when I have a teacher that really makes me feel like I am clueless in the subject, that makes me not want to continue. I like when teachers have heart and HELP you learn this very difficult language.

5.2.3.5 Residence Abroad

A very important factor is residence abroad in L2-speaking countries. All but one German student (Carine) had repeatedly visited English-speaking countries. In contrast, only one American student (Christie) in the experimental 2005 cohort had visited a German-speaking country prior to the course when she had spent one year in Germany as high school exchange student. Christie as well as several Germans relate in their bio-surveys that this factor was the one that most influenced their L2 proficiency.

Extract 5-3

Bio-survey

I think the most important aspect to learning German is to live in Germany. I learned a lot when I lived in Salzgitter and I think it is the [best] way to learn a language. (Christie)

My English wasn't very good when I was in High School. My [English] got better when I went to the States for a year. (...) The best way to learn a foreign language is to go to that country for a longer time. (Soren)

I think that this [sojourn in Great Britain] was a good possibility to improve my English because I had contact to many native speakers as I worked at the reception of the hotel. (Nina)

I am a learner who learns it by doing. The best and easiest way to learn a foreign language for me, is to stay abroad. (Sonja)

5.2.3.6 L2 Proficiency: Summary

To reiterate, although all criteria addressed above were taken into consideration for ascertaining learners' L2 proficiency, the ultimate deciding factor was L2 performance as evidenced in F2F in-class discussions and during portfolio presentations, as evidenced on their written course assignments including tests, quizzes and essays, and ultimately based on their performance of particular features as tracked in *Telekorp*. With regard to the L2 German proficiency, Christie was rated as advanced, Laura as intermediate high, Paula, Jeremy, and Chip as intermediate, Saul as intermediate low, and Juana as low. All rankings and factors are summarized in Appendix A. The self-rated L2 English proficiency of the German partners was on average higher than self-ratings of the Americans (Appendix B). The L2 proficiency of Germans as evidenced by their CMC correspondence in English was also on average higher than the L2 proficiency of the Americans. Among other factors, this situation was also influenced by the cultural

macrofactor of the important role that English plays in contemporary German society and in the German educational system (see Belz, 2001; 2002).

5.2.4 Computer Literacy

Another bundle of learner variables can be defined as learners' history of technology use, or computer literacy (Belz 2001). Computer literacy history is considered important for this study because the core performance data were produced and saved in an electronic medium. Data on different factors contributing to computer literacy were collected by means of the bio-survey and are summarized in Appendix C. It has to be noted that these data reflect both facts of participants' individual biographies and "macro-level features" (Belz, 2002, p. 67) concerning technological access and know-how in the particular settings (universities) and societal contexts (the US and Germany) in which the participants were embedded. The 2005 computer literacy self-reported data are analyzed in the next paragraphs and compared with the data from previous TC years. The results are summarized in Table 5-2.

Table 5-2. Summary of computer literacy data for four *Telekorp* years (mean).

	1		2		3		4		5		6		7		8		9	
	Age		Age start using PC		Element. school PC		Second. school PC		No. PC parents		Own PC		Primary accs live		Hours daily		Comfort level	
Year	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G	A	G
2000	19.5	22.1	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	60%	2.9	1	5.8	4.4
2001	19	23.2	10	13.6	60%	7%	90%	30%	1.7	1.2	90%	100%	90%	70%	3.4	1.4	5.4	4.4
2002	19.9	24	11.1	17.9	80%	0	90%	40%	1.6	1.5	90%	100%	90%	100%	2.9	1.75	5.9	4
2005	19.6	24.2	9	14	70%	6%	100%	60%	2.3	1.7	90%	100%	70%	100%	5.7	2.3	5.6	4.2

The 2000 data are adopted from Belz (2001, p. 226). "n/d" = no data available

According to Belz (2002), Americans tended to have greater home access to computers and the Internet than Germans in the first TC year (fall 2000), which reflected the general situation in their home countries based on demographic statistics released by the governments of the countries in which the focal learners resided and studies. In contrast, all 2005 German partners answered “yes” to the bio-survey questions “Do you own a PC?” and “Is your primary place of Internet access at home?” (See Table 5-2) Interestingly, two American students (Christie and Saul) gave negative answers to both questions. However, this situation can be explained by the fact that these students lived in campus dormitories and had unlimited Internet access in numerous computer labs around the clock (see Belz 2001, 2002). Under these circumstances, some American undergraduates choose not to have their own computer, whereas Germans may feel it necessary to own a computer given the limited access to computers on their campus compared to PSU (see Belz 2002). This assumption is confirmed by the data from previous *Telecorp* years where the percentage of “yes” answers to these two questions among Americans never reaches 100 (see Table 5-2, columns 6 and 7).

However, Americans appear to spend more time online and feel more comfortable with technology during all *Telecorp* years (see Table 5-2, columns 8 and 9). This difference remains intact also for the focal 2005 cohort. Americans spend on average 5.7 hours online daily in comparison to 2.3 hours spent by Germans. Similarly, the self-rated comfort level (while dealing with technology) on a scale from 0 to 7 yielded an average of 5.6 for Americans and 4.2 for Germans. For variable 8 (daily hours online), the numbers progressively increase from year to year for Germans (from 1 in 2000 to 2.3 in 2005 and vary in different years from 2.9 to 5.7 for Americans. However, for variable 9

(comfort level), the numbers remain fairly steady for both groups throughout all years (4 – 4.4 for Germans and 5.4 – 5.9 for Americans). Self-reported narratives from post-course surveys and interviews help interpret these numerical data. Although Germans approach Americans in their level of technological access, they still fall behind with respect to the range of computer-related activities they can perform. For example, most of the Germans in the focal year 2005 were already familiar with the CMC genre “Internet relay chat” (in contrast to year 2000 when 6 out of 15 German participants chatted for the first time in their life in the course of the TC partnership), but they still lag behind Americans in the amount of Instant Messenger (IM) use. A number of American students from different TC years related during post-course focus group interviews (Belz, personal communication) that they often have their IM window open on their computers for long periods every day. This might explain the higher numbers for average length of computer use per day for the American group (column 8). Additionally, fewer Germans use computers for other courses. Furthermore, the Germans express in their emails and survey responses an admiration for the web-design skills of their American partners and regret for their own lack thereof.

The learner technological history data (Table 5-2, columns 1–5) help further clarify the differences discussed above. First, the average age when the Germans first actively begin using computers is significantly higher than that of the Americans in all years and yields the proportion 14 to 9 in 2005. Next, the average number of computers at students’ parents’ home is growing for the German group from year to year, but is still lower in 2005 than for the American group (1.7 to 2.3, respectively). Furthermore, half of the Americans started using computers in elementary school. In contrast, only one of the

16 Germans (Natalie) had access to computers in elementary school (which, again, mirrors the situation in all *Telekorp* years). The number of Germans who have used computers in secondary school increases from year to year (30% in 2001, 40% in 2002, and 60% in 2005), but is still far from 90% for 2001 and 2002 and 100% for 2005 which is the case for the Americans. These data correlate with the age of the German participants. At the time when they first went to school in Germany, most of those schools were not equipped with computers. Only 36% of German schools had Internet access in 1998 (Belz, 2002, p. 67). To improve this situation, the Federal Ministry of Education and Research and *Deutsche Telekom AG* founded in 1996 the initiative *Schulen ans Netz* ('schools online'). Its initial goal was to connect 10,000 schools throughout Germany to the Internet within three years. In 2004, the *Schulen ans Netz* website reported that "with practically all German schools now connected to the Internet, *Schulen ans Netz* has completed its mission in terms of technology". Since the age of the *Telekorp* German participants is ranging from 21 to 30 years, none of them has benefited from the *Schulen ans Netz* program at their elementary educational level. Some of them were involved in the program at the secondary level, yet others were not effected by this program at all. Thus, this macro-level factor contributed to the learner values for the variable "computer literacy".

In general, all participants were experienced computer users although there was some variation in their computer literacy profiles.

5.3 The Course

5.3.1 Course Content

The focal course was a special topics undergraduate German language and culture course on the US side of the telecollaborative partnership that took place in Fall 2005. The students on the German end of the partnership were enrolled in an English teacher education seminar at a German teachers' college. The U.S. fall semester began on August 30, 2005, and ended on December 16, 2005, while the winter semester of the English teacher education seminar in Germany began in late October 2005 and ended in mid-February 2006. For all six data collection cycles from 2000 to 2005, the two academic semesters overlapped only from October to December, which allowed the transatlantic partners to correspond with each other for a total of about nine weeks. In each year, the course instructors divided the exchange into four phases (see Belz, 2005c for a comprehensive overview of the course organization and pedagogy) the content of which is summarized in Table 5-3.

Only American students participated in Phase I (September 1 – October 18, 2005) because the German university was not yet in session. The main content of this phase was preparation for the correspondence with the transatlantic partner class. The topics covered during class time were (1) presentation of the self and local culture to the German keypals in the form of web-biographies and essays (Web Project I); (2) the reading and discussion of a German-language juvenile novel (Härtling, 1997) and an English-language juvenile novel (Woodson, 1998) that would form the basis of future telecollaborative exchanges; (3) the discussion of articles that dealt with cultural

Table 5-3. Overview of the Telecollaborative Partnership (based on Belz, 2001, p. 216, and Belz, 2005c).

Phase	Main Activities	Goals	Forms of Interaction	Participants
Phase I: late August to mid-October	Web Project I (web-biographies and information about local university life); parallel texts; factual information about Germany and typically German ways of interacting (e.g., Byrnes, 1986; Davies, 2004); representations of German opinions of the U.S. in literature, diaries, and expository prose	Web-based introduction of US students to German students; facilitation of beginning stages of critical self-reflection; gathering of factual information about culture of keypals; sensitization to processes of intercultural communication	Traditional classroom-based instruction in plenary, group and pair work; Internet searches; web publishing	U.S.
Phase II: mid-October to mid-November	Getting to know one another; electronic discussion of local university life and of the parallel texts; completion and discussion of the Web-based cultural survey	Establishment of attitudes of curiosity and openness vis-à-vis the other; mutual examination of cultural rich points; development of critical cultural awareness; development of grammatical and pragmatic competence	Traditional classroom-based instruction; Internet-mediated intercultural interaction in FirstClass using email and synchronous chat	U.S. and Germany
Phase III: mid-November to mid-December	Web Project II (a group authored bilingual essay on topics related to the parallel texts); completion of cumulative course portfolio	Continued development of critical cultural awareness, grammatical, and pragmatic competence	Traditional classroom-based instruction; Internet-mediated intercultural interaction in FirstClass using email and synchronous chat; Internet searches; web publishing	U.S. and Germany
Phase IV: mid-December to early February	Discussion of the telecollaborative partnership; teacher-guided reflection on intercultural critical incidents in phases II and III	Development of technical, social, linguistic, and pedagogical competencies enabling pre-service teachers to implement telecollaboration in future workplaces	Traditional classroom-based instruction; technology-enhanced classroom instruction for the perusal of telecollaborative interaction	Germany

differences between the US and Germany, and (4) the discussion of aspects of discrete point as well as discourse-based grammar and conversational style. The focal grammar topics selected for instruction were those that were appropriate to the particular needs of the students enrolled in the course, those that would be required for the pending telecollaborative exchange, as well as those that proved difficult for American learners during previous telecollaborative partnerships. These included the expression of opinion, phrases for the comparison of attitudes and viewpoints on intercultural topics, vocabulary appropriate to the discussion of university life, student curriculum vitae, and characters in films and books, the formulation of suggestions and requests, and greeting and leave-taking. In addition, classroom sessions focused on linguistic and pragmatic differences in German and American conversational styles, the sociopragmatics and pragmalinguistics of pronouns of address, cohesive ties, and various idiomatic phrases necessary to carry out both formal and informal conversations with native-speaking age peers (see Belz 2003, 2004, 2005a, 2005c). Importantly, examples of focal feature use by both NSs and learners were taken from previous telecollaborative interaction archived in *Telekorp* and not from constructed textbook example. For instance, learners were given examples of how to express opinions on the juvenile novels and how to address keypals that were taken from previous telecollaborative exchanges at the same institutions.

Phase II (October 19 – November 7) began on the first day of the German winter semester. At the outset of phase II, the German students explored the web-biographies that the US students produced in phase I in order to gain personal information about their US partners and to choose keypals with whom they would correspond for the duration of the partnership. As in each previous year, the German students initiated contact with their

American partners by writing an email to them after they had read their online web-biographies and chosen a particular partner. During the first weeks of the partnership, the participants exchanged personal information and discussed particular cultural and personal aspects of their life as university students in the U.S and Germany (see Belz, 2005c). Second, the participants discussed their understanding of two parallel novels²⁸ (Härtling and Woodson). Third, they discussed and summarized their own electronically posted answers to a cultural survey, which contained 20 questions relating to intercultural topics that were related to the plotlines elaborated in the juveniles novels (see Belz, 2005c). This task was modeled on the work of Furstenberg (see, e.g., Furstenberg *et al.*, 2001; Bauer *et al.*, 2006). Finally, the students were required to correct up to three L2 inaccuracies made by their partners in each electronic interaction. Inaccuracies could involve traditional grammar errors or semantic, idiomatic, or pragmatic infelicities. Examples of each type of inaccuracy were provided by the instructor based on previous telecollaborative correspondence.

The primary content of Phase III (November 8 – December 13) was the completion of the final project, the task of which was “to produce a website that contained a bilingual essay in which learners compared and contrasted characters, themes, and/or constructs from the parallel texts and from keypal interaction” (Belz, 2005c). The students also continued correcting each others’ mistakes.

²⁸ “Parallel texts are linguistically different renditions of a particular story or topic; crucially, they are not literal translations of the same text, since it is the culturally-conditioned varying representations (Widdowson, 1992, pp. 16-25) of a single story or topic that are at issue as a prompt for intercultural learning.” (Belz, 2002).

Because the US semester had concluded by this point, only the German students participated in Phase IV (December 14, 2005 – mid-February, 2006). In general, they discussed the results of phases II and III from the perspective of pre-service English teacher education²⁹.

The primary method of assessment in the course came in the form of two formative and one summative portfolio in which learners reflected on and provided concrete evidence of their own development as language and culture learners during the telecollaborative exchange. Learners were required to orally present their 1st and 2nd portfolio to the instructor in German during individual meetings scheduled after the 1st and the 2nd third of the semester, respectively. The final portfolio was turned in during the final exams' week in a written form only.

5.3.2 Course Organization

As Belz (2005c) points out, the course was organized “around a series of carefully negotiated, successively more complex, teacher-guided tasks and projects” (see also Müller-Hartmann, 2000). However, while the learners' performance data were “indeed based on a series of classroom tasks, the tasks themselves were sufficiently flexible with respect to both topic and form in order to afford a broad array of conversational discourse (e.g., personal relationship building, intercultural misunderstandings, delegation of project tasks, directions for the use of project mediating software, disagreements,

²⁹ See Müller-Hartmann, 2006, for a detailed description of classroom activities conducted on the German end of the partnership during Phase IV.

discussion of popular culture topics, and even flirting)” (Belz *et al.*, 2005a). This wide variety of “discourse options” (Belz & Kinginger, 2003; Kramsch, 1985) provides rich material for the exploration of the use of pragmatic features by the learners (see Belz, to appear).

Fischer (2006b, p. 430) points out that task-based settings may indeed be beneficial for exploration of the use of discourse markers: “Using task-oriented data has not only the advantage that we can investigate how discourse particles may be used to fulfill functions regarding the extra-linguistic context, but it also allows the controlled investigation of particular variables that may influence their usage.” The complex structure of the course allowing for incorporating different tasks and discourse forms followed the design established and implemented with a certain variation in the previous *Telekorp* years (see Belz 2002, 2005c), as outlined in the next paragraphs.

The U.S. language course met two times per week for 75 minutes each day, while the German teacher education seminar met once a week for two hours. On that day, the two courses were scheduled so that they took place simultaneously in real time for about one hour. This overlap enabled intercultural synchronous chat (lasting from 40 to 60 minutes depending on the particular lesson plan) during regularly scheduled class time using institutional software and hardware³⁰. The US students read and/or composed emails during an additional classroom period each week. In total, the students spent two hours of in-class time on keypal correspondence. Additionally, students on both sides of

³⁰ The software used was “the teleconferencing program *FirstClass*, which allows both asynchronous email correspondence as well as multi-room synchronous chat. Each transatlantic group of three to six students maintained an electronic folder in *FirstClass* in which they archived their process data” (Belz, 2005c).

the Atlantic were required to write at least one additional email to their partners per week on their own time. However, the learners frequently exceeded this requirement by writing extra emails using their private email accounts or by chatting via *AOL Instant Messenger*.

The telecollaborative sessions alternated with regular classroom sessions during which “the learners on the U.S. side engaged in a variety of tasks, the most important of which were whole-group and small-group examinations and discussions of previously produced process data” (Belz *et al.*, 2005a). This constant alternation between “the production of process data and its critical, meta-lingual examination and discussion” (ibid.) is the most important design feature of the type of telecollaborative pedagogy at issue here.

5.3.3 Language of the Correspondence

The partners were required to use English half of the time, and German the other half of the TC electronic correspondence. In this fashion, the participants alternated between their L1 and L2 in order to provide their keypals with native models of their respective L1 and also to practice their L2 and to receive native feedback on their L2 productions (see Belz, 2005c; Thorne, 2006). The participants were instructed to use the alternation between languages strategically, i.e. to switch between languages at points that were considered meaningful to them for one reason or another. A number of learners decided to set the switching point at the paragraph, sentence, chat turn, or even message boundary. Yet others preferred to address certain topics in one language and other topics in the other. Learner proficiency also appeared to factor into language choice. Because

the Germans were in general more proficient in their L2 than were the Americans, it was sometimes easier for both parties to bring across the desired content in English. As a result, almost two times more English (76,842 tokens) was used in the course of the correspondence than German (44,778 tokens). However, the margin between the number of English and German words was larger for the Germans (3 for chat and 1.6 for email) than for Americans (2 for chat and 1.3 for email). This may be due to the fact that Germans were more concerned about learning English and produced more English by a higher margin for this reason.

For some tasks, the learners were required to use a certain language. For example, the Germans answered the questions to the cultural survey (Phase 2) in German, while the Americans answered the questions in English. The Germans then read and summarized the Americans' answers in English, whereas the Americans read and summarized the Germans' answers in German (Belz, 2005c).

5.4 Pedagogical Intervention

5.4.1 General Procedure

The intervention for the tutored instruction of the MPs was implemented by the researcher. It followed the general procedures employed by Möllering and Nunan (1995) and included awareness-raising, explanation, and practice. However, this design was elaborated in order to give it the form of modular, form-focused instruction that progressed from enhanced condition to explicit condition to fine-tuned condition.

Enhanced condition involves “pragmalinguistic input enhancement” (Martínez-Flor & Fukuya, 2005, p. 465), e.g. printing the focal features in bold or capital letters on the instruction materials. On the ‘continuum of explicitness’ the enhanced condition is located between the implicit and explicit ends. Explicit condition involves metalinguistic generalization as part of the instruction (see DeKeyser, 1995; Robinson, 1997; Rose, 2005). Four MPs (*ja*, *doch*, *mal*, and *denn*) were chosen as focal features; these were the MPs that were used most frequently by the NSs in their telecollaborative discourse during all *Telekorp* years including the pre-intervention phase of the 2005 partnership. Furthermore, these particles were also found to be the most frequently used MPs in native speaker corpora (see Möllering, 2001, 2004).

The pedagogical experiment was administered concurrently with the data production, collection, and analysis. After each semester week, all process data produced by all participants during this week were entered into *Telekorp* (see 3). The pedagogical experiment included a pre-intervention stage and five intervention stages. The timeline of the intervention is presented in Table 5-4. The intervention design replicates the design tested in the pilot study (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). However, it was decided to begin the intervention one week earlier, after the 3rd TC correspondence week, as opposed to the 4th TC week in the pilot study. This allowed for expanding the intervention by one additional stage (Stage 4) in order to provide the learners with more fine-tuned instruction on the MPs.

It should be noted that the instructor was researching other aspects of learner development and that the learners were exposed to other interventions in the course of the

semester prior to the intervention reported on in this dissertation. These interventions were also based on excerpts from *Telekorp*.

Table 5-4: Timeline of the Pedagogical Intervention

	Instruction	SW	Calendar	Instruments	Data Type
	Type for MPs		Date (start)		
Pre-intervention	none	8-10	10/19	TC correspondence	Performance
Stage 1	enhanced	11	11/8	Questionnaire 1; TC correspondence	Meta-pragmatic awareness; performance
Stage 2	explicit	12	11/15	Questionnaire 2; TC correspondence	Meta-pragmatic awareness; performance
Break	none	13	11/22	TC correspondence	Performance
Stage 3	fine-tuned	14	11/29	TC correspondence	Performance
Stage 4	fine-tuned	15	12/6	TC correspondence	Performance
Stage 5	none	16	12/11	Cumulative portfolios, TC correspondence	Meta-pragmatic awareness; performance

5.4.2 Pre-Intervention Stage

The pre-intervention stage of the experiment that corresponded to Phase II of the TC course (see Table 5-3) lasted from SW 8 through SW 10 (October 18 – November 7) for a total of three weeks. During this stage, the partners communicated with one another using email and chat. The performance data collected during the pre-intervention stage served as the baseline for the subsequent analysis (see 6.3). Based on contrastive learner corpus analysis of these data, the hypothesis that the learners of German would significantly underuse the focal MPs with respect to NS uses of the same MPs in the very

same interactions in the pre-intervention stage was confirmed. In fact, only two learners used the MPs at the pre-intervention stage. Christie used the MP *mal* once in SW8 and Saul used the MP *doch* in SW9 (see Chap. 7 for a detailed analysis). Both uses occurred in emails. This finding parallels the results of the 2004 pilot study, where only one most proficient student, Carolyn, used the MP *ja* three times and the MP *mal* once at the pre-intervention stage (see Belz & Vyatkina, 2005, p. 28). These findings provided numerical justification for the decision to conduct a pedagogical intervention for MP use with this particular group of US learners. The pedagogical intervention began on November 8 (11th SW) and included four stages described in the next sections (see also table5-4).

NS uses of the MPs in the pre-intervention stage were used in order to construct the materials used in stage 1 of the four-part intervention. Following each interventional stage, *Telekorp* was searched again in order to retrieve any uses of the focal features by either the NSs or the learners and contrastive learner corpus analysis was carried out again to ascertain learner performance relative to NS performance. New performances of the MPs by either the NSs or the learners were incorporated into the materials used in subsequent stages of the intervention. Thus, in contradistinction to Möllering and Nunan (1995) and Möllering (2001), learners in this study were always working with materials containing examples that had been produced either by their own partners or by themselves in previous correspondence.

5.4.3 Intervention Stage 1

Intervention stage 1 had two interrelated objectives: collecting meta-pragmatic awareness pre-instruction data by means of a questionnaire and form-focused instruction based on the enhanced condition, whereby learners' attention was focused on the target forms without explaining their functions (Robinson, 1997, p. 224). Instruction module 1 was administered during the first class session of SW11 (8 November 2005) and lasted for 40 minutes. At the beginning, the learners were given a brief explanation of the terms "pragmatics", "pragmatic competence", and "expression of attitude", based on Kasper (1997) and Leech (1997). Next, the students were asked to fill out questionnaires 1.1 and 1.2 (see Appendices D and E).

Questionnaire 1.1 (Q1.1, see Appendix D) was adapted from Weydt *et al.* (1983). It was previously applied by Weydt *et al.* (1983) to a group of native speakers of German and by Möllering and Nunan (1995) to an advanced group of learners, which allows for a cross-sectional data comparison (see Chapter 6). The questionnaire presents a pair of short written dialogues in German, one containing MPs and the other without them, otherwise identical. The learners were asked to underline the words that were different in the two dialogues. Then, they were asked to rank each dialogue on a scale of 1 to 6 (with 1 being the weakest and 6 being the strongest) with respect to its perceived expressive/emotive force for a variety of descriptive features such as "warm", "friendly",

“tactful”, “direct”, “wooden”, and “rude”³¹. After the completion of this task, the questionnaires were collected.

In questionnaire 1.2 (Q1.2, see Appendix E), the learners were presented with six short excerpts (roughly 200 words total) from their German keypals’ writing, each containing one or several MPs. The excerpts were chosen so that they represented all participant groups (see Table 5-1) and the authors of each excerpt were identified by name so that learners could place them within a communicative context with which they were familiar or in which they themselves had participated. Similar to the dialogues in Q1.1, each excerpt was paired with an identical text segment, but with the MPs taken out. However, in contrast to Q1.1, the learners were presented in Q1.2 not with constructed examples, but rather with authentic discourse from *Telekorp* in which they themselves had participated carrying therefore particular pragmatic salience for the learners. Again, the learners were asked to underline the words that were different in the two dialogues and the questionnaires were then collected. No ranking task was included in Q1.2 because it would have been repetitive to the analogous task in Q1.1. Finally, the excerpts containing the MPs from Q1.2 were projected on a large screen at the front of the classroom, but this time the MPs were bolded. The learners were told that the bolded words carried the expressive force of the excerpts, but the term “modal particles” was not used and the pragmatic functions of each MP were not specified. At the end of the instruction module, the learners received handouts with the Q1.2 excerpts containing

³¹ The learners were assigned reading and understanding these dialogues at home as part of their preparation for the November 8 class. However, the ranking task was given to them and completed by them along with questionnaire 1.2 during in-class time.

bolded MPs and were advised to observe these words in NS use in the remainder to class sessions for that week. Immediately after the instruction module, the partners participated in a chat session with their German partners. Until the end of stage 1, the learners corresponded with their keypals during one week via email.

Möllering and Nunan (1995, p. 51) note that the use of a metapragmatic awareness questionnaire at the beginning of a pedagogical intervention “can be seen as the first part of the instruction process, as it served to raise students’ awareness of modal particles.” Thus, implementation of stage 1 allowed for achieving two objectives simultaneously: awareness data collection and administration of an enhanced form-focused instruction module oriented towards awareness-raising.

The questionnaire data analysis showed that all learners were able to capture most of the MPs that distinguished both the constructed dialogues and the TC excerpts and that a number of their rankings about the MP emotive force resembled the rankings by the NSs in Weydt *et al.* (1983) and, in particular, by the learners in Möllering and Nunan (1995) (see Chapter 7 for a detailed analysis). However, the ongoing analysis of the performance data demonstrated that only the most proficient learner, Christie, who had already used MPs at the pre-intervention stage, used the MP *ja* once in stage 1. This result, again, closely parallels the finding of the 2004 pilot study where only the two most proficient students, Carolyn and Michael, used MPs after the enhanced instruction stage (see Belz & Vyatkina, 2005, p. 29). This result provided justification for the necessity of changing the enhanced instruction condition to the explicit condition that was implemented in stage 2.

5.4.4 Intervention Stage 2

Intervention stage 2 had two primary objectives: collecting additional meta-pragmatic awareness data by means of questionnaire 2 (Q2, see Appendix F) and form-focused instruction based on the explicit condition, whereby the learners' attention is focused on both the form and the meaning of the given target feature and provided with an explanation of the underlying rules of use (Robinson, 1997, p. 224), if available (see Belz & Kinginger, 2002, p. 209). Instruction module 2 was administered during the first class of the fifth week of the exchange (15 November 2005) and lasted for 40 minutes.

At the beginning of the class, questionnaire 2 was distributed. In this questionnaire, questions relating to the learners' meta-linguistic awareness of the focal MPs were asked on the basis of the excerpts from Q1.1 and Q1.2. The participants were asked to name the word category to which the focal words belong; to list other words belonging to this category; to select the functions that these words can fulfill from a given list; and to list the words that they might have used themselves in the same functions in previous interaction. After collecting the responses, focused instruction on the use of the focal MPs (*ja*, *mal*, *doch*, and *denn*) was delivered.

First, the term "modal particles" was named and explained. After that, learners were given a brief lecture on the general meanings, pragmatic functions, syntactic restrictions, and homonyms of the four focal MPs; they received a handout summarizing this information. Then the learners were shown additional examples of NSs' uses of the MPs and homonyms, again, taken from *Telekorp*. The pre-intervention MP uses by two American participants, Christie and Saul, were pointed out. As a homework assignment,

the students received a one-page worksheet with additional excerpts from their German partners' electronic productions with gaps following focal MPs and their homonyms. The task consisted in disambiguating MPs from their homonyms and filling in these gaps with letters "MP" for MPs or "H" for homonyms (see Appendix G). Learners were also asked to think about the specific MP meanings in each particular instance. Finally, they were advised to continue observing the MP use by their NS keypals as well as to try using them in their own CMC writing. As in stage 1, the partners had a chat session with their German partners immediately after instruction module 2.

The analysis of the responses to Q2 showed that only one learner (Saul) correctly termed the focal feature "modal particles". In general, a lack of metapragmatic awareness of the modal particles was demonstrated on the part of the learners (see Chapter 7 for a detailed analysis), which confirmed the necessity of explicit instruction that was begun during this stage of the intervention. Following instruction module 2, the learners corresponded with their NS netpals for two more weeks. In week 12, one more student (Jeremy) began using MPs both in email and chat (see Chapters 6 and 7).

Instruction modules 2 and 3 were separated by two rather than one week because of holidays both in the U.S. and Germany. Although some of partners continued to email each other during that week, the total amount of correspondence decreased in SW 13 and no MPs were used by the learners during that week (see Chapter 6).

5.4.5 Intervention Stage 3

Instruction module 3 of the intervention was administered during the first day of SW 14 (29 November 2005). The primary purpose of this 40-minute module was to offer the learners fine-tuned instruction with respect to the meanings of and syntactic restrictions on the use of the MPs. The session began with a review of the homework containing the disambiguation task (see 4.3.4). Individual learners were called on and asked to explain why they had decided if the focal features in the *Telekorp* excerpts were MPs or their homonyms. Each instance was then discussed *in plenum*. Next, learners were shown new NS excerpts from *Telekorp* produced during the two weeks that had passed after instruction module 2 which contained examples of both their partners' and their own emerging use of the MPs produced after module 2. Learners' names were associated with the examples so that they could recognize their own productions, where applicable. Appropriate and inappropriate uses were pointed out and explanations as well as recommendations for further use were given.

At the end of instruction module 3, learners were presented with a lecture fine-tuning the information about the concordancing tool (Scott, 2001) introduced to them by the instructor during the interventions administered earlier during the semester. First, the terms "collocation" and "concordance" were explained (based on Möllering (2004) and Nesselhauf (2004), see Chapter 6). Next, learners were given a homework assignment containing four worksheets with concordance lines for each focal MP extracted by means of WordSmith Tools software (Scott, 2000) from the 2005 *Telekorp* data produced by the German students to date. Each worksheet contained a number of questions that were

designed to stimulate learner discovery of patterns in NS MP use, following Möllering (2004). For example, questions related to word order and sentence type were asked: “In what types of clauses (statements, commands, questions) does the MP *ja* appear? In what lines does *ja* immediately follow the subject/the finite verb?”

Similar to the previous stages, the partners participated in a chat session with their German partners immediately after instruction module 3. After this stage, the telecollaborative exchange continued for one more week. During this week, the same learners who had already used MPs in stage 2 (see 4.3.4), Christie and Jeremy, used them both in email and chat.

5.4.6 Intervention Stage 4

Instruction module 4 was the final module of the intervention and was administered during the first day of SW 15 (6 December 2005). The primary purpose of this 30-minute module was fine-tuning of the functional meanings and contextual constraints of the use of the MPs.

The session started with a discussion of the concordancing task results (see 4.3.4). Learners shared with their class-peers MP use patterns they had come up with at home. Next, the patterns of use were summarized by the researcher-instructor and learners were given Handout 2 (Appendix H) containing this summary as well as a number of conventionalized expressions containing MPs. Furthermore, learners were presented with more examples from their emergent MP use taken from *Telekorp*. Accurate and inaccurate uses were pointed out and brought into correspondence with the NS use

patterns discussed at the beginning of class. Finally, the learners were encouraged to apply their fine-tuned knowledge and use the MPs in their TC writing. As usual, a chat session followed this final instruction module. After that day, learners communicated with their German keypals for one more week until the close of the American semester. During this week, the learners' use of the MPs was "explosion-like" (cf. Cheon-Kostrzewa & Kostrzewa (1997), discussed in 3.4.1) in both email and chat, and quantitatively surpassed the NS use in the same week (see Chapter 6).

Finally, on December 8, the students filled out a post-semester survey about their experiences in the TC course.

5.4.7 Post-Intervention Stage

The post-intervention stage fell at the final exams week (SW 16). Instead of a final exam, a final chat session was scheduled for 13 December 2005. The students who had a conflict with other final exams on that date were allowed to schedule a chat session with their German peers at any day of that week at their convenience. The final chat session provided rich data on the learner MP use that improved both in accuracy and range as well as approximated the frequencies of the NS use in the same chat interactions (see 5). Furthermore, as a final assignment in the US TC language course, the American students completed and turned in the third and final installment of their cumulative written course portfolios (see 4.2.1). At the close of instruction module #4, students were informed that they could include an entry on the MPs in their final portfolio, if they so

desired. All students chose to do so, and the portfolio entries served as another source for metapragmatic awareness data collection along with written surveys and questionnaires.

5.5 Summary

This chapter has described the pedagogical experiment that constitutes the core of this dissertation project. First, I described the participants of the experiment. I discussed the meta-data collection instruments and presented the ethnographic information, the L2 proficiency and the computer literacy level of the participants in both the experimental and the comparison group. Next, I outlined the focal course content and organization. Finally, I described the pedagogical intervention itself, including the intervention design, the general procedure used, and five stages of its actual implementation. Due to the integrated nature of this pedagogical experiment, the data analysis was dialectically intertwined with the pedagogical intervention. Decisions about the material to be covered during each next intervention stage were made and handouts and worksheets were created on the basis of the concurrent performance and awareness data analysis. Some preliminary results found at each intervention stage have been briefly discussed in this chapter. The detailed quantitative and qualitative data analysis is presented in chapters 6 and 7, respectively.

Chapter 6

Aggregate Data Analysis

6.1 Introduction

The primary focus of this analysis was to examine the effect of the pedagogical intervention on the use of the German MPs by the learners. Four research questions were formulated based on this research purpose.

1. Does the MP use by the learners change after the pedagogical intervention?
2. Does learner MP use develop in approximation to the NS baseline after the intervention?
3. Do learners use MPs differently in the computer-mediated genres of email and chat?
4. If so, is learner differential MP use in email and chat similar to the NS use in the same genres?

In order to answer these research questions, a series of quantitative analyses was performed using *Telekorp*. Data were aggregated each time in a different way tailored to different facets of each research question. Section 6.2 presents the results of the preliminary quantitative analysis based on the MP raw counts in correspondence with the intervention timeline. Section 6.3 reports on the results of the statistical analysis of variance in the MP frequencies as used by learners and NSs in response to the factors of the pedagogical intervention and CMC genre. For the analyses in 6.2 and 6.3, all four

focal MPs are aggregated into one category. In all subsequent sections, frequencies are counted and compared for each individual MP. Section 6.4 addresses the MP distribution, mean comparisons, and collocational patterns across the two populations (learners and NSs) and the two CMC genres (email and chat). Additionally, learner data are compared to NS data from the larger *Telekorp* (six data collection cycles) and NS-NS spoken and CMC interactions. All results are summarized in 6.6.

6.2 Focal Corpus Subset Size

The total 2005 process data subset including email and chat correspondence comprises 155,336 running words (or tokens, see Scott, 2006). Each email constituted one record for emails, and each turn produced by each participant constituted one record for chats. The full contingent of the 2005 electronic correspondence dataset contains 330 emails (108,729 tokens) and 30 chat sessions consisting of 5,800 turns (37,286 tokens) total. In this analysis, only the German word subset is taken into consideration, which comprises 44,840 tokens. The word counts as broken down across participant population, week of production, and medium are presented in Table 6-1.

Table 6-1. *Telekorp*: German Words Subset Size

Week	NSs		NS+Learners		Learners		records email
	German tokens email	chat	records email	records chat	German tokens email	chat	
8	3371	n/a	20	n/a	926	n/a	9
9	3693	940	30	6	3969	694	22
10	3767	116	22	1	3887	112	23
11	3828	1197	35	6	1591	961	15
12	1289	501	23	3	1927	417	17
13	1157	n/a	22	n/a	1261	n/a	6
14	522	361	32	4	747	585	21
15	706	872	37	5	1116	883	21
16	36	1703	4	5	2	1703	1
Total	18369	5690	225	30	15426	5355	135

6.3 Preliminary Analysis

Based on the pilot study results (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006), it was predicted that the NSs would frequently use the MPs in their CMC correspondence, and that the learners would drastically underuse them. This hypothesis was tested during the pre-intervention stage: the first three weeks of the telecollaborative exchange (SW 8-10). NS and NNS productions were analyzed for all four focal MPs and contrastive learner corpus analysis was performed in order to establish a comparative baseline of MP use by the NSs and a control baseline of MP use by the NNSs to be used against future post-intervention performances.

The experimental timeline (see Fig. 6-1) was subdivided into nine segments corresponding with semester weeks (SW) from SW 8 (beginning of the TC exchange) through SW 16 (end of the TC exchange). MP raw counts for each participant group during each of the three weeks were collected. On the basis of the raw count comparison, noticeable underuse of the focal MPs by learners with respect to NS uses of the same

MPs in the very same interactions in the pre-intervention stage was established (see Fig. 6-1). The NSs used the focal MPs *ja*, *denn*, *doch*, *mal* in both chats and emails for a total of 51 times. Despite this ample exposure in the NS discourse, only two MP uses total by two learners were ascertained at the pre-intervention stage which is very similar to the pilot study results (see 5.4.2).

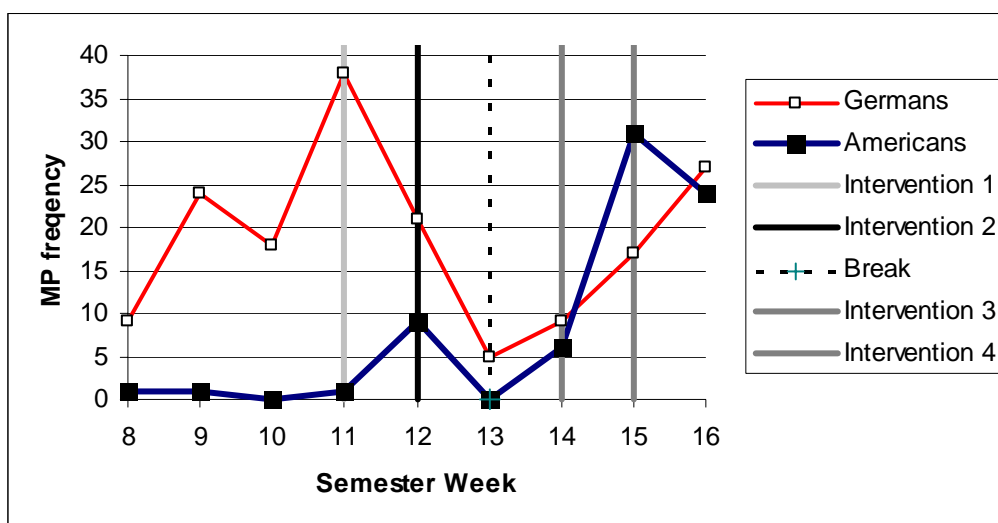


Figure 6-1. Pedagogical intervention timeline and raw MP frequencies (dataset 2005).

The first intervention module, based on the enhanced condition (see 5.4.1), was delivered at the beginning of SW11. The analysis of the production data from SW11 yielded only one learner MP use, by one of the two learners who had already used one MP each at the pre-intervention stage. This learner (Christie) was the most advanced learner in the course. This result mirrors the finding from the pilot study, where only the most proficient learner (Carolyn), who used the MPs during the pre-intervention stage, used them again during the enhanced stage (see 5.4.3). Thus, it was ascertained that neither the enhanced condition intervention nor the exposure to an increased MP use by

NSs (38 MPs in SW11 alone as compared to 51 MPs total in SW8-10) had influence on the increase of learner productions. An increase in the learner MP use was ascertained in SW12 after the delivery of the second intervention module based on the explicit condition (see 5.3.4), as can be seen on Fig. 6.1. SW13 represents an abrupt drop in the MP use by both NSs and learners due to overall decrease of CMC between transatlantic groups during a week-long break in the instruction process due to holidays both in Germany and in the U.S (see 5.3.4). However, the trend for increase in the MP use is taken up again after the third and fourth intervention modules (SW14 and SW15) designed as follow-up instruction after the second intervention (see Fig. 6-1). Moreover, learner MP use increases to an overuse after instruction module 4 and then slightly decreases to the level just below the NS baseline in the final week of correspondence (SW16). This result is, again, consistent with the findings from the pilot study (see Belz and Vyatkina, 2006). In general, the course of the change in the learner MP frequencies in comparison with the NS baseline is very similar to the respective changes in the pilot study (see Fig. 6-2).

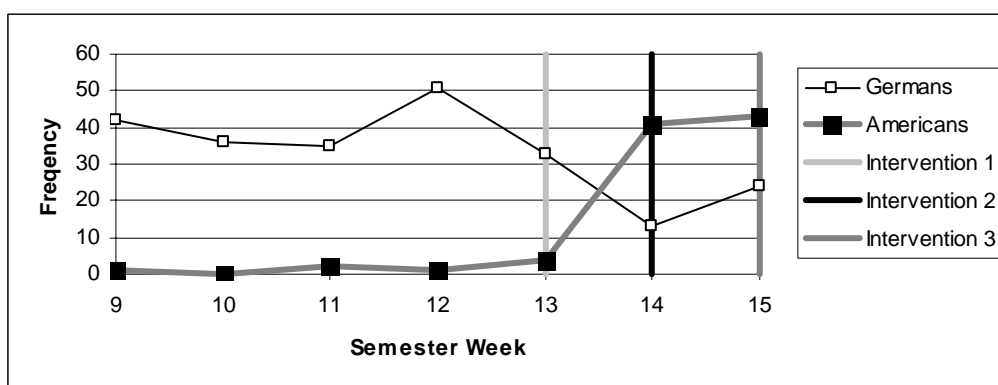


Figure 6-2. Pedagogical intervention timeline and raw MP frequencies (dataset 2004). Adopted from Vyatkina and Belz (2006, p. 340).

Based on the found zero effect for the enhanced instruction condition, it was decided to consider only the explicit instruction condition as intervention. Respectively, production data for the subsequent quantitative analyses were aggregated in the following way. The observations from the first intervention stage (SW11) were combined with the observations from the pre-intervention stage (SW8-10) to form an aggregate pre-intervention condition, characterized by a ‘plateau’, or zero development, effect. The observations from the weeks following the second instruction module (SW12-16) were treated as an aggregate post-intervention condition, characterized by an increase in learner MP use. Although this increase may be attributed to the integrated effect of both the enhanced and explicit condition (see Vyatkina & Belz, 2006), the term “intervention” is used hereafter only for the explicit condition unless otherwise specified.

Furthermore, although differential effects of the enhanced and explicit conditions was not tested in this study, a hypothesis can be formulated that the enhanced instruction condition alone has no effect on the development of the learner MP use. This hypothesis is also supported by the awareness data analysis (see Chap. 7) and by the pilot study (Vyatkina & Belz, 2006).

6.4 Analysis of Variance in the Aggregate MP Use

6.4.1 Research Hypotheses

This section addresses the four research questions formulated in 6.1. In order to answer these questions, the statistical analysis of variance (repeated measures ANOVA)

was performed by means of SPSS software. Based on the research questions, the following hypotheses were formulated:

1. The learner MP use will significantly increase after the intervention.
2. The learner MP use will be significantly different from the NS use before the intervention.
3. The learner MP use will be not significantly different from the NS use after the intervention.
4. The learner MP use will differ for the genres of chat and email similar to the NS use.

6.4.2 Definition of Variables

Because the primary focus of this research is on individual participants, they were determined as experimental units. Thus, observations were made for each participant (both for learners and NSs), and values of the response variable for different conditions were counted for each observation. The response variable was the relative MP frequency that was calculated based on raw MP counts in order to account for the difference in the amount of total German words produced by each participant³². To obtain the relative frequency, raw MP counts (collapsed together for all four MPs) were normalized per 1000 words using the following equation (see Biber, 1988, p. 76):

$$MP \text{ relative frequency} = \frac{MP \text{ raw count}}{\text{total word count}} \times 1000$$

³² English word counts were ignored for the purposes of this research.

Three factor variables, or conditions, were determined based on the research questions 1-4 (see 6.1), each of them having two levels. The factor “intervention” was determined for exploring the effect of the pedagogical intervention with the levels of pre-intervention and post-intervention (see 6.2). The factor “L1” was determined for comparing differences between NSs (L1 German) and learners (L1 English). The factor “medium” was determined for exploring differences in MP use between the two CMC genres, or media: chat and email.

6.4.3 Effects of the Intervention, L1, and Medium

6.4.3.1 Procedure

A linear statistical model was used to explore the interrelation of all three contributing factors. Additionally, within-person consistency needed to be taken into account because relative frequencies were counted for the same group of participants and compared across time and genre. The Repeated Measures ANOVA was chosen as the most appropriate model for this task because it takes into account multiple observations of the same participants. In the first step, the assumption of a normal probability was tested for both learners and NSs for all four possible within-subject treatment combinations (pre-intervention/chat; pre-intervention/email; post-intervention/chat; post-intervention/email). This assumption was confirmed for all cases because the distribution of relative frequencies turned out to be close to normal. After that, the full factorial analysis was run by means of SPSS software, where every possible interaction of the

factors included in the model was tested: two within-subject factors (intervention and medium) and one between-subject factor (L1).

The output demonstrated that all three factors had significant effects on the MP use. However, no significant interaction between any factors has been found. These results can be interpreted as follows.

6.4.3.2 Medium Effect

Hypothesis 4 was confirmed because MP mean relative frequencies in chat and email significantly differ for both NSs and learners. This result is represented on Fig. 6.2, where point 1 on the “medium” axis stands for “chat” and point 2 stands for “email”.

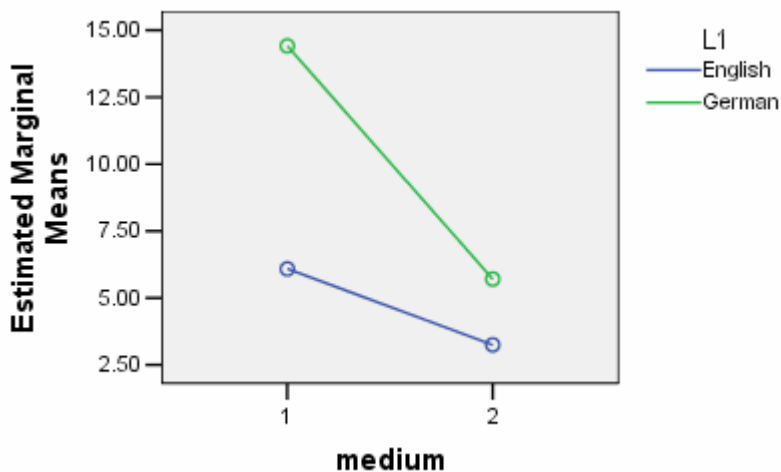


Figure 6-3. Mean relative frequencies for “medium”.

Both NSs and learners use more MPs in chats than in emails. Additionally, the absence of the interaction of the variables “medium” and “L1” provides evidence that the difference between the learner MP use in chats and emails is NS-like. Indeed, Fig. 6-3 shows that

both groups, although differing in absolute mean frequencies, use more MPs in chats roughly by a margin of three in comparison with emails. Therefore, the learner MP use differs between the genres of chat and email similarly to the NS use.

6.4.3.3 Intervention Effect

Hypothesis 1 was also confirmed because the post-intervention MP relative frequency mean significantly increased in comparison to the pre-intervention stage. This result is demonstrated in Fig. 6-4, where point 1 corresponds to the pre-intervention condition and point 2 to the post-intervention condition.

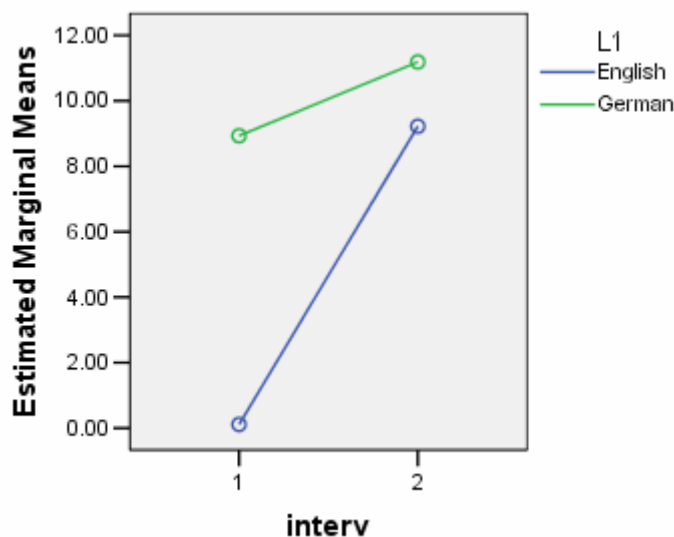


Figure 6-4. Mean relative frequencies for “intervention”.

However, the output with respect to intervention yielded one unexpected contingent result: no interaction between “intervention” and “L1” was ascertained. As can be seen in Fig. 6.3, not only learners but also NSs changed between pre- and post-

intervention. This apparent contradiction (NSs did not receive any intervention and yet demonstrated an intervention effect) will be addressed below.

6.4.3.4 Combined Effect of Intervention/Medium/L1

In order to test hypotheses 2 and 3, mean comparisons between the learner and the NS frequencies for each combination of intervention and media levels were performed. Mean relative frequencies for both participant groups and four conditions are represented in Fig. 6-5.

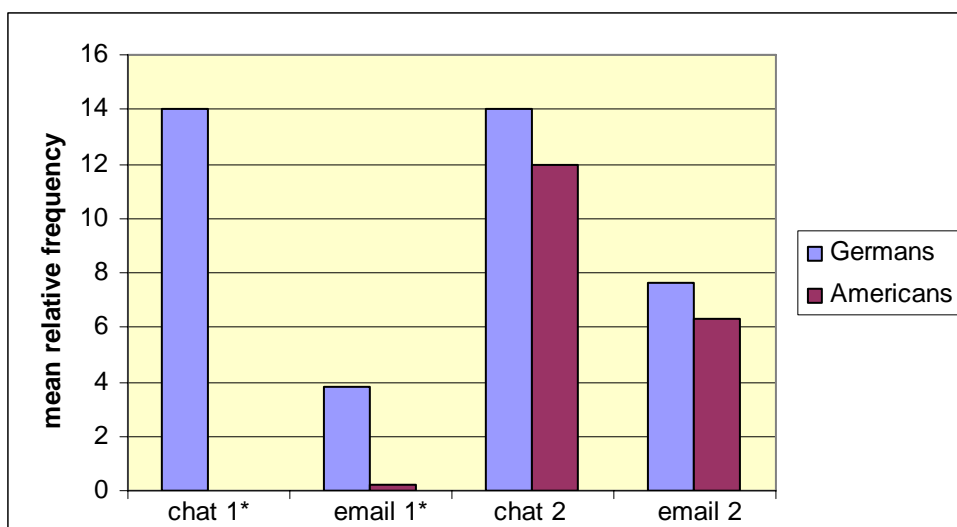


Figure 6-5. Mean relative frequencies across “intervention” and “medium”.

The first column shows mean NS frequencies as used in the pre-intervention chats (X-axis point “chat 1”). No learner uses were ascertained for this condition. The second NS use column is accompanied by a barely visible learner use column because learners used 3 MPs at the pre-intervention stage, all of them in emails (X-axis point “email 1”).

In contrast, columns representing learner MP use at the post-intervention stage are comparable to NS columns for both chat (X-axis point “chat2”) and email (X-axis point “email 2”). Mean comparisons have demonstrated that mean contrasts between the learner MP frequencies and the NS frequencies are significant at the pre-intervention stage (which is marked by an asterisk in Fig. 6.4) and not significant at the post-intervention stage. The output of this analysis is presented in Table 6-2.

Table 6-2. Mean comparisons between learner and NS frequencies for the factors of intervention and medium.

interv	medium	(I) L1	(J) L1	Mean Difference (I-J)	Std. Error	Sig. ^a	95% Confidence Interval for Difference ^a	
							Lower Bound	Upper Bound
1	1	English	German	-14.092*	6.420	.040	-27.485	-.699
		German	English	14.092*	6.420	.040	.699	27.485
	2	English	German	-3.549*	1.200	.008	-8.051	-1.047
		German	English	3.549*	1.200	.008	1.047	6.051
2	1	English	German	-2.565	5.422	.641	-13.874	8.745
		German	English	2.565	5.422	.641	-8.745	13.874
	2	English	German	-1.384	3.112	.666	-7.855	5.127
		German	English	1.384	3.112	.666	-5.127	7.855

Based on estimated marginal means

*. The mean difference is significant at the .05 level.

Hypothesis 2 is confirmed because NSs had a significantly higher relative frequency of MP use before the intervention in both chat (14.092:0) and email (3.774:0.225). Hypothesis 3 is confirmed because after the intervention, the mean contrast of the NSs and learners persists but is not statistically significant both in chat (14.735:12.171) and email (7.636:6.272). Therefore, it can be concluded that the learner MP use is significantly different from the NS use before the intervention but not significantly different from the NS use after the intervention. In other words, the research questions 1 and 2 (see 6.1) were answered positively for the aggregate condition (when

all MPs are collapsed in one category): the learners develop in their MP use towards the NS comparison baseline after the intervention.

Finally, the mean comparison result demonstrates that the contradictory intervention effect for the NSs (see above) is ascertained only for emails. NS mean frequencies increase in email from 3.774 pre-intervention to 7.636 post-intervention, as opposed to virtually no difference in chats, 14.092 to 14.735, respectively (see Fig. 6-5 and Table 6-2). Obviously, there is an intervening variable at work in this case that has not been accounted for. The found effect may be due to the content of specific emails as well as register characteristics of email and chat. The tasks formulated for the participants at the beginning of the semester were related to introducing themselves to their transatlantic partners (see 5.3.1). This task lends itself to a monologic narrative register employed by participants in their emails. This register is not characterized by the use of many interpersonal features to which discourse and modal particles belong (see Biber, 1988). In the second half of the correspondence that coincides with the post-intervention period, the learners were primarily completing the joint web-project (see 5.3.1) that involved many computer-mediated discussions carried out in an interactive, dialogic register. Interpersonal linguistic features cluster in such text types (see Biber, 1988). However, chats were interactive from the very beginning and remained such due to their inherent feature of interactivity. This explains no variation in NS MP use in chat in different phases of the TC course. This finding shows the limitation of pure quantitative analysis as an explanatory framework and necessity of disambiguation of results by means of qualitative analysis (see also Belz *et al.* 2005; Kinginger & Belz, 2005; Meunier, 1998).

6.5 Variation in the Use of Individual MPs between Learners and NSs

6.5.1 Dispersion

Initially, the distribution of each MP in the corpus was explored. For this purpose, dispersion plots for each focal MP and each student population (learners and NSs) were retrieved from the corpus by means of the Concord tool of Oxford WordSmith Tools software (Scott, 2006). Scott (2001, p. 47) explains that dispersion plots are “maps showing where in the texts the search words were found”. In both plots shown in Fig. 6-6, each vertical line represents one MP use. The left and right margins represent the beginning and the end of the telecollaborative correspondence, and the continuum between them spans the time period of nine weeks (SW 8-16). The comparison of the two distribution plots for NS and learner MP use during this period makes visible at what point the pedagogical intervention was delivered. One can see that NSs use all four focal MPs relatively evenly throughout the whole CMC course (with somewhat higher use density of the MP *ja* and a slight increase in the overall density in the final third of the course). In contrast, three single lines in the left half of the learner plot represent three single pre-intervention MP uses (see 6.2). The right half of the learner plot demonstrates a sharp density increase toward the end with the highest density of the use of the MP *ja*.

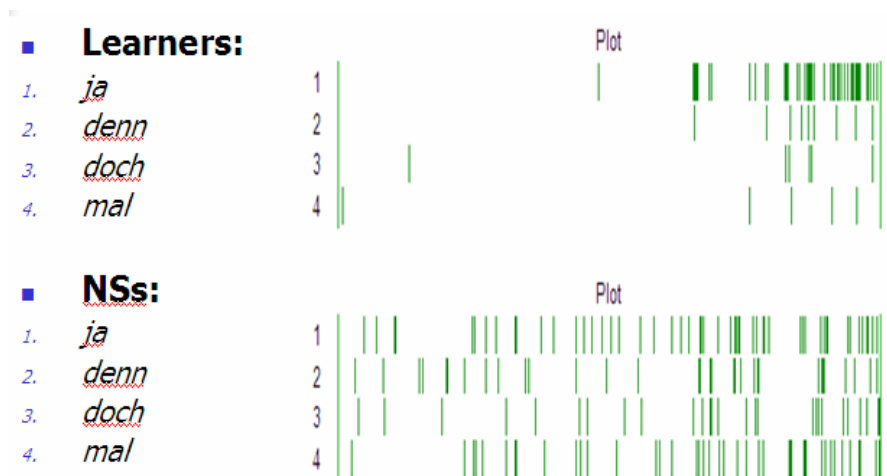


Figure 6-6. Dispersion plots of the MP use by learners and NSs.

6.5.2 Mean comparisons

6.5.2.1 Learners and NSs: Post-Intervention

First, mean relative frequencies of each MP per 1000 German words (see the formula in 6.4.2) used post-intervention were compared between the two populations. This analysis helped fine-tune the result achieved by the statistical analysis when all MPs were aggregated (see 6.3). The results are presented in Fig. 6-7. Whereas overall, learners still underuse MPs in comparison to NSs at the post-intervention stage (although not significantly, see 6.4), one particular MP (*ja*) is overused by them (see Fig. 6-7). This difference in MP frequency in interaction with MP range confirms the results from previous studies exploring the MP acquisition (e.g. Cheon-Kostrzewa & Kostrzewa, 1997), which have found that the development of this pragmatic feature is uneven and that learners acquire particles that are more frequent in the NS discourse before others.

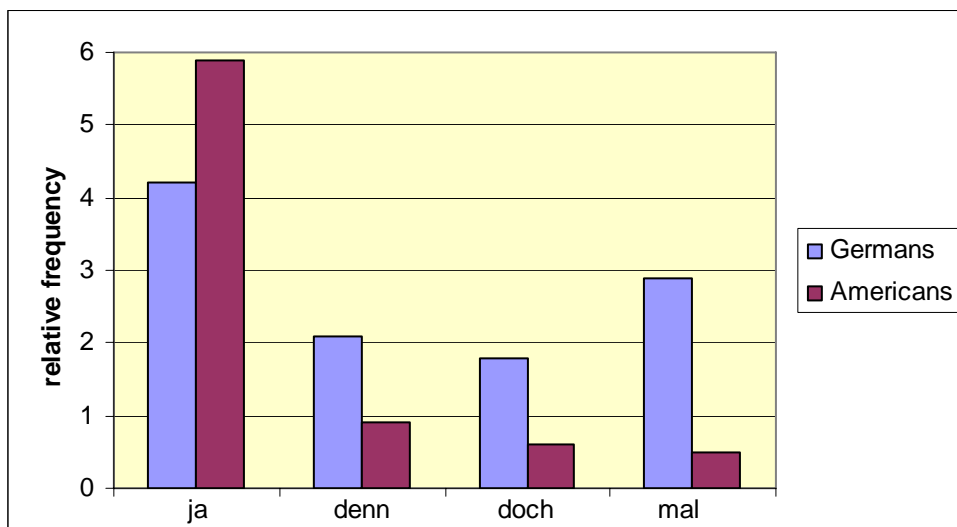


Figure 6-7. Post-intervention relative frequencies of each MP.

Next, post-intervention mean relative frequencies for each MP were compared between learners and NSs for each of the two CMC genres: email and chat. The overall tendency of the mean contrast ascertained above was found to persist in each separate genre, viz. the overuse of *ja* and the underuse of three other MPs by learners. However, the variation turned out to be higher in chats (see Table 6-3).

Table 6-3. Post-intervention mean relative frequencies in chat and email.

	<i>ja</i>	<i>mal</i>	<i>denn</i>	<i>doch</i>
Chat NS	3.87	4.04	3.51	2.99
Chat learners	6.27	0.51	1.13	0.7
Email NS	3.77	2.42	0.8	0.54
Email learners	3.95	0.2	0.79	0.4

6.5.2.2 Learners and NSs: *Telekorp* and Reference Corpora

Finally, learner mean MP relative frequencies (per 1000 tokens) in chats (comprising the total of 5,355 tokens) and emails (15,076 tokens) were compared to three

larger reference corpora (see Table 6-4 and Fig. 6-8). The procedure of comparing a small focal corpus to larger reference corpora is recommended by Scott (2001).

Additionally, comparisons across CMC and non-CMC genres may shed light on the comparability of *Telekorp* (NS-NNS) data with NS-NS spoken and computer-mediated interactions.

Two NS corpora were used for reference: the *Brons-Albert* spoken corpus of telephone conversations (Brons-Albert, 1984) and the *Dortmunder Chat-Korpus* (Beißwenger & Storrer, 2006). Additionally, the full contingent of the NS chat data from *Telekorp* collected during six subsequent years (comprising 31,113 German words) was also used for comparison purposes. The relative frequencies for the larger *Telekorp* NS email subcorpus were unavailable at the time of writing, thus only the NS 2005 email data were analyzed (18,334 tokens).

For the NS spoken corpus (comprising roughly 44,000 tokens total), the relative frequencies were computed on the basis of raw frequencies obtained by Möllering (2004). From the NS chat corpus, a sample (comprising 14,223 tokens) was automatically retrieved with the help of *Stoccado* software (see Selzam, Beißwenger, & Storrer, 2006) and analyzed. In the chosen NS-NS chats, participants of a computer-assisted seminar at a German university discuss task-based projects while establishing interpersonal relationships at the same time. This sample was chosen because the context of the CMC interactions is similar to *Telekorp*, which increases the data comparability. The MP relative frequencies calculated for all these corpora are summarized in Table 6-4 and graphically represented in Fig. 6-8.

Table 6-4. Mean relative frequencies across different corpora.

	Mean relative frequency per 1000 German words	Total tokens	<i>ja</i>	<i>mal</i>	<i>denn</i>	<i>doch</i>
1	NS-NS oral (phone) conversations; <i>Bronsbach</i> (1984); reported in Möllering (2004)	44,000	9.14	2.27	2.64	3.27
2	NS-NS chats; <i>Dortmunder Chat-Korpus</i> (2004)	14,223	8.23	4.85 (2.53)	5.7	3.66
3	NS chats (with learners); <i>Telekorp</i> (2000-2005)	31,113	3.54	2.96 (1.64)	2.35	2.89
4	Learner chats (with NSs); <i>Telekorp</i> (2005)	5,355	6.27	0.51	1.13	0.7
5	NS emails (to learners); <i>Telekorp</i> (2005)	18,334	2.01	1.25	0.93	0.54
6	Learner emails (to NSs); <i>Telekorp</i> (2005)	15,076	3.95	0.2	0.79	0.4

The comparative analysis of these frequencies shows that *ja* is the most frequent MP for all populations and all genres. It is used by NSs with the highest frequency in oral conversations (9.14, as inferred from Möllering's row counts), followed by NS-NS chats (8.23), and then NNS chats (6.27). NNS emails and NS-NNS chats have a nearly equivalent frequency (3.95 and 3.54 respectively). Finally, it is used with the lowest frequency in NS emails (2.01).

Three other MPs (*denn*, *doch* and *mal*) are used in learner chats with a lower frequency than in all NS spoken conversations and chats.

A seemingly higher frequency of *mal* in both NS-NS and NS-NNS chats in comparison to the spoken data can be explained by differences in the classification criteria. In Möllering's (2004, pp. 189 ff.) classification, *mal* uses in declarative sentences are counted as MPs only if they appear in directives in collocation with modal verbs. In this study, it is argued that *mal* is used in commissives in the same function, and thus these uses are also counted as MPs (see 4.4.4 for discussion). If commissives, following Möllering's (2004) classification, were excluded from the data, the resulting mean

frequency (indicated in parentheses and in italics) in both NS-NS and NS-NNS chats would be lower than in the oral corpus.

The MP *denn* is used in NS-NS chats with a two times higher frequency in comparison to NS spoken conversations and NS-NNS chats. This can be explained by content differences between these three samples. The MP *denn* is bound to the illocutionary act “question” (see 4.4.3) and thereby to conversations containing queries addressed by partners to each other. The content analysis of the NS-NS chat sample showed that the vast majority of all *denn* uses clusters in the first chat that took place at the beginning of the CMC seminar, i.e. at the point in time when participants first met and were getting to know each other. This situation was similar in the TC course, however, the initial contact between transatlantic partners was established by email, which is why many questions related to partners’ biographies and personal interests (including the ones containing *denn*) were asked by the participants before their first chat. In contrast, the context of the spoken sample is not conducive to a “making friends” situation: all data were elicited from one person’s telephone conversations which were likely to occur mostly with people who she already knew.

The analysis of NS-NS spoken and chat data shows that MPs occur with high frequency in both communication modes and can be said to be a linguistic characteristic of chats similar to spoken genres, which supports the argument of chats being ‘speech-like’ (see 3.5). Some MPs were found to be used more frequently in spoken conversations and others in chats; however, a caveat is in order that the topic and content of each conversation plays a major role affecting finer distribution of MPs. Change of the communication context may result in a reversed pattern of the MP use in spoken and

CMC interactions. In general, the four focal MPs are more evenly distributed in both NS chat corpora than in the oral NS corpus, where the MP *ja* is used with a noticeably higher frequency. Interestingly, the learner usage mirrors this pattern both in chat and email.

Furthermore, it can be ascertained that NSs use fewer MPs while chatting with learners than while chatting with NSs. This may be due to the fact that NSs (consciously or subconsciously) avoid using linguistic elements that do not contribute to the propositional meaning of the utterance in order to bring this main meaning across in conversations with less proficient speakers. However, the MP density as used by NSs increases in the second half of the TC (see 6.5.1). This may be accounted for by the fact that the interpersonal rapport has been established and the communication has become therefore more informal. NSs may have also noticed emergent MPs in the learner writing, which may have prompted them to more frequent MP use.

For corresponding frequencies in *Telekorp* emails, only 2005 data were available. Additionally, emails demonstrated higher within-corpus variation (see 6.4). For these reasons, the relative frequencies for emails are only suggestive for genre comparison purposes and require collection of additional data and further investigation. Based on the available data, it may be hypothesized that relative frequencies in NS emails are lower than in chats and oral conversations. This contrast can be explained by the nature of email as less ‘speech-like’ than chats due to such characteristics as ‘edited text’, ‘asynchronous medium’, and ‘monologic speech’ (see 3.5). The learners were found to have picked up this tendency because all their email frequencies are lower than the chat frequencies, although by a lower margin than in NS uses.

The mean relative frequencies for all six (sub)corpora are put together in Fig. 6-8

below.

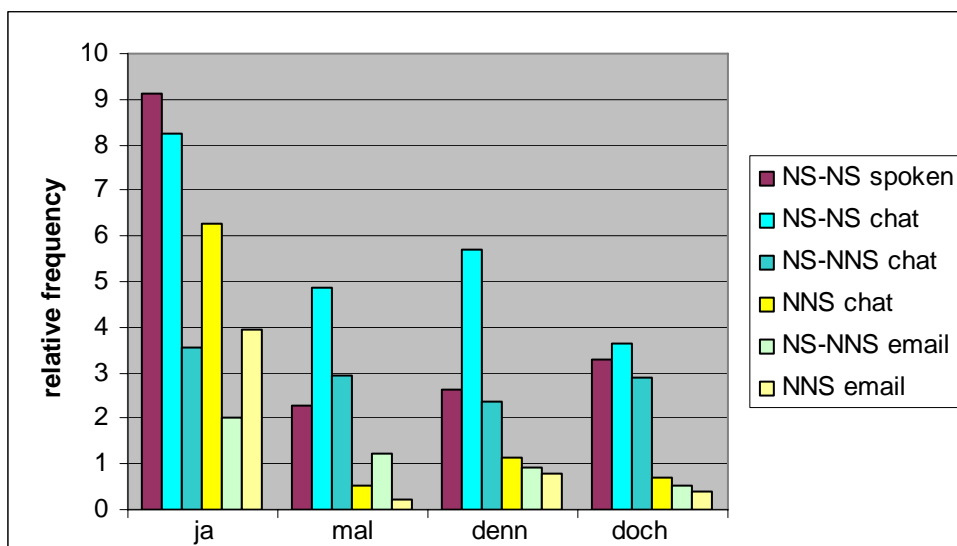


Figure 6-8. Mean relative frequencies across different corpora.

6.5.3 Wordlist-Based Analyses

6.5.3.1 Word Distribution

The wordlist-based analysis was performed for both CMC genres in order to investigate how common each focal MP is in comparison with other words in each respective subcorpus. For this purpose, the WordSmith function “Word list” was used that allows for retrieving all running words used in a corpus in the form of a word list ordered by frequency (Scott, 2006, see also Scott, 2001, p. 47; see Fig. 6-9).

	Word	Freq.	%	Texts	%	RelC(3)
1	ICH	195	5.38	4	100.00	5.4
2	JA2	133	3.67	4	100.00	9.1
3	IST	121	3.34	4	100.00	12.4
4	DAS	81	2.24	4	100.00	14.6
5	WIR	64	1.77	4	100.00	16.4
6	UND	63	1.74	4	100.00	18.1
7	ES	57	1.57	3	75.00	19.7
8	NICHT	53	1.46	4	100.00	21.2
9	DIE	51	1.41	4	100.00	22.6
10	GUT	44	1.21	4	100.00	23.8
11	HABE	40	1.10	4	100.00	24.9
12	ABER	39	1.08	4	100.00	26.0
13	EIN	36	0.99	4	100.00	27.0
14	IN	35	0.97	4	100.00	27.9
15	SEHR	34	0.94	4	100.00	28.9
16	DU	33	0.91	4	100.00	29.8
17	EINE	33	0.91	4	100.00	30.7
18	AUCH	30	0.83	4	100.00	31.5
19	HABEN	30	0.83	4	100.00	32.4
20	JA1	30	0.83	4	100.00	33.2

Figure 6-9. Wordlist, learners, post-intervention chats.

Scott (2001) points out that while comparing the frequency of one particular word to the frequency of other words, one has to take into account that any corpus is “a very strange object in its distribution” (p. 54). As Scott (*ibid.*, pp. 54-56) explains, large corpora can be subdivided into three parts with respect to the frequency of the words constituting them. Roughly one third is taken up by the most frequent 30 words, and again roughly one third (or more) is taken by *hapax legomena*, or words that occur only once in the given document or text. These two extremes do not present much interest for text type characterization. The most frequent types are usually function words that occur with high frequency in all or many genres in large corpora (e.g. ‘the’ makes up 6% of the

running words in the British National Corpus) or can be topic-related in smaller specified corpora (e.g. character names in fiction corpora). *Hapax legomena* are by definition too rare and incidental to be characteristic for a text type. The most interesting candidates for corpus analysis in general and register characterization in particular are the words belonging to the second third of a corpus which lies between the most frequent 30 words and the *hapax legomena*, i.e. roughly from the 33rd percentile to the 66th percentile of the running words ranked according to frequency in a descending order (see Fig. 6-10).

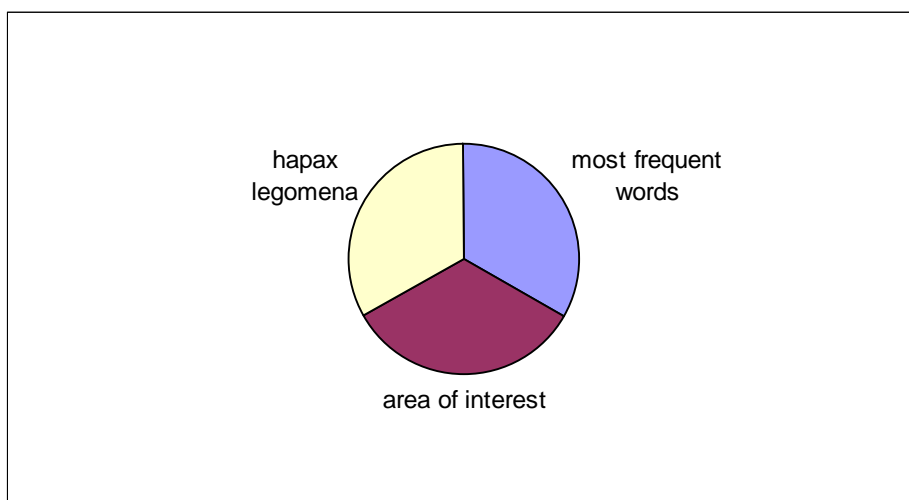


Figure 6-10. Word distribution in a corpus.

6.5.3.2 Wordlist Analysis of the Chat Subset

Based on the significant medium effect obtained by the analysis of variance (see 6.4), the NS subcorpus was further subdivided into the NS email subset and the NS chat subset, and word lists were created for these two corpora separately. The results showed that the focal MPs were more frequent in the chat corpus that corresponds to the analysis

of variance finding (6.4). The MP relative frequency per 1000 tokens, or running words, ranges from 0.3% to 0.41%.

They fall into the 43.7 percentile of the German running words (word tokens), thus following the most frequent words that constitute the 33rd percentile (among others, personal pronouns, articles, and forms of the auxiliary verb *sein*, or ‘to be’). Therefore, the MPs fall precisely into the ‘area of interest’ for analysis (see Fig. 6-10). Among the total of 1,490 word types (or distinct words) contained in the 2005 NS chat subset, all four MPs cluster closely together and rank very high: from 47 to 57 in the frequency list.

In order to ascertain whether this distribution is specific for the focal subcorpus only, the 2005 NS chat wordlist was compared to the wordlist retrieved from the NS chat subcorpus of the full contingent of *Telekorp* spanning 6 years. It was found that the distributional pattern looks strikingly similar (see table 6-5): all four MPs in this larger reference corpus fall into the 43.6 percentile of the most frequent running words and are ranked from 51 to 72 among the total of 4,730 word types.

Table 6-5. Ranking and relative frequency in chats.

		2005	2000-2005	2005
		Chat NS	Chat NS	Chat learners
				(post-interven.)
	word types	1,490	4,730	882
	word tokens	5,690	31,113	3,622
<i>ja</i>	rank	47	51	20
	cumulative %	40.7%	39.7%	33.2%
<i>mal</i>	rank	45	61	224
	cumulative %	39.5%	42.8%	75%
<i>denn</i>	rank	50	72	158
	cumulative %	41.4%	45.6%	70%
<i>doch</i>	rank	57	64	197
	cumulative %	43.7%	43.6%	74%

This similarity as well as almost no variation in NS mean relative frequencies within the 2005 chat corpus (see Fig. 6-5) provides evidence that NSs are fairly consistent in their MP use in chats. This supports our suggestion that the four focal MPs can be considered characteristic of this CMC genre (6.5.2.2). Additionally, NS relative frequencies in both the smaller specific reference corpus and the larger reference corpus represent a reliable comparison baseline for the learner developing uses. The last column of Table 6-5 demonstrates noticeable variation in the use of *ja* and three other MPs by the learners. *Ja* is ranked 20th which places it into the 33.2 percentile among the most frequent words (mostly function words). In contrast, *mal*, *denn*, and *doch* are outside of the ‘range of interest’, or the 66th percentile, and are approaching the *hapax legomena* in their low frequency. In comparison with both NS baselines (columns 1 and 2) where all four MPs cluster together, the learners overuse *ja* and underuse three other particles.

6.5.3.3 Wordlist Analysis of the Email Subset

The wordlist analysis of the 2005 NS email corpus yielded rankings and cumulative frequencies higher than in the corresponding chat corpus. Because a frequency wordlist is organized in a descending order, this means that the MPs were used in emails less frequently than in chats. This result was expected based on the lower mean relative frequencies (see 6.3). However, three MPs (*ja*, *mal*, *denn*) still fall into the ‘range of interest’ as characteristic of this specific corpus, viz. into the 60.8 percentile (see Table 6-6, column 1). The MP *doch* falls out of this range and thus cannot be considered as characteristic for NS emails according to the parameters of this approach. Taking into

consideration a noticeable frequency variation between the first and the second half of the timeline in NS emails (see 6.4), the wordlist from the post-intervention period was also analyzed separately. The results turned out to be similar (see table 6-6, column 2), although the MP *denn* fell beyond the 66th percentile (in other words, it was used less frequently than in the pre-intervention period). The latter finding corroborates the assumption that the MP *denn* is often used in situations when partners establish a rapport (see 6.5.2.2). That is why the MP *denn* uses cluster in the 1st half of the correspondence that coincides with the pre-intervention stage. Learner post-intervention cumulative frequencies (see column 3) appear to be parallel to the NS baselines except for the MP *mal* that falls into the *hapax legomena* range because it was used only once. These results demonstrate differences between the two CMC genres and are in line with the significant medium effect yielded by the analysis of variance (6.4) and the mean comparisons across genres (6.5.2.2). Although email relative frequencies for the full contingent of *Telekorp* were not available at the time of writing, it may be suggested that the MPs *ja*, *mal*, and *denn* are still characteristic of email, although to a lesser extent so than for chat. After the intervention, the learners approach the NS baseline in their use of the MPs *ja*, *denn*, and *doch* but exhibit marked variation with respect to the MP *mal*.

Table 6-6. Ranking and relative frequency in emails.

		1 2005 Email NS	2 2005 Email NS post- intervention	3 2005 Email learners post-intervention
	word types	3,098	1,099	1,211
	word tokens	18,334	3,718	5,067
<i>ja</i>	rank	83	50	44
	cumulative %	49.4%	41%	41.4%
<i>mal</i>	rank	132	78	922
	cumulative %	57.1%	49.6%	94.3%
<i>denn</i>	rank	167	216	169
	cumulative %	60.8%	69%	66.2%
<i>doch</i>	rank	488	303	387
	cumulative %	77.4%	75.1%	80.7%

6.5.4 Collocational Patterns

6.5.4.1 MP Collocations

Concordance	
1	t du denn ¹ gerne in Deutschland sein? Im Norden oder doch ¹ mehr Richtung Süden? Ich freue mich schon auf
2	to nur zweieinhalb Stunden dauert. Mit dem Zug bin ich doch ¹ fast 4 Stunden unterwegs. Grund- and Hauptschu
3	t sind und sie sind glücklich miteinander und das sollte doch ¹ das Wichtigste sein. Mehr über das Buch und An
4	ist super geworden. Sie gefällt mir wirklich gut! Ich hoffe doch ¹ , dass alles mit deinen Klausuren gut ging! Was g
5	t ist es sehr gut (aber ziemlich lang). Das Buch hast du doch ¹ bestimmt auch gelesen? In Deutschland ist das

Figure 6-11. Concordance lines for the MP *doch* in the NS email subset.

Collocational patterns of the MP use were explored by means of the WordSmith “Concord” tool (Scott, 2006). Scott (2001, p. 47) explains that this tool “locates all references to any given word or phrase within our corpus, showing them in standard

concordance lines with the search word centered and a variable amount of context at either side” (see Fig. 6-11).

After retrieving concordance lines for a search word, the tool offers the options “Collocates” and “Patterns” that allow for further examination of collocates of the search word, i.e. words that frequently occur in its proximity (usually, 1 to 5 words to both its left (L) and right (R), see Fig. 6-12).

Word	Total	tal Left	al Right	L5	L4	L3	L2	L1	Centre	R1	R2	R3	R4	R5
JA1	51	0	0	0	0	0	0	0	51	0	0	0	0	0
IST	24	21	3	0	2	1	1	17	0	0	0	1	2	0
ICH	20	17	3	1	1	4	10	1	0	0	1	0	2	0
DAS	17	13	4	0	2	2	7	2	0	2	0	1	0	1
DIE	9	3	6	0	1	2	0	0	0	2	2	0	1	1
GUT	8	1	7	0	1	0	0	0	0	4	1	2	0	0
UND	8	5	3	1	1	3	0	0	0	0	1	0	2	0
ABER	7	3	4	0	2	1	0	0	0	0	1	1	2	0
ES	7	6	1	1	0	0	3	2	0	0	0	0	0	1
AUCH	6	2	4	0	0	1	0	1	0	2	2	0	0	0
SEHR	6	1	5	0	0	1	0	0	0	1	2	0	0	2
DASS	5	2	3	0	1	1	0	0	0	0	1	1	1	0
HAST	5	3	2	1	0	1	0	1	0	0	0	0	0	2
JA2	5	4	1	2	2	0	0	0	0	0	1	0	0	0
OH	5	4	1	0	1	3	0	0	0	0	0	0	1	0
SIND	5	3	2	0	0	0	1	2	0	0	0	0	1	1
WIR	5	3	2	0	0	2	1	0	0	0	0	0	1	1
ZU	5	4	1	3	1	0	0	0	0	0	0	1	0	0

Figure 6-12. The most frequent collocates of the MP *ja* in the learner subset.

While such automatically retrieved wordlists provide help for determining separate frequent collocates of the search word, manual search of concordance lists is needed for getting insight into collocational patterns. For example, one can see in Fig. 6-12 that the auxiliary verb *ist* (‘is’) is the most frequent collocate of the MP *ja* in learner discourse (it collocates with a third of all *ja* occurrences). However, one can ascertain only by means of qualitative disambiguation that *ja* is used in collocation with *ist* as an

auxiliary verb in a compound predicate (*ist vergangen*) only once (line 15) and with the pattern “noun/pronoun + *sein* + *ja* + attribute” in all other cases in learner chats (Fig. 6-13, see also 4.4.2).

Concordance

5 ?) zu machen? ich bin gut. das wetter ist ja1 schoen ah, tschuldigen aber SEHR k
 6 uch? Um, ich bin nicht sicher Oh das ist ja1 gut. Tag Hallo Soren Nils ist nicht hie
 7 hreiben. Vielen Dank lauras Deutsch ist ja1 gut, aber mein ist schade nicht so gu
 8 fangen ich hab eure text korrigiert es ist ja1 gut!!! Paula hat das nicht so gemeint.
 9 ... naechste Woche ist Diese Woche ist ja1 anstrengend Donnerstag ist der letzt
 10 ie Adresse ist www.xxx bitte sehr Es ist ja1 interessant. Die Seite ist rosa. Gruen
 11 s wetter in Frankfurt? das wetter hier ist ja1 kalt! aber doch2 sehr schoen es hat
 12 isschen zu faul ;) aber meine Familie ist ja1 klein... nur 6 Personen hast du scho
 13 urse pro Tag habe meine Studienplan ist ja1 angstrengend ja2... eine typische
 14 die webpage? die andere Information ist ja1 schon toll Nina und Vera halllllloooo
 15 oen denkt ja2, stimmt das :(die zeit ist ja1 wirklich sehr schnell vergangen! ja2 d
 16 beginnst ihre neuer Semester oh das ist ja1 gut, ich muss uber meinen Ferien
 17 ! Carine arbeitest du? oh wirklich das ist ja1 gut auch wirklich? um, Carine, was h
 18 ine mehr Klassen zusammen oh das ist ja1 gut dass ihr habt ein letztes Chat ge
 19 u das Gymnasium, ja2 ja2, das Gym ist ja1 spass und gut fur das Korper ja2, Se

Figure 6-13. Collocations of MP *ja* with the auxiliary *ist* in chat, learners.

Based on the literature, the following patterns have been ascertained as frequent MP collocates: other MPs; modal verbs; pronouns; and more or less fixed (both lexically and syntactically) expressions specific for each MP (see, e.g., Möllering, 2004; Thurmair, 1989). Relative frequencies of collocations of these candidates with each focal MP were compared between learners and NSs across genre and separately within email and chat. The unit of interest for this analysis was relative frequency of collocates with regard to total MP occurrences. The following equation was used for the calculations:

$$\text{collocate relative frequency} = \frac{\text{collocate raw count}}{\text{MP raw count}} \times 100$$

The MP *ja* is the most frequently used target feature in both the NS and learner discourse. The comparable raw frequencies of *ja* in the learner and NS data allow for a quantitative analysis (see 6.5.4.2). The frequencies of three other focal MPs in the learner discourse are too low (see 6.5.2) for NS – NNS quantitative comparisons. The emerging learner uses are analyzed qualitatively in Chapter 7. However, some tendencies can be ascertained with respect to MP collocations frequently found in NS discourse. These tendencies are discussed in 6.5.4.3 – 6.5.4.5.

6.5.4.2 Collocations of the MP *ja*

The relative frequencies of the MP *ja* collocates are summarized in Table 6-7 below:

Table 6-7. Collocates of the MP *ja*.

	GER	GER	AMER	AMER
	chat	email	chat	email
raw MP occurrences	22	37	30	21
col- +<i>sein</i> in appraisal	27.3%	5.4%	66.7%	23.8%
lo- +other MPs	31.8%	21.6%	20%	10%
cates +interpersonal	36.4%	51.3%	3.3%	9.5%
pronouns				
+personal	9%	19%	33.3%	42.9%
pronouns				
+ modals	22.7%	35.1%	3.3%	4.8%

6.5.4.2.1 Patterns of Appraisal

The MP *ja* is the most frequently used MP in both the NS and learner discourse, which corresponds to Möllering's (2004) spoken NS data (see 6.4.2.2). Möllering (2004,

p. 231) has also found that in exclamatives, the MP *ja* frequently collocates with deictics (such as demonstrative pronouns), inflected forms of the verb *sein* ('to be'), and attributes. Möllering (2004, pp. 234 ff.) argues that in such cases, the use of *ja* is formulaic for expressing the subjective evaluation of a proposition by the speaker. In particular, the formula "*Das* ('This') + *ist* ('is') + *ja* + Attribute" is highly conventionalized (ibid.). I suggest that in terms of pragmatic categories, such utterances can be categorized as interpersonal expressives (see 4.4.2).

The analysis of concordances in the NS chat data has shown that 6 out of 22 MP occurrences (27.3%) collocate with the forms of the verb *sein* (the present tense form *ist* and the past tense form *war*) in expressions of appraisal (see 4.4.2). This pattern was confirmed on the basis of an examination of the material in the six years of *Telekorp* data, where the pattern of appraisal accounts for 25.45% of all MP *ja* uses in chats. The formulaic pattern (Schmitt, 2002) "*Das* ('This') + *ist* ('is') + *ja* + Attribute" occurred two times in the 2005 NS chats (see Fig. 6-14, and four other collocations with *sein* were represented by its variations (e.g. with a noun instead of an attribute in line 17).

8	das nicht alle? irgendwie schon dann ist ja1 alles ok Für Körper und Seele haha
9	mt? DAs ist doch1 super! Echt? Das ist ja1 super. Habt ihr schon eine Note? Sie
10	super. Habt ihr schon eine Note? Sie ist ja1 auch wirklich gut geworden. Aber wa
11	n Anatomie waren in Heidelberg! Das ist ja1 cool!! Sind die Leute nett? Winterschl
12	hichte. Oh das dauert aber noch Das ist ja1 noch über ein Jahr Die Wiedervereini
17	s bezogen auf den 2. Weltkrieg. das war ja1 nationalismus Eben, Soren, aber des

Figure 6-14. Collocations of *ja* in patterns of appraisal in chat, NSs.

In contrast, the NS emails contain only two occurrences of this pattern of appraisal out of total 37 MP *ja* uses (5.4%). The remaining 35 utterances with *ja* have features of interpersonal representatives, in which the speaker provides his or her knowledge about something while taking into consideration the hearer's point of view (see 4.4.2). Examples of such *ja* uses are presented in Fig. 6-15.

Concordance

1 sstadt. Aber auch gut zum Einkaufen, und da es ja1 bald kalt wird...Was macht ihr an euren Woc
 2 uropa zu bekommen. Vielleicht interessiert dich ja1 noch, was ich sonst in meiner Freizeit mache
 3 en gehen. Auf der Homepage zu eurem Kurs ist ja1 eine übersetzung dieser Passage und da wur
 4 Iso lange durch Komma getrennte Sätze. Da Du ja1 sehr gut deutsch schreibst (und redest?) wirs
 5 ehr gut deutsch schreibst (und redest?) wirst Du ja1 schon wissen, das unsere Wörter of "Kilomet
 6 ben, auf die man in den USA stößt. Ich wollte da ja1 noch was zu schreiben... Ich bin gespannt, w

Figure 6-15. Collocations of *ja* in representatives in emails, NSs.

Comparing NS and learner uses of the MP *ja* reveals a strikingly different pattern. Out of the total of 30 MP uses in learner chats, 20 occurrences (66.7%) collocate with the verb *sein* in expressions of appraisal, 7 of the latter occurrences representing repetitions or variations of the formulaic pattern “*Das ist ja gut*” (see lines 6-8 and 16-18 in Fig. 6-13). Moreover, the pattern of appraisal is also persistent in learner emails, constituting 5 MP *ja* uses (23.8%) out of 21. Therefore, learners overuse formulae and underuse free constructions with the MP *ja* in comparison with NSs in both CMC genres.

6.5.4.2.2 Personal and Possessive Pronouns

Concordance

27 Das sind aber kurze Ferien Dannhabt **ihr ja1** viel länger frei als wir! Aber unser Se
 28 deen nicht überrannt. Vielleicht findet **ihr ja1** in einer ruhigeren Stunde Zeit uns ein

5 u bekommen. Vielleicht interessiert **dich ja1** noch, was ich sonst in meiner Freizei
 6 abe ich keines gesehen). Kannst es **Dir ja1** mal1 im Internet anschauen
 7 Knieschmerzen aufhören. Ich habe **Dir ja1** gesagt, dass ich Sport studiere. Da h
 8 durch Komma getrennte Sätze. Da **Du ja1** sehr gut deutsch schreibst (und rede
 9 utsch schreibst (und redest?) wirst **Du ja1** schon wissen, das unsere Wörter of

15 Schulen Naja2, vielleicht schaffst **Du es ja1** dann mal1 bei mir vorbei zu kommen
 16 ... dafür ist man auf der Welt... **Du lernst ja1** noch nicht so lange deutsch Weihna
 17 2! Wie war es denn1? Davon hast **du mir ja1** in deiner E-Mail geschrieben. Eine be
 18 E-Mails antworten kannst. **Du musst ja1** auch drei mal2 so viele schreiben wie

Figure 6-16. Collocations of *ja* with 2nd person pronouns, NSs.

The analysis of the collocations of the MP *ja* with personal and possessive pronouns also reveals a drastically contrastive picture for NSs and learners. At the same time, the frequencies of these collocations do not vary significantly in emails and chats for each population and are therefore not broken across genre. NSs were found to use the MP *ja* in collocation with forms of the 2nd person pronouns *Du, ihr, dein* ('you', 'your') in 27.12% of all occurrences, and with forms of the 1st person pronouns *ich, mein* ('I', 'my') in 13.56% of all occurrences (Fig. 6-16).

In contrast, learners used *ja* in collocation with the 1st person pronouns with much higher frequency than with the 2nd person pronouns (33.33% with 'I', 'my' and 5.88% with 'you', 'your'). Some examples are shown in Fig. 6-17.

9 h ja2 du hast besser Antworten du hast ja1 besser Antworten toll wir sind alles n
 24 e Polin und keine Deutsche." Ich denke ja1 das die Kinder sind sehr gemein zu
 25 haben ich muss gehen...aber ich mache ja1 die uebersetzung nachher! ja2 ich mu
 26 wahrscheinlich zu teuer, und ich wuerde ja1 nicht mit meinen Eltern an Weiternac
 27 ne haare und blau-graue augen ich liebe ja1 schon blaue Augen ich hab eigentlich
 28 verdiene ein bisschen Geld! Ich brauche ja1 Geld um Buecher fuer die Universitae
 29 . Bis zum naechsten mal2! -Chip Ich will ja1 dorthin reisen, aber dass meine
 30 hr arm scheint und sie neue ist? Ich bin ja1 in der Mitte und bin ein bisschen verb
 31 , aber ich habe Angst fuer(?) ich Schrieb ja1 zwei, oder? ach *schrieb ja2, bestim
 32 koennten Ich weiss es nicht, wir ich sie ja1 ins Internet stellen kann *wie ich... u
 33 h am 24. abends ja2 ich auch =) ich hab ja1 keinen! bin SINGLE =) ich auch!!! ich

Figure 6-17. Collocations of *ja* with 1st and 2nd person pronouns, learners.

Moreover, the personal pronoun *ich* ('I') turned out to be by far the most frequent word used in the learner discourse overall (see Fig. 6-11). Additionally, the two populations used the 1st person pronoun *wir* ('we') differently. Germans used it frequently and mostly inclusively, for referring to both German and American partners (11 out of 12 uses of *wir*), as can be seen on Fig. 6-18.

Concordance

34 I2 sehr nett und witzig fand. Aber dafür haben wir ja1 die mails. Benutzt du icq oder skype auch? D
 35 alles richtig zu koordinieren. Am Ende waren wir ja1 zu siebt. Hoffentlich haben wir euch mit unser
 36 ich für immer lieben würden. Also dann hören wir ja1 gleich im Seminar voneinander! Ich freue mich
 37 der da und wir können chatten. Dann können wir ja1 den Rest besprechen. Freu mich auf morgen.

Figure 6-18. Collocations of *ja* with the inclusive pronoun *wir*, NSs.

Americans, on the other hand, used *wir* only twice, both times exclusively, for referring to Americans as opposed to Germans. In analogy to personal and interpersonal speech acts (see 2.2; 4.4), personal and possessive pronouns can be grouped into

‘personal pronouns’ (‘I’, ‘my’, and exclusive ‘we’, ‘our’) and ‘interpersonal pronouns’ (‘you’, ‘your’, and inclusive ‘we’, ‘our’). After calculating frequencies for these categories, NSs were found to use the MP *ja* in collocation with interpersonal pronouns in 45.76% and with personal pronouns in 15.25% of all occurrences (see Fig. 6-19).

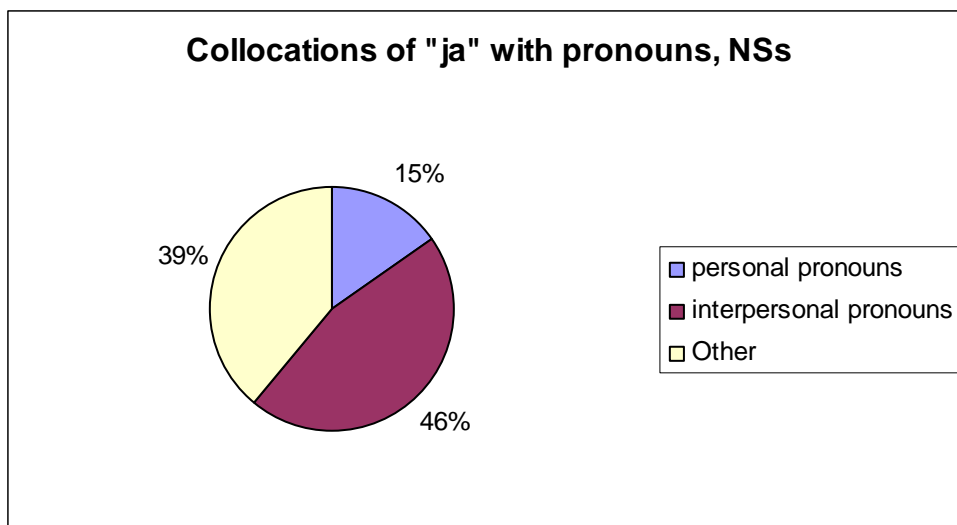


Figure 6-19. Collocations of *ja* with pronouns, NSs.

Learners, in contrast, were found to use *ja* in collocation with interpersonal pronouns in 5.88% and with personal pronouns in 37.25% of all occurrences (see Fig. 6-20). Therefore, NSs use the MP *ja* with the highest frequency in speaker-oriented utterances, which is in line with the interpersonal MP meaning component “reference to shared knowledge” (see 4.4.2). In contrast, learners use the MP *ja* most frequently when they refer to themselves (as a person or as a group of Americans as opposed to Germans).

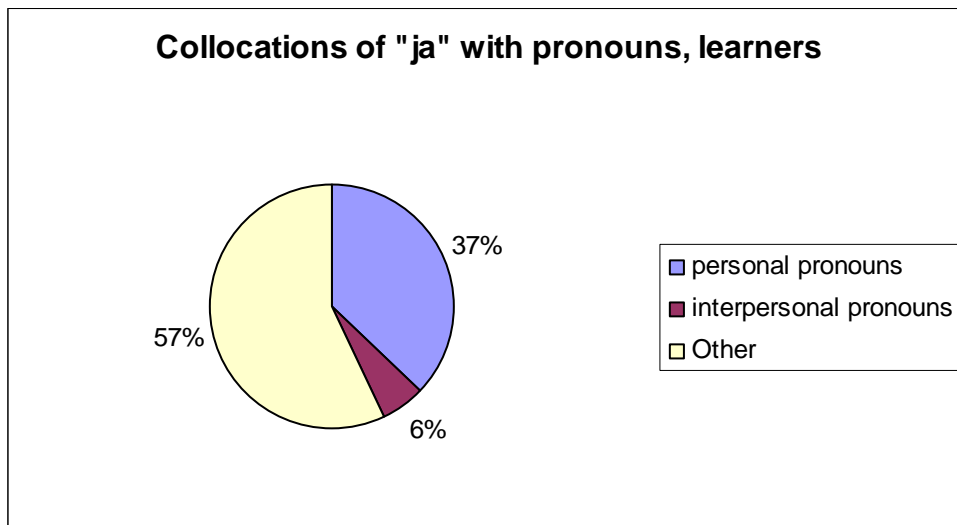


Figure 6-20. Collocations of the MP *ja* with pronouns, learners.

6.5.4.2.3 Other MPs

Frequent collocates of the MP *ja* in the NS 2005 corpus, both in email and in chat, are other MPs. In NS chats, *ja* collocates 4 times with the MP *mal* and 3 times with the MP *auch*. In NS emails, *ja* collocates 7 times with *auch* and one time with *mal*. In sum, the MP *ja* collocates with other MPs in 25.4% of occurrences.

This pattern is confirmed on the material of the larger *Telekorp* NS chat data (2000-2005) where the MP *ja* collocates with the MPs *auch* and *mal* in 23% of all occurrences. This is consistent with the data from the NS-NS chats (*Dortmund Chat-Korpus*) and the spoken data (see Möllering, 2004, p. 221), where the MP combination *ja auch* was found as a most frequent collocational pattern. The learner MP combinations in emails show a broadly similar pattern to the NS baseline (4 appropriate uses, or 19%, out of 21 total MP uses) and range (3 combinations with the MP *auch*). However, learners

underuse MP combinations with *ja* in chats (only 2 combinations with the MP *schon*, which is absent from the NS data). Learner MP combinations with *ja* are illustrated in Fig. 6-21.

Concordance

4 stehe wenn du viele zu tun hast, weil ich ja1 auch viel zu tun habe. Danke für den
5 ie geht's? Es geht mir gut. Ich finde es ja1 auch sehr toll, wenn wir uns weiter E

40 die webpage? die andere Information ist ja1 schon toll Nina und Vera halllllloooo
41 ne haare und blau-graue augen ich liebe ja1 schon blaue Augen ich hab eigentlich

Figure 6-21. Collocations of the MP *ja* with other MPs, learners.

6.5.4.2.4 Modal Verbs and Subjunctive Mood

Finally, modal verbs and verbs used in the subjunctive mood collocate with the MP *ja* in 27% of all NS uses. Learners were found to have used two modal verbs (lines 35, 49) and three verbs in the subjunctive mood (lines 44, 50, 51) in the total of 51 utterances containing *ja*, which yields a relative frequency of roughly 10% (Fig. 6-22).

Concordance

35 2, Ich stimme dir zu ja2, und wir konnen ja1 die Amerikanische Leute uber Deuts
44 hland auch noch nie gesehen das waere ja1 cool! lass uns das machen =) ah das
49 . Bis zum naechsten mal2! -Chip Ich will ja1 dorthin reisen, aber dass meine
50 wahrscheinlich zu teuer, und ich wuerde ja1 nicht mit meinen Eltern an Weiternac
51 on Universitaet (). Meiste Leute wuerden ja1 damit zuzustimmen, das meist () du

Figure 6-22. Collocations of the MP *ja* with modal verbs and subjunctive mood, learners.

6.5.4.2.5 Summary: Collocations of the MP *ja*

To summarize, the most frequent collocates of the MP *ja* in the NS discourse are interpersonal pronouns (45.76%), modal verbs and verbs in the subjunctive mood (27%), and MP combinations (25.4%). Additionally, *ja* frequently collocates with forms of the verb *sein* in patterns of appraisal in chats (25.5%). The latter pattern is by far the most frequent *ja* collocate in the learner discourse: especially in chats (66.7%) but also, in contrast to the NSs, in emails (23.8%). Learners frequently use the MP *ja* in collocations with personal pronouns (37.25%), as opposed to NSs. These contrasts are represented on Fig. 6-23.

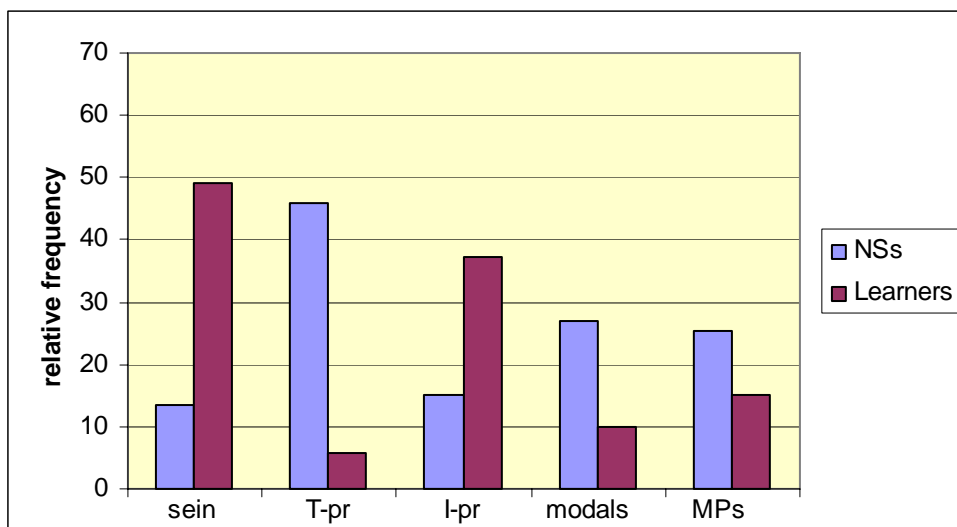


Figure 6-23. Relative frequency of the collocates of the MP *ja*.

6.5.4.3 Collocations of the MP *doch*

The analysis of the NS chat data showed that the MP *doch* was used with the following frequency with regard to sentence type: 88.2% in declaratives and 11.8% in imperatives. This frequency roughly corresponds to frequencies of *doch* in the NS spoken corpus: 93% and 7% respectively (Möllering, 2004, p. 175). In contrast, the MP *doch* was used only five times in emails, each time in declarative sentences. In the learner discourse, *doch* occurred for a total of 6 times in declaratives (Fig. 6-24).

Concordance

1 s alles in unsere folder ist ja2... ja2 wir hoffen doch1 ja2, wir werden die Homepage am Donn
 2 aner sind ziemlich konservativ, Deutsche sind doch1 nicht so konservativ Heute habe ich kei
 3 haha ja2, 10 stunden ja2, um, nein, dieses ist doch1 anders oh wirklich? wenn du .com benu
 4 te nicht annaeherd so viel wie du! Du kennst doch1, andere Kulturen und Menschen zu ken
 5 ber Gott und Glauben schriebtest. Ich stimme doch1 auch zu, obwohl ich an Gott nicht glaub
 6 etwa im Scherz) ich sei oft besorgt, ist es ja1 doch1 komisch, dass meine ganze Sorge am

Figure 6-24. Collocations of the MP *doch*, learners.

The NS chat data show a nearly equivalent frequency (35.3%) of collocations “*doch + sein*” to Möllering’s (2004) spoken NS data (33.6%). This collocational pattern demonstrates striking resemblance in frequency to a similar pattern with the MP *ja* (see 6.5.4.2). Notably, among the total of 6 learner uses, 3 (i.e. one half) MP *doch* occurrences (both in chat and email) were found in the pattern of appraisal with the verb *sein*, thus exhibiting the preference for the formulaic use by learners similarly to *ja* (lines 2,3,6).

Also similar to the MP *ja*, the MP *doch* frequently collocates in the NS data with interpersonal pronouns (31.8%) and modals (18%). Among the learner *doch* collocates, one interpersonal pronoun (*Du*) was attested (line 4).

Collocational patterns specific for *doch* ascertained in the NS data such as collocation with the MP *mal* for imperatives (2 times) and with the tag question “*oder?*” for declaratives (2 times) were not found in the learner data. However, learners used *doch* one time in collocation with the MP *ja* (line 6) and one time with the MP *auch* (line 5), both times appropriately.

6.5.4.4 Collocations of the MP *denn*

The MP *denn* was used by NSs in 36 out of 37 occurrences in wh-interrogatives. A similar considerably lower frequency of *denn* in yes/no questions (5.4%) in comparison with wh-questions was also attested in the full *Telekorp* NS chat corpus. This trend generally corresponds to the NS spoken data (see Möllering, 2004, p. 142), although the margin between the frequency of *denn* in yes/no questions (25%) and wh-questions (75%) is lower in the latter. Learners were found to follow the same general trend (Fig. 6-25) while using the MP *denn* more frequently in wh-interrogatives (4 times, lines 1,2,5,7). However, they also used it 2 times in yes/no interrogatives (lines 3, 8) despite their exposure to only one model in the NS discourse. Two remaining learner *denn* uses out of the total of eight were inaccurate because they occurred in declaratives (lines 4, 6). Notably, the learner uses of *denn* in wh-interrogatives collocate two times with *was* (‘what’, lines 1,7) and two times with *wie* (‘how’, lines 2,5), the two most frequent wh-collocates with *denn* in the NS comparison data (25% and 36%, respectively). The collocation rate of the MP *denn* with interpersonal pronouns is very high in the NS data and accounts for 50% of all *denn* uses in chats and for 94% in emails.

This can be attributed to the boundness of *denn* to questions, on the one hand, and to the meaning component “expressing interest”, on the other hand (see 4.4.3). Due to these characteristics, *denn* is often used in inquires about personal life of one’s interlocutor(s) who is (or are) addressed with *Du/ihr* (‘you’)(see also 6.5.3.3). This pattern is also mirrored in the learner *denn* uses, all of which except for the two inaccurate uses collocate with a variety of interpersonal pronouns (*du*, *ihr*, and the inclusive *wir*).

Concordance

1 es ist schon online(?) was noch koennen wir denn1 machen? fuer unsere Webseite verstan
 2 esse ich Mittagsessen Danke. Wie findest du denn1 die Webseite? Es freut mich, dass du s
 3 be alle meine Tiere geht ihr auch in der kirche denn1? ja2 auch am 24. abends ja2 ich auch
 4 einnachsten Ferien um ich kann fur 10 Uhre denn1 chatten. haha ja2, 10 stunden ja2, um,
 5 wann habt ihr winterferien? wie lange habt ihr denn1 frei? wir haben ab 17.12 Ferien, bis 9.1.
 6 n aus gleichem Grund. Ich habe eigentlich ja1 denn1 keine Idee, was aufpassieren wird oder
 7 ht!!! Hier ist die Link: www.xxx Was denkt ihr denn1? Ich hoffe, dass ihr die Website gern ha
 8 as es ist Vorurteil für Polnisch. Aber hältst du denn1 dass die Kinder haben Vorurteil für Ann

Figure 6-25. Collocations of the MP *denn*, learners.

The formulaic pattern “*Wie geht es dir/euch denn?*“ (‘How are you doing *denn?*’) that can be attributed to “conventional expressives” in pragmatic categories (Garcia, 2004, p. 61) occurring 5 times in the NS discourse was not attested in the learner data. Modals are not very characteristic of *denn* collocates in comparison to other MPs. They collocate with 10.8% of *denn* uses in NS data, and one modal is attested in the learner data. Finally, *denn* does not collocate with other MPs in either NS or learner discourse.

6.5.4.5 Collocations of the MP *mal*

The MP *mal* was used in NSs chats most frequently in declaratives (65.22%) followed by imperatives (30.43%). It was used only one time out of the total of 46 in a wh-interrogative. The analysis of the larger *Telekorp* NS chat data (2000-2005) yielded a similar pattern where nearly two thirds of the MP *mal* (65%) occurred in declaratives, nearly one third (27%) in imperatives, and a small portion in interrogatives. Although the raw MP *mal* counts for 2005 emails equaled the ones for 2005 chats (23:23), the NS email data contained 100% declaratives. This difference can be explained by the asynchronous nature of emails, where the absence of a direct interlocutor prevents the occurrence of imperatives which express hearer-oriented directives. It was found that commissives with *mal* were more frequent in the NS data, which accounts for a higher proportion of collocations with personal pronouns (54.3%) than with interpersonal pronouns (34.8%). Notably, all above mentioned variants of the use of *mal* found in the NS data were also attested in the learner data (Fig. 6-26).

Concordance

- 1 nein wir haben das noch nicht gelesen...warte mal1 ja2, ich weiss nicht was ihr spricht ueber
- 2 ich nur mit einem Partner chatten kann schau mal1: ahhh... es tut mir Leid... Ich habe FirstC
- 3 it ein ander. im sommer gehe ich ihn vielleicht mal1 besuchen haha, mache sind kindisch ca
- 4 lche Stadt in den USA wuerdest du unbedingt mal1 reisen? Nach Heidelberg und Koeln will i
- 5 tig machen weil sie am Dienstag fällig ist. Bin mal1 auch gespannt, wie sie am Ende wird. N

Figure 6-26. Collocations of the MP *mal*, learners.

The learners used the MP *mal* two times in imperatives in chats but did not use them in imperatives in emails which mirrors the NS use. Out of the total five uses, *mal*

was used by learners in two imperatives (lines 1,2), two declaratives (lines 3,5), and one wh-interrogative (line 4). Learners also used *mal* in two commissives with the pronoun *ich* ('I', line 3) and one directive with the pronoun *du* ('you', line 4)).

The NSs used a number of collocational patterns typical of the MP *mal*. In the NS chat data, *mal* occurs 3 times in the formula “Sag *mal*” (‘Tell me *mal*’) which is “highly conventionalized in German” (see Möllering, 2004, p. 190). Among the total of 5 learner uses, two occur in similar formulae: “schau *mal*” (‘look *mal*’, line 2) and “warte *mal*” (‘wait *mal*’, line 1). Additionally, *mal* in the NS data collocates with a high frequency of 28% occurrences with other MPs (with a comparable frequency as *ja*). In NS chats, *mal* collocates 4 times with *ja*, 2 times with *auch*, and 2 times with *doch*. In NS emails, *mal* collocates 4 times with *auch* and 1 time with *ja*. This pattern is confirmed on the basis of an examination of the material in the six years of *Telekorp* chat data where *mal* collocates with the MPs *ja*, *auch*, and *doch* in 23% of all occurrences. One combination of *mal* with its most frequent collocate *auch* was also found in the learner data (line 5), although the latter follows *mal* in this occurrence unlike all NS uses where *mal* immediately follows any other MP (see Thurmair, 1989, about word order in MP combinations).

Finally, *mal* by definition collocates with a very high frequency with modal verbs and subjunctive mood verb forms in both commissives and directives to express intended or suggested future actions (see 4.4.5, see also Garcia, 2004, p. 93). In the NS data, such collocations account for 20 out of 46 uses, or 43.5%. This pattern was found one time in the learner data (line 4).

6.6 Summary

This chapter reported on the results of a series of quantitative analyses exploring the development of the MP use by the learners as a result of the pedagogical intervention and in comparison with the NS use.

The preliminary analysis of the MP raw counts (6.2) revealed drastic underuse of the focal feature by the learners in comparison with the NSs during the pre-intervention stage of the experiment. Despite ample exposure to the MPs in the NS discourse, only two learner uses were ascertained at the pre-intervention stage. Furthermore, the first instruction module based on the enhanced condition showed no effect on learner use. In contrast, the second instruction module based on the explicit condition led to an increase in learner MP use. Although it merits further investigation whether student performance after instruction module 2 may be, in part, attributed to the combined influence of both the enhanced and explicit condition (see Vyatkina & Belz, 2006), only explicit instruction was considered as an intervention factor in the current study.

Next, results of the statistical analysis of variance of the MP relative frequencies (normalized per 1000 words) were reported (6.3). Four focal MPs were aggregated for the purpose of this analysis. The results showed that the learner MP use significantly increased after the intervention. Furthermore, the change in the learner MP use occurred toward the approximation of the NS use in the very same interactions. First, while the learner and NS use was significantly different before the intervention, no such difference was ascertained for the post-intervention period. While the former result was rather predictable because learners used only three MPs total during the pre-intervention period,

the latter result provides striking evidence of abrupt post-intervention development during a very short period of time (four weeks) with respect to the aggregate quantity of MP use almost up to the NS baseline. Second, after the intervention, the learners were found to use MPs with differential frequency in the CMC genres of chat and email in the same fashion as the NSs. In particular, both populations used fewer MPs in emails than in chats.

The next series of analyses was performed by comparing learner emerging MP use and NS use with regard to each individual MP (6.4). Dispersion plots, mean relative frequencies, wordlist distributions, and collocational patterns were compared across two populations (learners and NSs) and two CMC genres. Additionally, learner and NS CMC data were compared to the data from a larger CMC corpus (again a subset of *Telekorp*) and NS-NS spoken and chat interactional data. It was shown that MPs are more characteristic for chats, where their use is almost ‘speech-like’, than for emails, although NSs use fewer MPs while chatting with learners than while chatting with NSs. The contrastive learner-NS results helped fine-tune the finding about the numerical approximation of the learner post-intervention MP use to the NS use (see above). It was found that the learner development was rather uneven. The MP *ja*, which is the most frequent MP in all NS reference corpora, accounts for the overwhelming majority of all learner MP uses. In fact, learners by far overused this MP in comparison to the NS baseline in the same interactions. Furthermore, most of the learner emerging uses were attributed to fixed lexical patterns, whereas most of the NS uses were in free constructions. Both findings confirm the results of previous research (Cheon-Kostrzewa & Kostrzewa, 1997; Ellis, 1996; Kasper & Rose, 2002) showing that the acquisition path

of new pragmatic features often leads from most frequent to less frequent features and from formulae to free constructions (see Chapters 2 and 3). Additionally, although many collocational patterns typical of one or both CMC genres in the NS data were mirrored in the learner uses, some of these patterns were underused or overused by learners. In some cases, learners used an exactly reverse pattern in comparison to the NSs (e.g. personal pronouns as opposed to interpersonal pronouns in *ja*-collocations). Therefore, although no significant difference was ascertained in aggregation between the learners and NSs post-intervention, there appears to be a rather large difference in NSs and learners with regard to individual MP use from the perspective of word list analysis and concordance analysis.

The results of the quantitative analyses are supplemented and fine-tuned by means of qualitative microgenetic analysis of individual learners' performance and awareness data reported on in Chapter 7.

Chapter 7

Data Analysis in Sequence

7.1 Introduction

This chapter presents the results of the microgenetic analysis performed in order to ascertain developmental paths for each individual learner of the experimental cohort as influenced by various factors. For this purpose, production, awareness, observation, and ethnographic data are considered in their entirety. For the analysis of the production data, each MP use by each learner was retrieved from *Telekorp* in its immediate linguistic context and metadata context (i.e. tied to the CMC genre, week and date of production, as well as author and addressees). Further, each MP occurrence was interpreted microgenetically, i.e. interpreted both locally and globally in light of the ongoing learning event, including previous (and future) MP uses by the learner, partner MP uses, the specific details of the pedagogical intervention, and the particular experiences of individual learners in the course of instruction. Additionally, learner biographical metadata (see Chapter 5) and participant observations were taken into consideration. Section 7.2 presents results of this analysis with examples from the TC discourse of each learner highlighting certain trends. Accurate and inaccurate MP uses by each learner and each group according to the experimental timeline are summarized in Tables 1-4 (Appendices I-L). Awareness data were collected at three time points by means of questionnaire 1, questionnaire 2 (pre-intervention data), and cumulative course portfolios

(post-intervention data) and also ascertained via classroom observation and in consultation with the instructor. The results of the awareness data analysis are presented in 7.3. Section 7.4 integrates the results of all analyses and contains some conclusions.

7.2 Production

7.2.1 Christie

Christie was the most proficient student in the experimental cohort. Factors that may have contributed to this rating are length and depth of the L2 study and study abroad experience. Christie was a freshman majoring in German who learned German in High School (see 5.1.3) and had spent one year in Germany as an exchange student immediately prior to beginning study in college. She was still corresponding with German friends from her year abroad outside of class time during the TC course using the telephone, email, and instant messenger. Christie had a very positive attitude toward Germans and Germany and a high motivation for the participation in the TC course. This is supported by her comments in the pre-course biosurvey: “I think the more someone has contact with a different culture the better, because you obtain different views on the world and you learn a different culture and language. To me these things are very important.”

Christie was the first student to use an MP in her CMC writing. This was the MP *mal*, appropriately used by Christie in an email in the very first week of the TC correspondence:

Ex. 7.1: Christie to Constanza, email, 10/20/05

Nach welche Stadt in den USA wuerdest du unbedingt **mal** reisen?
*To what city in the USA would you really **mal** like to go to?*³³

Interestingly, this email is written by Christie as a response to Constanza's introductory email, where the MP *mal* is used in a similar function and also in collocation with the conditional form of the verb *werden* used as the auxiliary verb of the future:

Ex. 7.2: Constanza to Christie, email, 10/20/05

Ich fand eure Informationen über football übrigens sehr interessant, da diese Sportart in Deutschland eher wenig verbreitet ist. Ich würde gerne **mal** ein Spiel erleben.
*I actually found your information about football very interesting because this sport is rather not common in Germany. I would like to **mal** experience a game.*

Because the students were coached prior to the start of the TC correspondence to examine the incoming partner emails and use them as a resource for language learning, it might have stimulated her noticing and subsequent use of the same MP in a similar function. In her next email, Constanza provided Christie with feedback with regard to the MP host sentence (7.1) which includes a correction of her use of a preposition. However, the MP use is not corrected by Constanza:

Ex. 7.3: Constanza to Christie, email, 10/25/05

Desweiteren schreibst du "Nach welche Stadt in den USA würdest du unbedingt **mal** reisen ?" Im Deutschen sagt man nicht "nach welche Stadt", sondern "in welche Stadt".
*Further, you write „To what city in the USA would you really **mal** like to go to?“ In German, you say not "nach welche Stadt" but "in welche Stadt".*

³³ Translation into English is given after each German example in cursive.

This lack of feedback from NSs related to the MP use is consistent with the pilot study findings where the German partners did not pick up on this teaching point even when explicitly asked by the learners for assistance (Vyatkina & Belz, 2006, pp. 337-339).

After the first intervention module based on the enhanced condition, Christie was the only student to use an MP:

Ex. 7.4: Christie to Constanza, email, 11/11/05

Du bist frisch verliebt? Ist **ja** suess!!!
*You just fell in love? [This] is **ja** sweet!!!*

The MP *ja* is used by Christie in a formulaic appraisal pattern in the form of an exclamative (see 4.4.2). The idiomatic character of this pattern for informal conversational register is underscored by the appropriate ellipsis of the demonstrative pronoun *das*, or ‘this’ (see Möllering, 2004, p. 234). Interestingly, Christie had ample exposure to NS uses of the MP *ja* in the correspondence of her keypals during SW11 prior to her own use. However, all three *ja* uses by her partners were in free declarative constructions (7.5) and not in the pattern of appraisal as it was used by Christie:

Ex. 7.5:

a) Vera to Christie and Paula, email, 11/7/2005

Kinder sind **ja** natürliche und unschuldige Geschöpfe.
*Children are **ja** natural and innocent creatures.*

b) Tamara to Christie, email, 11/7/2005

Deshalb werde ich die Antworten auf eure Fragen zu „Ben liebt Anna“ kurz halten. Die anderen Mädels haben **ja auch** schon das meiste gesagt...
*That is why I will keep the answers to your questions to „Ben loves Ana“ short. The other girls have **ja auch** already said the most...*

c) Simone to Christie and Paula, 11/10

Aber vielleicht haben die anderen Deutschen *ja auch* noch Vorschläge.
But probably, the other Germans have ja auch more suggestions.

Therefore, Christie might have noticed the MP *ja* in her partners' writing but she used it in a different function that she became aware of during the instruction or earlier in her contacts with NSs.

In SW12, the first week after the 2nd instruction module (the 1st intervention based on the explicit condition), Christie does not use any MPs. The close microgenetic analysis of her productions during this week helps account for this finding. Christie wrote three emails during SW12, however, two of these emails contain mostly project entries and almost no general correspondence, where MP use is more likely to occur because of its interactional nature. In the SW12 chat, Christie and her partner Paula were participating collaboratively, and Paula was typing, which can be inferred from the first chat turn produced by the American partners ("Paula: Hallo, hier sind Christie und Paula"). The total amount of German words used in this chat by Paula and Christie is only 69. Therefore, Christie's lack of MPs in the week after instruction module #2 may be attributed to her lack of general correspondence in German during SW12 and not necessarily to the lack of the influence of instruction. Additionally, Christie did not produce any performance data during SW13 (corresponding with the Thanksgiving break), similar to many other participants.

In contrast, in SW14 which followed the 3rd instruction module, Christie produced 5 MPs. She used *mal* and *ja* one time each in the chat immediately following the instruction:

Ex. 7.6: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 11/29/2005

Christie:
 thanksgiving war **ja** ganz gut....hab VIEL gegessen!
 [...] wir haben das noch nicht gelesen...warte **mal**

*thanksgiving was **ja** very good...[I] ate A LOT!
 [...] we have not read it yet... wait **mal***

Both MPs in 7.6 occur in fixed patterns - an appraisal pattern with *ja* and an informal singular imperative with *mal* (see 6.x). In her email written during this week (to Constanza), Christie uses *ja* twice more and *denn* once (7.7).

Ex. 7.7: Christie to Constanza, email, 11/29/2005

An Thanksgiving habe ich bei meinem Onkel gegessen. Meine ganze Familie war dabei und wir haben alle **ja** viel gegessen! [...] wann habt ihr winterferien? wie lange habt ihr **denn** frei? wir haben ab 17.12 Ferien, bis 9.1. So ca. 3 Wochen haben wir frei. Hoffentlich arbeite ich zwischendurch und verdiene ein bisschen Geld! Ich brauche **ja** Geld um Buecher fuer die Universitaet zu kaufen.

*On Thanksgiving, I had dinner at my uncle's. My whole family was there and we all ate **ja** a lot! [...] when do you have a winter break? How long are you **denn** free? We have a break from 12/17 to 1/9. So, we are free for about 3 weeks. Hopefully, I will work during this time and make a bit of money! I need **ja** money to buy books for he university.*

Notably, Christie uses the MP *ja* in this email for the first time not in a fixed pattern (cf. 7.4 and 7.6), but in free constructions. Also, she attempts to use *denn* for the first time. In sum, all Christie's MP uses during SW14 are appropriate and accurate.

In SW15 and SW16 following the 4th and last instruction module, Christie produces 8 MPs, all of them in chat, and all uses are pragmatically appropriate. 5 of these uses are accounted for by the MP *ja*, and three other MPs are used one time each. The MP *ja* is used by Christie twice in free constructions, and three times in the appraisal pattern. However, the three latter uses demonstrate variations of the fixed pattern "Das +

ist + ja + Attr.” (7.8): the verb *sein* is used in the past tense (a) and subjunctive mood (b); additional constituents are added and the word order reversed (c). This variation provides evidence of Christie’s developing ability to use the MP *ja* both in free constructions and idiomatically.

Ex. 7.8: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/13/2005

- a) das war **ja** ein bisschen weit!
this was ja a bit far!
 [...]
 b) das waere **ja** cool!
this would be ja cool!
 [...]
 c) heute ist es hier **ja** ganz schoen kalt!
today, it is here ja actually very cold!

The MP *mal* is used by Christie after it is used two times in the same function by her German partner Simone in the same chat, viz. in a commissive (7.9):

Ex. 7.9: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/13/2005

- Simone: da hätte ich **ja auch mal** lust drauf
I would ja auch mal go for it
 [...]
 Simone: muss ich **mal** meinem vater vorschlagen. der geht aber immer so früh ins bett
I should suggest [it] mal to my father. But he always goes so early to bed.
 [...]
 Christie: hatte aber einen aus tuebingen....das war **ja** ein bisschen weit! wir reden aber immer noch mit ein ander. im sommer gehe ich ihn vielleicht **mal** besuchen
But [I] had one from tuebingen...this was ja a bit far away! But we still speak with each other. In the summer, I will probably go mal visit him

The MP *doch* is used by Christie for the first time in the SW15 chat. She appropriately uses it in a free construction (7.10):

Ex. 7.10: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/6/2005

Tamara: Werdet ihr es in der restlichen Zeit gut schaffen?
Will you manage it okay in the remainig time?

[...]

Christie: ja wir hoffen ***doch***
*jes we hope ***doch****

Finally, Christie appropriately uses the MP *denn* in a question (7.11), however, she makes a slight mistake in the word order.

Ex. 7.11: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/13/2005

Christie: geht ihr ***auch*** in der kirche ***denn***?
*do you ***also*** go to the church ***denn***?*

Although her MPs *auch* and *mal* correctly follow the finite verb, the MP combination *auch denn* should also immediately follow the personal pronoun “ihr” (which was explained to the learners during the instruction on the basis of concordances of their and their partners own previous productions taken form *Telekorp*). Earlier (7.7), Christie used the MP *denn* correctly with regard to word order.

Ex. 7.11 is the only instance where Christie attempts to use an MP combination, although she was exposed to such combinations in her partners’ writing (e.g. 7.5b, c; 7.9). Even though Christie is at a relatively advanced stage of L2 proficiency, her MP usage reflects the general pattern of underuse of combinations with other MPs, TU-pronouns, and modal verbs typical of learner productions (see 6.5.4), although she appropriately combines the MPs with verbs in the subjunctive mood (e.g. 7.1; 7.8b). Interestingly, she appropriately uses the MP *eigentlich* once, which is not one of the four targeted MPs.

To summarize, Christie was one of the two students who used MPs at the pre-intervention stage. She also exhibited marked development with respect to MP use in frequency, range, and idiomaticity. Her use of *ja* can be described as native-like, and she also attempted to use all other focal MPs. These uses were appropriate and accurate except for one case, where she did not attend to a fine nuance with regard to the word order. Christie's development may be attributed to her positive response to the pedagogical intervention, however, other factors such as her advanced proficiency, high motivation, and active contact with NSs in class and outside of class played an important supporting role.

7.2.2 Paula

Paula was a student with intermediate proficiency in German. She studied German in High School and chose it as her minor in college. She had no study abroad experience in German-speaking countries. Paula was placed in the same transatlantic group as Christie, whose L2 proficiency was more advanced. In the pre-telecollaboration survey, Paula expressed her feelings in anticipation of meeting the German partners as “mixtures of anticipation, fear, and excitement”. Her main concern was “making too many grammatical and lexical mistakes.” This fear of making mistakes might have prevented Paula from using MPs until SW15 (instruction module 4) despite replete opportunities to observe MP uses in the writing of both her German partners and her more proficient American partner Christie as well as constant encouragement to use the MPs by the instructors. However, once Paula started using the MPs, all her uses were

appropriate and accurate. During SW15 and SW16, she used a total of 5 MPs: 4 times *ja* (only in chats) and one time *denn* (in an email).

In the SW15 chat, Paula is the first participant to use the MP *ja* (in a fixed appraisal pattern, see 7.12), followed by Christie's MP use. Their German partners did not use any MPs in that chat session.

Ex. 7.12: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/6/2005

Simone: Everything is in our folder
 Paula: es ist **ja** gut!!!
*it is **ja** good!!!*

Notably, Paula used *ja* in a variation of the pattern of appraisal immediately after being presented an example of the formula "Das ist *ja* + Attribute" in instructional materials (see Appendix H). It may be assumed that she was using these materials as mediational support while chatting with NSs. In the SW16 chat, three German participants use the MP *ja* along with Paula and Christie. However, Paula is again the first to use the MP *ja*. This time, she uses *ja* three times (7.13), two of them in free constructions (a, c) and one time in a variation of the pattern of appraisal (b).

Ex. 7.13: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/13/2005

- a) Paula: Ich weiss es nicht, wie ich sie **ja** ins Internet stellen kann
*I don't know [how] to post it **ja** in the Internet*
 Paula: *wie ich...
 *how
 [...]
- b) Paula: die andere Information ist **ja schon** toll
*the other information is **ja schon** great*
 [...]
- c) Paula: ich liebe **ja schon** blaue Augen
*I love **ja schon** blue eyes*

The fact that Paula is the first participant to begin using the MP *ja* in this chat eliminates the possibility of immediate mirroring of her partner uses, it rather speaks in favor of the effect of the explicit instruction. Additionally, one interesting collocational pattern was noticed in Paula's uses: in two occurrences (7.13a, b), the MP *ja* collocates with the MP *schon* that was not among the targeted instruction features. Additionally, Paula uses one more combination *ja schon* in the same chat where *ja* is the answering rather than the modal particle (7.14):

Ex. 7.14: Christie, Paula, Simone, Tamara, Vera, Constanza; chat, 12/13/2005

Simone: so prüfungen sind psychisch immer so eine anspannung
so, exams are psychologically always such a stress

[...]

Paula: *ja schon*, sehr anstrengend
***ja schon**, very stressful*

However, Paula's German partners did not use this combination in their writing. Three occurrences of the combination *ja schon* were attested in the emails of Germans in other groups (Stella, Alma-Lora, and Juliana). This combination is used by Paula appropriately and may reflect her independent investigation of other partners' writing or literature on modal particles.

To summarize, Paula uses three times fewer MPs than her more proficient peer Christie and she does not use all of the focal MPs. Her production data are limited to four occurrences of the most frequent MP *ja* and one occurrence of the MP *denn*. However, her uses are appropriate and accurate, and she uses *ja* both in fixed patterns and free constructions. Additionally, Paula demonstrates her interest in this topic by experimenting with combinations of the particle *ja* and a new MP *schon*.

7.2.3 Saul

Saul was in a special situation among other students in the course because of a number of reasons. First, his initial contact with German occurred in an intensive summer course immediately prior to the experimental semester. Saul completed the requirements of three L2 semesters by taking this 6-week-long course. Second, he was a more mature student, older than his classmates. Third, he was majoring in Classic languages and had an intense interest in learning languages. In his biosurvey, Saul wrote: “[Languages are] what I do. [...] I'll need to learn as many modern european languages as I can -- which is good. I enjoy learning languages.” Saul was a highly motivated and hard-working student and he made impressive progress during the TC course. In fact, his proficiency level developed during this one semester course from intermediate low to intermediate high as ascertained by the instructor on the basis of his performance during the course.

Remarkably, Saul was the only learner who exhibited awareness with regard to MPs (see 7.3.1.2) and one of the two students who used an MP in SW9 during the pre-intervention stage (ex. 7.15):

Ex. 7.15: Saul to Juliana, email, 10/23/2005

Reisen gefaellt mir auch, aber ich reiste nicht annaehrnd so viel wie du!
 Du kennst *doch*, andere Kulturen und Menschen zu kennenlernen ist nicht
 so einfach fuer Amerikaner.
*I like traveling but I traveled not as nearly as much as you did! You know
 doch, to learn about other cultures and people is not so easy for
 Americans.*

Saul's use of *doch* in this excerpt from his email to Juliana is accurate and acceptable in an expression of shared knowledge. Moreover, Sam uses *doch* in

collocation with the pronoun “Du” that reinforces the interpersonal orientation of the utterance. However, the MP *ja* would be more appropriate in this context because it lacks the adversative component of *doch* (see 4.4.4). This is probably the reason for Juliana’s reaction to this utterance: in her corrective response, Saul’s German partner changes the MP *doch* to the adverb *bestimmt* (‘surely’) and puts it in parentheses, indicating that it is optional (7.16):

Ex. 7.16: Juliana to Sam, email, 10/25/2005

Du hast geschrieben: “Du kennst *doch*, andere Kulturen und Menschen zu kennenlernen ist nicht so einfach fuer Amerikaner.“ Es muss heißen: „Du weißt (*bestimmt*), dass es nicht so einfach für Amerikaner ist, andere Kulturen und Menschen kennen zu lernen.“
*You wrote: „You know **doch**, to get to know other cultures and people is not so easy for Americans.” It should be “You know (**surely**) that it is not so easy for Americans to get to know other cultures and people.”*

The next MPs in Saul’s writing occur only in SW15 and SW16 after the 4th intervention module. He uses all focal MPs, and these uses are attested both in chat and email. Right after the instruction module, Saul uses the MPs *denn* and *mal* (7.17):

Ex. 7.17: Saul, Chip, Stella, Juliana, Tilo, Carlotta; chat; 12/6/2005

Stella: Spät nachts bei uns, denn wenn bei Dir nacht ist, ist bei uns schon morgen. *lach*
*Late at night for us, because when it is night for you, it is already morning for us. *laugh**
 Saul: was noch koennen wir *denn* machen?
*what else can we **denn** do?*
 [...]
 Saul: schau *mal*: <http://www.xxx>
*look up mal: schau **mal**: <http://www.xxx>*

In 7.17, Saul uses the MP *mal* in a formulaic imperative (see 4.4.5) and *denn* in an interrogative. The latter MP appropriately indicates, on the one hand, that the question is

motivated by the preceding discussion (about scheduling the next chat) and, on the other hand, that Saul really cares and tries to find the solution suitable for all interlocutors (cf. 4.4.3). Stella's use of *denn* in a homonymic function (as a coordinating conjunction) in an immediately preceding utterance creates an interesting juxtaposition of the two meanings of *denn*. Saul demonstrates awareness of both uses because he appropriately reacts to Stella's turn and uses *denn* in a different function. Additionally, Saul syntactically accurately (although sometimes superfluously) used *denn* as an MP homonym (a coordinating conjunction) earlier in the course as e.g. in 7.18:

Ex. 7.18: Saul to all partners, email, 11/3/2005

In BLA ist das verboten, **denn** Ben ist Deutsch und **denn** Anna ist Polnisch. In IYCS ist das verboten, **denn** Ellie ist weiss und juedisch und **denn** Miah ist schwarz.

In BLA, it is forbidden because Ben is German and because Anna is Polish. In IYCS, it is forbidden because Ellie is white and Yiddish and because Mia his black.

In the two emails following this chat (the final emails in the course), Saul uses 11 MPs. It might be the case that the asynchronous nature of the email affords him more opportunity to edit his writing and to experiment with the newly learned feature. The most frequent MP *ja* is used by Saul in these emails for a total of 8 times. 7 of these occurrences are in free constructions, and one occurrence is in a variation of the appraisal pattern. Saul uses *ja* pragmatically appropriately but he makes two mistakes in the word order. For instance, in 7.19, the first MP correctly follows the finite verb but the second MP incorrectly follows the negation:

Ex. 7.19: Saul to Juliana, email, 12/5/2005

Der Glauben nimmt sich **ja** der Leute an, aber Manche sind nicht **ja** so.

*The faith [embraces] **ja** people but some of them are not **ja** so.*

In these emails, Saul also uses three MP combinations (7.20):

Ex. 7.20:

a) Saul to Juliana, email, 12/5/2005

Ich habe eigentlich **ja denn** keine Idee, was aufpassieren wird oder wohin ich gehen will.
*I actually have **ja denn** no idea what is going to happen or where I want to go.*

b) Saul to Juliana, email, 12/5/2005

Ich stimme **doch auch** zu, obwohl ich an Gott nicht glaube.
*I agree **doch auch** although I don't believe in God.*

c) Saul to Carlotta, email, 12/6/2005

Da ich bemerkte (etwa im Scherz) ich sei oft besorgt, ist es **ja doch** komisch, dass meine ganze Sorge am Ende des Semester immer sich in Luft aufloest.
*Since I mentioned (jokingly or so) I often am concerned, it is **ja doch** strange that all my concerns get always dissolved in the air at the end of the semester.*

The combination *ja denn* (7.20a) is inaccurate because the first MP cannot occur in interrogatives and the second MP is bound only to interrogatives. In contrast, the MP combinations in 7.20b and 7.20c are appropriate and accurate.

In the final chat, Saul correctly uses *ja* twice in free constructions (7.21).

Although in the collocation with the tag question “oder” (7.21a), the MP *doch* and not *ja* was the preferred NS choice (see 6.x) for expressing a slight contradiction that the speaker is trying to resolve by asking his interlocutor (see 6.5.4.3), it is still pragmatically appropriate. In 7.21b, the appropriateness of *ja* is confirmed by the German partners who correct the host sentence but not the MP use:

Ex. 7.21: Saul, Carlotta, Juliana, Tilo; chat; 12/12/2005

a) Carlotta: No furhter e-Mails?
[...]

Saul: ich Schrieb **ja** zwei, oder?
*I wrote **ja** two, didn't I?*

b) Saul: es wuerde wahrscheinlich zu teuer, und ich wuerde *ja* nicht mit
meinen Eltern an Weaternacht(?) sein
*it would [be] probably too expensive, and I would **ja** not be with
my parents on [Christmas]*

Juliana: Weihnachten
Christmas

Carlotta: "es wuerde wahrscheinlich zu teuer sein, und ich wuerde *ja* nicht
bei meinen Eltern an Weaternachten sein"
*it would be probably too expensive, and I would **ja** not be with my
parents on [Christmas]*

In sum, Saul demonstrated substantial development in his MP use which is in line with his overall considerable progress in German. He used more MPs than any other learner in the course in normalized counts (16.38 MPs per 1000 German words) and also in absolute counts (if his portfolio uses are added to his CMC uses, see 7.3) and developed with respect to both frequency and range. Saul also practiced using patterns typical of NS discourse such as conventionalized expressions and MP combinations. Most of his uses were appropriate and accurate. However, Saul made a number of word order mistakes (that were addressed in the instruction modules) and some choices that were NNS-like such as the use of the MP *doch* instead of *ja* and vice versa (7.15; 7.21a) or more frequent collocations of *ja* with I-pronouns. Such finer nuances of meaning require more explicit instruction and practice and may be developed at higher levels of proficiency.

7.2.4 Chip

Chip was Saul's partner on the American side. Chip was majoring in International Politics and International Studies. He writes in the bio-survey about the importance of L2 study: "It's part of my major, as well as being a personal hobby of mine". Chip has also traveled "to some three dozen different countries in N. America, S. America, Europe, and Asia", although he did not live or study abroad. Chip rated his own proficiency in German rather modestly as "fair", although his instructor-rated proficiency was "intermediate".

As opposed to his partner Saul, Chip has learnt German for seven years prior to the course. He was overall an experienced L2 learner because he also spoke French and Spanish. However, in contrast to Saul who wrote lengthy emails to his partners and gave extensive corrections, Chip did not seem to be fully engaged in the partnership. He produced a total of 2399 German words during the partnership, less than any other learner except for the low-proficient Juana. Before the beginning of the TC exchange, Chip did not invest much effort into his web-biography to present himself to the German partners. This is evidenced by an entry made by Chip's partner in the post-course survey: „Ein wenig mehr Hintergrundinfo (auch ein Foto) des Partners wäre im Vorfeld wünschenswert gewesen. Dies würde den Umgang persönlicher machen."³⁴ Similarly, another German partner commented on lack of Chip's engagement in the joint project and even calls him ‚lazy‘: “Chip kann zwar sehr gut deutsch, hat meiner Meinung nach

³⁴ ‘A little more background info (also a picture) of the partner would be desirable before the course. This would make the communication more personal.’

aber entweder zu wenig Zeit für das Projekt gehabt, oder ist schlichtweg zu faul gewesen, an einem "regen" e-mail Kontakt teilzuhaben.“³⁵

Chip began using the MPs in SW15 after extensive encouragement by the instructors. He used a total of 6 MPs (5 times *ja* and one time *doch*). All his MP uses were in chats. In the SW15, Chip’s partner Saul used in this chat the MPs *mal* and *denn* (7.17) and Chip used *ja* twice and *doch* once (7.22). No NS MP uses were attested in this chat,

Ex. 7.22: Saul, Chip, Stella, Juliana, Tilo, Carlotta; chat; 12/6/2005

Chip: ich bin gut. das wetter is *ja* schoen
I am good. the weather is ja beautiful.

[...]

Chip: Diese Woche ist *ja* anstrengend
This week is ja stressful

[...]

Chip: Amerikaner sind ziemlich konservativ, Deutsche sind *doch* nicht so konservativ
Americans are pretty conservative. Germans are doch not so conservative.

All MP occurrences collocate with forms of the verb *sein* in patterns of appraisal. Both patterns were exemplified in the instructional materials distributed to learners immediately prior to the chat. It may be thus assumed that Chip used these materials as mediational support while chatting similarly to Paula (see 7.2.3). All Chip’s uses in 7.22 are appropriate and accurate. In fact, he asked the researcher/instructor to check the appropriateness of his use of *doch* when he was typing. Chip’s three uses of *ja* in the final

³⁵Chip knows German actually very well, but in my opinion, he either had too little time for the project or was simply too lazy to participate in a “vivid” e-mail contact.’

chat (SW16) mirrored the uses in 7.22: all of them collocate with the verb *sein* in a pattern of appraisal.

With regard to the aggregate numbers, Chip's developmental pattern is similar to Paula's. Both students produced an almost equivalent number of German words – 2399 were produced by Chip and 2407 by Paula. Chip used the total of 6 and Paula the total of 5 MPs. Both students began using the MPs in SW15. However, Chip's MP usage did neither reach the frequency and range of his partner Saul's usage nor the range of Paula's usage. All his uses of *ja* and one use of *doch* occurred in one and the same formulaic pattern. He did not attempt to use any MP combinations, modal verbs, and TU-pronouns in collocations with the MPs. He also did not make use of the asynchronous nature of email for practicing. This may be an indication of Chip's rather negative stance toward the partnership and telecollaborative learning which might have influenced his very moderate development in relation to the MP use despite his appropriate proficiency level.

7.2.5 Jeremy

Jeremy was a student with intermediate proficiency in German. He has learnt German in Middle School, High School, and in college for two years. He had German as his minor but was considering taking it as his major. Jeremy had no traveling or study abroad experience in German-speaking countries although he was planning study abroad in the semester following the TC course.

Jeremy did not use the MPs prior to the intervention but he was the first learner to begin using them after the intervention. In fact, he was the only student who used the

MPs in SW12, the first week after the 2nd instruction module (the first explicit condition instruction module), for the total of 9 times in both chat and emails. He used *ja* eight times and *denn* once. In the SW12 chat session immediately following the instruction session, Jeremy uses the MP *ja* one time in a formulaic pattern and the second time in a free construction:

Ex. 7.23: Jeremy, Laura, Sonja, Carine, Alma-Lora, Soren; chat; 11/15/2005

Jeremy: Ich bin gut.

I am good.

Carine: Mir geht's auch gut!

I am also good!

Jeremy: Oh das ist **ja** gut. [...]

*Oh this is **ja** good. [...]*

Alma-Lora: Genau, wir können auch die deutschen fragen, was sie über amerikanischen Patriotismus denken und umgekehrt.

Exactly, we can also ask the Germans what they think about American patriotism and the other way around.

Jeremy: Ja, und wir können **ja** die Amerikanische Leute über Deutsches Patriotismus.

*Yes, and we can **ja** ask American people about German patriotism.*

[...]

Soren: das war **ja** nationalismus

*This was **ja** nationalism*

Alma-Lora: Eben, Soren, aber deshalb müssen wir **ja** vorsichtig sein mit patriotischen Aussagen.

*Exactly, Soren, but that is why we must be **ja** cautious about patriotic statements.*

[...]

Alma-Lora: Und dann können wir **ja** noch allgemeine Informationen über Patriotismus in den einzelnen Ländern geben

*And then, we can **ja** also give general information about patriotism in individual countries*

Both uses are syntactically accurate and pragmatically appropriate in the function of intensifying the reference to shared knowledge. His German partners also use the MP *ja* in the same chat in both functions for a total of three times, however, Jeremy's uses

precede the NS uses and thus cannot be attributed to direct mimicking of his partners' uses. .

Later in the same week (SW12), Jeremy uses *ja* six times and *denn* once in his email to Nils. All uses were pragmatically appropriate although overused because no NSs used MPs in their emails with such high a density. Jeremy used the MP *ja* with a normalized frequency of 14 per 1000 words in this particular email, whereas the NS baseline (calculated for all 2005 emails) is 2 per 1000 words. This initial overuse of a pragmatic feature by learners is consistent with findings from research on MP development in study abroad settings (e.g. Cheon-Kostrzewa & Kostrzewa's, 1997a, 1997b; Rost-Roth, 1999). Additionally, the syntactic position of the MP *ja* in two occurrences was inaccurate. In two other cases, the word order in Jeremy's subordinate clauses was inaccurate even though not with regard to the position of the MP. These inaccuracies in Jeremy's uses were discussed in plenum during the next instruction session (module 3, November 29).

In SW14 and SW15 chats, Jeremy uses the MP *ja* again. In SW14, he uses *ja* one time in an appraisal pattern. In SW15, he uses it two times in free constructions. Interestingly, one of the *ja* occurrences is initially in the answering particle function, but Jeremy immediately corrects it to the MP function (7.24), which demonstrates his conscious attempt to use the MPs:

Ex. 7.24: Jeremy, Laura, Sonja, Carine, Alma-Lora, Soren, Nils; chat; 11/28/2005

Jeremy: *ja2* du hast besser Antworten
yes you have better answers
 Jeremy: du hast *ja1* besser Antworten
you have ja1 better answers

The last chat of Jeremy's partner group in SW16 (no other Americans participated in this chat) is particularly rich in MPs. NSs use the MPs 10 times and Jeremy uses the MPs 7 times total. Jeremy uses *ja* five times, *doch* once, and *denn* once. The first uses of *ja* and *doch* are made by NSs in a formulaic appraisal (7.25):

Ex. 7.25: Jeremy, Sonja, Carine, Alma-Lora, Soren; chat; 12/13/2005

Jeremy: um, meine Professor hat das es ist gut gesagt.
um, my professor said that [our website] is good.

[...]

Carine: DAs ist ***doch*** super!
*This is ***doch*** super!*

Sonja: Echt? Das ist ***ja*** super.
*Really? This is ***ja*** super.*

In the course of the chat, NSs also use *ja* in free constructions, however, Jeremy uses *ja* all five times in the same formulaic construction “Das ist *ja* gut” (‘This is *ja* good’), including two variations. Although this usage is overall pragmatically appropriate, it is not NS-like with regard to the range of its collocates. NSs frequently collocate in this data set the MPs *ja* and *doch* in positive appraisal patterns with the attributes *super*, *cool*, *echt lustig* (‘really funny’), which are more emotionally loaded than “gut”. Additionally, Jeremy uses this pattern much more frequently than NSs.

Jeremy also appropriately uses the MP *doch* one time in an appraisal pattern, following the analogous NS use (7.26a). Finally, he incorrectly uses the MP *denn* in a statement despite his exposure to two NS models of the use of *denn* in interrogatives in the same chat (7.26b) and explicit instruction in the form of the intervention.

Ex. 7.26: Jeremy, Sonja, Carine, Alma-Lora, Soren; chat; 12/13/2005

a) Carine: DAs ist ***doch*** super!
*This is ***doch*** super!*

[...]

Alma-Lora: But I think there must be a .com at the end?

Jeremy: um, nein, dieses ist **doch** anders
*um, no, this is **doch** different*

b) Sonja: Party ist immer gut, aber nur mit Jägermeister
Party is always good, but only with Jägermeister

Soren: warum **denn**?
*why **denn**?*

[...]

Jeremy: um ich kann fur 10 Uhre **denn** chatten.
*um I can **denn** chat [at 10 o'clock]*

In sum, Jeremy used the most MPs in his CMC writing (n=19) in absolute terms. He was also the only learner to begin using the MPs right after the beginning of the intervention (SW12) and to continue using them every week until the close of the semester. He also successfully acquired and used the idiomatic pattern of appraisal with the MPs *ja* and *doch*. However, his uses were frequently inaccurate, especially with respect to word order. Additionally, his usage was not NS-like with regard to MP collocations because he heavily overused the formulaic patterns and underused other collocations typical of the NS discourse. Finally, Jeremy used the same MP (*ja*) in the overwhelming majority of the occurrences (16 out of 19) and did not use the MP *mal* at all. However, Jeremy exhibited marked development in relation to MP use which may have been influenced by his positive stance vis-à-vis the partnership in general as well as his active engagement in the activities involving analysis of the partner writing.

7.2.6 Laura

Laura was paired with Jeremy in one transatlantic group. As most of her American peers, Laura has learnt German in High School and in college. She had no experience of going to a German-speaking country. However, she was highly motivated to learn German and was really looking forward to the partnership, as she expressed in an entry of her fairly elaborate responses to the bio-survey: “From my experience with talking to German friends online, I know that it is very beneficial and I wanted to be exposed to this same thing in a classroom with an instructor who could give us new ideas and maybe teach me better ways to communicate.” Laura indicated a number of reasons for learning German: “I really enjoy learning foreign languages. I feel that it helps me to understand the world better and even sometimes myself better. German is important to me because it's part of my ancestry and through learning German I have come to understand some of my family traditions. I also hope to use my foreign language skills in my future career.” Laura also had a NS keypal in Germany outside of class, with whom she regularly exchanged emails and had chat and IM conversations. Laura’s proficiency was rated by the instructor as high intermediate.

Unlike her partner Jeremy, Laura did not use MPs until SW15 (similarly to Paula and Chip). In week 15, Laura used MPs both in chat and email for a total of 9 times. She used *ja* 6 times, *denn* 2 times, and *mal* once. In the SW15 chat, she used two MPs *ja* and one MP *denn*. All these uses were appropriate and accurate.

Laura’s most frequent MP is *ja*, similar to all other learners in the focal 2005 course, which is also consistent with the pilot study data from 2004 (see Vyatkina &

Belz, 2006, p. 327). She appropriately and accurately uses the MP *ja* both in the formulaic pattern of appraisal (2 times in chat) and in free constructions (4 times in emails). Laura also uses the MP combination *ja auch* three times, the most frequent combination in NS writing (see 6.5.4.2.3). For the first time, she uses it in the inverse word order (*auch ja*) on 12/5/05 (7.27a).

Ex. 7.27:

a) Laura to Carine, email, 12/5/2005

Ich denke, dass die Kälte ***auch ja*** grausam ist.
*I think that the cold is ***auch ja*** horrible.*

b) Laura to Alma-Lora, email, 12/6/2005

Ich verstehe wenn du viele zu tun hast, weil ich ***ja auch*** viel zu tun habe.
*I understand when you have a lot to do because I ***ja auch*** have a lot to do.*

c) Laura to Carine, email, 12/8/2005

Ich finde es ***ja auch*** sehr toll, wenn wir uns weiter Emails schreiben würden.
*I find it ***ja auch*** great if we would continue writing each other emails.*

d) Laura to Alma-Lora, email, 12/6/2005

Bin ***mal auch*** gespannt, wie sie am Ende wird.
*[I] am ***mal auch*** curious how it is going to be at the end.*

After the correct word order was pointed out to learners during the instruction on 12/6/05, Laura uses this combination accurately for two more times (7.27b and c). However, she still uses the inverse word order for the MP combination *auch mal* in her single use of *mal* (7.27d).

Laura's *denn* usage mirrors the collocational pattern used by her German partners during the same SW15. Carine uses *denn* at the beginning of the chat session in a wh-

question with the question word *wie* ('how'). Laura's use follows (5 lines later), also in collocation with a *wie*-question:

Ex. 7.28:

a) Laura, Carine, Alma-Lora; chat; 12/8/2006

Carine: Wie spät ist es **denn** jetzt bei euch?
*What is the time **denn** now for you?*

[...]

Carine: Ich habe mir die Webseite angeschaut!
I have looked up the website!

Laura: Wie findest du **denn** die Webseite?
*How do you find **denn** the website?*

b) Laura to Carine, email, 12/8/2005

Wie feierst du **denn** Silvester?
*How do you celebrate **denn** New Year's?*

NSs use the MP *denn* 5 times in this chat, 4 times in collocation with "wie". In Laura's email to Carine later the same day, she again uses the same *denn*-collocation (7.28b).

There are no data from Laura's writing from SW16 in *Telekorp* because she did not participate in the final chat due to a final exam conflict. However, she presented the instructor and the researcher with a transcript of a chat that she conducted with her private German keypal that she had during the same week. The transcript showed that Laura appropriately used the MP *ja* two times in an appraisal pattern and the MP *denn* one time in a wh-interrogative with the question word "was" ('what'), the second frequent wh-word in *denn*-collocations in NS discourse (see 6.5.4.4).

In sum, Laura develops her MP use not only with regard to frequency but also collocational patterns typical of NS discourse. At the end of the course, she demonstrates

mastery of idiomatic MP uses including MP combinations, although she does not always attend to the word order in these combinations. The MP *mal* is used by Laura only once and the MP *doch* is unattested. As in Jeremy's case, Laura's positive attitude and enthusiasm toward the partnership and active engagement in the instructional telecollaborative activities may have contributed to her marked pragmatic development.

7.2.7 Juana

Juana's proficiency level was instructor-rated as low. Juana's total German word count was the lowest in the experimental cohort (1810), two times lower than Laura's top score (3892). She also had less exposure to NS discourse in German because her partners (Natalie and David) underused German in comparison to English roughly by a margin of 1 to 4, probably in reaction to Juana's proficiency level. Juana did not use any MPs during the whole course.

7.3 Awareness

7.3.1 Pre-Intervention

7.3.1.1 Questionnaire 1 (Q1)

On the first part of questionnaire 1 (see Appendix D), learners were presented with two versions of one and the same dialogue (adopted from Weydt *et al.*, 1983, pp. 11-13). Version A contained MPs, while version B did not.. First, the learners were asked to

underline the words that distinguished one dialogue from the other. Next, they were asked to evaluate each dialogue on a scale of 1 to 6 (with 1 being the weakest and 6 the strongest) with respect to its perceived expressive/emotive force according to a list of eight attributes (see Table 8.1). They had to specify to which degree each attribute described each dialogue. This rating task was developed by Weydt *et al.* (1983) who had given it to NSs (n=82). The same task was administered by Möllering and Nunan (1995) to Australian advanced L2 German learners (n=23), and the obtained results were compared to the NS baseline published by Weydt *et al.* (1983). Table 7.1 shows the results obtained in this study in comparison to the results from the two above mentioned studies.

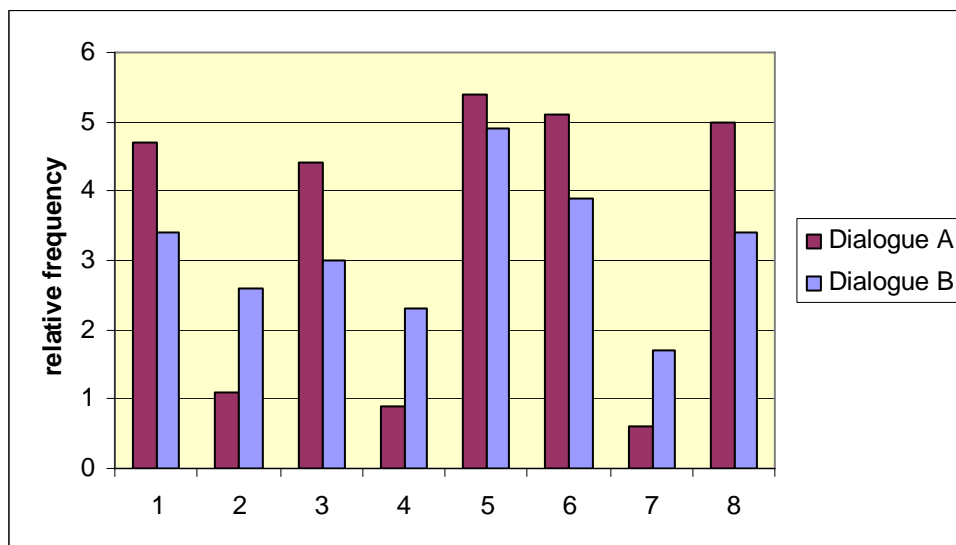
Table 7.1: Evaluation of illocutionary/emotive force (comparison data published by Weydt et al., 1983, and Möllering and Nunan, 1995)

		Dialogue A			Dialogue B		
		NSs 1983	Learners 1995	Learners 2005	NSs 1983	Learners 1995	Learners 2005
1	natural	5.7	4.9	4.7	2.8	2.4	3.4
2	cold	1.7	1	1.1	3.3	3.3	2.6
3	warm	4.4	4.1	4.4	2.7	2.2	3
4	wooden	1.4	1.5	0.9	5	3.6	2.3
5	fluent	6	5.4	5.4	2.7	3.4	4.9
6	authentic	5.7	5	5.1	2.7	2.7	3.9
7	weak in establishing contact	2.4	0.9	0.6	4	3.1	1.7
8	friendly	5.7	5	5	3.7	2.8	3.4

One can see that all three participant groups perceived version A to be more natural, warmer, more fluent, authentic, and friendlier; and as less cold, wooden, and weaker in establishing contact than version B. This contrast is demonstrated on Fig. 7.1 for the focal learners, where the 8 column clusters represent the eight rated attributes (see

Table 7.1). The difference in height between the purple columns is larger than between the blue columns. This difference illustrates that the overall contrast between the “positive” (1, 3, 5, 6, 8) and “negative” (2, 4, 7) characteristics is stronger for version A, which means that the learners perceived that it was more heavily loaded pragmatically.

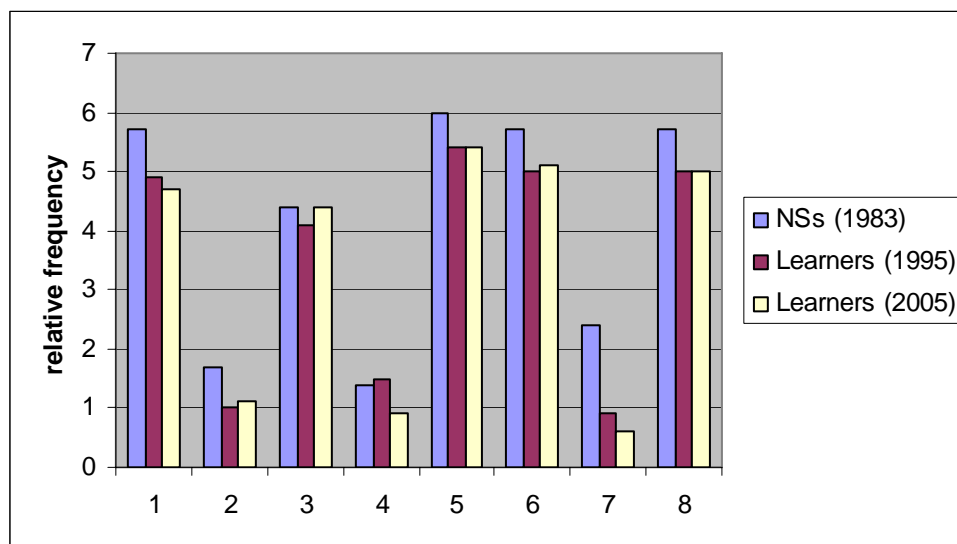
Fig. 7.1: Evaluation of the illocutionary/emotive force by the learners (2005)



Moreover, the perceptions of the NSs are in most cases only slightly different from those of the learners and evaluations by both learner groups are nearly identical.

This is demonstrated on Fig. 7.2.

Fig. 7.2: Evaluation of the illocutionary/emotive force of the 1st dialogue by three participant groups



Therefore, the result obtained for the learners is in line with Möllering and Nunan's (1995, p. 52) finding that "[t]he evaluation of the illocutionary and emotive force of the two versions did not differ significantly from native speaker judgments as tendencies were perceived in the same way" because tendencies were perceived in the same way by and large but the degree of perception differed in some cases.

7.3.1.2 Questionnaire 2 (Q2)

The questions on Q2 (see Appendix F) were based on the excerpts from the NS telecollaborative discourse that learners became familiar with in Q1.2 (see Appendix E) one week before. The MPs in these excerpts were bolded. The learners were asked to name the word category the bolded words belong to; to list other words from the same category; to select functions these words can fulfill from a list; and to list the words from the same category the learners had used before in their own speaking or writing.

Only one learner, Saul, accurately named the word category of the focal features – modal particles. Interestingly, Saul was also the only one learner who had noticed MPs in NS discourse and asked the instructor about the function of *ja* during the pre-intervention stage. At that time, the instructor explained that these words are added to utterances for emphasis, without naming the term “modal particles”. It is possible that Saul found some information about MPs in a reference grammar before the intervention. This assumption is especially supported by the fact that Saul was accustomed to metalanguage of grammar due to his experience with learning historical languages such as Greek and Latin (see 5.2.3).

Other terms suggested by the learners for the MPs on Q2 were “adverb”, “adjective”, and “conjunction”. Respectively, learners gave examples of other words belonging to these categories such as *und* (‘and’), *auch* (‘also’), *schon* (‘already’). Jeremy, who wrote “I am not sure” as a response to the question about the word category, suggested “*der, die, das* (‘the’) and other articles” as other words belonging to the same category. These responses are consistent with the responses given by the participants in the pilot study, where none of the 12 respondents knew the term “modal/flavoring particle” and suggested instead the lexical categories of “adverb”, “conjunction”, and “expletive” (see Belz & Vyatkina, 2005, p. 35).

Christie and Laura, although they named the target word category an “adverb”, perceived that the focal words were similar to discourse particles because they named the word *naja* as belonging to the same word class. Laura also included a comment (ex. 7-30) and mentioned that she had used *naja* before.

Ex. 7-30: Laura, Q2, 11/15/2005

I think it means well... I used it in an email to say: Well, I have to go. “Naja, ich muss leider gehen.” It made it seem as though I was just writing out my normal speech.

Indeed, *naja* can be translated as ‘well’, which is a discourse particle, and thus belongs to the same broader category as MPs (see Chapter 3). Laura also rightly points out the spoken quality of this particle.

All learners reported that they had previously used some of the target words in their own discourse (in the TC course or prior to it), e.g. *aber*. However, because the learners termed the respective word category “adverbs” and “conjunctions”, it can be assumed that their previous uses were in the homonym function (e.g. *aber* = ‘but’). However, Christie’s self-reported uses of *mal*, *doch*, and *eigentlich* may also include those in the MP function (ex. 7-1). In contrast, Saul did not self-report the use of *doch*, although he did use this word in the MP function pre-intervention (ex. 7-15).

In contrast to their limited metapragmatic knowledge, all learners exhibited apt intuitions with regard to their perception of MP illocutionary and emotive force. Notably, all learners perceived that the target words give a spoken quality to written discourse. Six learners out of seven thought that they make communication more natural. Five learners wrote that the focal features help create a friendly atmosphere and indicate colloquial/informal communication. Three students perceived that they make communication more polite. These intuitions are in line with the claims made e.g. by Weydt (2006) that MPs are more unambiguously markers of naturalness, friendliness, and informality than politeness (see Chapter 3). These findings also support the results obtained in the pilot study, where all three participants who responded to this part of the

questionnaire pointed out the “naturalness” and “spoken quality” of the MPs but none of them checked the feature “politeness” (see Belz & Vyatkina, 2005, p. 36).

Furthermore, none of the learners rightly perceived that the target words indicate formal communication and are characteristic of written discourse.

Other learner intuitions were less NS-like because five of them indicated that the targeted words emphasize other particular words. The latter feature characterizes focal and not modal particles, the scope of which is discourse and/or situation and not specific words in the utterance (see Chapter 3). Also, only one student perceived that the focal words can function as discourse connectors. Finally, none of the learners thought that MPs may mitigate interpersonal threats.

7.3.2 Post-Intervention: Final Portfolio

7.3.2.1 Christie

Christie confirms in her final portfolio entry that she was not aware of the MPs before the course and did not notice them in her partners’ writing at the pre-intervention stage. However, she wrote that she now realizes that she has used some of the MPs without knowing what these words actually were. Furthermore, Christie reports that she noticed how frequently her partners used them “very soon”³⁶ after the intervention and

³⁶ All portfolio entries were written by the learners in German. However, only English translations are presented here for space considerations unless they contain additional production data (see ex. 7.31).

began using more of them in her own writing. Christie also lists the MPs she has used post-intervention: *mal*, *ja*, *denn*, and *eigentlich*. All these MPs were in fact attested in her writing (see 7.2.1) including an accurate use of the MP *eigentlich*, which was not the focus of instruction.

Moreover, Christie includes in her final portfolio an excerpt from her email correspondence with a friend who was her host sister during the earlier sojourn in Germany. Christie reports that she was surprised to discover how many MPs her NS friend used in her emails. In the enclosed email, Christie counted 7 MPs *ja* and 4 MPs *mal* (she did not notice one more *mal* in combination with one occurrence of *ja*). Christie also comments that, although the learners in her TC class were told during the intervention that they overused the MP *ja* in comparison to the NSs, her NS partner also used this MP with a very high frequency.

Indeed, the email of Christie's German friend contains a very high density of the MPs *ja* and *mal*. If normalized per 1000 words, they are used with a relative frequency of 17.5 (*ja*) and 12.5 (*mal*). To compare, *ja* is used with a more than two times lower frequency (8.23/1000 words) and *mal* with an almost three times lower frequency (4.85/1000 words) in the NS-NS chat data of the *Dortmunder Chat-Korpus* (see Table 6-4). This finding may be explained by the fact that Christie's host sister considered her highly proficient in German and wrote to her in a fashion she would write to another NS close friend. The hypothesis that more MPs are used in NS – NS CMC correspondence with close friends may be tested in future research. It is also, in part, supported by the fact that *Telekorp* NSs were noticed to use more MPs when they were alone in a chat room waiting for American partners to arrive or when addressing each other.

Christie concludes her entry with an evaluation of the role of MPs in German (7-31):

Ex. 7-31: Christie, final portfolio, December 2005

Modal participles [sic] are very important in the German language. They make the language friendlier and the communication more personal. If one does not use any modal participles [sic], the language does not sound right.

Although Christie's observations and comments are accurate and capture a number of important characteristics of the MPs, her knowledge of metalinguistic terms still lags behind because she names the focal feature "Modal Participles" (in English) throughout her entry written in German. Despite this inaccuracy, an important piece of evidence for the development of Christie's awareness is her application of the acquired knowledge in an out-of-class context. There is a high probability that Christie continues to observe MP use in the CMC writing of her German friends and to use them in her own writing in order to "sound right in German" (to put it in her own words).

7.3.2.2 Paula

Paula begins her portfolio entry by quoting *Telekorp* excerpts from her German partners' writing containing MPs, followed by examples of her own MP use. All MPs are bolded in the excerpts. Next, Paula comments on these quotations.

At the beginning of her commentary, Paula makes a statement that she has never heard about MPs before the intervention. In fact, she mentions that she noticed them in

her partners' writing but did not understand them. After the intervention, Paula knows that MPs "are very important in German" and "have essential implications". Paula rightly notices that her partner Nina used the MP *denn* more frequently than other MPs. This is an apt observation because Nina used *denn* for a total of 9 times during the course, and she used the MP *ja*, the most frequent particle in the writing of other NSs, only twice. In fact, Nina used the MP *denn* more frequently in comparison not only with her own uses of other MPs but also with other NSs: her uses make up a quarter of all *denn* occurrences in NS discourse. The fact that Paula could observe many occurrences of *denn*, which seemed to constitute Nina's favorite MP or her "lexical teddy bear of speaking" (Hasselgren, 2002, p. 155), might have influenced Paula because the only MP except for *ja* that she uses post-intervention is *denn*. Paula also makes a neat remark that Nina's uses of the MP *denn* make "friendly and natural".

Finally, Paula comments that she noticed many more particles in her partners' writing after the intervention. Paula reflects that she also tried using MPs but "they are difficult to use". She reports that she used *ja* in one chat and *denn* in a question and provides respective quotations. In fact, Paula used more MPs in her writing (a total of 5, see 7.2.2). It is not clear whether she did not notice her own other uses or just did not report on them.

In her entry, Paula uses the appropriate term "Modal Partikel" ('modal particle') although she makes spelling and declension mistakes in the German equivalent of the term.

7.3.2.3 Saul

Saul's entry on MPs begins with excerpts from his last two emails to his German partners in which he used a number of MPs marked in bold. Saul comments that although he does not think all these uses were accurate, "many attempts are better than none". He mentions that he did not learn about MPs before the TC course. Saul concludes that his knowledge of pragmatics improved after this course and he learned that MPs contribute to "informality and friendliness". Saul correctly terms the focal feature *modale Partikeln*.

Although Saul does not provide other metapragmatic comments on the MPs, he actually uses them throughout his final portfolio (not only in the entry on MPs). He uses an impressive total of 25 MPs (13 *ja*, 5 *mal*, 4 *doch*, 2 *schon*, 1 *auch*), which is more MPs than any learner used in the TC writing. In general, these uses are appropriate in Saul's portfolio entry because it is written in the form of a letter to the instructor, which implies an interpersonal component. Admittedly, the MPs are overused in this entry but Saul does it deliberately in order to practice the newly learned feature according to his comment (see above). The MPs are used by Saul in a variety of functions (7-32): *ja* and *doch* in free constructions for the expression of shared knowledge (a, d) and formulaic appraisal patterns (f, g) and *mal* in formulaic imperatives (e) and commissives (c). Saul also uses the MPs *schon* (b) and *auch* which were not among the targeted instruction features, and MP combinations *ja doch* and *auch doch* (g).

Ex. 7-32: Saul, final portfolio, December 2005

Bevor wir in Deutsch 297A sie zu lernen begann, wusste ich **ja** [a] nicht, dass es modale Partikeln **schon** [b] gibt. Aus diesem Grund wurde ich **mal**

[c] sagen, dass ich **ja** [d] bestimmt und gross mein Sprachgebrauch der MP gebessert habe. Schauen Sie **mal** [e] an meine Kapitel fuer die letzten Emails zu meiner Partnerinnen.

*Before we started to learn them in German 297A, I did not **ja** [a] know that there are **schon** [b] modal particles. This is the reason why I would **mal** [c] say that I **ja** [d] surely and much improved my language use of the MPs. Look **mal** [e] at my chapter about the last emails to my partners.*

[...]

Sicherlich sind meine Partnerinnen **ja** [f] direkt und offensichtlich, aber in Gegenteil zu Stereotypen sind sie **auch doch** [g] freundlich und sie glauben an Gott.

*Surely, my partners are **ja** [f] direct and explicit but in contrast to stereotypes, they are **auch doch** [g] friendly and they believe in God.*

Most of the uses are accurate although there are a number of word order mistakes, e.g. in (7-32g) where the particles must be put in an inverse order (*doch auch*).

Therefore, Saul's portfolio entry provides evidence not only of the development of his awareness but also of his performance because he practices using the MPs in a different genre (semi-official paper letter) and increases his production with respect to frequency, range, and patterning.

7.3.2.4 Chip

Chip uses the correct term *Modalpartikeln* in his entry. He includes an excerpt from his last chat with a German partner and marks the turns where the MPs were used. Along with correct indications of the MP *ja*, he also mistakenly highlights two turns including the temporal adverb *schon*. He further reports that he did not know anything about the MPs at the beginning of the course. He has seen them in other German classes but did not know what they meant. After receiving the explanations about the use of the MPs, Chip learned that MPs are important in German and also began to notice them in

the NS discourse. Chip writes that he was initially “a little scared” because the MPs were new to him and he did not know how to use them. Chip explains that he is “fairly conservative” in his use of German. This explanation can be interpreted as follows: Chip is reluctant to use new constructions in German that he has not fully mastered because he is afraid of using them inappropriately (especially in conversations with NSs) and therefore losing face. Indeed, he writes in his portfolio entry that after the instruction, he understood “how they worked” and began using the MPs. Chip’s explanation parallels the self-commentary made by Stephanie in the pilot study cohort, where she explained that she waited to become confident in her understanding of the MPs before actually using them because she was afraid of offending her German partners by inappropriate usage (see Belz & Vyatkina, 2005, pp. 38-39).

7.3.2.5 Jeremy

Jeremy begins his portfolio entry with the statement “Germans use modal particles very much”. He also reports that he has previously noticed many such words but he did not know their meaning. Jeremy attaches to his entry several emails from his German partners with highlighted sentences containing MPs. He demonstrates his increased awareness of MPs by commenting on one particular use of the MP *mal* by his German partner: “Du solltest wirklich *mal* nach Deutschland kommen”. Jeremy explains that this MP makes the sentence friendlier and less direct, transforming a command into an invitation. Next, Jeremy points out that he has never used MPs before the course but began using them frequently after the focused instruction. Jeremy also includes his first

email containing a number of MPs as evidence. He aptly terms the MPs “small words with big meaning” that “make a big difference in a German sentence”. Rather surprisingly, Jeremy concludes his entry by stating that he finds the MPs “overall very simple”. However, taking into account his awareness of the complexity of the MP meaning, it might be the case that Jeremy implies simplicity of the morphological form. Jeremy uses an accurate term *modale Partikel* in his entry. He also uses one MP *ja* in his concluding sentence.

7.3.2.6 Laura

Laura includes a detailed and thoughtful reflection on the MPs in her portfolio. As many other learners, she begins with the statement that she did not notice the German MPs before the course. She remarks that the focused instruction on the MPs was very useful, in particular, the handouts and examples from the writing of the German partners. Laura further reports that in the course of her portfolio writing, she has gone through the TC correspondence again and found a number of MP uses by her partners and by herself. She includes these examples as an attachment. In Laura’s entry, three comments are especially important with regard to her development. First, she points out a ‘moment of noticing’ of the importance of MPs (7-33) after her German partner complimented her on her use of German:

Ex. 7.33: Laura, final portfolio, December 2005

It was interesting that after I had used MPs, Carine wrote to me, “The rest of the German part in your E-Mail was written in a very good way and your German vocabulary is quite large!” Then, I truly realized that MPs are important.

Next, Laura notices that her partners had not used any MPs in their first emails at the outset of the course (which is true for the first correspondence week). She also supplies an explanation for this fact: “I think that when they got to know me better, then they wanted to use MPs”. This is a neat observation that demonstrates Laura’s awareness of the MP function as markers of the informal atmosphere typical of communication among people who know each other. However, the lack of MPs in the first emails may also be due to their content. Initial emails contained self-introductory information and were less interpersonally oriented.

Finally, Laura provides an explanation as to why she did not use more MPs although she wishes she would have done so. She reflects that she had to think about too many things at once when she was writing in German such as word choice, word order, case, gender, etc. Therefore, one of the reasons for low MP frequencies in the discourse of some students may be cognitive overload. Laura concludes her entry by expressing an intention to use more MPs in spoken and email communication with her German friends. This final remark is an important indicator of Laura’s awareness that MPs are also appropriate for spoken genres.

7.3.2.7 Juana

Juana did not use any MPs in her writing unlike other learners. However, she still chose to include an entry on the MPs in her portfolio. Juana states at the beginning that she was not aware of the MPs before the course. She also reports that she has not

consciously used them unless it was done “by mistake”. Juana attaches an email from her German partner where she accurately highlights a number of MPs. However, Juana notices that she could not find many MP instances in her partners’ writing. In fact, her partners used fewer MPs than other Germans in the course, e.g. they did not use the MPs *denn* and *doch* at all. This may be due to the overall low count of German words in their writing (see 7.3.2.7), which, in turn, may be explained by Juana’s lower proficiency level in German in comparison to other learners.

Therefore, Juana demonstrates some awareness of MPs but she did not use any of them. She reports that she consciously decided not to do so and provides a detailed explanation (7-34):

Ex. 7-34: Juana, final portfolio, December 2005

I was a little concerned because I did not want to use them inappropriately. German is a difficult language and things can go a wrong way [...] I did not want my partner to get a wrong impression of me. Modal particles are only small words but they are important to use. When Germans see that one is using them, they would think that this person is a more proficient speaker. These nuances make you look better [in the eyes of] a native speaker. When I practice them more, I am sure I will be able to use them better and will not be afraid of using them inappropriately.

Thus, Juana sensibly evaluated her ability and decided not to use MPs at her current developmental stage but she expresses an intention to begin using them when she reaches a higher proficiency level because she understands their importance for a person who wants to speak more authentic German. This self-reflection is in line with the comments provided by Chip (see 7.3.2.4) and Stephanie (see Belz & Vyatkina, 2005, pp. 38-39) where they explained that they waited to become confident about the use of MPs before actually using them. However, while Chip and Stephanie began using the MPs at

the end of the TC correspondence, Juana's proficiency was not yet sufficient at that point and she postponed an attempt to use the MPs until some time in the future.

7.4 Summary

The results of the qualitative analysis of both production and awareness data as well as learner metadata presented in this chapter provide deeper insight into tendencies revealed by the aggregate quantitative analysis (see Chapter 6) and into developmental paths followed by each particular learner. A number of factors influencing these paths were ascertained: the pedagogical intervention was shown to play an important role for the development; however, learner proficiency level, language learner biography, motivation, NS input in the TC correspondence as well as contact with NSs outside of classroom also contributed to shaping idiosyncratic developmental paths of each learner.

Simple counting allows for dividing the seven participants into three groups according to the amount of MPs produced in their CMC writing: 1) Christie (16), Saul (16), and Jeremy (19); 2) Paula (5), Chip (6), and Laura (9); 3) Juana (0). Based on these counts, one could falsely conclude that participants inside the 1st group and the 2nd group developed in a similar fashion, and Juana did not develop at all. However, microgenetic analysis helps reveal individual differences in the development of learners who produced a similar amount of the focal features.

In the 1st group, Christie and Saul were the only learners who each produced one MP at the pre-intervention stage. The data analysis from multiple sources demonstrates that these two uses are to be attributed to quite different factors. Christie was the only

student in class with a fresh study abroad experience, with the highest L2 proficiency (advanced), and maintenance of active contact with NSs outside of class. In her self-reported awareness data, Christie recalls that she was using MPs before the course but she did not quite understand what they meant. Therefore, it may be assumed that Christie was using the MPs based on her previous exposure to NS discourse but without conscious awareness. In fact, Christie's metalinguistic knowledge is still underdeveloped after the intervention because she terms the focal features in her final portfolio "modal participles". In contrast, Saul had a considerably lower proficiency level (low intermediate) before the course. However, being a mature and motivated language learner with extensive metalinguistic knowledge and analytical learning skills, he developed his awareness very soon. He was the only student who noticed MPs in the text of the book assigned for class readings and asked the instructor about them as well as who accurately termed them on the pre-instruction questionnaire. After the instruction, both Saul and Christie exhibited marked development in their performative ability with regard to frequency, range, and idiomaticity. Jeremy's developmental pattern was again different: he did not use MPs before the intervention but he was the only student who began using them right after the first module of the intervention and systematically used them each week. As opposed to many other students who waited to begin using the MPs until the later stages of the intervention, Jeremy was not afraid to make mistakes and lose face in front of his NS partners. Jeremy's developmental path with respect to MP range was less balanced in comparison to Christie and Saul: the overwhelming majority of his MP uses are accounted for by the MP *ja* used in formulaic patterns.

In the 2nd group, the developmental patterns of Paula and Chip are comparable. Both learners began using the MPs late in the course, only at the stage when they were certain that they fully understood them and also after constant encouragement from the instructors. Both of them used only a few MPs, most of these uses being one and the same MP *ja*. However, while Chip only used separate MPs, Paula tried out MP combinations, similarly to Laura. Both Chip and Paula provided only general metapragmatic comments on the focal feature in their final portfolios. In contrast, Laura's entry was very detailed and insightful. Laura was a very engaged student, she produced the highest total amount of German words throughout the course (3892) whereas Chip's and Paula's counts were 1.6 times lower with ca. 2400 words for each of them. Laura's considerably developed in her use of not only MPs but all focal features of instruction, e.g., logical connectors (*da*-compounds) and address form pronouns (Belz, personal communication). She explains in her final portfolio entry that she wanted to pay attention to many linguistic features of German and not only MPs, which was the reason for not using more of them (see 7.3.2.6). This also accounts for Laura's lowest normalized MP frequency (3.66/1000 words). Therefore, Laura's metapragmatic awareness was developed to a much higher extent than by Chip and Paula, although they produced similar aggregate numbers of MPs. Furthermore, Laura applied her newly acquired knowledge about MPs in a different context: a chat with her German friend outside of class. This latter fact makes Laura's developmental pattern closer to the pattern followed by Christie and Saul, although Laura used overall fewer MPs in both absolute and normalized counts. Christie explored the use of MPs in an email of her German host

sister, and Saul used MPs in a different genre: his portfolio commentary (which more than doubled the overall count of his MP uses).

Finally, although Juana's performative ability was not developed, there is evidence of development of her metapragmatic awareness in her final portfolio entry. Juana explains that she decided not to use MPs at her current proficiency level because they were too complex for her and expresses an intention to use them in the future.

To summarize, all learners had had no explicit knowledge about MPs before the TC course although they demonstrated NS-like intuitions with regard to their illocutionary force on the pre-instruction awareness questionnaires. At the post-intervention stage, all learners chose to reflect on the MPs in their course portfolios, evaluated the instruction positively, and demonstrated an increase in their metapragmatic awareness. This development was accompanied by the development of the performative ability by most of the learners except for Juana. In contrast, Christie's metapragmatic awareness seems to slightly lag behind her well developed performative ability. Furthermore, although some learner MP uses appeared to replicate the patterns used by their German partners in the same interactions, most uses were based on the patterns pointed out to the learners and included in their handouts during the instruction. Most learners chose to experiment with using MPs in free constructions in email before chat, because the email genre gives more opportunities for rethinking and editing. *Ja* was by far the most frequent MP in the writing of all learners. A number of uses were inaccurate due to semantic and syntactic restrictions that did not become immediately apparent to the learners but the learners' accuracy of performance improved in the course of the instruction. Additionally, the microgenetic analysis showed that there were no moments

of peer assistance with respect to MP use. In other words, the German peers provided no direct feedback on the focal features although sentences suggested by Germans in the course of the error correction process sometimes contained indirect feedback. This supports the pilot study assumption that NSs may not consider MPs important candidates for error correction (see Vyatkina & Belz, 2006). Finally, it can be concluded that the microgenetic analysis of the use of each individual MP retrieved from *Telekorp* in conjunction with the metapragmatic reflections of the learners in their final course portfolios and learner meta-data reveal that each learner followed an idiosyncratic developmental path with respect to his or her pragmatic performance, awareness, as well as the relationship of these two aspects of pragmatic competence.

Chapter 8

Conclusion

8.1 Summary of Findings

8.1.1 Introduction

The purpose of this study was to fill in the serious gap between interventional and developmental research in L2 pragmatics. Until the present, research in this area has concentrated either on the efficacy of different instructional techniques or longitudinal pragmatic development of individual learners but neither study has combined both perspectives. Respectively, no longitudinal studies have been published to date in which changes in learners' L2 pragmatic competence have been documented closely over time and explored in relation to particular types of instructional activities except for the pilot study for this dissertation (Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). This dissertation investigated the effects of form-focused instruction on the development of pragmatic competence by American university students as demonstrated by the use of their L2 German in electronically mediated, project-based intercultural communication with their native speaker keypals. A new approach to teaching one of the important pragmatic features of German - modal particles – was suggested, and its efficacy was tested by means of a microgenetic longitudinal study. Both the pedagogical intervention and the research design of the study have a developmental character that was afforded by

the nature of the innovative learning configuration of telecollaboration and by the methodologies of contrastive learner corpus analysis as well as microgenetic analysis applied to the material of *Telekorp*, a new bilingual learner corpus.

8.1.2 Coding Taxonomy

The first contribution of this study is the elaboration of the coding taxonomy for the targeted features: German modal particles (Chapter 4, section 4.5). The taxonomy was developed deductively on the basis of existing taxonomies (first of all, as developed by Möllering, 2004) and inductively on the basis of observations from the focal NS corpus. An economical operationalization procedure was suggested for delineation of MPs and their homonyms. The taxonomy was empirically validated through piloting (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). Additionally, the process of taxonomy development was iterative because it began concurrently with the pedagogical experiment on the material of emerging production data and was revised after the full contingent of the data was collected. This iterative process improved the reliability and accuracy of the taxonomy because the researcher was regularly reviewing the coding of the data. The resulting taxonomy partially confirms and partially supplements MP taxonomies suggested in the scholarship to date. Some findings are restricted to the nature of the present data subset, e.g. the absence of the MP *denn* occurrences in yes/no questions. Other findings, in particular, the expansion of the MP *mal* domain, can be generalized to other settings and registers because the respective examples have been attested in the literature but not accounted for.

8.1.3 Teaching Method

The second contribution is a new data-driven approach to teaching German modal particles (Chapter 5, section 5.3). It is based on the teaching methodology of blending applied in telecollaborative learning configuration as suggested by Belz (2006). All pedagogical materials were developed on the basis of emergent learner targeted feature uses and on their NS partners' uses in the very same interactions. The written CMC medium afforded automatic archiving of the full contingent of models of conversational language use that presents an advantage to eliciting data from spoken conversations which require recording and transcribing. Handouts and worksheets were created on the basis of these models. Decisions about the material to be covered during each next intervention stage were made on the basis of the concurrent performance and awareness data analysis. The pedagogical intervention was described in detail, including the intervention design, the general procedure, stages of its actual implementation, and pedagogical materials. Based on this description, the pedagogical experiment may be replicated or this method may be applied to other settings in teaching other features of pragmatic competence. In sum, this teaching method was proven to be very economical and time-saving in the sense that the level of performative ability demonstrated by most of the participants was achieved during a few weeks, which is in striking contrast to untutored acquisition of a similar proficiency level with regard to the targeted feature that can take years (cf. Cheon-Kostrzewa and Kostrzewa, 1997; Rost-Roth, 1999).

8.1.4 Findings: Aggregate Analysis

The effects of the intervention on the L2 pragmatic performance were first explored by means of a series of analyses of numerical data (MP frequencies) aggregated across different conditions (Chapter 6). It was ascertained that learners drastically underused the focal feature in comparison to the NSs during the pre-intervention stage despite ample exposure. This finding is consistent with the results of many recent interlanguage pragmatics studies showing that mere NS input exposure is not enough for the development of learner pragmatic competence (e.g. Rose, 2005; Rose & Ng, 2001; Félix-Brasdefer, 2006; Yoshimi, 2001; see also 2.5.2). In fact, only two learners used MPs before the instruction for a total of three times. This finding provided numerical justification for the administration of the pedagogical intervention. Furthermore, the first instruction module based on the enhanced condition showed no effect on the learner use. In contrast, the second instruction module based on the explicit condition led to an increase in learner MP use. Follow-up explicit instruction modules triggered an abrupt increase in learner production. The results of the statistical analysis demonstrated that learner MP use significantly increased after the intervention. Furthermore, the change in the learner MP use occurred toward the approximation of the NS baseline in the very same interactions in frequency and MP distribution across the CMC modalities of email and chat. In particular, both populations used fewer MPs in emails than in chats. However, learners did not develop toward the NS comparison baseline with regard to MP range and collocational patterning. In fact, all learners who began using MPs after the intervention heavily overused one particular MP, *ja*. Furthermore, most of the learner

emerging uses were attributed to formulaic patterns whereas most of the NS uses were in free constructions. These findings are consistent with the results achieved by Cheon-Kostrzewa & Kostrzewa (1997), Kutsch (1985), and Rost-Roth (1999) for the acquisition of German MPs in study abroad settings (see 3.4.2) and with the general acquisition sequence confirmed by Kasper & Rose (2002) and Bardovi-Harlig (2006) (see 2.4). Additionally, although a number of collocational patterns typical of the NS data appear to be mirrored in the learner uses, some of these patterns were underused or overused by learners. This finding suggests necessity of explicit instruction with the help of awareness-raising pedagogical materials related to finer nuances of the MP contextual use.

8.1.5 Findings: Analysis in Sequence

Next, the effects of the intervention were explored in sequence on the basis of seven case studies tracking each individual learner of the experimental group (Chapter 7). This analysis of both process and awareness data helped reveal how the general developmental trends ascertained by the quantitative analysis performed for the aggregate production of the learner population (see above) played out differently for each individual learner. Different developmental patterns were found. Some learners exhibited marked development of both pragmatic awareness and performance of the targeted feature. However, while one group of learners showed more balanced development with regard to frequency, range, and idiomaticity (Christie, Saul, Laura), the other group mostly increased their use of one MP (*ja*) in a limited number of fixed patterns (Jeremy, Chip,

Paula). Christie's metalinguistic knowledge appeared to lag behind her performance; and Juana's performance did not improve despite her developed metapragmatic awareness due to her low L2 proficiency level. Saul's early developed awareness led his performance development (both with regard to the targeted feature and to his general performative ability), and his general proficiency level increased considerably during the focal semester. In contrast, Christie's relatively lacking awareness did not prohibit development of her performative ability which occurred at a fairly high rate.

8.1.6 Integration of Findings

The integration of the quantitative and qualitative results provides the basis for drawing some general conclusions. First, it was found that the production and awareness level with regard to the focal feature was zero or close to zero at the pre-intervention stage for all learners. However, all learners exhibited intuitions about the illocutionary force of MPs similar to the intuitions of NSs that parallels the results achieved by Möllering and Nunan (1995). After the intervention, awareness of all learners improved and performance of all but one learner improved.

The evidence for developed awareness was presented in the form of comments and self-reflections about the MP use included by all learners in their final portfolios. Learners' awareness development was ascertained on the basis of comparison of the pretest and posttest results. The posttest comments contained metapragmatic descriptions of the MP contextual functions and examples from their own and their NS partners' collaborative discourse. In contrast to the pretest results, all learners demonstrated (to

more or less extent) the ability to independently find MPs in the TC discourse and appropriately comment on their illocutionary functions. In this fashion, the learners exhibited developed metapragmatic awareness. Many of the students' comments were precise and accurate. Furthermore, all but one student (Christie) used correct scientific terms for the focal phenomenon – *Modalpartikeln/modale Partikeln*, or 'modal particles'. This finding is corroborated by very similar pilot study results (Belz & Vyatkina, 2005, p. 40).

Evidence of development in pragmatic performance was demonstrated by more native-like use of the focal features in comparison to the NS discourse in the very same interactions at the post-intervention stage. First, increase in aggregate MP frequencies and its approximation to the NS comparison baseline was ascertained using the material of *Telekorp*. Second, learner use of individual MPs in collocational patterns typical of NS discourse increased. Although, in many cases, learner discourse exhibited much lower frequency of specific collocational patterns, the fact that a number of these patterns was used at least once and was accurate, was considered evidence of development.

Furthermore, some (more proficient) learners such as Christie and Saul began using MPs in more complex functions such as free constructions in a cognitively less taxing modality of email and reapplied them later in more taxing chats. This step-by-step production of the same MP in consecutively more complex modalities and functions may be considered as recontextualization (Lantolf & Thorne, 2006) which presents important evidence for development (see 1.5.4). Other instances of recontextualization were demonstrated post-intervention by Laura, who used MPs in an email in a non-TC setting; by Christie and Paula, who used MPs other than the focal ones; and by Saul, who used all

MPs in various functions in his final portfolio entry. Other learners' production developed to a lesser extent, as seen, for example, in the case of Chip, who used only formulaic patterns in only one modality, and by Juana, who did not use any MPs at all, although she demonstrated some development of her awareness.

Furthermore, although some learner MP uses appeared to replicate the patterns used by their German partners in the same interactions, most uses were based on the patterns pointed out to the learners and included in the pedagogical materials. The evidence for that is the fact that learners frequently began using the MPs in chats before their NS partners (e.g. Paula, 7-12, 7-13; Jeremy, 7-23). Learners had visual support in the form of handouts with highlighted formulaic patterns (see Appendix H) because chat sessions immediately followed the instruction modules. In fact, learners used these handouts as a scaffolding device during the cognitively taxing chat sessions as ascertained by observation. After these first formulaic chat uses, most learners practiced MPs in free constructions in email because the email modality gives more opportunities for thinking and editing. Other learners practiced free constructions in emails and then occasionally used them in chat thus engaging in recontextualization (see above). As a result, learners were NS-like with regard to the fact that they used more free constructions in email and more formulaic sequences in chat. On the other hand, learners overused formulaic sequences in comparison to NSs in both modalities which may be evidence of not sufficiently developed automatization. However, it should be noted that ability to use formulaic sequences appropriately is by itself a valuable achievement that demonstrates a developed *Fingerspitzengefühl*, or 'precise intuition' (Hentschel, 2003, p. 62) and can be considered one of the indicators of advanced proficiency.

Finally, all learners used the MP *ja* much more frequently in comparison to other MPs. Although it is also the most frequent MP in the NS discourse, learners overuse *ja* and underuse other MPs in comparison to the NS baseline. This finding lends support to the results of longitudinal studies of MP use development (see 3.4.1). Both this study and developmental studies of untutored MP acquisition (Cheon-Kostrzewa & Kostrzewa, 1997; Kutsch, 1985; Rost-Roth, 1999) have shown that learners initially acquire one or a few MPs which are most frequent in NS discourse; that particles are learned first in one (highly conventionalized) function with more functions accumulated in later stages; that learner use differs from NS use in frequency and, especially, range; and that after the stabilization stage, the development becomes “explosion-like” (Cheon-Kostrzewa & Kostrzewa, 1997b, p. 154). However, while the stabilization stage leading to an ‘acquisitional explosion’ took up to 38 months in untutored settings, it was reduced to only two to three weeks in the telecollaboration setting (see also the reports on the pilot study for this dissertation in Belz & Vyatkina, 2005 and Vyatkina & Belz, 2006), which makes apparent the benefits of instruction in comparison to untutored acquisition.

It should be noted that the abrupt MP use increase in this study occurred during the final (4th) stage of the pedagogical intervention, whereas a comparable increase occurred during the 2nd stage in the pilot study. However, the overall accuracy in the dissertation study was much higher. Among all MP uses of the 2005 experimental cohort, only 8.5% were syntactically and/or pragmatically inaccurate, whereas for the 2004 pilot cohort, 16% of all uses were inaccurate (Belz & Vyatkina, 2005, p. 29). This finding may be attributed to the fact that at the beginning of the intervention in this study, the students’ attention was attracted to Weydt’s (1981) warning that not using MPs in

conversation is bad, but using them inappropriately is the worst. This may account for the fact that most of the students waited until they learned more about the nuances of the MP use and felt more comfortable in using them accurately in order not to lose face in front of their transatlantic partners. The learners indeed confirm this assumption in their portfolio comments.

More generally, the ascertained developmental path corroborates the postulate about a typical L2 pragmatics developmental sequence “from formula, through low-scope pattern, to construction” (Bardovi-Harlig, 2002, 2006; N.C. Ellis, 1996; Kasper & Rose, 2002). However, the microgenetic approach adopted in this study allowed for demonstrating that individual learners followed quite divergent developmental pathways which confirms the pilot study finding: “Although general tendencies can be seen in the data in aggregation, each individual learner followed an idiosyncratic path sensitive to his or her own particular sociocultural history with respect to the development of MP use and awareness” (Belz & Vyatkina, 2005, p. 40, see also Belz & Kinginger, 2003, p. 642). In sum, the analytical method of microgenetic analysis allowed to demonstrate that the pedagogical intervention played an important role for the learner L2 pragmatic development; however, other factors such as learner proficiency level, language learner biography, motivation, NS input in the TC correspondence as well as contact with NSs outside of classroom also contributed to shaping idiosyncratic developmental paths of each learner.

Finally, this study demonstrated a positive effect of explicit instruction in L2 pragmatics which is consistent with the results of L2 pragmatics interventional studies (House, 1996; Kasper and Rose 2002, Pearson, 2001; Rose & Ng, 2001; Takahashi,

2001; Tateyama *et al.*, 1997). The instruction method alternating data-driven awareness-raising with production practice in real-life interaction with NSs was found to be time-saving (in comparison to untutored development) and productive. As Weydt (2003, p. 15) proposes,

ein angemessener, d.h. die Strukturen der Partikeln geschickt und richtig vermittelnder Unterricht [bietet] Möglichkeiten zu Fortschritten in der Sprachbeherrschung, wie sie auf anderen Gebieten kaum zu erreichen sind.³⁷

Very positive evaluations by students in their post-course portfolio comments provide evidence that instruction in aspects of “linguistics of nuance competence” (Weinrich, 1986) such as German modal particles was successfully implemented based on the methodology of blending applied in the telecollaborative learning configuration (see Belz, 2006).

8.2 Evaluation of the Methodology

The mixed methods approach integrating contrastive learner corpus analysis and microgenetic analysis employed in this study (Chapter 4) allowed for in-depth examinations of the research object (development of L2 pragmatic competence) from different perspectives. Triangulation of methods was the most important design feature that helped strengthen the validity, or “trustworthiness” (Lincoln and Guba, 1985) of the

³⁷ An appropriate instruction [method], i.e. the one that neatly and accurately communicates the structures of the particles, offers possibilities for progress in language mastery to an extent that can hardly be reached in other areas.

study. According to Gee (1999), trustworthiness may be strengthened by means of convergence, agreement, coverage, and linguistic details (p. 95).

Convergence was demonstrated in this study with regard to “compatible and convincing answers” (Gee, 1999, p. 95) to different types of questions. In particular, the qualitative analysis of the process data in sequence showed that learner use post-intervention MP use still differed significantly from the NS use with regard to range and collocational partners, whereas quantitative aggregate results showed no significant difference in MP frequencies produced by learners and NSs in each of the CMC modalities. In this fashion, both results complement each other and are in this sense “compatible”. Additionally, awareness data helped highlight differences in developmental paths taken by learners who produced a comparable amount of process data.

Agreement and coverage were addressed in this study by piloting all components of the study such as research design, taxonomy, data collection instruments, and pedagogical intervention. Agreement was reached by the co-authors of the publications reporting on the pilot study results (see Belz & Vyatkina, 2005; Vyatkina & Belz, 2006). Furthermore, the results obtained by this study are compatible with the results from the pilot study, many of which closely parallel each other or are in detail explained in case of divergence (see 8.1.6 for the explanation of differences in the developmental “delay” in the 2005 study and lower accuracy in the 2004 study). Additionally, similar developmental patterns were ascertained by other authors with regard to other features of pragmatic competence (see Belz & Kinginger, 2003, 2005; Belz, 2004, 2006). This

agreement also accounts for “coverage” because “[t]he analysis is more valid the more it can be applied to related sorts of data” (Gee, 1999, p. 95).

Finally, Gee proposes that “[t]he analysis is more valid the more it is tightly tied to details of linguistic structure. [...] the grammar of any social language is composed of specific forms that are “designed” to carry out specific functions” (ibid.). This dissertation employs microgenetic analysis that involves close examination of linguistic details in the context of their use and in the course of the development of their use. Multiple examples taken from *Telekorp* provide support of the data analysis and achieved results and conclusions reported on in this study (see Chapters 4, 5, 6, 7).

The methodology applied in this study helped address many design issues typical of L2 pragmatics interventional research (see 2.6) and strengthen its validity. First, the pedagogical intervention in this study corresponded to the principles of “focus on form and function” suggested by Kasper and Rose (2002) as the best strategy of teaching L2 pragmatics where “[m]etapragmatic comment [is] generated by students' pragmatic action or observations” and arose “from student problems encountered during meaningful language use” (p. 263). Second, the targeted features of instruction were applied by the learners in real communicative situations, “a rarity in the research literature” (Kasper and Rose, 2002, p. 241; see also Rose, 2005). Third, the multiple-observations design and analysis of the full contingent of the process data allowed for “direct observation of developmental patterns” (Kasper & Rose, 2002, p. 76). Fourth, elicitation of production data from an electronic corpus and not from a standardized test allowed for collection of authentic discourse data (cf. Eisenstein & Bodman, 1993). Fifth, the learner and NS data were fully comparable and pragmatic ability of the learners was measured “against a

defensible standard [...] in successful multilingual speakers' interactions in activities relevant for a given learner population” (Kasper and Rose, 2002, p. 86). Sixth, the extensively annotated, longitudinal, and bilingual nature of *Telekorp* enabled “ethnographically thick and ecologically valid microgenetic analyses of the development of L2 competence” (Belz, 2006, p. 209). As a result, developmental paths of individual learners were microgenetically tracked in context and “a more nuanced understanding” of their identity was achieved that is “multiplex and not reducible, however convenient, to check-marked boxes” (Poos and Simpson, 2002, p. 21; see also Alcón Soler, 2005; Rose, 2005).

In sum, the mixed methods approach allowed for elaborating “a coherent process explanation for nearly all of the data that went well beyond either the quantitative or [...] qualitative conclusions” (Maxwell And Loomis, 2002, p. 260).

8.3 Limitations of the Study and Future Research Directions

Limitations of this study are not considered to be ‘shortcomings’ but rather indicators of potential future research directions.

First, the generalizability of the results to intermediate college L2 learners in similar instructional settings is supported by the pilot study results which mirror each other with regard to many key points. In order to test the generalizability of the results to other populations, replication studies are necessary. Detailed description of all design features enables such replications in the future.

Second, it merits further investigation whether the positive instruction effect after instruction module 2 may be, in part, attributed to the combined influence of both the enhanced and explicit condition.

Third, despite the longitudinal nature of the study, the development was tracked only up to a certain point in time due to the length of the semester at most North-American universities. In fact, awareness and performance of (some) learners only began approximating the NS baseline on a number of counts and was still considerably lagging behind on other counts. The data collection ended with the end of the telecollaborative course. However, several learners expressed a wish to use more targeted features in their CMC with German NSs in the future in their self-reflections. Elaboration of a design that would allow tracking development of pragmatic competence over longer periods would provide more insight into developmental sequence.

Fourth, comparisons of NS-NS, NNS-NNS, and NS-NNS interactions in a variety of CMC and spoken genres are a potentially productive venue for future research. Another yet related direction for future research is comparison of the learner MP use and MP homonym use. Preliminary frequency counts suggest that learners do not significantly underuse MP homonyms *doch*, *denn*, and *mal* in comparison with the NSs and overuse the answering and discourse particle *ja*. The reasons of such saliency of the particle *ja* not only in the MP function but also in other functions in learner discourse may be analyzed both quantitatively and qualitatively.

Fifth, more qualitative analyses may be performed on the material of collocational data. In particular, MP collocations with specific modal verbs and other MPs as well as

other patterns in NS and learner discourse contributing to “semantic prosody” of the respective texts (Sinclair, 1991) merit further investigation.

Sixth, the suggested coding taxonomy of the MPs may be re-examined by multiple raters. The inter-rater agreement may be then evaluated and the taxonomy refined. Additionally, more NS data from different sources may be qualitatively analyzed in order to validate and, if necessary, improve the taxonomy.

Finally, the effect of other learner variables such as gender or computer literacy may be explored. In general, *Telekorp* provides very rich metadata, which can be used for conducting research in multiple directions.

8.4 Implications for L2 Research and Pedagogy

Various interested groups, or “multiple stakeholders” (Weiss, 1984), in education - foreign language learners, educators, researchers, and university administrators - will benefit from this study and its deliverables.

This study widens the scope of teachable pragmalinguistic features (German MPs). At the same time, the suggested method can be applied to teaching other pragmatic features as well. Language educators can use this method of instruction to foster pragmatic development of their students. Language learners will benefit from this method if applied because their pragmatic competence will significantly improve.

The results of the study provide quantitative and qualitative characteristics of pragmatic development of American intermediate college-level L2 language learners.

This data can constitute a basis for curriculum changes as well as for improvement of existing courses and design of new courses.

Next, the status of the MPs as a linguistic characteristic of the CMC modalities (more so of chat than of email) in German was confirmed. This study provides numerical comparison data for future replications and related analyses, for example, corpus-based MP frequencies for both the NS and learner populations in asynchronous and synchronous CMC modalities. This data can be used in cross-linguistic comparisons, cross-genre comparisons, contrastive learner corpus analysis, and other areas.

I advocate the use of the pedagogy of blending in telecollaborative learning configurations (as described by Belz, 2006) for the purposes of instruction in L2 pragmatic development. The application of this type of pedagogy and the suggested instruction method allow for considerable reduction of time costs and fitting the pragmatic instruction module into a tight foreign language curriculum that has implications for university administrators.

Furthermore, this dissertation validates the method of longitudinal interventional research design (Belz, 2006; Belz & Kinginger, 2002, 2003; Belz & Vyatkina 2005; Kinginger & Belz, 2005; Vyatkina & Belz, 2006) as applied to a developmental pedagogical intervention. The use of the twin research methodologies of contrastive learner corpus analysis and microgenetic analysis affords examination and integration of data analysis in aggregation and in sequence (see Belz, 2003). This design is best suited for exploration of development and can be applied to great benefit by researchers in various areas of the humanities.

Finally, the procedure used in the study can be used for the purposes of language assessment. As Belz *et al.* (2005a) posit, “[w]hile the use of native corpora in language testing may aid in assessment at the global level, *Telekorp* affords (developmental) assessment at the local level”. Continuous assessment of development carried out in this study aligns well with the new approach of dynamic assessment of L2 development within the sociocultural framework (Ableeva, forthcoming; Poehner & Lantolf, 2003) where instruction and assessment are inherently and dynamically linked.

8.5 Conclusion

This study has reported on the results of a pedagogical experiment that allowed for bringing together “the study of L2 development and instructional activity” (Negueruela, 2003, p. 30). This dialectic approach was afforded by integration of the theoretical lens of sociocultural theory, the twin research methodologies of contrastive learner corpus analysis and microgenetic analysis, the teaching methodology of blending, and a holistic approach to research that uses categorization and comparison but emphasizes particularity and context (Maxwell and Loomis, 2002, p. 269). This perspective allowed for a successful implementation of a pedagogical intervention that led to learners’ development as evidenced by their increased pragmatic awareness and target L2 use in specific communicative contexts.

Appendix A

Ethnographic and Language Proficiency Data: Learners

Pseudonym	Gender	Age	L1	Other L2s	L2 pre-college	Semester standing	L2 coll, semester	L2 status as subj.	Travel overseas	Time in L2 - countries	Self-rated L2 proficiency				L2 Proficiency
											R	W	S	L	
Christie	F	18	E	None	HS	1	1	major	Y	10 (GER)	A	F	G	A	Adv
Laura	F	21	E	None	HS	7	5	minor	N	N	G	G	F	G	Interm High
Paula	F	19	E	None	HS	3	3	minor	N	N	G	F	F	G	Interm
Juana	F	19	E	Spanish	7 yrs	7	5	elective, considers minor	Y	N	n/d	n/d	n/d	n/d	Low
Chip	M	19	E	French, Spanish	7 yrs	7	5	required	Y	N	F	F	F	F	Interm
Saul	M	22	E	Latin, Greek	N	8	2	elective	Y	N	G	G	B	B	Interm Low
Jeremy	M	19	E	None	MS,HS	1	1	minor, considers major	N	N	F	F	F	F	Interm

Appendix B

Ethnographic and Language Proficiency Data: Native Speakers

Pseudonym	Gender	Age	L1	Other L2s	L2 pre-college	Semester	L2 coll, semester	L2 status as subj.	Travel overseas	Time in L2 - countries	Self-rated L2 proficiency				L2 Proficiency
											A	A	A	A	
Natalie	F	22	G	French, Spanish	Yes (?)	6	6	major	Y	N	A	A	A	A	advanced
Vera	F	21	G	French	MS,HS 8 years	3	1 (?)	elective	Y	10 mo.	A	A	A	A	advanced
Tamara	F	24	G	French	9 years	5	5	major	Y	1 year	A	A	A	A	advanced
Nina	F	22	G	French, Lat.Span	MS,HS 9 years	5	5	major	Y	3 months	A	A	A	A	advanced
Sonja	F	22	G	Czech, French	Yes (?)	5	5	major	Y	7 mo.	A	A	A	A	advanced
Simone	F	25	G	French	7 years	3 (MA)	11	major	Y	10 mo.	A	A	A	A	advanced
Alma-Lora	F	22	G	French	MS,HS 8 years	6	6	major	Y	3.5 mo.	A	G	G	A	advanced
Stella	F	25	G	French	MS,HS 8 years	8	8	major	Y	11 mo.	A	A	A	A	advanced
Constanza	F	28	G	Spanish,French	8 years	2 (y)	2 (y)	major	Y	7 mo.	A	A	A	A	advanced
Carlotta	F	23	G	French	in school	7	7	major	Y	3 mo.	A	G	G	A	advanced
Carine	F	23	G	French	MS,HS 9 years	7	7	major	Y	N	A	A	A	A	advanced
Soren	M	25	G	French	HS (+?)	7	7	major	Y	10 mo.	A	A	A	A	advanced
David	M	26	G	French	8 years	8	8	major	Y	short visits	A	G	G	G	advanced
Tilo	M	25	G	French, Spanish, Italian	in school	7	7	major	Y	short visits (US, GB)	A	A	A	A	advanced
Nils	M	30	G	French	9/10 y.	10	8?	major	Y	GB, Israel	A	G	A	G	advanced

Appendix C

Computer Literacy Data

Pseu- donym	Age started using PC	PC use prim. school	PC use sec. sch.	Own PC	Prim. access live	No. PCs parent	Hrs online daily	% friend online	Comfort level with technology
Christie	12	N	Y	N	N	1	3	98	5
Lauren	8	Y	Y	Y	Y	5	5	99	7
Paula	7	Y	Y	Y	Y	2	8	99	4
Juana	8	Y	Y	Y	Y	1	4	75	6
Chip	5	Y	Y	Y	Y	5	14	99	5
Saul	8	Y	Y	Y	N	1	3	no data	7
Jeremy	15	N	Y	Y	Y	1	3	99	5
Natalie	12	Y	Y	Y	Y	1	2	99	5
Vera	14	N	Y	Y	Y	2	1	85	4
Tamara	14	N	Y	Y	Y	0	2	90	3
Nina	15	N	Y	Y	Y	1	1	90	2
Sonja	12	N	Y	Y	Y	2	1	99	2
Simone	15	N	Y	Y	Y	0	6	99	6
Alma- Lora	13	N	Y	Y	Y	1	1	95	5
Stella	10	N	Y	Y	Y	3	2	99	7
Constanz a	18	N	N	Y	Y	2	2	90	3
Carlotta	9	N	N	Y	Y	3	4	90	4
Carine	15	N	N	Y	Y	3	1	30	3
Soren	16	N	N	Y	Y	1	2	98	4
David	16	N	N	Y	Y	0	4	70	4
Tilo	11	N	Y	Y	Y	5	3	99	5
Nils	20	N	N	Y	Y	1	3	90	6

Appendix D

Questionnaire 1, Part 1

(adapted from Weydt *et al.*, 1983, pp. 11-13)

Dialogue A		Dialogue B	
X:	Ja, das gibt's doch gar nicht! Was machst du denn hier? Ich denk' du bist in England!	X:	Ja, das gibt's gar nicht! Was machst du hier? Ich denk' du bist in England!
Y:	War ich auch, aber jetzt wohn' ich in Berlin. Bin gerade auf dem Rückweg.	Y:	War ich auch, aber jetzt wohn' ich in Berlin. Bin gerade auf dem Rückweg.
X:	Ist ja toll, ich fahr' nämlich auch nach Berlin, aber nur übers Wochenende.	X:	Ist toll, ich fahr' nämlich auch nach Berlin, aber nur übers Wochenende.
Y:	Gut, dann können wir ja während der Fahrt ein bisschen über die alten Zeiten quatschen.	Y:	Gut, dann können wir während der Fahrt ein bisschen über die alten Zeiten quatschen.
X:	Ja eben, aber sag' mal, wo fährt denn der 9.30 Uhr-Zug eigentlich ab?	X:	Ja, aber sag', wo fährt der 9.30 Uhr-Zug ab?
Y:	Weiß ich auch nicht, warte mal... da steht's ja: Gleis drei. – Du hast ja reichlich Gepäck dabei für ein Wochenende! Komm, ich helf dir mal.	Y:	Weiß ich auch nicht, warte... da steht's: Gleis drei. – Du hast reichlich Gepäck dabei für ein Wochenende! Komm, ich helfe dir.
X:	Och, lass ruhig, es geht schon, ist ja nicht weit.	X:	Och, lass, es geht, ist nicht weit.
Y:	Ein Wochenende ist ja ziemlich knapp für Berlin.	Y:	Ein Wochenende ist ziemlich knapp für Berlin.
X:	Stimmt schon, aber dann bin ich immerhin für die paar Tage mal raus aus Hannover.	X:	Stimmt, aber dann bin ich immerhin für die paar Tage raus aus Hannover.
Y:	Arbeitest du denn da?	Y:	Arbeitest du da?
X:	Ja, in so `nem Heim für Jugendliche; eigentlich ganz gut, aber hin und wieder muss ich doch mal raus.	X:	Ja, in so `nem Heim für Jugendliche; eigentlich ganz gut, aber hin und wieder muss ich raus.
Y:	Find` ich auch.	Y:	Find' ich auch.
X:	Aber sag mal, ich erzähl die ganze Zeit von mir. Wieso bist du denn eigentlich jetzt in Berlin und was machst du denn da so?	X:	Aber sag, ich erzähl die ganze Zeit von mir. Wieso bist du jetzt in Berlin und was machst du da so?

Please underline words that are different in these two dialogues. After that, please rank each adjective according to the degree to which it describes dialogue A and dialogue B. I.e. mark "0" if you think this dialogue cannot be described by this adjective at all, and "6" if you think this adjective describes the dialogue very well.

	Dialogue A							Dialogue B						
	0	1	2	3	4	5	6	0	1	2	3	4	5	6
natural														
cold														
warm														
wooden														
fluent														
authentic														
weak in establishing contact														
friendly														
	0	1	2	3	4	5	6	0	1	2	3	4	5	6

Appendix E

Questionnaire 1, Part 2

A	B
Chat 10/25	
<p>Soren: Wann kommst Du mal nach Deutschland? Jeremy: Hoffentlich komme ich der Fruhling 2007. Soren: Oh das dauert aber noch Soren: Das ist ja noch über ein Jahr Soren: Naja, vielleicht schaffst Du es ja dann mal bei mir vorbei zu kommen.</p>	<p>Soren: Wann kommst Du nach Deutschland? Jeremy: Hoffentlich komme ich der Fruhling 2007. Soren: Oh das dauert noch Soren: Das ist noch über ein Jahr Soren: Naja, vielleicht schaffst Du es dann bei mir vorbei zu kommen.</p>
Nils to Jeremy, 10/29	
<p>Nächste Woche haben wir einen Feiertag am Dienstag und werden wohl keinen Chat mit euch haben können. [...] Aber dafür haben wir ja die mails.</p>	<p>Nächste Woche haben wir einen Feiertag am Dienstag und werden keinen Chat mit euch haben können. [...] Aber dafür haben wir die mails.</p>
Soren to Jeremy, 10/24	
<p>Möchtest Du eigentlich, dass ich Fehler von Dir korrigiere? Also ich würde es sehr gut finden, wenn Du jeden Fehler, den ich Dir in Englisch schreibe, korrigierst. Du kannst mir ja dann immer in der nächsten E-Mail die Fehler nennen. Danke. Wie sieht es denn bei Dir und den Frauen aus? Hast Du eine Freundin?</p>	<p>Möchtest Du, dass ich Fehler von Dir korrigiere? Also ich würde es sehr gut finden, wenn Du jeden Fehler, den ich Dir in Englisch schreibe, korrigierst. Du kannst mir dann immer in der nächsten E-Mail die Fehler nennen. Danke. Wie sieht es bei Dir und den Frauen aus? Hast Du eine Freundin?</p>
Nina to Paula, 10/24	
<p>Deutschland ist eigentlich ein schönes Land, um dort Urlaub zu machen oder dorthin zu reisen. Wo möchtest du denn besonders gerne hin? Hast du da schon eine Idee? [...]. Es hat mich ein wenig gewundert, dass du soviel deutsche Musik kennst. Wo hörst du die denn und woher kennst du sie?</p>	<p>Deutschland ist eigentlich ein schönes Land, um dort Urlaub zu machen oder dorthin zu reisen. Wo möchtest du besonders gerne hin? Hast du da schon eine Idee? [...]. Es hat mich ein wenig gewundert, dass du soviel deutsche Musik kennst. Wo hörst du die und woher kennst du sie?</p>
Tilo to Chip, 10/19	
<p>Vielleicht interessiert dich ja noch, was ich sonst in meiner Freizeit mache!?</p>	<p>Vielleicht interessiert dich noch, was ich sonst in meiner Freizeit mache!?</p>
Stella to Chip, 10/30	
<p>Da Du ja sehr gut deutsch schreibst (und redest?) wirst Du ja schon wissen, das unsere Wörter of "Kilometerlang" sind. Das sagt zumindest eine Amerikanische Freundin von mir. [...] So das war's erst mal mit Fehlern. Es sind ja auch keine wirklich großen Fehler dabei.</p>	<p>Da Du sehr gut deutsch schreibst (und redest?) wirst Du wissen, das unsere Wörter of "Kilometerlang" sind. Das sagt zumindest eine Amerikanische Freundin von mir. [...] So das war's erst mal mit Fehlern. Es sind keine wirklich großen Fehler dabei.</p>

Appendix F

Questionnaire 2

(adopted in part from Möllering and Nunan, 1995)

1. In the examples considered, what word category (part of speech) do the words *ja, mal, denn, doch, wohl, aber, eigentlich* belong to?
2. Can you list other words belonging to this category?
3. What functions do these words have in the examples from your partners' writing (check all that is appropriate and add more if you wish)?
 - Create friendly atmosphere
 - Make communication more natural
 - Make the speech stretches more coherent
 - Make communication more polite
 - Indicate colloquial/informal communication
 - Indicate formal communication
 - Are characteristic of written discourse
 - Give a spoken quality to written discourse
 - Emphasize other particular words
 - Enforce sentence meaning
 - Mitigate interpersonal threats
4. Which of these words have you ever used (in this course or earlier) in the same functions?

Appendix G

Modal Particles: Worksheet 1

Separate modal particles (MP) from their homonyms (H). What is the specific meaning of each word marked in bold? (Use MP-Handout 1)

Chat 11/8

Chip: Was hast du ueber FKK geschrieben?

[...]

Stella: Zu welcher Frage meinst Du **denn** (___)?

Chip: Umm... ich muss die Frage finden

Stella: Es gab **ja** (___) mehrere Fragen zum Thema FKK

[...]

Stella: Die Serie läuft **doch** (___) aber noch in den USA?

Stella: Oh, das ging heute aber schnell!

Stella: dann **mal** (___) bis zur nächsten e-mail!

Chip: Ja (___)! Bis zum naechsten **Mal** (___) ! :-)

Stella: Du kannst mir **ja** (___) **mal** (___) schreiben, was Du außerhalb der Uni noch so machst

Stella: Bis dann :-)

Chip: Bis dann!

Juliana to Saul, 11/9

Es war auch interessant, dass die Deutschen ganz andere Dinge mit ihrer Uni verbinden, als die Amerikaner. Aber darüber haben wir **ja** (___) schon geredet.

Alma-Lora to Jeremy, 10/24

Du solltest wirklich **mal** (___) nach Deutschland kommen. Ich fand es sehr interessant in den USA und man lernt sehr viel.

Soren to Jeremy, 10/29

Leider kommt das nicht sehr oft vor, da ich **ja** (___) auch noch arbeiten muss, um die Miete für die Wohnung zu zahlen. Ein Auto habe ich auch und das kostet natürlich auch noch **mal** (___) einen Haufen Geld an Versicherung und Steuern.

Carine to Laura, 10/24

Ich habe übers Wochenende meine Oma besucht. Sie lebt ungefähr zweieinhalb Stunden von Heidelberg entfernt im Schwarzwald (black forest). Sicher hast du schon **mal** (___) davon gehört.

Carolyn to Sam and Chris, 10/19

Du hast geschrieben, dass du in Deutschland eine Ausbildung machen willst. Wo würdest du **denn** (___) gerne in Deutschland sein? Im Norden oder **doch** (___) mehr Richtung Süden?

Natalie to Juana, 10/31

Manchmal würde ich auch gerne alleine wohnen, **denn** (___) wenn man alleine lebt, kann man Freunde einladen wann man will, nach Hause kommen wann man will- ohne dass sich die Eltern Sorgen machen.

Nina to Paula, 11/1

Wenn wir gerade beim Thema Bücher sind, was denkst du **denn** (___) über "Ben liebt Anna"? Hat dir das Buch gefallen? Hast du das andere Buch "If you come softly" auch schon gelesen? [...] Ah, du schwimmst. Wie oft machst du das **denn** (___)? MACHst du noch andere Sportarten? Wie bist du dazu gekommen?

Appendix H

German Modal Particles (Handout II)

Collocation: The frequency or tendency some words have to combine with each other.

Concordance: A list of excerpts automatically retrieved from an electronic corpus that shows search patterns and their context in one line. The search patterns are in the center of a line, the rest consists of the context before and after the search pattern.

Based on the analyses of the MP concordances from our corpus, we can summarize:

1. Being carriers of interpersonal meaning, the MPs most frequently **collocate with personal pronouns**.
2. In general, **MPs cannot precede** subjects and objects expressed by **personal pronouns** (without prepositions) in any clause type.
3. In clauses with **direct word order** (subject, finite verb, the rest), the MPs **cannot precede the finite verb** either.
4. Some MPs are clause-type-bound: JA occurs only in declaratives (including exclamations) and DENN occurs only in questions.
5. MAL occurs in all clause types, but only if the content of the clause relates to the future (commands, expression of intentions, requests). MAL very often collocates with **modal verbs** and subjunctive mood (e.g. Konditionalis: **würde**).
6. DOCH occurs in all clause types, but always refers back to the content of the preceding clause or wider context.
7. Some MPs are often used in **formulaic expressions**: word combinations, part of which is fixed (idiomatic) and frequently used in certain contexts.

E.g.:

- For expressing appraisal:

Das ist JA (Attribute): *Das ist JA wunderbar!*

Das ist DOCH (Attribute): *Das ist DOCH ärgerlich!*

- Softening requests/commands:

Sag' MAL, ... Gib mir MAL...

8. Some **MP combinations** are also formulaic, e.g.:

JA AUCH: JA points to shared knowledge between speaker and listener; AUCH implicitly acknowledges the preceding proposition. Together, they put forth the implication that there is nothing surprising about the proposition.

JA MAL: Softening a proposition/request.

Appendix I: Chronological Use of *ja* per Transatlantic Group

SW = sem. week; I1, I2, I3 = intervention modules 1,2,3; E = email; C = chat; bold names = learners; plain names = native speakers; bold numbers = learners' use of MP; plain numbers = native speakers' use of MP; underlined numbers = inaccurate uses (function); italic numbers = inaccurate uses (position); * = MP used in combination with another MP; numbers divided by a semicolon = MP uses in different emails or chats during one week; numbers divided by a plus sign = MP uses in the same email or chat.

SW	8		9		10		11 (I1)		12 (I2)		13 (Break)		14 (I3)		15 (I4)		16	
Modality	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C
Group 1																		
Soren	1+1*		1+1*;1	1*+1						1								2
Nils			1															
Jeremy									<u>3+2+1</u>	<u>2</u>				1			2	4+1*
Alma-Lora										2			1;1					
Carine					1		1		1+1*								2	1*+1
Sonja							1	1					1					1
Laura																1*; 1*; 1*+1	2	
Group 2																		
Natalie			1		1;1*		1											
David																		
Juana																		
Group 3																		
Carlotta																		1+1*
Juliana					1		1				1							1
Saul																3+1*+2; 1*+1		2
Stella					1+1*			2*+ 1	2		1*							
Tilo	1																	
Chip																	2	3
Group 4																		
Vera							1											
Constanza											1+1*							1
Tamara							1*		1									
Christie							1						2	1			1	5
Nina	1																	1
Simone					1		1*									2		1**
Paula																	1	3*+1

Appendix J: Chronological Use of *mal* per Transatlantic Group

SW = sem. week; I1, I2, I3 = intervention modules 1,2,3; E = email; C = chat; bold names = learners; plain names = native speakers; bold numbers = learners' use of MP; plain numbers = native speakers' use of MP; underlined numbers = inaccurate uses (function); italic numbers = inaccurate uses (position); * = MP used in combination with another MP; numbers divided by a semicolon = MP uses in different emails or chats during one week; numbers divided by a plus sign = MP uses in the same email or chat.

SW	8		9		10		11 (I1)		12 (I2)		13 (Break)		14 (I3)		15 (I4)		16	
Modality	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C
Group 1																		
Soren			2	2			1											1
Nils																		
Jeremy																		
Alma-Lora			1						1*				2	1			1	
Carine								1		1				1			1*	
Sonja								1										
Laura																		
Natalie					1*								1*	1+1*				
David												1						1
Juana																		
Carlotta				1*	1		2											1+1*
Juliana				1	1													
Saul																		
Stella									2+1*			1*						1
Tilo							1		1									1
Chip																		
Vera								1										
Constanza	1								1									
Tamara							1											
Christie																		
Nina						1*								1				1
Simone			1															1*+1
Paula																		

Appendix K: Chronological Use of *denn* per Transatlantic Group

SW = sem. week; I1, I2, I3 = intervention modules 1,2,3; E = email; C = chat; bold names = learners; plain names = native speakers; bold numbers = learners' use of MP; plain numbers = native speakers' use of MP; underlined numbers = inaccurate uses (function); italic numbers = inaccurate uses (position); * = MP used in combination with another MP; numbers divided by a semicolon = MP uses in different emails or chats during one week; numbers divided by a plus sign = MP uses in the same email or chat.

SW	8		9		10		11 (I1)		12 (I2)		13 (Break)		14 (I3)		15 (I4)		16	
Modality	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C	E	C
Group 1																		
Soren			1							1								2
Nils								1		1								
Jeremy										1								<u>1</u>
Alma-Lora								1								2		
Carine								1		1*						3		
Sonja										1								
Laura															1	1		
Group 2																		
Natalie																		
David																		
Juana																		
Group 3																		
Carlotta	1		2															1
Juliana					1													
Saul															<u>1</u>*	1		
Stella								4	2									
Tilo																		
Chip																		
Group 4																		
Vera																		
Constanza	1																	
Tamara																		
Christie													1					<i>1</i>
Nina			2	1	3		1;1											1
Simone			1															
Paula															1			

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VITA
Nina Vyatkina

Teaching and academic research has always seemed an almost natural career path for me. My mother was a teacher of physics, the daughter of teachers of math and Russian language and literature. My father was the first in his family to attend university and rose to direct a research team in semiconductor physics. Their example inspired my two sisters to careers in scientific research and me to a career in linguistics education.

In 1981, I was accepted by competitive examination into Moscow State University, the flagship institution for the highly regarded system of higher education in the Soviet Union. In 1986, I received the equivalent of a M.A. Diploma, *summa cum laude*, with certification as university instructor of German language and literature. I continued at MSU as a graduate student in the Ph.D. program and had passed my comprehensive examination when, in 1990, the general economic situation forced me to withdraw from the program.

Over the next decade, I taught a variety of graduate, undergraduate, and non-degree courses in German language and literature at a number of Russian universities. During that time, I participated in several professional development and on-the-job training programs in Russia, Germany, Belgium, France, and the US. This intense international experience gave me a new perspective on the role of intercultural communication in foreign language learning.

In 2001, I enrolled at the Pennsylvania State University to resume my graduate study as a Ph.D. candidate in German and Applied Linguistics. Since then, I have taught several levels of both German and Russian.

I decided on my research focus during the Fall semester 2002 when I participated in the Penn State Foreign Language Telecollaboration Project, investigating the impact of computer-mediated intercultural communication on the instructed learning and use of foreign languages. My involvement in the project was threefold: as research assistant, as instructor of a control section of the German subproject, and as student in two graduate courses devoted to technology in language education taught by the project co-investigators. This multi-faceted perspective gave me a deep insight into classroom telecollaboration. I decided to focus my own research on the teaching and development of second language pragmatic competence in telecollaboration.

I envision my future career as a foreign language teacher at an institution of higher education where I can also continue my research in foreign language pedagogy and application of new technologies to intercultural communication.