ReCALL **17** (2): 254–268. © 2005 Cambridge University Press
DOI: 10.1017/S0958344005000820 Printed in the United Kingdom

In two minds? Learner attitudes to bilingualism and the bilingual tandem analyser

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Abstract

One of the issues that has been debated in the context of fairly open learning partnerships such as tandem learning has been whether and, if so, how much pedagogical support should be provided. Another issue is how do language learners who have grown accustomed to maximising their learning through comprehensible input and output make the transition to a reciprocal learning partnership where they are supposed to switch between the roles of learner and expert or resource. The three principles behind tandem learning are bilingualism; reciprocity; and learner autonomy. At Trinity College Dublin we have conducted extensive research into tandem learning in object-oriented Multiple User Domains (MOOs) since 1998. Of the three tandem principles, we found that balanced bilingualism, where both languages are used equally in the exchange, is difficult to achieve, particularly though not surprisingly in partnerships where L2 proficiency differs substantially. We think that technology, at least in MOOs, can contribute towards a solution to the problem. The bilingual tandem analyser (BTA) analyses MOO input while users are communicating and gives feedback to learners (and possibly teachers) on bilingualism in the exchange. Here, we discuss what attitudes towards bilingualism learners bring towards the tandem exchange and how they react to the BTA as a tool to monitor and regulate bilingualism: will learners perceive balanced bilingualism as a necessary principle of the partnership; what efforts do they make to keep the balance between the languages; how do they see the BTA: as an instrument of control, directed by the teacher; or do they perceive it as a useful tool to support their tandem exchanges?

1 Introduction

Bilingual learning partnerships such as those formed according to tandem principles have received more and more attention over the past few years (see, for example,

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https://doi.org/10.1017/S0958344005000820 Published online by Cambridge University Press

Ushioda, 2000; Little, 2001; Kötter, 2002, 2003; Cziko & Park, 2003). Tandem learning is an implementation of learner autonomy principles and brings together learners with complementary L1/L2 combinations (e.g. a German student learning English and an Irish student learning German) in a learning partnership. The three principles behind tandem learning are bilingualism (using both languages in equal amounts); reciprocity (supporting the partner by providing comprehensible input, correcting errors, etc.); and learner autonomy (assuming responsibility for and taking control of the learning agenda). The Centre for Language and Communication Studies (CLCS) at Trinity College Dublin has conducted research projects in tandem learning in synchronous text-based environments (Multi-User Domains, Object Oriented, or MOOs) since 1996, since 1998 with the Fachhochschule Bonn-Rhein-Sieg, Germany.

One of the recurring problems in these synchronous text collaborations has been the huge imbalance in bilingualism, as the more proficient L2 tended to take over as almost exclusive means of communication. To counter this problem, we developed and implemented the Bilingual Tandem Analyser (BTA), which analyses MOO input in real time and provides detailed feedback on the balance between the languages used in the exchange. The paper will look at some of the results of this implementation. Our particular focus will be on learners' attitudes towards the use of balanced bilingualism and the BTA as a new tool to monitor and evaluate bilingualism. To this end, we distributed a questionnaire to our learners, focusing on the following research questions:

- How do learners perceive the principle of bilingualism? Do learners understand it, and do they perceive this as important in theory and in practice?
- How do learners address differences in L2 proficiency? Do they modify their input for their partner? Do they switch to the other language? Do they ignore unknown utterances?
- When did learners use each language? When do learners feel comfortable to use the L2, when do they feel the need to revert to the L1; are there pressures within discourse that force learners into code-switching?
- Did learners perceive the BTA as a helpful tool? Did learners find that the BTA assisted them in pursuing a balance in bilingualism, consciously or unconsciously; or were the BTA results ignored?
- Did learners perceive the BTA as an intrusion into or interruption of their exchanges?
- Was the BTA perceived as a tool by the teacher/researcher to control/monitor them, or was it perceived as a learner tool?

We will first, however, look at some of the basic principles of tandem learning. Second, we will give a short overview of the BTA and research results that we obtained previously. Third, we will look at the set-up of the research project, the methodology, and the learner groups involved. Fourth, we will evaluate a questionnaire that we distributed among our learners regarding bilingualism and the use of the BTA. We will conclude this paper with a short overview of the results; discuss possible pedagogical and technological changes to the learning partnership; and suggest areas of further investigation.

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2 Tandem learning principles and balanced bilingualism

The concepts of tandem learning have been described in more detail elsewhere (see, for example, Little, 1991; Little & Brammerts, 1996; Kötter, 2002), so we will only summarise the most important features here. Originally elaborated by the eTandem network in Bochum, Germany, tandem learning, whatever medium or set-up is used (face-to-face, email, MOO, audio or video conferencing) emphasises the following three principles:

- Learner autonomy: tandem learners need to take control of and assume responsibility for their learning partnership; design, monitor, evaluate, and critically reflect on their learning partnership.
- Reciprocity: as language learners are working and learning together with somebody else, they need to discuss and plan the structure of their partnership. They also need to support and encourage each other in their learning, for example in the form of error correction, input modifications, or translations.
- Bilingualism: one necessary reciprocal feature is balanced bilingualism, which means that each tandem learner should produce as much L1 as L2, and should also be provided with balanced input by her partner.

These principles are vital for any partnership to succeed (see Kötter, 2002:36). However, depending on a variety of factors, they are not easy to put into practice, as often there is a conflict between individual learning interests and the agreements of a learning partnership such as tandem. In particular, balanced bilingualism has been of great concern in our projects, as the target language proficiency levels between the two groups have often been widely divergent.

When engaging in conversation with anybody who has a complementary L1/L2 combination to our own (e.g., my L1 is her L2 and her L2 is my L1), we very quickly find out which language is the stronger L2. Even in cases where both L2s are equally strong, conversation rarely fluctuates between the languages. While this is a common phenomenon in everyday multilingual encounters, tandem partnerships are expected to be conducted in equal parts in both languages. This aspect alone, one may argue, adds an element of artificiality to tandem partnerships, as partners are expected to switch languages, something we hardly do in everyday life. However, tandem partnerships are learning partnerships where both partners want to learn the mother tongue from each other. Viewed from this angle, balanced bilingualism is essential so that both partners can benefit equally from the exchange (see Appel & Mullen, 2000; Kötter, 2002:37).

In order to achieve balanced bilingualism, it may be that not only the proficiency level of each partner plays a role. There is also the more general friction between the motivational backgrounds of both learners to improve their proficiency levels on the one hand, and the reciprocal support that the set-up demands. In other words, one learner might be very happy to receive more input in the L2 than his counterpart, although this can quickly lead to the end of partnerships (see Little *et al.*, 1999). Before we look at our research regarding learner attitudes towards balanced bilingualism and the Bilingual Tandem Analyser (BTA), we would like to introduce the latter.

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3 The Bilingual Tandem Analyser (BTA)

We have conducted tandem projects between our two institutions since 1998, first using (asynchronous) email, then in (synchronous) MOO projects. The background of the MOO exchanges was that while we had Information and Communication Technology (ICT) students at Trinity College Dublin learning either German or French as part of their degree course, students at the Fachhochschule Bonn-Rhein-Sieg were also studying Information Technology, but with English as part of their course. This provided homogeneous learner groups; both in terms of age as well as common interests (cf. Little *et al.*, 1999). However, from the beginning we had to contend with the fact that, as indicated above, German learners of English are usually much more advanced than Irish learners of German. This is not new, as English words and phrases are becoming more and more part of German colloquial and formal registers and English in general is much more "in the air" in Germany than German in Ireland. It is also not surprising, then, that from anecdotal evidence we always assumed – and accepted, to a certain extent – that both email and MOO discussions had an imbalance in favour of the stronger L2, English.

2002-03 was the first year that we implemented the BTA. In previous research, we had never analysed how much both languages were used in the exchanges, and whether there really was a balance. Similarly, learners did not know whether their exchanges were balanced. Compared to e-mail exchanges, where a learner can at least make an educated guess at how much both languages were used, synchronous communication (in whatever medium) by its very nature makes an assessment of bilingualism very difficult. Thus, we only had a vague idea of the imbalance in bilingualism, until O'Rourke (2002) in his PhD thesis assessed it at between 1:5 and 1:6 (German: English), based on selective measuring tools, e.g. a selection of 97 MOO transcripts containing 3,022 utterances (see also Schwienhorst & Borgia, forthcoming). We then knew that we really had to develop either a technological or pedagogical tool to address this imbalance, and we

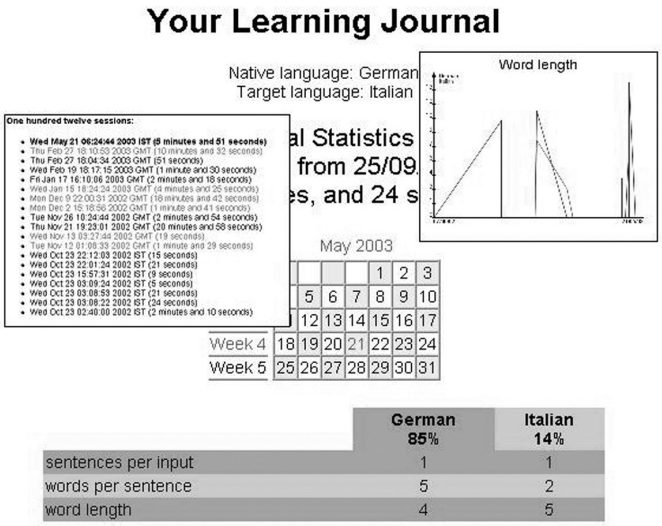

Fig.1. The learning journal of the BTA.

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modelled the BTA on an already existing tool for asynchronous email exchanges devised by Appel and Mullen (2000).

When connecting to the MOO that we use (with the BTA installed), there is an initial pop-up window that asks the user to select the L1 and L2 from drop-down lists. Once this is done, the pop-up window disappears. Whenever the user re-connects to the MOO, the first thing the user sees on the right are the global (i.e. overall) statistics of his/her bilingualism (see Figure 1). The two frames in the foreground of Figure 1 are optional frames that the learner can open: the one on the left lists the individual sessions in the form of hyperlinks; the frame on the right displays information on word length graphically (this is work in progress). By default, the learner sees the overall language percentages at the bottom, and a calendar with hyperlinks to the days, weeks, and months when sessions have been recorded. The learner can simply click on the days, weeks, or months to display more detailed statistics.

The programming background of the BTA has been explored in other publications (Schwienhorst, 2003; Schwienhorst & Borgia, forthcoming) and on the accompanying web site where the tool can also be freely downloaded (http://kontakt.tcd.ie/BTA). In short, the BTA offers the following functionality:

- The BTA is able to "guess" which language is used in whole (MOO) utterances.
- The BTA currently works for English, German, French, and Italian, and allows administrators/teachers to build up additional language profiles and adjust parameters as needed.
- The Student Journal displays the results of its analysis individually to each learner (global, monthly, weekly, daily, "live" statistics), both automatically on re-connection and on demand.
- It also displays detailed information, on demand, to the MOO administrator/teacher. This information can be used for research purposes, provided the learners have granted permission.

Our research so far (Schwienhorst & Borgia, forthcoming) has yielded the following two major results:

- The BTA is able to accurately "guess" which language is used at any time in the MOO. This accuracy is independent of the four languages implemented, and works on short and long utterances, as well as utterances that involve code switching.
- The BTA has a substantial effect on learners' bilingual proportions in the exchange, i.e. learners become more balanced in using both languages, although there is still a tendency towards the stronger L2 that needs to be addressed with more tools (e.g., pop-up windows) or through pedagogical intervention (e.g., reflection sessions that focus on bilingualism, or tasks that explicitly focus on the problem).

4 The pedagogical framework and research set-up: implementation of the Bilingual Tandem Analyser and methodology

In the academic year 2002-03, a total of eleven Irish students (one of whom was German native) and eighteen German students took part in the MOO project. As mentioned

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above, the proficiency levels of both learner groups differed substantially. The Irish learners' proficiency levels ranged from upper elementary to intermediate, whereas the level of the German learners ranged from intermediate to Cambridge Advanced or even Cambridge Proficiency level.

All students worked with their tandem partners (which they had selected themselves) in the MOO over the course of twelve weekly sessions of one hour each. At the beginning and in the middle of the project, learners were involved in induction and reflection sessions to discuss the principles of tandem learning in relation to their exchanges. Learners had a variety of tasks and activities at their disposal, for which they had bilingual support available in the MOO, see Table 1.

Learners also had to submit a final written product at the end of the project. We also encouraged learners to keep a learner diary (Dam, 1995) to record what they discussed in each session: what went well; what did not go so well; and how they wanted to proceed in the next session. As mentioned in our previous section, we also implemented the BTA in such a way that when learners first connected to the MOO they had to select their L1 and L2 from drop-down lists in a pop-up window. Subsequently, when connecting, they would always see their up-to-date overall statistics for the two languages they had selected. They were also able to call up the current statistics at any time with the command "@journal".

As indicated in the introduction to this paper, we prepared a questionnaire on bilin-

Table 1. *Sample task*

Topic 5: Work experience	*Thema 5: Erfahrungen in der Arbeitswelt*
AIM: to discuss previous work experience to develop vocabulary for a CV	ZIEL: Jobs diskutieren Vokabeln für einen Lebenslauf sammeln
TIME: 1-2 sessions Discuss with your partner: What kind of jobs have you been doing?	ZEIT: 1-2 Stunden Diskutiere mit Deinem Partner: Welche Jobs hast Du schon gehabt_ Als was hast Du schon gearbeitet?
Which jobs did you particularly like/dislike? Why?	Welche Jobs haben Dir besonders gefallen/nicht so gut gefallen? Warum?
Do you have plans for other jobs?	Hast Du schon Pläne für andere Jobs? Beschreibe sie!
Describe them! What information is vital for a CV? Are there differences between German and Irish CVs?	Welche Information sollte in einem Lebenslauf stehen? Gibt es Unterschiede zwischen deutschen und irischen Lebensläufen?
Final task: write a CV and send it to your partner for correction	Abschluss: schreibe einen Lebenslauf und schicke ihn an Deinen Partner zur Korrektur.

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Table 2. *Q1 quantitative results*

1 = (not important) – 10 = (very important)												
0	1	2	3	4	5	6	7	8	9	10	n/c	average
1			1			1	2	6	2	2	1	7.3

gualism and the BTA. The questionnaire contained quantitative as well as qualitative data, and was modelled on previous questionnaires on tandem projects, albeit on tandem e-mail (Little et al., 1999). The questionnaire was part of a larger research project into tandem learning on the MOO, and was sent out via email after the MOO project, and returned by five Irish students and eleven German students. Their answers form the basis of our research here.

5 Learner attitudes towards bilingualism and the BTA: results from the questionnaire data

The questionnaire was sent out at the end of the MOO project to all participating students via e-mail. Subsequently, we will list the questions and summarise the quantitative and qualitative data provided by the learners. All learners are made anonymous, and only the abbreviation indicates whether they are Irish (IRL) or German (GER). All spelling mistakes and inconsistencies are the students' own.

> Q1: During the telecommunications project, you were asked to use both languages in equal amounts. On a scale from 1 (not important) – 10 (very important), how important do you think this is, and why? (The responses are as shown in Table 2.)

The high quantitative average and the comments on Q1 indicate that almost all participants (GER1,GER2, GER4, GER5, GER8, GER10, GER11, and all Irish students) considered that it was important to balance the use of both languages – one of the three fundamental principles guiding tandem learning activity in the MOO. Examples for learners' comments are: "*This is in my opinion very important as it gives students from both countries to help each other with grammar and vocabulary etc. also when when each of uses our own language we can see the different local expressions and vocab which gives more of a sense of what it is like to speak the language and not just learning the rules of it in a class"* (IRL1) and *"I think that it was important 8, because one has to start thinking in one language and then change to the other, so there is always somewhere an effort. It is easy to speak only in one language, it is comfortable"* (GER8).

At the same time, great differences in L2 proficiency seem to be an obstacle to this (GER1, GER7). GER9 mentions the possibility of code-switching as an opportunity to keep the conversation going: "*It helps to keep the chat going, no need to search for the proper translation, learning*".

The one student who gave the question a 0 (GER3) was partnered with a German

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native speaker student in Ireland (who unfortunately did not respond to the questionnaire). Some learners contradict their 10-point scale in the comments. IRL2, who gave it a 3 (but in his comments upped this mark to a 4), wanted to divide the languages up differently: "*Actually I felt it was not important so say 3, this is because I feel it would have been more beneficial for say for the irish people to use german and vice versa – then I could correct my partners mistakes as we went along and vice versa – actually now that I think of it, it was a bit useful because we were exposed to german idioms and expressions etc – so 4*." All in all, we can see that with few exceptions, almost all students rated the importance of their own balanced bilingualism very highly, and the diversity in their comments indicates a high level of metalinguistic awareness.

> In Q2 we asked: Was there a big difference in second-language levels between you and your partner? What effect did this have on your communication? If so, did you try to compensate in any way?

For Q2, eleven of the students reported marked differences between their own levels and their partners, always remarking that the Germans could speak much better English than the Irish could speak German. This indicates that learners were very much aware of the differences in L2 proficiencies. GER3 seems to have exclusively used English with his native-German speaker partner except for difficult technical vocabulary. Four students (GER5, GER6, IRL2 and IRL4) stated that there was no or a minimal difference in level. Not all the students who reported a large difference in level said how they compensated. Those strategies that were reported included using input modifications: "*I had the impression my partner had difficulties to understand all German words I used. So I used more simple expressions and it was not inconvenient to anybody of us*" (GER1) and paraphrasing or translation: "*yes there was; the effect was I tried to explain in German or give the English word*" (GER2).

GER7, GER8, GER10 and IRL 3 reported that they gave up and resorted to their best common L2, English. GER8 wrote: "*Yes, our partners didnt speak as well German as we spoke English.* (…) *That made us talk to 90% English. We spoke German sometimes but our partners answered in English most of the time*." and GER10 notes: "*Yes, there was a big difference. The effect was a major use of English language, because the given topic could not be discussed in such a complex way using the German language*." GER11 actually reported abandoning German for English as his compensation strategy. These comments seem to contradict findings by Legenhausen (1991: 69: see also Kötter, 2002: 212) that code-switching does not necessarily occur because of a lack of L2 proficiency. We were also interested in the response of GER9 who reported that his partner

Table 3. *Q3 quantitative results*

1 = (not important) – 10 = (very important)												
0	1	2	3	4	5	6	7	8	9	10	n/c	average
	4	2	2	1	1		1		1	1	3	3.8

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"*responded very slowly*". This might show a need to consider whether reciprocity should be considered in terms of time taken to produce utterances, in terms of length of utterance, or in terms of some combination of the two. The teachers in Ireland and Germany had both reminded their classes to change language half way through the sessions, but differences in language ability also have to be considered by the participants.

In Q3, we asked: How important was it for you that your partner used both languages in equal amounts? Again, express it on a scale from 1 (not important) – 10 (very important), and give reasons for it. (These responses are shown in Table 3.)

The average importance attached to the partner using both languages equally is far lower than in Q1. The comments on Q3 contrast with those on Q1 and even appear to contradict them, such as GER5: "*It wasn't very important for me, because I understood most of their English. I tried to concentrate on using both languages in equal amounts myself*". Whereas answers to Q1 indicate that students felt it was important to use both languages in equal amounts, in their answers to Q3 they report less concern about whether their partners balanced their use of the two languages. Although they accept the principle of reciprocity for themselves, in practice the German students seem happy to have more opportunity to use English, and the Irish students seem happy to let them make use of that opportunity (GER2, GER4, GER10, and GER11). GER10 sums this attitude up: "*Answered in question 1 before. If I strictly look at my learning effect, pure use of English language would help me most. I know that this is kind of egoistic, if question 1 and 3 would be one single question I would acknowledge the importance of an equal use of both languages*". However, this view might be too simplistic: GER4 notes: "*For me it was not only important read "spoken english", but to express myself in this language. It's a far more intensive way to learn, but it's somewhat more painfull, too*", obviously emphasising the production of comprehensible output as well as receiving comprehensible input. Nevertheless, one Irish student, IRL3, may have been relieved to be 'let off the hook'. The responses by IRL3 and IRL5 are very similar (both appreciate the equal status), yet their importance rating is 1 (IRL3) compared to 9 (IRL5). IRL4 shows that he appreciated the opportunity to learn from his partner, both from his use of the L2 and his L1 input: " *It was comforting (not in a bitter way!) to see flaws in his English and there are insights into German grammar to be had in seeing mistakes in a German speaker's structures. When he used German, I learnt a lot of new phrases/vocab*". There seems to be a tendency for Irish learners to appreciate bilingual input more. However, among all students, receiving balanced input does not seem to be as important as producing

Table 4. *Q5 quantitative results*

1 = (never) – 10 = (always)												
0	1	2	3	4	5	6	7	8	9	10	n/c	average
		2	2	1	2	1		2		2	4	5.5

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balanced input in both languages.

In Q4, we asked: Did you favour one language over the other? If so, why, and was this a conscious choice or did it just happen?

Here, we were interested to know whether code-switching happened consciously, or whether this happened unconsciously. In response to Q4, eight German participants reported that they favoured English, whereas the other three (GER1, GER5 and GER6) reported that they did not favour either language on the whole. Several mention their own opportunity to produce output: " *I favourised "talking" english because I wanted to improve the fluency of my 'talk', even though it was not necessary to understand each other (it was all about "how long do I have to think before I remember the word I seek)*" (GER3) and IRL1 comments: " *I enjoyed using both a great deal. However for me, talking to Germans in German was a great help for my language development so I think that I enjoyed using it the most*". Three of the Irish participants reported that they did not favour either language whereas IRL 3 and IRL 4 again favoured English. GER1 and GER4 seem to have misunderstood the principle of balanced bilingualism: " *I must say that is a bit strange conversation if you have to say one sentence in German and the next one in English, but well, it was the purpose of the MOOing…*" (GER1) and " *It's not easy, interrupts the conversation and perhaps even not a good idea to swap languages every 2 minutes*" (GER4).

What is notable here is that, except for GER5, none of the students favoured German. Clearly, students preferred to communicate in English. As in previous comments, some mentioned that working in the better L2 simply improved the flow of communication: "*Yes, I favoured using English language. Answered in question 2, more complex topics could be discussed, because of the second-language level gap. Therefore, it did not just happen. But it was not a conscious choice neither in the way I would say "I want to improve my English, so let's talk English only*" (GER10) and IRL3 notes: " *Yes, English. It was taking to long for me to write in german so the conversation was dying*!".

Q5: When you entered the MOOsite, the first thing you encountered was the language analyser, which gave you information about how much English and German you were using in your communications. On a scale from 1 (never) – 10 (always), to what extent did you use this to regulate the balance of use of the two languages in the MOO?

Questions 5–7 were more concerned with the BTA than with the effects of differ-

Table 5. *Q6 quantitative results*

1 = (did not help at all) – 10 = (a great help)												
0	1	2	3	4	5	6	7	8	9	10	n/c	average
	2	1	1	1	3	3		1		1	3	4.8

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ences in language level on language use. In Q5, we wanted to see how the BTA had been used consciously as a tool to balance the two languages. These results are shown in Table 4.

Just as the quantitative average is in the middle, the comments seem ambiguous or even contradictory. GER3 does not actually answer the question: " *In the beginning I always had about 90% English, but later on we both did not bother wich language we were talkin in, so I guess in the end it was at 60–40 or so…*" This indicates that the learner used the BTA at least at the beginning of the exchange (it is unclear whether this "guess" on later proportions was based on the BTA). We also find open contradictions between the ratings of importance on the one hand, and the comments made on the other hand. GER10 rates the BTA as 2, fairly unimportant, but the comment shows otherwise: "*The percentages were 10 to 90 most of the time (English language won by 80%) but that was hardly no reason to use the German language more*". Similarly, IRL1 says "*I did not use this a great deal, I would check only once and maybe twice per session*", although in our view, once or twice a session is quite sufficient. IRL3, who rates the importance at 5 (medium), comments " *Didn't really make much difference. If I was <50% german, I would usually try to up my average*". So, in reality, the tool *did* make a difference. A similar comment is given by IRL5: "*when I saw my german wasn't being used I would make a conscious effort to use it more to get the balance back to about 50–50.*"

There is a discrepancy between some of the quantitative and the qualitative results. Some of the learners maintain the BTA did not have a great effect on their bilingualism, yet their comments show that it did. All learners who gave comments concede that they were aware of the statistics, even though some claim that it did not influence them that much.

Q6: On a scale from 1 (did not help at all) – 10 (a great help), to what extent do you think the language statistics helped you with your exchange? Again, give reasons.

Here, we tried to find out about how the BTA affected broader issues of the tandem exchange. These responses are shown in Table 5.

Again, the quantitative average suggests a negative view on the helpfulness of the BTA for the exchange. GER1's comment suggests an inability to understand the principles behind the BTA, and thus an inability to adapt to any imbalances: " *the functionality of the language analyser appeared to be a black box, I could not understand the principle. I tested different sentences but it was not easy to understand how this mechanism works. As result, I could not evaluate the system.*". GER2, although like GER1 evaluat-

Table 6. *Q7 quantitative results*

1 = (a big intrusion) – 10 = (no intrusion at all)												
0	1	2	3	4	5	6	7	8	9	10	n/c	average
			1	1	1			2	4	6	3	8.3

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ing the system with a 5, holds the opposite view: "*it helped to see the percentage, means of control, because otherwise , eg if we had written on in English – the Irish students would n't have been able to profit, they would just have been forced to read all our English mistakes…*". GER5's comment seems ambiguous, and even contradictory: "*I think the language statistics didn't really help me with the exchange. They rather helped me in keeping the right balance between the two languages. A build-in dictionary would be more useful.*" Apparently, the student does not see balanced bilingualism as an essential part of the "exchange"; what would help the exchange more would be something that helps to bring communication forward. GER7 notes that the BTA helped in the beginning, but then English became dominant, and the BTA function did not play a role any more, a view shared by GER8: "*After a while we only had an english dialogue. was easier*". GER11 was enthusiastic and would like to see even more data: "*could be more detailed; the language statistics gave me some motivation to write more words per sentence ;-).*" This view is shared by IRL1. IRL5 mentions self-motivation and a competitive element: "*They helped a lot because you could the average size of sentences etc, and try to improve them the next week and beat your previous weeks*". However, the other Irish learners seem to agree with GER5 above and do not consider the BTA a great help for the exchange, although they acknowledge that it helped them with the balance.

Thus, if we understand that exchange here is understood to refer to the actual communication taking place in the L2, then it is not surprising that the results are not overwhelmingly positive. However, there are also some comments that suggest that the system may be more effective if it displays occasional "reminders" to learners when their exchange is getting imbalanced, such as Appel's Electronic Tandem Resources does for e-mail (Appel & Mullen, 2000). Learners like IRL5 and GER11 mention the length of sentences, which we had never mentioned to our students as an important feature, but which became important to these learners. They may be more useful than we thought to encourage learners to produce longer and thus also potentially more complex sentences.

> Q7: Do you think the language statistics were an intrusion in your exchange? Again, express it on a scale from 1 (a big intrusion) – 10 (no intrusion at all), and give reasons for it (see Table 6).

The average value of the quantitative results suggests a very non-intrusive view. This is largely reflected by the comments. GER1 notes an influence of the BTA and he acknowledges the importance of bilingualism: "*while the statistics were there they influenced my choice which language I used. Manipulating? Actually not, I do understand that creating the balance was important to support the project*". GER5 expresses an opinion that is shared by others (GER2, GER3, GER4, GER6, GER8, GER9, IRL1, IRL2, IRL3): "*If I'd seen this as an intrusion I wouldn't have used it so extensively* :-)". IRL5 adds to this the notion of user control which was one of the goals behind the BTA: "*If I'm understanding the question properly .10 – because you could call up the stats. At any time using @journal so they were no intrusion. The user controlled when they wanted to use the stats. which is good.*"

The responses to Q7 show that learners definitely did not perceive the BTA as an

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intrusion. This is important, as the last thing that we wanted was for the BTA to be an instrument that is perceived as an intrusive tool or a teacher control tool. Like any other tool based on the principles of learner autonomy, we wanted the BTA to be a tool that learners see as a tool that gives **them** control and that is effectively working as a support in the background. Responses also show that we can experiment with more pertinent reminders when exchanges become imbalanced, such as pop-up windows that inform students of their statistics. The results of the questionnaire show that the learners on the whole were positive about the analyser, and provide further evidence that learners used the results of the analyser for guidance. The comments also show that learners were surprisingly advanced in their levels of linguistic and metalinguistic awareness, which may point to the success and necessity of thorough induction and reflection sessions on the principles of tandem learning.

6 Summary of results and further research

There are, of course, limitations in using such a small data set as that presented above to make any further claims, and we hope to replicate and expand on our data collection in future MOO tandem projects. Nevertheless, there are a few tendencies in learners' views of bilingualism and CALL tools to control bilingualism such as the BTA. There seems to be a contradiction between the importance that is attached to one's own balanced bilingualism and the partner's. The comments on the BTA are either largely positive or show indifference; several comments indicate that learners make little use of the BTA consciously, but at the same time concede that they were aware of the statistics and changed their behaviour accordingly. In any case, the BTA did not appear to have an intrusive effect on learners' exchanges, but – probably in combination with induction and reflection sessions – seems to contribute to learners' language and language learning awareness.

Furthermore, the implications of learners' responses as regards proficiency levels were also very important. Learners often perceive a switch to the stronger L2 as the only solution to large differences in L2 proficiency levels. Our study indicates that a substantial difference in L2 proficiency levels will often result in participants overtly favouring the more proficient L2. Some comments suggest that this is because learners consider the flow of communication to be more important than reflection in communication, and that use of a language that one speaker is less proficient in places an unnatural burden on this communication. In view of these findings, it seems appropriate to suggest that similar levels of target language proficiency are an advantageous if not necessary prerequisite of tandem partnerships (cf. Little, 1999).

We have only begun to explore ways to combine effectively technological tools such as the BTA and pedagogical frameworks such as tandem learning. In recent publications (O'Rourke, 2002; Schwienhorst, 2002; O'Rourke & Schwienhorst 2003), O'Rourke and Schwienhorst have suggested a system of pressures, potentials, and affordances to measure the amount of pedagogical support that is needed when implementing CALL tools. In this system, the BTA definitely is a potential, a tool that the more autonomous learner will make conscious or – as suggested by our research in this paper – largely unconscious use of. Future research into the BTA tool could show whether, for example, by introducing reminders of bilingual statistics during exchanges (maybe in the form of

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pop-up windows) the BTA tool can become more effective, not only in the small context of ensuring balanced bilingualism in exchanges, but in working towards more linguistic and metalinguistic awareness. However, we have to make sure that the BTA is not perceived as a teacher tool, or as a control tool, and it is here that pedagogical support is important.

We will also need to find out more about other areas of reciprocal learning in tandem partnerships, and how these are viewed by learners. In introductory, reflection and review sessions, learners need to discuss tandem principles and find a working learning framework for themselves and their partners. Only then will tandem partnerships become reciprocal learning partnerships.

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