

## NEGOTIATION OF MEANING AND CODESWITCHING IN ONLINE TANDEMS

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### ABSTRACT

This paper analyses negotiation of meaning and codeswitching in discourse between 29 language students from classes at a German and a North American university, who teamed up with their peers to collaborate on projects whose results they had to present to the other groups in the MOO during the final weeks of the project. From October to December 1998, these learners, who formed a total of eight groups, met twice a week for 75 minutes in MOOssiggang MOO, a text-based environment that can be compared to chatrooms, but which also differs from these in several important respects.

The prime objective of the study was to give those students who participated in the online exchanges a chance to meet with native speakers of their target language in real time and to investigate if the concept of *tandem learning* as promoted by initiatives like the [International Tandem Network](#) could be successfully transferred from e-mail-based discourse to a format in which the learners could interact with each other *in real time* over a computer network.

An analysis of electronic transcripts from eight successive meetings between the teams suggests that online tandem does indeed work even if the learners have to respond more quickly to each other than if they had communicated with their partners via electronic mail. Yet a comparison of the data (184,000 running words) with findings from research on the negotiation of meaning in face-to-face discourse also revealed that there was a marked difference between conversational repair in spoken interactions and in the MOO-based exchanges. This paper discusses potential reasons for these differences, investigates the learners' exploitation of the bilingual format of their exchange, and thereby attempts to demonstrate how online tandems can contribute to successful second language acquisition (SLA) and the development of learners' metalinguistic abilities.

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### INTRODUCTION

The proliferation of networked computers in schools, universities and private homes in recent years has prompted educators to explore *telecollaboration*, that is, "the application of *global* communication networks in foreign language education ... embedded in different sociocultural contexts and institutional settings" (Belz, 2002b, p. 61), in quite a number of different frameworks, settings and constellations. Some researchers investigated learner discourse in web-based chat facilities (Kitade, 2000; Negretti, 1999; Sotillo, 2000), while others compared the outcomes of network-based learner interactions to the results of face-to-face discussions (Kern, 1995; Sullivan & Pratt, 1996; Warschauer, 1996). There is a growing body of research that investigates the integration of e-mail into language classes (Barson, Frommer, & Schwartz, 1993; Belz, 2002b; Eck, Legenhausen, & Wolff, 1994; Müller-Hartmann, 2000; Van Handle & Corl, 1998), and some researchers have also explored the use of video- (Kinginger, 1998; Kinginger, Gouvès-Hayward, & Simpson, 1999; Zähler, Fauverge & Wong, 2000) and audio-conferencing systems (Hauck & Haezewindt, 1999; Kötter, Shield, & Stevens, 1999; Marsh, Arnold, Ellis, Halliwell, Hodgins, & Malcom, 1997) in language teaching and learning.

This study focuses on a form of tele-collaboration that has not yet attracted much attention in SLA research, namely, the exploitation of an Internet-based environment called *MOO* to allow tandem learners -- or students whose target language is their partners' respective native language -- to collaborate with each other in a synchronous fashion rather than via the exchange of a series of e-mail messages.

Initiatives like the [International Tandem Network](#) have helped numerous learners over the last few years to find tandem partners with whom they could develop their linguistic and metalinguistic abilities through e-mail-based exchanges. In addition, research conducted at the University of Bochum and at Trinity College Dublin has documented the scope of e-mail-based tandem learning (see Appel, 1999; Brammerts, 1996a, 1996b; Little, Ushioda, Appel, Moran, O'Rourke, & Schwienhorst, 1999). However, little work has yet been done to explore the potential benefits to tandem learners engaged in *real-time* interactions with their partners over the Internet.

Brammerts (1996b) acknowledged already in the mid-1990s that "occasional meetings between partners in a MOO are obviously helpful [because] they can quickly answer questions, sort out problems and build on the relationships they have made" (p. 15). Yet Schwienhorst (1997) established a year later that research into tandem learning had "not yet been conducted for the MOO environment." This situation has not changed much in recent years, as there is still hardly more than a handful of publications that have documented and analysed the use of synchronous computer-mediated communication (CMC) in tandem learning enterprises.<sup>1</sup>

This paper addresses this gap by seeking to answer the following research questions:

1. How do students who meet in a MOO rather than in person deal with the apparent "virtuality" of their encounters, that is, which (MOO-specific) tools and strategies do they employ to express themselves and exchange information?
2. How do the learners deal with utterances they do not understand or situations in which they find it difficult to express themselves in their target language, and in how far are the means they employ similar or different to those described in the literature on learner discourse between NSs and NNSs in settings other than the MOO?
3. How do the students exploit the fact that they meet as *tandem* learners, that is, how (often) do they request assistance, correct each other, help others through the provision of lexical assistance, or scaffold their partners' tasks in other ways, including (deliberate) alternations between their native and target languages?
4. What evidence is there that the participants in this study improved their linguistic and metalinguistic competence and awareness as a result of their participation in the project?

The paper begins with an introduction to the concept of tandem learning, an overview of key features of text-based online interactions, and a brief review of notable aspects of MOOs as venues for language learning enterprises. These sections are followed by remarks about the overall format of the study and the data on which it is based, plus a discussion of the students' accommodations to their new learning environment. The remainder of the paper then discusses how the learners negotiated their ideas with each other and how they used the two different codes they had at their disposal to make sure that they could complete their projects successfully.

## TANDEM LEARNING

The concept of tandem learning on which this study is based draws predominantly on two tenets, the principles of reciprocity and autonomy (see also Little & Brammerts, 1996). In its simplest version, the principle of reciprocity dictates that all partners benefit equally from collaborating with native speakers of their target language, and that they spend rather equal amounts of time using each of the two languages. However, it is also important that each partner is prepared to act as an expert for the linguistic and cultural community of his or her native language. To ensure that these goals are achieved, the learners must negotiate when and how to help their peers, that is, how often and in how much detail they should comment on each other's potentially flawed output.

These demands can be fairly daunting for learners who have not yet received much training as language teachers, and who may perhaps not even aim to become a teacher. Indeed, some specialists in teacher education might argue that it will be almost impossible for these learners to decide whether their partner has just produced a systematic error or merely a slip of the tongue, pen or keyboard, as it were, and that they will also struggle to come up with acceptable explanations for the likely sources of these errors or helpful advice about how to avoid them in the future.

It must also be borne in mind, however, that this form of collaborative learning offers students an opportunity to discuss their linguistic and metalinguistic difficulties in a notably less face-threatening context than is often the case in a formal classroom setting. Furthermore, it is likely that the fact that all of the participants have to adopt the roles of learner *and* expert will create an atmosphere of confidence and trust in which it may be easier for them to experiment with constructions they may have not yet fully mastered and appeal for -- and receive -- help in a more individualised fashion than in a larger group of learners.

The success of this form of tandem learning necessitates that the learners take more responsibility for their own learning than in a traditional classroom. Not only is it usually the students, rather than their teacher, who decide how much support they are willing to provide and how much assistance they can ask for, but it is also essentially their responsibility to decide when to use which of the two languages at stake. Indeed, tandem learning means that the learners usually collaborate without the direct participation of their teacher, and this is where the second tenet, namely learner autonomy, comes into play. The at least temporary absence of a guide on the side<sup>2</sup> and the fact that the learners have to adopt the role of peer teachers and scaffold their partner's task practically forces students who engage themselves in these collaborative enterprises to develop their ability to act autonomously in the sense of the following definition:

Learner autonomy is characterized by a readiness to take charge of one's own learning in the service of one's needs and purposes. This entails a capacity and willingness to act independently and in co-operation with others, as a socially responsible person. ... It is essential that an autonomous learner is stimulated to evolve an awareness of the aims and processes of learning and is capable of the critical reflection which syllabuses and curricula frequently require but traditional pedagogical measures rarely achieve. An autonomous learner knows how to learn and can use this knowledge in any learning situation she/he may encounter at any stage in her/his life. (Bergen, 1990, p. 59; cited in Dam, 1995, p. 1-2).

All participants in the exchange were informed about the demands of learner autonomy before the start of the project, and the topic was also discussed in class so that the students knew what was expected of them -- and what they could expect from their partners. Before providing more details about the format of this study, it seems also important, however, to discuss some general characteristics of text-based CMC and a few features that distinguish MOOs from other platforms that allow people to communicate via messages they type on their keyboards before sending/posting to others over the Internet.

## KEY CHARACTERISTICS OF INTERACTIONS IN TEXT-BASED ONLINE FACILITIES

Chat facilities (Kitade, 2000), IRCs (Sotillo, 2000; Werry, 1996), talkers (Lundstrom, 1995) and MOOs are usually accessed via an interface that consists of two windows of different sizes. The smaller window at the bottom of the screen allows people to enter and edit their own messages, while the larger area at the top of the screen shows what is happening in the online world. Here they can see if the program has processed their input correctly, read contributions from other people, and some programs also notify people of the arrival of new users.

Online tools can accommodate dozens of people at a time, and it can thus become very crowded in a "room" and almost impossible to follow a conversation. Researchers who have studied online environments therefore suggest that no more than four or five people should be assembled in any virtual locale at one time (e.g., Kitade, 2000). Yet even discussions among small groups are not always easy to manage, as the absence of visual cues and other paralinguistic information in text-based CMC puts more pressure on people to "find the right words" than does engagement in face-to-face discourse or other forms of spoken interactions.

One popular means of reducing this pressure is the use of block capitals to highlight parts of a message, or to enclose them in asterisks to avoid the impression that the author is "shouting" at others (Tella, 1992). In addition, participants in synchronous and asynchronous CMC often reduplicate letters or punctuation marks to imitate pitch (Maynor, 1994; Werry, 1996). Some facilities allow people to use underlining, italics, and bold print to emphasise important information. Online writers can also use strings of periods to break up long messages into shorter chunks of text (Holmevik & Haynes, 2000, p. 37). Graphical equivalents of facial expressions like *smileys* allow them to take the sting out of ironic remarks or communicate empathy, and the narration of (pretended) actions via *emotes* can likewise help to re-introduce at least a basic sense of place and physical interaction.

Each of these options does, however, require *deliberate* action. Unlike spoken discourse, where pitch, smiles, laughter and other cues are often employed sub-consciously, people engaged in written CMC must put all their ideas and actions into words if they want to share them with their partners. Using the example of smileys, Marvin (1995) illustrated this problem as follows:

In private something flowing across the computer screen might cause a participant to spontaneously smile, but a conscious choice must be made to type it out; a participant might frown at the keyboard ... but strategically decide to type a strategic smile.

The authors of e-mail messages can deliberate the wording of their texts and reflect upon the means that they employ to compensate for the absence of paralinguistic information. Users of online environments, on the other hand, have little time to formulate their ideas and respond to input from their partners. This pressure of having to produce a quick response and to monitor their output closely with regard to the interplay between linguistic and paralinguistic information can intimidate learners and stifle a conversation. But it can also encourage them to take risks and to draw on all available resources to avoid a breakdown in the conversation, which is why I would suggest that the unique nature of real-time CMC (chat, IRCs, talkers, and MOOs), plus the need to keep going, can prompt learners to increase their awareness of communicative processes. Indeed, engagement in synchronous online discourse may well provide language learners with an almost ideal opportunity for the realisation of Little's (1996, p. 212) notion of learner autonomy in the absence of a chance to meet with others in person. He wrote,

According to my model, the essential task of second language pedagogy is to engage learners in activities that will enable them to internalize those skills on which face-to-face interaction depends, develop those insights into linguistic form that will enable them to extend their linguistic skills to the performance of new tasks, and develop those insights into the learning

process that will enable them to organize their learning to best effect and to derive maximum learning advantage from occasions of second language use. (p. 212)

### THE MOO: A SPECIAL CASE OF TEXT-BASED VIRTUAL REALITY

The programs mentioned at the beginning of the last section are fairly restricted in their functionality because they were not designed with a specific pedagogical purpose in mind. MUDs (Multiple-User Domains) and their successors, object-oriented MUDs or MOOs, on the other hand, are full-fledged user-extendable replicas of virtual worlds rather than mere conduits for the transmission of text. Registered users can set up permanent profiles of their online persona, create and manipulate objects, and they have the chance to save them permanently in the MOO database.

Seen from a purely technical angle it would probably suffice to say that the MOO is "simply a database running on a server. When users sign on to a MOO they are dropped into a text-based virtual reality; a database that is "divided" into many rooms or locales" (Sanchez, 1996, p. 146). However, this type of online environment tends to provide its users with a much stronger sense of permanence and community than chat facilities, and thus also a notably stronger sensation of space and proximity. People can invite others to join them and collaborate through "verbal" output and via shared editable notes. Educational MOOs also provide visitors with a host of text-based equivalents of classroom tools such as projectors, cameras, tapes, VCRs, and TV sets (see Schweller, 1998, p. 97ff). In addition, MOO users can even exchange so-called *page* messages with each other across virtual room boundaries to call for help or simply inform someone about a particular state of affairs. The (edited) screenshot in Figure 1, which shows what Tom, one of the participants in the study, saw on his screen when he was beginning to present the results of his team's project work, illustrates some of these options, including my own use of the *page* command (see the bottom of the Output Window) and the "contents" of a room in the Web Window.

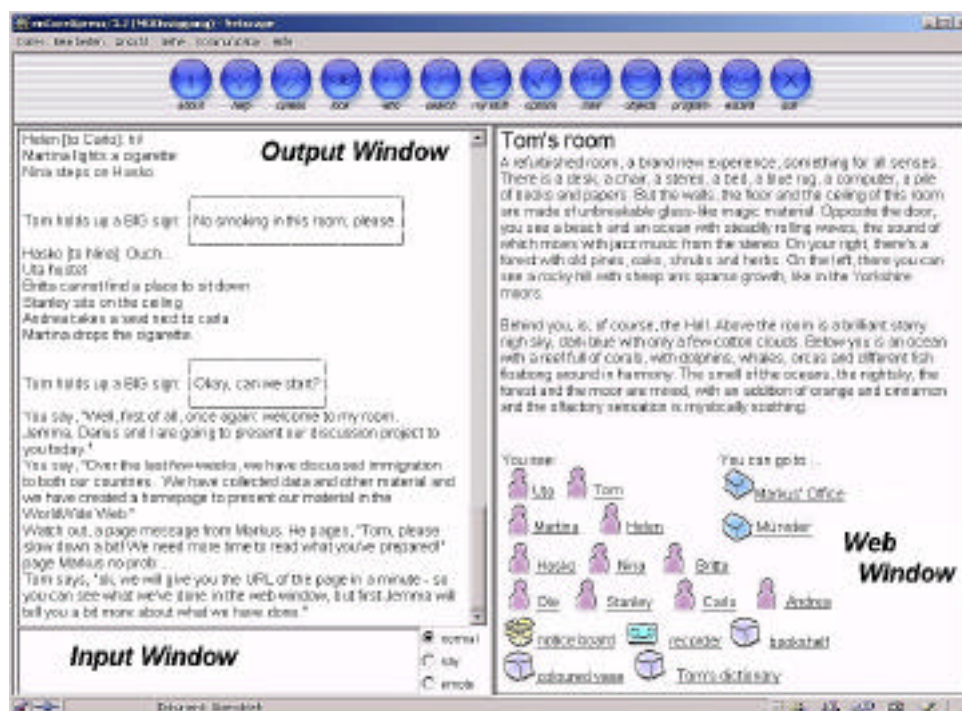


Figure 1: A screenshot that illustrates some of the basic features of the MOO<sup>3</sup>

MUDs, the predecessors of MOOs, are online worlds where people usually have to slay dragons and rise to other challenges to become a *wizard* and achieve the right to extend the database, while MOOs are generally visited for social or educational purposes. However, many MOO administrators deliberately

perpetuate the use of imagery and metaphors that had been established in the early days of the MUD. They are still frequently known as *wizards*, for example, while people who hold the status of a MOO "citizen" are referred to as *players*. Most of these environments have therefore preserved at least part of the MUD's game-like approach to online interaction, and regular visitors of their successors -- including language learners -- thus still often tend to regard themselves as players or participants in a role-playing situation rather than simply as "users" of the environment.<sup>4</sup>

MOOs allow people to archive permanent text-based artefacts in the database and (re-)create themselves via their online persona plus the actions they perform, and encounters in these environment can consequently contain a fairly strong element of theatricality (Burk, 1998). But Dibbell (1993) has demonstrated that the overwhelming majority of MOO visitors interpret the responses they receive to their input as feedback directed to their *real* person rather than to their online persona. Weininger, Shield, and Davies (1998) are thus right to claim that MOOs "are not 'virtual,' but 'real realities' although there is no physical contact involved" (p. 91; see also Turkle, 1995).

These facets of MOO discourse are relevant to the present study for at least two reasons. First, it seems that the game-like history of the MOO, its potential to provide a venue for role-playing activities and the relative anonymity that the users enjoy -- depending, of course, on whether they are mere visitors or registered members of a language class -- may not only prompt learners to experiment with unfamiliar structures, but that it may likewise stimulate them to explore (and exploit) the connotations of the language they are using and encountering in more depth than in a traditional classroom or a non-extendable chatroom (see also Belz 2002a, 2002c). Second, it seems likely that the danger that they might hurt others' feelings by acting too outrageously in the virtual environment will still keep them on their toes while providing them with yet another incentive to reflect on their joint sense-making processes.

## DESIGN OF THE MÜNSTER-VASSAR EXCHANGE

From October to December 1998, 14 learners of English from the University of Münster and 15 students of German from Jeffrey Schneider and Silke von der Emde's language class at Vassar College in North America met twice a week for 75 minutes in *MOOssiggang* MOO, where they collaborated in a total of eight teams, each of which consisted of three or four students, to complete projects of their own choice.<sup>5</sup> All learners were obliged to present the outcomes of their work to the other teams during the final sessions of the exchange, and they were also asked to comply with the tenets of tandem learning as spelt out above.

Participation in the exchange was a mandatory part of the American learners' course work, while the German students formed a study group. Although they remained members of the course in applied linguistics for which they had enrolled, the German students' engagement in the online project was largely an extra-curricular activity.<sup>6</sup> Nearly all students involved in the project were experienced e-mail users, but only four of them -- two from each group of learners -- had been to a MOO prior to the exchange. All learners were therefore introduced to the environment through a series of practice sessions in the months leading up to the exchange. Moreover, the students from Vassar had already completed some short class assignments in *MOOssiggang* before they met with their German partners for the first time (Schneider & von der Emde, 2000).

Most of the German students were three or four years older than their partners, and they were also often noticeably more proficient in their target language than their peers. Each of them had studied English for a minimum of 3 years at university level before the start of the project, and half of them had also worked abroad as a foreign language assistant or studied outside Germany for at least one term. These learners were thus advanced learners of their target language. In contrast, the students from Vassar were only in their second or third year of formal instruction in German when they registered for their course. Most of them were therefore classified as intermediate speakers of German.<sup>7</sup>

Finally, it is worth mentioning that the two groups of learners accessed the MOO in slightly different ways. Owing to differences in the available equipment in the computer pools that were used for the study, the American learners accessed *MOOssiggang* via its Web-based *enCore Xpress* interface, while their German peers had to log on with the *Pueblo* client. The net effect of this difference on the students' interactions is probably negligible, even if the learners from Münster sometimes had to use more keystrokes to prompt the MOO database to process their input.<sup>8</sup> But the use of differing client programs on either side of the Atlantic also meant that the learners had to record their (inter)actions in different ways, and that they had to archive different pieces of information. *Pueblo's* logging facility allowed the German students to record *everything* they did, including their partners' contributions. The American students, on the other hand, had to use recorders *within* the MOO, and these tools only capture input that is "audible" to everyone in a room such as Tom's room in [Figure 1](#).<sup>9</sup> Paged messages or the manipulation of MOO objects were consequently not included in these recordings, so that the American learners created slightly less informative accounts of their work.

## DATA

This study relies on two sources of information, namely (a) questionnaires that the students were asked to return by the end of the project,<sup>10</sup> and (b) a selection of the electronic transcripts that the students created of their interactions either in the shape of log files (logs) or as "recordings" in the sense of the word specified in the last paragraph.

Overall, the present exchange developed in three stages: The learners formed teams and agreed on a topic for their projects, they worked on them, and they prepared a presentation to their fellow learners, which they gave during the final sessions of the encounter. This process was, however, interrupted at two points that correspond closely to the beginning of a new phase of the exchange. There were hardly any meetings during the second week of the project, because the American students had their half term break, and there was no session on the last Thursday in November, because the U.S. institution was not in session.

In view of this situation, it was decided to base the analysis of students' online work on data from those eight successive sessions in which the learners participated between these two landmarks and to compile a corpus consisting of one file per team per session from this phase.<sup>11</sup> Logs were preferred to recordings created with the MOO-internal devices, while a choice between identical file types from the same team was made depending on which of the files covered a longer period of time.

After the choice about which files to include in the corpus had been made, the data were then edited both manually and automatically to make it easier to identify salient patterns and examples and to calculate the frequencies of occurrence for particular types of negotiation of meaning and codeswitching. The first step in this process was to *harmonise* the data and delete information such as automatically generated status messages (which are included in logs but not captured by the recorders) so that only "verbal" contributions and emotes remained in the files.

These texts, which contain about 184,000 running words,<sup>12</sup> were then coded with various tags that were developed and refined in several rounds of close readings of the data before the beginning of the coding process. Some tags, including those that refer to reduplications and to students' use of brackets, smileys, and emotes were inserted automatically with the *Text Converter* program of Scott's *WordSmith Tools* (1999; version 3.0). Tags that relate to students' engagement in negotiation of meaning and their codeswitching, on the other hand, were inserted manually into the electronic texts (see below for further information about the criteria that informed these coding processes).<sup>13</sup>

## STUDENTS' ACCOMMODATION TO THEIR NEW LEARNING ENVIRONMENT

MOOs dilute the traditional boundaries between a four-walled classroom and a theatrical stage, and between established concepts of oral and written communication. A first crucial question for the

assessment of the success of MOO-based language learning is therefore how well the learners adapted to these environments, and which strategies and (MOO-specific) features they employed to express themselves and their ideas.

Almost all participants in the study complied with the task to compose profiles of themselves, and many of them had also begun to make themselves at home in the MOO by creating their own rooms even before they met with their tandem partners for the first time. Some learners had fitted these rooms with objects ranging from a sofa or a carpet to a piano or a refrigerator, and several students had additionally composed elaborate descriptions of these purely text-based locales (see Figure 1). Equally important, many of the remarks that the students made to each other documented that they conceptualised the MOO as something with a spatial dimension. One learner commented upon arrival in her partner's room that it "looks okay here," while another stated that she preferred her peer's room to the MOO's entrance: "*Hier ist es wirklich gemuetlicher als im first room*" (It is really much more cosy here than in the first room).<sup>14</sup>

Moreover, many learners exploited the notion of space in the MOO by engaging with things they found in these rooms (e.g., Jack settles down in a comfortable chair) to create a pleasant atmosphere for their encounters even if they had no previous experience with MOOs. In fact, the analysis of the corpus ultimately revealed that as much as 5% of the turns in the corpus turned out to be emotes, even if it must be added that there was some variation among the use of this option to narrate physical actions between the individual teams. In addition, 3% of the students' contributions featured block capitals, and a similar amount of turns ended with two or more question or exclamation marks, because the students often used this strategy to recreate a sense pitch.<sup>15</sup>

These observations illustrate that the learners accepted the MOO as a substitute for a physical location, and that they managed to find suitable ways of compensating for the lack of visual and aural support in written CMC even if many of them remarked in their feedback that it was initially difficult for them to get used to the speed of their interactions and to the fact that they had to think, type and read almost simultaneously. Indeed, their responses substantiate the findings of Tallis and Harnack (1997), who likewise found that learners often need a few sessions to feel fully at ease with the MOO. Most crucially, however, the comments from learners from both sides of the Atlantic revealed that their engagement in real-time CMC did really prompt them to reflect upon pragmatic and paralinguistic aspects of their interactions. One German wrote,

*Am Anfang war es ein seltsames Gefühl, alles, was man sonst sagen würde und vor allem das, was man tun würde, aufzuschreiben. Man mußte sich erst daran gewöhnen, das Geschriebene irgendwie zu visualisieren oder auf andere Art zu "verinnerlichen." Man muß zuerst eine Hemmschwelle überwinden, weil man meint, dass Kleinigkeiten zu unbedeutend sind, um sie umständlich aufzuschreiben.*

[At first it felt odd to write down all that I would otherwise have said, and in particular what I would have done. It took me some time to be able to visualise written information or find another way of "internalising" it. You have to overcome your inhibition not to write down minor things, because they appear to be too trivial to justify a long-winded transcription.]

In addition, it is quite remarkable how often the learners apparently conceptualised their interactions as a written substitute for speech (see also Schwienhorst, 2000, p. 264). Some 80% of the more than 700 implicit and explicit allusions to the "discoursal status" (Ortega, 1997, p. 87) or modality of their interactions that could be identified in the students' data were references to the mode of speaking rather than writing. The students usually referred to their discourse with the words *sprechen*, *talk*, *say*, *tell*, *reden*, *sagen*, *speak*, and *erzählen*, and they thus substantiate Kern's (1995) claim that synchronous online environments (including MOOs) lend themselves



particularly well to "listener-related" rather than "information-related" talk. That is to say, during an [online] session students may operate largely within a framework that resembles that of oral communication, even though the medium is written. (p. 460)

In the following section, I discuss which strategies the participants in this study employed to negotiate meaning according to their self-evaluations in the final questionnaire before the subsequent sections address the questions which strategies (other than the use of corrective feedback) they *really* employed to prevent communicative breakdowns<sup>16</sup> and how they exploited the opportunity to interact with each other as *tandem* partners.

### Students' Self-Reports About Their Engagement in Negotiation of Meaning

The students' ex-post evaluations of their interactions in the questionnaire suggest that several of the American learners preferred translations of difficult words and passages to paraphrases of those items or utterances that they did not understand. In fact, the data in Table 1 indicate that twice as many of them (84% vs. 42%) claimed that they had asked for a translation rather than a paraphrase when they encountered problems with their partners' contributions. But the feedback also suggests that as many as three quarters of them appear to have tried to guess the meaning of utterances they found difficult to understand rather than to ask their peers for help. Most of the American learners thus seem to have drawn on strategies one would typically find in a language classroom *and* on those that are more representative of interaction in authentic L2 settings.

Table 1. Strategies the Learners Claim to Have Used When They did not Understand Their Partners<sup>17</sup>

What did you do when you did not understand your partner?	German learners (N=13)	American learners (N=12)
(a) ask for repetition of the utterance	6 (46%)	1 (8%)
(b) ask for a paraphrase	8 (62%)	5 (42%)
(c) ask for a translation	3 (23%)	10 (84%)
(d) try to guess the meaning of the utterance	2 (15%)	9 (75%)
(e) ignore the utterance	0 (0%)	2 (17%)
(f) change the subject	0 (0%)	1 (8%)
(g) other	1 (8%)	0 (0%)

Like their non-native peers, many German students appear to have asked their partners to paraphrase ambiguous or unclear parts of their utterances. But the data in Table 1 also indicate that the second most popular strategy among these learners was to request a repetition of those messages that they could not understand. Translations do not seem to have played a major role, and the figures also indicate that notably fewer of the German learners than their American counterparts seem to have tried to guess the meaning of problematic contributions.<sup>18</sup>

The wording of the item that was used to elicit this information did not specify whether the question referred to the students' respective L1, L2, or to both languages. Indeed, it may well have been the case that some learners interpreted the question as referring to utterances which were too difficult for them to understand because their *receptive* skills were not advanced enough, while others may have thought of turns that contained errors resulting from their partners' problems in *expressing* themselves in their L2. Yet several issues remain noteworthy even if we allow for this ambiguity. First, it is rather surprising how many students claim to have requested a repetition, because MOO users can always scroll back and re-read older contributions if they have been pushed off their screens by more recent turns. Second, it is interesting to note how many of the American students and how few German learners appear to have tried to guess the meaning of incomprehensible messages. Third, it is worth pointing out that the American students generally seem to have made use of considerably more strategies than their peers. On average,

each of them ticked 2.3 different options, while the corresponding figure for their German partners was only 1.5.

Some of these discrepancies can probably be accounted for, at least to a certain extent, by the fact that the German students were simply more proficient in their L2, and that it was accordingly easier for them to understand their partners. Specifically, this hypothesis could explain why so many Americans seem to have requested translations and why there was also such a marked difference between the apparent demand for translations and paraphrases. It was, however, also the case that the American students were specifically instructed by their teachers to try to guess as much as possible from the context of their partners' output (Jeffrey Schneider, personal communication), and it thus appears that proficiency-related and sociocultural factors are responsible for this discrepancy.

But what did the students do when they could not express their own ideas in the target language? Tandem learners can often solve their communicative problems more easily than participants in classroom discourse or in everyday communication in an L2 community. They can, for example, borrow individual items or even formulate an entire turn in their L1 without having to worry too much that their partners will not understand them if they do so. The data in [Table 2](#) suggest that many learners from Münster and Vassar did indeed use this option. Many of them also appear to have exploited the bilingual format of their encounters in a number of additional ways.

Table 2. Learners' Reports About What They did When They Could not Express Their Ideas in the Target Language

What did you do when you could *not* express what you wanted to say in the foreign language?	German learners (N=13)	American learners (N=12)
(a) try to paraphrase it	10 (77%)	5 (42%)
(b) borrow a word from my L1	4 (31%)	11 (92%)
(c) use my L1 for the whole sentence	0 (0%)	5 (42%)
(d) ask for a translation of the unknown word	5 (38%)	6 (50%)
(e) ask for a translation of the whole sentence	0 (0%)	2 (17%)
(f) other	1 (7%)	1 (8%)

Virtually all the American learners reported that they had borrowed individual items from their L1 when they found it difficult to articulate an idea in their target language, and 42% of them also stated that they had codeswitched for the duration of an entire sentence. Moreover, not only most of the German students, whom one could have expected to do so, but also several of the less proficient American students claim to have paraphrased their ideas if they could not express what they had really wanted to say in their L2. Yet the most noteworthy finding with regard to the self-assessments presented in [Table 2](#) is probably the fact that as many as 50% of the American students, as well as more than a third of the advanced German learners, asked their partners sufficiently often to translate items for them to tick this option in the questionnaire.<sup>19</sup>

This feedback paints an encouraging picture of the state -- and possibly also of the development -- of these learners' metacommunicative skills and their language (learning) awareness because it suggests that many of them alternated deliberately between the use of their L1 and L2. Many students were keen to provide their partners with authentic input in their respective L2 and to model the use of their L1 for their partners, and the responses to other items in the questionnaire also revealed that several of them simplified their output on purpose in order to avoid communicative breakdowns. Moreover, many partners apparently refrained from the use of overly colloquial and informal expressions to make it easier for others to understand them.

### The Provision of Lexical Assistance

Not all of the claims that the students made in the questionnaire about their tandem learning practices were substantiated by their actual online interactions. To begin with, the students drew notably less often than anticipated on their partners' lexical expertise in their respective L1. On average, each learner only asked his or her partners once or twice per session for a translation of an unknown word or phrase. It is also important to note, however, that 70% of these requests were made by the less advanced American students. Indeed, 9 of the 10 students who most frequently requested explicit help with the target language belonged to this group, and the online data therefore confirm at least this aspect of the students' self-reports.

Almost all appeals for help were answered within a matter of turns, which indicates that the learners were very co-operative in this respect. Moreover, about a third of all requests for lexical assistance led to the provision of additional background information about the usage of a word, or sparked a short discussion about the term or concept that a student had queried. The passage below illustrates how a clarification request and a request for lexical assistance can trigger a metalinguistic discussion (see [Appendix A](#) for an English translation of this passage). Nina, who also appears as "You" in this passage, is a student from Münster, while Helen and Kim are learners from Vassar College.

Helen says, ein Auslaender (in Amerika) ist ein Person, die ist nicht "americanized"

Nina [to Helen]: **Was verstehst du unter americanized?**

Kim [to Helen]: ich denke, dass ein Auslander eine Person, die liebe ein anderes kultur mehr als Amerikanisch Kultur, ist.

Kim [to Nina]: **how would you say "to put one culture above the other," as more important to them?**

Helen says, Americanized... hmmm ... ein Person traegt wie einen Amerikaner... isst wir einer Amerikaner... denkt wie einer Amerikaner...

Kim says, besonders DENKT wie ein Amerikaner

You say, **Sie sehen eine Kultur als hochwertiger an, vielleicht, oder schätzen sie mehr = appreciate it more?**

Kim says, **danke - das ist was ich meine**

You say, kann man das so verallgemeinern, denkt wie ein Amerikaner?

You say, In Deutschland waere das sehr problematisch, denn hier waeren sich Leute gegen solche Pauschalisierungen..

Helen says, **ich habe "pauschalisierungen" nicht verstanden**

You say, ... vor allem ist es wegen unserer Geschichte sehr problematisch. Ich wuerde nie sagen, dass ich wie eine Deutsche denke, sondern das immer genauer formulieren

You say, **das ist, wenn du das allgemein betrachtest, es als allgemein gueltig nimmst, also so, als ob alle das gleiche denken wuerden**

Helen says, aber ich glaube dass du eine Meinung ueber wie ein

Helen says, ...

Helen says, Amerikaner denkt haben

Helen says, materialistisch...

Helen says, ein Person, die "the American dream" suchen

You say, das ist eine interessante These, denn ich dachte immer, dass das nicht mehr aktuell sei mit dem AD

Kim says, **was ist AD?**

Helen says, aber ich glaube dass nicht alle Auslaendern moechten "the american dream" suchen... nur die "americanized"

You say, **AD ist American Dream..**

You say, **ich habe es aus Zeitgruenden schnell mal abgekuerzt. Sorry**

Kim [to Helen]: ja, ich bin der selbe meinung  
 Kim [to Helen]: nur die Auslander, sie Amerikanized sind  
 You say, **wie wuerdet ihr AmericanDream definieren?**  
 Kim says, oops - die amerikanized sind  
 Helen says, Die AD ist ....  
 Helen says, **ein Person will ein gross weiss Haus haben... viel Geld, ein gutes Besuch... ein Familie mit Kindern**  
 Helen says, stimmt das Kim?  
 Kim says, **ja, ein weiss Haus mit Kindern und ein weiss Zaun.**  
 Kim says, **auch die Leute suchen Freiheit in Amerika [...]**

These lines -- as well as numerous similar passages in the corpus -- provide additional evidence that tandem *works* in the MOO because they show that the learners were apparently happy to address their partners' questions and that even tandem learners with differing commands of their respective target languages can communicate successfully with each other in an online environment. In addition, the excerpt might help to clarify why the students did not exploit the chance to ask their partners for lexical assistance more often than they did.

One likely reason for the relative absence of requests for lexical assistance is that most students may have felt that they could make themselves understood even if their output was not perfect. Similarly, the opportunity to codeswitch, which I shall discuss in more detail below, may have encouraged the students to take risks - or simply to borrow an item from their L1 rather than to interrupt a discussion and ask for help. But it is also quite possible that many students did not request their partners' help more often because they may have felt that it was more important to pursue their project work or because they felt pressed for time. Indeed, several learners indicated in their feedback that they wished that they had had more time to get to know each other and engage in phatic or social maintenance conversation, and they may have thus behaved differently in different circumstances.

### **FORMS, FREQUENCIES, AND FUNCTIONS OF SELECTED ASPECTS OF NEGOTIATION OF MEANING IN SPOKEN LEARNER DISCOURSE AND IN MOO-BASED TANDEM INTERACTIONS**

Researchers working within an interactionist approach to SLA in particular agree that negotiation of meaning promotes understanding and that it facilitates the acquisition of a foreign language. They do, however, continue to debate which conversational moves are most likely to trigger learners' noticing and destabilise their incorrect assumptions about their L2. Varonis and Gass (1985), for example, have claimed that "confirmation checks in particular are both a gentle means of indicating a problem in the conversation, and an act to encourage the interlocutor to continue" (p. 82; see also Chun, Day, Chenoweth, & Luppescu, 1982, p. 544). In contrast, Long (1996) argues that confirmation checks are poor facilitators of negotiation of meaning, because they merely require others to confirm or deny a statement. Rather, he emphasises the potential of recasts, that is, of form-focused partner-related target-like reformulation of all or part of an incorrect utterance, to facilitate language acquisition (Long, p. 449; Long, Inagaki, & Ortega 1998). Pica (1988, p. 66), on the other hand, maintained that explicit requests and repetition signals or confirmation requests are particularly efficient means of prompting NNSs to adjust their utterances toward target-like use of their L2.

Likewise, there is disagreement about the question *why* some types of interaction feature more negotiation of meaning than others. Pica and Doughty (1985), who discovered that "clarification requests, confirmation checks, and comprehension checks constituted only ... eight percent of the group productions" in the small group work among low-intermediate ESL students that they investigated (p. 240), explained the relative absence of negotiation in their data by emphasising that the more fluent learners tended to monopolise the interactions they were engaged in and frequently ignored their partners'

comments in small group work. In contrast, Long and Porter (1985), who found "no significant differences in the amount of repair by NSs and learners," and who also claimed that in general language learners "rarely ask for help, no matter who their interlocutors are" (p. 216), argued that their students frequently avoided repair work in class because they may have been "reluctant to indicate a lack of understanding in front of their teacher and an entire class of students" (p. 220). Still, Varonis and Gass (1985, p. 84) insist that it was precisely the "shared incompetence" of their students and the ensuing reduced likelihood of loss of face that encouraged their learners to ask for help.

The amount and the quality of repair in NS-NNS and NNS-NNS interactions clearly depend on a number of factors. Different studies have, however, often focused on different conversational moves, and I am not aware of a single study that has yet addressed this issue in *tandem* learners' interactions. Moreover, there is substantial variation between the criteria that individual researchers have used to assign specific moves to the categories they employed to analyse their data. Porter (1986), for instance, used only four categories to analyse learners' repair work in task-based interactions among NNSs and between NNSs and NSs. She found that 50% of all repair moves in her data were confirmation checks, 18% clarification requests, 17% comprehension checks, and 15% requests for lexical assistance (p. 206), although the example that she cites to illustrate which utterances she classified as *confirmation checks* suggests that Porter also counted repetitions and possibly even recasts as instances of this repair move.

Lee (2001, p. 238), on the other hand, studied online discourse among learners of Spanish who interacted with each other via a program called *ParaChat* on the basis of eight different categories of conversational moves. She gave these students "no particular instructions" other than to chat and "focus" on topics and questions posted on the researcher's Web page (p. 236). However, the data and figures she cites are likewise difficult to interpret, not least because there is substantial overlap between the definitions of "clarification checks" and "requests."<sup>20</sup>

An analysis of the MOO data based on a more coherent classificatory system (see [Appendix B](#)) revealed the following frequencies for repair work in the tandem interactions:

Table 3. Frequencies of Selected Repair Moves in the Tandem Corpus<sup>21</sup>

	<i>N</i> (German students)	<i>N</i> (American students)	<i>N</i> (all students)	% of all repair (all students)	% of turns in the entire corpus
Confirmation checks	118	101	219	5.5	1.7
Clarification requests	829	720	1549	39.2	11.9
Comprehension checks	9	5	14	0.4	0.1
Repetitions	0	0	0	0.0	0.0
Recasts	28	1	29	0.8	0.2
Overt indications of understanding	232	350	582	14.7	4.5
Overt indications of agreement	581	732	1313	33.2	10.1
Overt indications of non-agreement	128	117	245	6.2	1.9
Total	1925	2026	3951	100	30.4

The figures in [Table 3](#) provide several insights into the tandem learners' online behaviour. They reveal, for example, that these learners used notably more requests for a clarification, elaboration or reformulation of their partners' ideas than did the learners in Long and Porter's or Pica and Doughty's studies into face-to-face discourse. In fact, the ratio of clarification requests to the overall number of turns in the tandem data is already higher than the aggregate of all the repair work that Pica and Doughty's learners engaged in during their face-to-face encounters (11.9% vs. approximately 8%). But the MOO students' behaviour also differed notably from that of the data studied by Porter. Her learners apparently relied very heavily on the use of indirect repair strategies such as confirmation checks, repetitions and recasts. The tandem students' transcripts, on the other hand, do not contain a single repetition, extremely

few recasts, and relatively few confirmation checks.

The complete absence of repetitions in the MOO corpus can be explained easily by the fact that it makes little sense to repeat an utterance or part thereof without the option to use intonation or stress to indicate why something "sounded" odd. Moreover, it seems that at least part of the reason why there were so few recasts in the tandem data was that repetitions as well as recasts are often indicative of a teacher-learner relationship rather than a balanced relationship between the (tandem) partners, because they imply that the person who uses them is more knowledgeable or more proficient than the other participants in a conversation. It is, however, more difficult to explain why the learners rarely checked that they or their partners had understood what the other tried to say via confirmation or comprehension checks.

One sociocultural explanation for the lack of comprehension checks in the MOO data might be the asymmetry in students' respective levels of proficiency in their target languages. Another reason could be that they tried to maintain a positive face vis-à-vis their peers. In other words, they may have feared that a more extensive use of confirmation and comprehension checks would have made them appear as overly teacher-like. They may also, however, have simply relied on their partners to take the initiative if they did not understand them, and the fact that almost 5% of all turns in the corpus included or served as an overt indication of understanding offers strong support for this hypothesis. It confirms that the learners frequently signalled that they were able to follow their partners, and there is thus also good reason to speculate that the students expected a similar reaction when their partners did not do so.

More than a third of the repair work in the corpus were clarification requests, and this move was hence almost a hundred times more frequent in the MOO data than comprehension checks. This move was almost a hundred times more frequent in the MOO data than comprehension checks. Furthermore, the tandem learners used clarification requests about eight times as often as confirmation checks. This ratio suggests two things. First, it provides us with additional evidence for the hypothesis that these learners had no qualms about asking their partners to modify their output. Second, it appears to confirm the assumption that the students usually preferred their partners to rephrase or amend their utterances, even if it is equally possible that the learners simply tried to deal with the issue of repair as efficiently as possible. In other words, they may only have prompted others to indicate that they had understood something if they were really worried that this might not have been the case.

Finally, it is worth noting that the German and American students produced rather similar amounts of confirmation checks and clarification requests. Their self-reports and the fact that the partners usually differed considerably in their respective command of their L2 would have made it perfectly understandable if there had been considerably more clarification requests from the American rather than the German learners. Still, this was obviously not the case, and there is accordingly even more evidence that these learners had *no* need to feign understanding.

These data appear to leave us with two possible interpretations of the learners' actions: Either their engagement in repair work was unique, or the use of an online environment, the task the students had to complete, and the fact that they met as tandem partners, or a combination of these factors, are responsible for these findings. Some support for the hypothesis that online learners generally engage in more repair work than those who can talk to each other in a four-walled classroom comes from a study into different forms of CMC by Sullivan (1998). In her analysis of online interactions between minority students in the US, she found that her subjects "*frequently* negotiated by asking for clarification of remarks" (p. 48; emphasis added). Likewise, there is evidence in Pellettieri (2000) to suggest that negotiation of meaning among students who meet online differs markedly from the sense-making processes that learners engage in in face-to-face conversations.<sup>22</sup>

Pellettieri (2000), who investigated online discourse between ten dyads of English-speaking intermediate students of Spanish via a chat-like program called *ytalk*, discovered that only 7% of all negotiation routines between her learners did not include some form of indication that a speaker was ready to "pop

[back] up to the main line of conversation" (p. 73; Varonis & Gass, 1985). In addition, she claimed that such indications are even more important in online interactions than in face-to-face discourse because they are one of the very few means that learners can use to signal that they agree with others, or that a reformulation has helped them to understand their partner in the absence of other cues.

The MOO interactions support this assumption. Not only did the students from Münster and Vassar frequently emote to indicate that they agreed with their partners, but they also repeatedly verbalised this state of affairs in their "spoken" replies. The combined tally of their overt indications of understanding and agreement, plus the emotes that they used to nod, smile, grin, laugh, or agree with each other, shows that the function of one in six turns in the data (16.6%) was to provide others with positive feedback about their contributions. The words and phrases printed in bold face in the following passage from the corpus illustrate the relevance of this type of feedback in online interactions.

Du sagst, I think we should combine the info

Kim sagt, remember that we hhave to talk german and you have to talk english

**You grin.**

Helen sagt, I mean that we can combine the info on education and immigration into a single report

Kim sagt, are we goign to present that same info, just in differnet languages??

Kim [zu Helen]: **yeah thats good**

Helen sagt, achh..i forgot about the speaking german factor

Helen sagt, where is Nina

Kim sagt, who knows - i guess she'll be here eventually

Helen sagt, Well i think that it wont be exactly the same just b/c the report in english would concern Germany and the German report would concern the US

Kim sagt, **ahhhh - okay**

Helen sagt, so Nina and Carlo will combine their infor

Helen sagt, and we will combine ours

**You nod.**

Helen sagt, does that seem right

Kim sagt, and will we just sit while carlo an nina present or will we read their info or what?

Du sagst, **Yeah, and give applause for us ;)**

Helen sagt, wont they be presenting their info to our class also

Kim [zu Helen]: did you read the email about the presentation that jeff sent?

**Helen claps for Carlo**

The corpus data do not allow for any firm conclusions about the effects of the learners' engagement in negotiation of meaning on the development of their respective L2 competence. They demonstrate, however, that (MOO-based) online interactions between tandem learners are replete with comprehension checks and hence with a type of conversational move that promotes noticing because it usually draws learners' attention to gaps in their L2 command and also often triggers a discussion about the likely cause(s) for inaccuracies in their output. Moreover, the discussion has revealed how important it is for learners who communicate with each other in real time in the absence of aural, visual and tactile cues to identify and employ appropriate substitutes to convey this kind of information. Also, there is substantial evidence in the learners' feedback to suggest that their participation in the exchange did indeed prompt them to reflect upon the means they had at their disposal to manage a(n) (online) conversation.

In the final section of the paper, I discuss how the students exploited the bilingual format of their exchanges and the fact that they met as *tandem* partners rather than as learners whose respective native languages were of little immediate interest to them or students with *shared* native and target languages.

## CODESWITCHING

The interplay between language learners' use of their L1 and L2 has been the subject of renewed interest in SLA in the 1990s not least due to the application of Vygotskian theory to processes of second language acquisition. Anton and DiCamilla (1998), for example, established that L1 use can play "a strategic cognitive role both in scaffolding and in establishing intersubjectivity" in face-to-face discourse between dyads of adult NSs of English who studied Spanish at the beginner level (p. 319; see also Brooks, Donato, & McGlone, 1997, especially p. 530), while Swain and Lapkin (1998) observed that their French immersion students used their L1 "to regulate their own behavior, to focus attention on specific L2 structures, and to generate and assess alternatives" (p. 333; see also Swain & Lapkin, 2000). Still, I am not aware of any studies that have yet addressed the question how *tandem* learners use the two languages they have at their disposal to scaffold their own and their partners' tasks.

All teams in the present study were free to negotiate *individual* solutions to the question of what language to use when, as long as they made sure that there was an appropriate overall balance between the use of their native and their target language. Similarly, they did not receive any firm instructions about how and when to borrow items from their L1 or L2 in spite of the fact that the different possible formats from which they could choose obviously have differing implications for the way in which they conduct their online work.<sup>23</sup>

A framework where every student uses the target language as much as possible violates the tandem principle of reciprocity because it reduces the chance that the learners receive much authentic input in their L2 from their partners. A completely random approach to language choice, on the other hand, incorporates the danger that neither of the codes is used long enough to allow learners to derive sufficient grammatical, semantic and pragmatic information about their L2 to improve their interlanguages from their partners' contributions. Moreover, this format would deprive them of the chance to develop their skills through pushed output (Swain, 1995) as they might simply use their L1 instead of trying to stick to their target language.

The members of most teams discussed the issue of language choice in the fourth or fifth meeting when they had found a project and got to know each other a little better. Three partnerships agreed to alternate between German and English from one session to another on this occasion, and the same number of teams settled for a format where they switched languages halfway through a session. However, the members of the remaining groups did not manage to find a stable format for their meetings in this respect.

Burt (1992) warned in her analysis of students' codeswitching in NS-NNS discourse that "each choice of code is open to a systematic ambiguity of pragmatic interpretation" and that even "attempts at mutual convergence are not necessarily accommodating, if the speakers in question are both learners of each other's language" (p. 173, 175). Indeed, there is an "in-principle infinite number of ways in which language alternation may become meaningful" (Auer, 1984, p. 11), and the present study confirms that it is sometimes impossible to decide why someone has switched from the use of his native language to his L2, or vice versa. Nonetheless, most of the tandem learners' borrowings and turn-length switches appear to have been made for fewer than a dozen different reasons.

A strictly linear analysis of the data in the corpus revealed that there were more than 1,400 turns in which students based their contributions on a language other than the one that their partners had used in the last visible utterance on their screens. This figure suggests that the matrix language of their interactions, that is, the language that contributes more morphemes than the other to a given stretch of discourse (Myers Scotton, 1992, p. 22), changed after an average of only nine turns. There were, however, also several situations where two partners in a team conversed in one code while their partners used a different language. Similarly, all students sometimes communicated with their NS partner(s) in German and their



NNS partner(s) in English (or vice versa), or they even addressed their two NNS partners in different languages.

These factors -- plus the specific conditions in the MOO where people can only read input from others after these have pressed the *Enter* key -- suggest that it is more realistic to assume that the learners in this study deviated deliberately from the code their partner had chosen on some 500 occasions, or in about 4% of their contributions. Three percent of all turns in the corpus contained a single borrowed item, and another 3% featured a switched tag, a borrowed phrase or inter-sentential codeswitching (CS), that is, the learners expressed a certain idea or concept in both languages within a single utterance.

As many as 50% of the turn-length language alternations in the data must probably be classified as students' attempts to (re-)establish English or German as the matrix language of a conversation and hence to prompt others to converge on their choice of code or revert to the one that someone had used before another student deviated from it. This pattern was particularly noticeable towards the beginning of a conversation (see the turns printed in bold face in the extract below) and in the exchanges between those students who had not agreed on a particular format for their meetings, who ultimately had to deal with more than twice as many inter-turn language alternations as their peers in the other groups.

Jack [to Maren]: es war schoen deine Telefonanrufe zu bekommen...

Joanne [to Maren]: Ja, ich auch!

Jack [to Maren]: dein Englisch is so gut!

**Maren [to Jack]: Yes, it was nice to talk to you! - And to Joanne as well!**

**Jack [to Maren /Joanne]: Ich muss mein Lauscher finden-- moment mal**

Joanne [to Maren]: Danke! Du sprichst gut Englisch!

Maren [to Jack]: Thank you! - Wohin sollen wirgehen?

Joanne [to Maren]: Sehr gut!

**Maren [to Joanne]: Thank you!**

**Joanne [to Maren]: Vielleicht koennen wir zu meine Raum gehen.**

Jack [to Joanne/ Maren]: wohin gehen wir heute?

**Maren [to Jack/Joanne]: I'm sorry, we still cannot go to my room. I have no exit and I don't know why!**

But the data also revealed that several turn-length switches were apparently triggered by borrowed items the students' partners had included in their latest utterances or by intra-sentential switches in turns such as "No, in English it's fine. Maybe in German, du sollst langsamer tippen." to which this student's German partner replied "in Ordnung" before continuing in English in her next utterance. Several German students repeatedly switched to English because they seem to have felt that they would "lose" their partners if they continued to use their target language and thus to avoid a breakdown in the conversation. In contrast, many Americans sometimes reverted to English because they apparently felt that they were unable to express a certain idea in their foreign language. In fact, all participants in the project seem to have borrowed words or phrases from their L1 *and* reverted to their native language for the duration of an entire turn in their online interactions to compensate for their "lexical need" (Legenhausen 1991, p. 67).

Two thirds of all single-word borrowings appeared in contributions from the less advanced American students. Yet the contributions below also illustrate that the learners from both sides of the Atlantic sometimes drew quite heavily on their L1 and their L2:

Broke sagt, **SAT's** sind examens fuer **intelligence**. Sie sind **Mathematiks** und **Literature/Grammar**

Kim [to Carlo]: die USA hatten viel "**immigration**" in 1920's wenn meine Grossgrossmutter hat "**immigrated**"

Hasko [zu Jerry]: There is no test. In my case, the **Klassenlehrer** of the **Grundschule** wrote a

**Gutachten.** The main decision was up to the parents, though.

Du sagst, ich habe gerade [...] eine **Note** angebracht, die das **Link** zu unserer **homepage** enthaelt

Some borrowings, including the use of *Grundschule* and *Gutachten* in Hasko's contribution, were probably incorporated into L2 turns because they are highly context- or culture-bound, and perhaps also because the students wanted to introduce each other to these items even if they were currently communicating in their own target language. Furthermore, the German students in particular repeatedly seem to have continued to use borrowed L2 items because this ensured that everyone in the team understood what the other was talking about and because doing so allowed them to get on with their work. Others probably simply occurred, however, because the respective items were more salient in a discussion than their translational equivalents.

Albeit in a different sense, because Anton and DiCamilla's (1998) data stem from interactions between learners with *shared* native and target languages, these observations appear to substantiate their claim that learners employ language changes to scaffold their partners' task and (re-)establish and sustain mutual understanding and intelligibility of each others' turns. Moreover, Hasko's turn plus the following utterance from another learner from Münster indicate that at least some tandem learners apparently used both their L1 and their L2 to foreground particular structures, specifically lexical items. They tried to scaffold their partners' tasks and respond to their needs, but they also attempted to force their partners to return to the established code of a conversation to receive additional input in their L2, continue to model the usage of their own L1 for their partners, and sometimes also to get further opportunities to practise their own target language skills. The passage below demonstrates how hard some American learners (in this case, Stanley) tried to stick to the use of German and repel their NNS partners' temptations to revert to their native language in spite of their limitations in their target language. Having announced that he briefly needs to change to English after the learners have already communicated with each other exclusively in German for several minutes, Stanley then reverts to his L2 despite his German partner's suggestion to switch to English, and he only "yields" towards the very end of the passage:

Stanley says, **gotta do this in english. they use repetition of elements, like short film clips that will pop up throughout an episode, to bring attention to different parts of the elements.**

Stanley says, **don't want to bore you, but such is reasonably in line with what a few frenchies are talking about today**

Ian [to Steffi]: Mussen jede deutsche studenten Englisch lernen?

You say, Ja. Alle, mit zehn Jahren faengt man in der Schule an.

You say, **Aber wollen wir noch mal Englisch reden?**

Stanley says, **ich rede fuer etwas dass ich nicht auf deutsch sagen kann.**

Ian [to Steffi]: **Wenn du willst, ja.**

You say, Wie lange studiert ihr eigentlich schon? Wisst ihr schon was ihr hinterher machen wollt?

Stanley slaps himself to wake up

Ian says, Ich habe kein idee was ich machen will, nein. Vielleicht Musiker, aber...

Stanley says, ich habe ein Jahre mehr des College, aber ich will Grad Schule gehen.

You say, Was ist Grad Schule?

Steffi [to Ian]: Do you play in a band?

Stanley says, wo man kann fuer ein PhD studieren

You say, I hope I can do my examen next year, I wonder if there is a life after university...

Ian [to Steffi]: Manchmal. Leider nicht jetzt, aber hoffentlich fange ich bald ein neue Bande an.

Steffi [to Ian]: Das wuerde ich ja mal gerne hoeren. Machst du auch selber Lieder?

Stanley says, there isn't here. not for a philospthy major. that's why i need grad school.

Stanley says, **oops. auf deutsch.**

Stanley says, nichts

You say, **we really can talk english if you like...**

Ian says, OK.

Stanley says, tut mir leid. ich habe nichts heute gegessen. ich habe kein Blood Sugar  
Stanley says, danke.  
You say, Blutzucker.  
You say, What did you do yesterday?  
Stanley says, me or Ian?  
Ian [to Steffi]: I write my own songs, yes.  
Ian says, I think that's what you asked, anyway.

## CONCLUSION

This paper has focused on two aspects of telecollaboration between tandem partners who communicated with each other via a MOO. To begin with, it has investigated these learners' engagement in negotiation of meaning, and it has revealed that there are noticeable gaps between the frequencies with which the tandem learners and students who interact with each other in different circumstances and constellations use specific moves that are typically associated with the negotiation of meaning. It has uncovered several possible reasons for these differences, discussed a number of medium-specific factors that may have contributed to the particular behaviour that the MOO learners exhibited, and it has confirmed Pellettieri's (2000) claim about the importance of the provision of explicit "positive feedback" in written real-time CMC.

But it has also documented the ways in which teams of learners with differing L2 commands can utilise the bilingual format of their encounters to complete projects of their choice and benefit from their partners' expertise as native speakers of their respective L1s. Furthermore, it has shown that at least most of the participants in this study were willing to find a solution to the dilemma of wanting to use their L2, having to use their L1, and the challenge of having to achieve a suitable balance between these competing goals over the course of the project.

Future research will have to establish whether the findings of this study can be corroborated in exchanges that involve tandem learners who are matched more closely with regard to their target language proficiency, as well as sociocultural factors like their educational backgrounds and the format of the courses from which they are recruited. Likewise, it remains to be seen how tandem partners engage in negotiation of meaning and how (often) they draw on their native and target languages if the venue of their collaboration is a chatroom, or if they meet in a series of audio- or videoconferences.

Nonetheless, it is hoped that the study has demonstrated that online tandems in the MOO have just as much potential as other forms of telecollaboration to prompt learners to investigate ways to express themselves successfully in their L2, and perhaps also how this specific approach can help learners develop their "awareness of communication as a process, language as a system and the learning process itself" (Dam & Legenhausen, 1997, p. 56).

**APPENDIX A****An Approximate English Translation of the Passage Cited in the Discussion of the Provision of Lexical Assistance**

Helen says, a foreigner (in America) is a person who is not "americanized"

Nina [to Helen]: **What do you mean by americanized?**

Kim [to Helen]: I think that a foreigner is someone who loves another culture more than American culture.

Kim [to Nina]: **how would you say "to put one culture above the other," as more important to them?**

Helen says, Americanized... hmmm ... a person dresses like an American... eats like an American... thinks like an American...

Kim says, especially THINKS like an American

You say, **They think that one culture is of higher value than another, perhaps, oder schätzen sie mehr = appreciate it more?**

Kim says, **thanks - that's what I mean**

You say, can you generalize things in this way, thinks like an American?

You say, In Germany that would be very problematic, because people would reject such Pauschalisierungen..

Helen says, I don't understand "**pauschalisierungen**"

You say, ... it is especially problematic because of our history. I would never say that I think like a German, but always put that more concisely.

You say, **that is, if you look at it in a general way, look at it as something universal, so, as if everyone would think the same**

Helen says, but I think that you an opinion about how an

Helen says, ...

Helen says, American thinks have

Helen says, materialistic...

Helen says, a person who seeks "the American dream"

You say, that is an interesting hypothesis, because I have always thought that the AD is not en vogue any more

Kim says, **what is AD?**

Helen says, but I don't think that all foreigners want to realise "the american dream"... only those who are "americanized"

You say, **AD is American Dream..**

You say, **I have abbreviated it to save time. Sorry**

Kim [to Helen]: yes, I think so, too

Kim [to Helen]: only those foreigners, who are Americanized

You say, **how would you define AmericanDream?**

Kim says, oops - who are americanized

Helen says, The AD is ....

Helen says, **someone wants to have a big white house... plenty of money, a good visit [holiday?; Mk] ... a family with children**

Helen says, is that true Kim?

Kim says, **yes, a white house with children and a white fence.**

Kim says, **people also seek freedom in America [...]**

## APPENDIX B

## Repair Types That Were Analysed in This Study

repair type	gloss (plus example from the corpus, if applicable)
Confirmation check	A speaker's attempt to confirm that he has understood an utterance via the (partial) paraphrase (as opposed to repetition; see below) of this turn, which can simply be answered with <i>Yes</i> or <i>No</i> . Nina says, <b><i>Aber ihr muesst keine Arbeit schreiben, in der ihr die Arbeit im MOO analysiert, sondern nur das Projekt vorstellen? Verstehe ich das richtig?</i></b> Kim [to Nina]: <i>ja, wir müssen die Arbeit im Moo analysieren</i>
Clarification request	An <i>explicit</i> demand for an elaboration or a reformulation of an idea, which "require[s] a rerun of the troublesome utterance" in question (Aston, 1986, p. 136). Jerry [to Hasko:]: Yes, I'm going to try to find out how much the American government spends per student and total. Hasko [to Jerry]: <b>Did you mean students or pupils?</b> Hasko [to Jerry]: <b>Or is it the same?</b> Jerry [to Hasko:]: per pupil, for now.
Comprehension check	A speaker's attempt to prompt another speaker to acknowledge that he has understood a particular utterance (Mitchell & Myles, 1998, p. 129). Sonja [zu Joanne]: [...] Do you know what a "Auflauf" is? Joanne [zu Sonja]: No Sonja [zu Joanne]: <b>It's something like a gratin. Do you understand it?</b>
Repetition	The repetition, in isolation, of part of or an entire erroneous or otherwise problematic utterance. (Note, however, that examples such as the following were classified as requests for lexical assistance, because they served to indicate non-understanding resulting from a learner's unfamiliarity with a particular word rather than corrective feedback. Hasko [zu Jerry]: <i>In der Grundschule gibt es aber einen festen Klassenverband, oder?</i> Jerry [zu Hasko:]: <b>Klassenverband?</b> Hasko [zu Jerry]: A KLASSENVERBAND is a group of pupils who build a class.
Recast (implicit error correction)	A form-focused partner-related target-like reformulation of all or part of an incorrect utterance (Long, 1996, p. 434; Lyster & Ranta, 1997, p. 46). Lee says, <i>ich bin frustreierend mit dem Moo</i> Lee says, You guys need to just come over Dirk says, <i>Ehrlich? Seid ihr frustriert?</i>
Overt indication of understanding	Overt indication that a speaker has understood a particular message. Karina sagt, corinna, we don't know what orthography is... Dirk sagt, spelling Karina sagt, oh ... <b>i see.</b> that's not used here at all.
Overt indication of agreement	Overt indication that a speaker agrees with what his partner said. Jack sagt, We need a German version and an English version <b>Joanne [zu Jack]: Das ist besser!</b> <b>Joanne [zu Jack]: Richtig.</b>
Overt indication of non-agreement	Overt indication that a speaker does not agree with what his partner said. Hasko [to Markus]: We usually handle that as follows: Uta and me talk in English, the others in German. Uta [to Markus]: <b>das stimmt nicht</b>

## NOTES

1. See Donaldson & Kötter, 1999a, 1999b; Kötter, 2001; Schwienhorst, 2000; von der Emde, Schneider, & Kötter, 2001; Schneider & von der Emde, 2000.
2. Note, though, that the three coordinators of the exchange, Jeffrey Schneider, Silke von der Emde and I, were physically present in the computer pools from which the learners accessed the MOO throughout the entire project, and that we could thus always be called upon for assistance. Moreover, all learners received regular oral and written feedback on their work and the progress they had made.
3. All names have been altered to protect the students' identities. Moreover, note that the learners' own contributions appear behind the tag "You say" on their screens, while others see these utterances behind "Xyz says"; "you" in this passage is thus Tom.
4. Cherny (1995) and Schwienhorst (2000) offer detailed histories of MOOs and MUDs, while Holmevik and Haynes (2000, p. 165) provide a useful recent list of publicly accessible educational MOOs.
5. The exchange consisted of a total of 16 online sessions. Most learners had formed groups consisting of two native speakers of German and two NS of English by the end of their second meeting when they had discussed their ideas and studied the profiles that all participants were asked to compose about themselves and save in the MOO database. However, three teams formed triads rather than "double-date" and hence to make sure that they could continue with their work even if a student had to miss a meeting. All partnerships had agreed on a project after a maximum of five sessions, and they then tackled projects including representations of Germans in Hollywood films, a comparison of the German and the American education systems, immigration and residence permits in the two countries, the mutual clichés that Germans and U.S. Americans have of each other, and immigrant education.
6. They could, however, use the project data as a basis for their term papers.
7. The differences between the cohorts mainly result from the different status that German and English enjoy as target languages in the two countries and from differences between the educational systems in Germany and the United States. Still, the evaluation questionnaire, which all learners were asked to complete at the end of the project, showed that the German students were just as motivated as their peers to improve their target language skills. They participated as enthusiastically as their partners even if their main motivation to participate in the project was to get some hands-on experience in the use of the new media in language education and in spite of the mismatch between their own and their partners' foreign language proficiency (see Belz, 2002b, who discusses another transatlantic project involving learners from Germany and North America with differing L1 and L2 proficiencies).
8. See Holmevik & Haynes (2000) for a detailed discussion of the differences between text-based clients and the *enCore Xpress* interface.
9. The reason for this was that the version of *enCore Xpress* that was available at the time did not yet feature an automatic logging facility.
10. See Donaldson & Kötter (1999a) for a copy of a virtually identical questionnaire.
11. Additional reasons for this decision were that such a sample focuses on those sessions in which the learners conducted the bulk of their online negotiations, and that the corpus is comprehensive enough to be representative of the students' online behaviour but still small enough to allow for manual coding of features that cannot be captured by automatic taggers or parsers.
12. The average length of a student's turn was about 12 words, and each student contributed an average of about 60 utterances to each 75-minute session. However, some learners produced notably longer turns

than others, and some also produced fewer turns than their peers, who broke up longer contributions as described in the section on [Key Characteristics of Interactions in Text-Based Online Facilities](#).

13. A full list of the tags that were used to code the data is available in Kötter (2002, p. 288), where interested readers can also find a more in-depth discussion of the notion of virtuality in MOO-based discourse and other concepts that could only be touched upon briefly in this paper.

14. All citations from the students' data are reproduced in their original shape without corrections of spelling mistakes or other types of deviations from the norms of German and English. Moreover, note that the MOO interfaces that these learners used did not yet allow for the use of German umlauts (*ä, ö, ü*), and that they accordingly had to use their equivalents *ae, oe, and ue*.

15. The amount of emotes and the frequency of block capitals in the data were calculated on the basis of tags that were inserted manually into the data. Other notable strategies, which were identified on the basis of tags inserted manually as well as automatically, include the use of reduplicated sentence-final periods, while reduplicated letters turned out to be another useful means for the reproduction of tone of voice. Smileys, on the other hand, were rarely used by the learners to clarify the illocutionary force of their turns.

16. See Kötter (2001) for a discussion of the provision of corrective feedback in this exchange.

17. The imbalance between the number of questionnaire responses and the overall amount of project participants is due to the fact that four students (two Germans and two Americans) did not return their questionnaires.

18. Schwienhorst (2000, p. 288) found that "asking for a translation into English was slightly more important [to his Irish students] than paraphrasing the unknown word or phrase, whereas for German students the preferences were the opposite; paraphrasing was far more important than translation" when his learners did not understand their partners' target language contributions. Virtually the same was true when his students had to deal with input from their partners in their own L1. His results thus mirror the present findings. In contrast, a look at the data from the project reported on by Donaldson & Kötter (1999a, 1999b) shows that a lower percentage of their German learners appear to have asked for a repetition or a paraphrase, and that notably fewer of their American students tried to guess their partners' meanings. These differences can, however, probably be explained to a large extent by the fact that the members of both groups of learners in this study were less proficient in their target languages than both Schwienhorst's students and the learners in the present project.

19. Schwienhorst (2000) did not request this kind of information from his students. Donaldson & Kötter's (1999a, 1999b) data, on the other hand, suggest that there were more German learners in their sample who claimed to have borrowed items from their L1, that even more of their American students had asked for lexical assistance, and that notably fewer of their German subjects tried to paraphrase their ideas.

20. Lee (2001) defines the former as instances where "the listener asks wh-, uses tag questions or responds to the statement using 'I don't understand.'" (p. 237), while the latter are glossed as follows: "When receiving incomprehensible input, the learner seeks help by asking questions, such as 'What is this?' or 'What do you mean?' to understand the input." (p. 238).

21. The turns in the corpus were identified and classified as instances of particular repair moves in three steps. First, the *Concord* feature of *WordSmith Tools* was used to identify candidates for inclusion in the above categories by searching the corpus for lexical items or phrases that are typically associated with these moves. Second, the turns that contained these words or phrases were checked with regard to their form and context before it was decided whether or not they were really examples of a specific move. This selection was then amended on the basis of several rounds of close readings of the corpus, which were also used to identify moves such as repetitions and recasts.

22. Lee's (2001) study is unfortunately of little help here, because she does not provide any indication about the overall number of turns her students exchanged with each other. Hence, it is impossible to interpret or quantify the role of negotiation of meaning or the individual moves she cites in her data.

23. Note, however, that these issues were addressed by Schneider, von der Emde, and myself both at the beginning of the exchange and in the regular feedback that we gave our students.

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This paper analyses negotiation of meaning and codeswitching in discourse between 29 language students from classes at a German and a North American university, who teamed up with their peers to collaborate on projects whose results they had to present to the other groups in the MOO during the final weeks of the project.Â Originality/value This study presents a qualitative analysis of bilingualsâ€™ code-switching behaviors in online searches. He also states that code-switching not only fills a momentary linguistic need, it is also a very useful communication resource (1982). Auer (2000) also finds that code-switching serves important purposes in the ongoing negotiation of footing in bilingual interaction. In addition, Greene and Walker (2004) state that code-switching is not random or meaningless. It has a role, a function, facets and characteristics. Negotiation of Meaning and Codeswitching in Online Tandems. Kotter, Markus. Language Learning & Technology , v7 n2 p145-72 May 2003. Analyzes negotiation of meaning and code switching in discourse between 29 language students from classes at a German and a North American university, who teamed up with their peers to collaborate on projects whose results they had to present to the other groups in the MOO during the final weeks of the project. This paper analyses negotiation of meaning and codeswitching in discourse between 29 language students from classes at a German and a North American university, who teamed up with their peers to collaborate on projects whose results they had to present to the other groups in the MOO during the final weeks of the project.Â Tandem through desktop videoconference is a type of telecollaboration (Belz & Thorne, 2006) where two learners of different mother tongues cooperatively learn each other's language (Helmling, 2002).Â A framework of negotiation of meaning was employed to code and analyze the transcribed data. Two types of negotiation routine were identified: single-layered trigger-resolution sequence and multi-layered trigger-resolution sequence. You have been practicing negotiation of meaning in your class on challenging topics. Do you like your teacher, as one of the participants, to take a firm position in our negotiations, or do you think it would be better for him to be completely neutral and unbiased in the negotiations? Please feel free to express your ideas about this question.Â The title of this online community is Learning to Live Better. Have you noticed any changes in your own life upon taking our online classes and becoming a member of our community? If yes, please explain more. In our conversation class, particularly round table activity, we have been practicing negotiation of meaning on challenging topics. Has negotiation of meaning influenced your language learning? If yes, please explain more.