Chapter 6

ICT AND TASK DESIGN

6.1 Introduction

As described in the previous chapters, the learning environment today is enhanced by technology to yield many innovative options for language learning. The Internet may be used both as a resource and a conduit for teaching and learning; CMC offers alternative communication modes for the vital processes of interaction and collaboration; tutorial programs may provide focused instruction for specific language areas; and more recent technologies, such as weblogs, wikis and virtual worlds, support online collaborative work within peer groups or with target language users.

In everyday teaching practice, there appear to be considerable differences in the frequency of use of these applications. The usage patterns that became evident from the IILL survey largely confirm findings from other studies and suggest that the most frequent applications involve the use of the Web as an online reference resource and as a source of input for language learning, and the use of tutorial programs for practising linguistic forms. Applications often associated with more innovative CALL, such as CMC (with the exception of email) and collaboration tools, clearly fall behind in popularity. The survey revealed that these applications are used primarily outside the classroom, often by students working on their own. VLEs and general computing facilities, such as a PC and data projector and multimedia (language) lab, were found to be frequently used in support of language learning and teaching in HE education institutions, which are generally well-equipped, but may want to improve the vision and didactic support with regard to the learning technologies available. Many of these findings are in line with the patterns of use that have been reported on in the description of innovation projects in the Netherlands in chapter 4.
In this chapter, we will examine more closely to what extent the observed usage patterns fall in with task-based language pedagogy. This will include an assessment of the role of tutorial software, which is not readily associated with modern views on language learning in the contemporary CALL literature. The focus in this chapter will be particularly on the use of ICT at the level of task design, while the next chapter will look more closely at the role of ICT in relation to curriculum design.

The critical assessment of various technologies in support of language pedagogy will be based on the teaching-oriented frameworks of TBLT introduced in chapter 2, particularly Willis (1996) and Willis and Willis (2007). The scope for using ICT within the TBLT framework will be explored with reference to each of the three dimensions of integration (technology, pedagogy and institutional environment). Although the primary orientation is on TBLT, the other supporting frameworks CEFR and Flexibility-Activity Framework, as already demonstrated in the previous chapters, are useful for highlighting additional aspects of integration, which is why reference will be made to these frameworks as well in the discussion that follows.

The discussion is intended to provide guidelines for implementation to those involved in integrating technology for language learning and teaching in HE institutions where opportunities for learning online can be combined with learning in class. Additional examples of use are given to make aspects of application more concrete or to present further information on specific programs or projects.

6.2 Task design in TBLT

As pointed out in chapter 2, using TBLT as a basis involves reinterpreting existing TBLT frameworks, which have been primarily designed with classroom-based language learning and teaching in mind, in light of the new possibilities afforded by a technology-supported learning environment. As Chapelle (2003) indicates the “body of professional knowledge” about
classroom instruction that is already available from SLA theory and research may make “the classroom episode or learning task” a suitable point of departure for exploring the potential of technology (Chapelle, 2003: 36-40). Looking at existing frameworks of TBLT suggests points of contact with the use of ICT and paves the way for discussing implementation of task-based learning and teaching practices in which technology is firmly incorporated.

One of the best known TBLT frameworks, with a strong emphasis on practical implementation, is presented in Willis (1996). We will use this framework as our main reference to outline task aspects relevant to the use of ICT and refer to other proposals as the discussion unfolds. The main components of the framework are given in Figure 17 above.

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**Pre-task**
**Introduction to topic and task**
Teacher explores the topic with the class, highlights useful words and phrases, helps students understand task instructions and prepare. Students may hear a recording of others doing a similar task.

**Task Cycle**
**Task**
Students do the task, in pairs or small groups. Teacher monitors from a distance.

**Planning**
Students prepare to report to the whole class (orally or in writing) how they did the task, what they decided or discovered.

**Report**
Some groups present their reports to the class, or exchange written reports, and compare results.

**Language Focus**
**Analysis**
Students examine and discuss specific features of the text or transcript of the recording.

**Practice**
Teacher conducts practice of new words, phrases and patterns occurring in the data, either during or after the analysis.

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**Figure 17**: Task-based learning framework, based on Willis (1996: 38).
As in most other task-based frameworks, tasks are integrated into a pedagogical sequence, consisting of a pre-task, during-task, and post-task phase. In Willis (1996), the task proper is incorporated into the task cycle, where it marks the start of a three-step task phase. As illustrated in Figure 17, the pre-task phase is used to introduce language learners to the topic and task. It is intended to establish the learners’ understanding of the task and to activate words and phrases related to the task and topic. The centrality of meaning in the TBLT approach requires that explicit attention to form be avoided at this stage (to prevent students from ‘regurgitating’ pre-selected expressions and grammatical structures). One option for this phase is to show learners an example of the tasks being performed by fluent speakers of the language. This should motivate learners to perform the task using their own linguistic resources. Willis (1996) places the actual performance of the task at the beginning of the task cycle and typically follows it up by a planning stage in which students are given time to think about task performance, in terms of how well they did it, problems encountered and solutions reached. This should prepare them for the final reporting stage of the task cycle, which consists of a written or spoken report to the class. The post-task phase in the framework is reserved for language focus, which allows for analysis and practice of the lexis, grammar and other language features that occurred during the performance of the task cycle. This post-task stage provides explicit instruction in the use of the forms of the language.

Willis (1996) provides details on the each phase of the TBL framework, paying attention to how exposure to written and spoken texts may be achieved, and how the prerequisite processes for acquisition – primarily through interaction – may be set up. In addition, detailed guidelines are given for providing language focus through explicit instruction at the end of the task sequence. The discussion in Willis (1996) suggests that there may be at least three areas of application of technology in the context of tasks: the use of ICT in providing input, in facilitating interaction and in delivering explicit language instruction. Willis and Willis (2007) uses an extended version of the
framework, in which the terminology is somewhat different but in which the basic principles and procedures remain unchanged.

As Ellis (2003) and Samuda and Bygate (2008) illustrate, several other proposals for laying out the task sequence have been made. What they have in common, however, is that sequencing the steps within the task is crucial to prioritising meaning over form. Form is never the point of departure for the task, but it is an important element in the task.

6.3 The web as input for learning

6.3.1 Authentic input

The WWW bears particular relevance for language learning, since it is by far the most extensive, most varied, easily accessible resource on almost any aspect of the “real world” today. The Web holds unique possibilities for TBLT, in Felix’s (1999) words, as a “window to the authentic world”:

The Web should most sensibly be used for the unique potential that it offers. Whatever legitimate place traditional teaching content and styles may have in a web-based course, it seems odd to use the Web to focus on them instead of exploiting the new medium for student-centred, task-based, and collaborative learning in true-to-life or, better still, authentic settings.

(Felix, 1999: 87)

Tasks in TBLT are not necessarily true-to-life renderings of tasks in the real world. A distinction is often made between target tasks, which “reflect language use in the real world” (Willis & Willis, 2007: 23) and are inspired by a “rehearsal rationale” and pedagogic tasks, which have been primarily designed on the basis of an “activation rationale” (Nunan, 2004: 20) to elicit language behaviour that “corresponds to the kind of communicative behaviour that arises from performing real-world tasks” (Ellis, 2003: 6). Task authenticity,
on these counts, may either be “situationally authentic” or “interactionally authentic” (Ellis, 2003: 6). What these different types of tasks in TBLT have in common, however, is that the primary orientation is on task performance in the real-world, or, as Nunan (2004) puts it, on “the hundred and one things we do with language in everyday life, from writing a poem to confirming an airline reservation to exchanging personal information with a new acquaintance” (p. 19).

This is also a leading principle in the outcome-based CEFR, where what language learners should be able to do with language is specified in terms of real-world contexts (domains) and related to real-world subjects (topics). And it is also an important element in competence-based frameworks more generally, including the Flexibility-Activity Framework, where it is particularly associated with the participatory aspects of learning.

6.3.2 Activating linguistic resources

Experts working on the basis of TBLT principles have examined the role of the web in this context. Skehan (2003), as has been shown in chapter 2, greatly acknowledges the potential of authentic web-based input as a resource for learning. But he argues that language learning on the basis of web-based resources will not take place of its own accord. The essence of his argument is that without appropriate activation of the learners’ linguistic resources, very little learning will take place. If proper activation does not take place, the problems associated with the “comprehension-orientation of immersion education may now reassert themselves in this new area of language exposure” (Skehan, 2003: 409). It is therefore essential that the use of web-based materials as part of the task-based sequence is carefully considered, particularly with regard to providing beneficial focus on form.

Judicious task design is a prerequisite for language learning on the basis of genuine resources. Inherent dangers of not paying due attention to the design of the task stages are that “learners will simply get the job done (extracting
meaning from the limitless input materials; interacting minimally without pressure to change interlanguage systems) so that form is by-passed” (Skehan, 2003: 408-409). Discussing the use of the web by students in the context of project-based work, Skehan re-iterates crucial aspects of task design that have been established by SLA research in non-technology contexts. The pre-task stage, i.e. before learners start a web-based task, could be set up as teacher-led, individual or group work in class which should include learner planning of the task to promote use of new language (complexity) and control of existing language (fluency). During the project-based web task, teachers may be able to influence students’ choice of task by directing them to tasks at the appropriate difficulty level and considering options for task structure (to promote accuracy and fluency) or interactivity (to promote complexity and accuracy). The most important stage, Skehan claims, is the post-task phase, where reporting back to the class is essential for extending, integrating and consolidating language and heightening motivation for grammar focus. In Skehan’s proposal, the web-based project task (he is considering a project in which students are required to write a wheelchair guide for a city in France over an extended period of time) is primarily conducted outside class. It is encapsulated in in-class pre- and post-task activities which are deemed essential for making the task work for language learning. The nature of the pre-task and post-task work is largely the same as for tasks that are not web-based and falls in with general task frameworks such as Willis (1996) described above.

6.3.3 **Freeing up class time**

An added benefit of this arrangement is that it makes for more efficient use of class time, which is a major concern in TBLT (Willis & Willis, 2007: 214-215). As was observed in the previous chapter, class time in our target setting is usually only 40% of the total time available for a course, which strengthens the need to design tasks that can be conducted outside class. Skehan’s example of project-based work demonstrates how careful consideration of
aspects of pedagogy, technology and the educational environment (the main components of integration) may be the point of departure for setting up innovative teaching practices on the basis of ICT. More examples of this kind will be discussed in the section on web quests below.

6.3.4 Providing learner training

Skehan’s second suggestion is for learner training in the context of using web-based resources. Well-designed tasks may not be effective if students have not learned how to use them for maximum effect. This is particularly relevant for web-based tasks which are performed by students out of class. The focus should be on metacognitive strategies in particular, such as goal setting, planning and attention focusing (following the framework in O’Malley and Chamot (1990)):

> These could then reduce the likelihood that learners will simply involve themselves with foreign language material, however exciting this may be, but not focus on form, and not make progress with the language itself. The web provides incredible potential for autonomy in language learning – what is also required is the opportunity to learn to use that autonomy productively.

(Skehan, 2003: 408)

6.3.5 Role of teacher and classroom

Task design and learner training, then, are two aspects of implementation which are crucial for using the web as a resource for language learning. In addition to affirming the role of the teacher in designing the tasks and providing learner training, and the role of the classroom as a location of crucial pre- and post-task activities, it should also be noted that the role of the teacher as a guide to suitable web resources is strongly promoted in this view.
to using the web as a resource for learning. The view of the web as a naturalistic environment for language learning is clearly rejected.

6.4 Web quests for guided use of the web

Another method for using web resources that language teachers might want to consider are web quests. Web quests are frequently used inside and outside the language learning context for making students work with authentic web-based materials. A web quest can be defined as “an inquiry-oriented lesson format in which most or all the information that learners work with comes from the web” (http://www.webquest.org). Web quests are often associated with TBLT and some TBLT practitioners (Samuda & Bygate, 2008; Willis & Willis, 2007) refer to web quests as a way of putting TBLT principles into practice in web-based language learning projects. A major advantage of web quests is that they offer a systematic method of making learners work with web-based resources. This method is reflected in the uniform format which is at the basis of any web quest. The basic components of web quests were defined in Bernie Dodge’s original model (see http://www.webquest.org for more information) and are described by Luzón (2007) as follows:

1. An introduction that sets the stage for the activity and provides background information.

2. A task that is feasible and interesting. It usually engages students in answering a complex open-ended question or solving a real world problem. Students need first to learn some basic background information about the issue. Then, working in small groups, they become “experts” on some aspect of the problem by analyzing the Web sites given to them by the teacher. Finally, they complete a real world activity by producing an output, e.g. a written report, an oral presentation, a multimedia presentation, a website.
3. A set of information sources needed to complete the task. Teachers usually pre-select a few websites which provide background information for all learners, as well as specific websites for each student's role.

4. A description of the process the learners should follow to complete the task. It may include a description of the different roles to play, with the tasks to be performed by the students playing each role. Resources may be embedded in the process section.

5. Evaluation, usually in the form of a rubric that sets the assessment criteria for the students.

6. A conclusion that closes the quest and encourages the learners to reflect on the process.

(Luzón, 2007: 4)

Similar to Skehan (2003) above, Westhoff (2004), in discussing the pros and cons of web quests, points out that language acquisition does not necessarily occur as a natural effect of students interacting with authentic web materials in the context of performing web quest activities. He points to problems of offering input at the right level; potentially insufficient attention to form and accuracy; vocabulary acquisition which may be problematic; assessment problems with group work; unfamiliarity with self-evaluation by students; and use of the first language instead of the target language during web quest activities (Westhoff, 2004: 2-3). These problems have led Westhoff and his colleagues to devise additional guidelines for developing language quests, which supplement the attributes of the original web quest model with criteria from communicative language teaching approaches and principles from SLA (Koenraad & Westhoff, 2003). These criteria have been used as the basis of a tool for assessing critical aspects of language quests.
The assessment tool can be used by teachers to assess general web quests and language quests with regard to their utility for language learning (an English language version of the tool is available). It focuses attention on aspects such as qualitative and quantitative aspects of input; raising language awareness and focus on form; the role of interaction and collaboration; the use of learner strategies; and task characteristics such as closed vs open-ended tasks. This instrument may therefore be extremely helpful in improving the use of web quests for language learning purposes.

Luzón (2007) places the potential of web quests in the broader context of English for Specific Purposes (ESP) and links the use of web quests to students participating in disciplinary communities, preparing them for lifelong and autonomous learning and fostering the development of new literacies. Specific proposals are made for integration with a genre-based approach to ESP. Exposure to the genres typical of the disciplinary community offers a way of eliciting beneficial focus on form. Following proposals in Doughty and Long (2003), she suggests that this is an area where input flooding (offering a large amount of texts containing the target linguistic features), input enhancement, and corrective teacher feedback may be provided. Of particular relevance in her proposal are the suggestions for helping students develop skills for lifelong, autonomous learning. These make reference to the use of “scaffolding” tools for web quest activities involving reception, transformation and production. The tools mentioned include online glossaries, dictionaries, links to online grammars, note-taking guides, brainstorming tools, samples, models and templates for presentation and writing, communication tools for clarification and feedback from teachers and peers. Finally, useful suggestions are made for the pre-task and post-task phase of tasks based on web quests. In relation to post-task activities, she remarks:
After the task has been presented, students could be prompted to reflect on the linguistic and discursive knowledge they will need for its completion and to set their own language learning goals.

(Luzón, 2007: 7)

The above recommendations by Skehan (2003), Westhoff (2004), Koenraad and Westhoff (2003) and Luzón (2007) may help to redress much of the criticism by Doughty and Long (2003), who commented on the use of the authentic, web-based resources as follows:

Whereas technology offers seemingly infinite (e.g., Web) access to rich input, without any pedagogical intervention, Internet input is overwhelming (often even for native speakers). Consequently, activities like Web-based scavenger hunts or Internet searches are ill-advised.

(Doughty & Long, 2003: 62)

The proposed guidelines for setting up student exploration of authentic web resources, particularly in the context of carefully designed web quests, include suggestions for consistent design, which takes into account aspects of SLA and allows for teacher intervention and classroom interaction at appropriate points in the TBLT pedagogical sequence. Rather than ‘scavenging’ the web looking for prey, students may thus be led to caches of language learning fare which they can savour and digest for themselves.

It should be pointed out, however, that providing post-task language focus remains a critical issue with web quests. The web quests/language quests available at sites such as http://www.webquest.org, http://www.theconsultants-e.com/webquests/ and http://www.talenquest.nl often do promote reflection about task performance during the evaluation stage (this may include reflection on the language used or learned), but there
are no explicit recommendations in the model itself for following up this reflection episode by a post-task language focus stage, as suggested by Willis (1996), Skehan (2003) and other researchers and practitioners working in the TBLT framework. In particular, practice of the linguistic items encountered is not guaranteed. A crucial aspect of implementing the use of web-based resources in a TBLT setting remains therefore to make sure that the language issues that arise during web-based work, also if it is carefully designed in the form of web quests, are properly followed up by language analysis and practice activities which stimulate language development.

6.5 Enhanced input for learning

6.5.1 The need for enhancement

It should be pointed out that using authentic, web-based resources should not be regarded as the only way of providing input to students. Enhancing the input, i.e. modifying it in ways that may make it comprehensible to learners, is another way of offering language input to students that teachers might want to consider. Luzón (2007) suggested using teacher-modified texts in addition to authentic web resources on the basis of recommendations in Doughty and Long (2003). Doughty and Long (2003) are clearly in favour of modified, teacher-prepared input:

Quite apart from their undesirable status as units of analysis for language teaching […], genuine (popularly known as “authentic”) texts, originally written by and for native speakers, are usually too complex for all but very advanced learners.

(Doughty & Long, 2003: 59)

They argue that elaboration is needed to make authentic texts comprehensible to language learners. Elaboration is usually associated with interpersonal interaction, where it may occur naturally in teacher-learner or learner-learner communication, but it may also be provided in “pre-scripted materials sources
for pedagogic tasks” (p. 59). Doughty and Long (2003) argue that the challenges for the teacher / course designer in the technology context are largely the same as those facing the designer of traditional classroom materials: “The course developer simply has to follow the elaboration procedures that have been shown empirically to facilitate comprehension while at the same time providing rich input” (p. 60).

6.5.2 **Forms of enhancement**

A comprehensive account of the technology options for enhancing input on the basis of these empirical considerations is provided in Chapelle (2003). Following up on SLA research, she explores how three different types of input enhancement may be realised through technology. The three types are summarized in Table 41 below:

<table>
<thead>
<tr>
<th>Input Enhancement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salience(^9)</td>
<td>Marking a grammatical form on the screen or phonologically through stress</td>
</tr>
<tr>
<td></td>
<td>Repeating a grammatical form or lexical phrase</td>
</tr>
<tr>
<td>Modification</td>
<td>Making the input understandable to the learner through any means that gets at the meaning (e.g., images, L1 translation, L2 dictionary definitions, simplification)</td>
</tr>
<tr>
<td>Elaboration</td>
<td>Increasing the potential for understanding the input through addition of plausible, grammatical L2 elaborations to the original text (e.g., defining relative clauses)</td>
</tr>
</tbody>
</table>

| Table 41: Types of enhanced input expected to be beneficial to learners, based on Chapelle (2003: 40) |

Her conclusion on the basis of SLA studies which have examined these different forms of input enhancement is threefold:

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\(^9\) It should be noted that Chapelle uses this term to refer to ways of making the forms salient or “marked”, rather than to an inherent property of the form itself.
1. Different aspects of the language are likely to require different forms of enhancement, e.g. syntactic elaboration for postmodifying clauses and semantic modification for lexical expressions.

2. There needs to be a clear link between the form in the text and the enhancement. Learning of the original form may not take place even if learners understand the enhancement.

3. Enhancement should be offered interactively. Learning may be most beneficial if learners can request input enhancement as they need it.

(Enhanced input for CALL, based on Chapelle (2003: 52-54))

This illustrates that elaboration, although arguably one of the most effective types of enhancement, is definitely not the only form of enhancement. For instance, multimedia glosses, translation, dictionary definitions and interactive help offer alternative modes of enhancement, the effects of many of which have been studied in SLA (Chun, 2006). What these different forms of enhancement have in common is the use of hypermedia as a powerful mechanism for implementing each type of modification (Chapelle, 2003). Moreover, this is the type of modification widely applied in commercial CALL. In relation to listening practice, Chapelle (2003) remarks that “various forms of this type of listening with interactive help are routine in multimedia-based ESL materials such as ELLIS and Longman English Interactive” (p. 54).

For enhancement of text input, easy-to-use multimedia editing tools are available (even MS Word may be used for this), putting input enhancement within reach of most language teachers or developers interested in facilitating input comprehension or vocabulary acquisition by students. Enhanced input may therefore be provided to students, either by using ready-made materials or by teacher-authoring of such materials.
Chapter 6

6.5.3 Limitations on producing enhanced texts

However, the adaptation of pre-scripted materials, although technically feasible for most teachers, is almost inevitably time consuming. In terms of the components of implementation outlined in chapter 2, integration of technology, although motivated by the underlying pedagogical approach, requires that time constraints imposed by the educational environment be taken seriously. The problem is rather similar to the problem with content development in the Hologram project described in chapter 3.

The Flexibility-Activity Framework presented earlier suggests that designing for activity rather than content helps in resolving this problem. The suggestions on using authentic web-based input in sections 6.3 and 6.4 above demonstrate how enhancement of authentic texts can be avoided by focusing on task development rather than content development (although time needed for design is obviously also a consideration here). In the Flexibility-Activity Framework, such a focus on activity rather than content is seen as the key to achieving (more) active involvement of the learners in the learning process. Active student participation is obviously also a central issue in TBLT, and the proposals in sections 6.3 and 6.4 for student exploration of the web by fostering learner independence can be regarded as instances of this.

6.5.4 Other options for using enhanced texts

This does not, however, preclude the use of specifically designed content in this context. Enhanced texts may be particularly valuable in making input more comprehensible for learners. But before starting on the development of such materials, teacher-designers should consider if suitably modified materials are not already available. As Chapelle (2003) indicates, hypermedia input materials for listening are readily available and more gain may be had by integrating existing resources into the task-based sequence than by teacher authoring of new resources. It should also be noted that the Flexibility-Activity Framework strongly promotes content development by students
themselves. This is also an option to be considered. One way of operationalising this is shown in the discussion of WordChamp in section 6.8 below. Alternatively, collaborative development with colleagues (possibly in other institutions) may reduce the time investment required when there is a definite need for designing such materials. As illustrated in chapters 3 and 4, this was a leading rationale in the Hologram and Digitalenklas projects. Finally, as will be discussed in the following sections, some forms of enhancement may be realised (semi-)automatically through the use of specific tools.

6.6 Combining the different options for offering input

6.6.1 Introduction

Since teachers may find it difficult to achieve a balance between the various methods of offering web-based input, we will end this section by discussing a proposal in which the different options are compared.

Brandl (2002) offers useful guidelines for finding an appropriate balance between pre-selected, pre-modified materials and unrestricted, authentic web resources as options for exposing students to L2 input. He takes into account several factors which are related to our framework of integration (including “curricular goals, pedagogical issues, learner needs, student proficiency levels, the hypertext-based structure of the Internet, technological and design issues” (Brandl 2002: 89)), and uses these as a basis for presenting three different design proposals for using Internet-based reading materials. Each proposal involves different degrees of teacher and student control.

6.6.2 Teacher-determined approach

The first, for which Brandl (2002) uses the term “teacher-determined approach”, is characterised by a design in which teachers preselect reading or cultural material from the Internet, develop comprehension activities and make these available on the web. It is similar to the proposals in Doughty and
Long (2003) for using such materials. The strengths of this approach, Brandl argues, are in the authenticity of materials, the tailoring of contents and tasks to students’ proficiency levels, and the opportunities for close guidance and focus on meaning and language aspects of the texts. The main advantages of using technology in this context are in promoting individual student work, on the basis of texts that may be elaborated as described in the previous section and supplemented with exercises for comprehension and practice. Assessment of several aspects by computer is possible. This approach, Brandl (2002) argues, “lends itself for all levels of instruction” (p. 91). Similar to the arguments above in relation to pre-scripting input texts, he states that development “may be time consuming and cumbersome”, requires technological expertise on the part of the teacher and may involve copyright issues.

6.6.3 Teacher-facilitated approach

In the second, “teacher-facilitated” approach, teachers present a predetermined set of Internet sites to students, accompanied by an appropriate task design, which “facilitates the students’ reading process and guides the learners to explore a variety of preselected resources, thus providing a clear goal to be accomplished by the students” (p. 91). An important rationale for promoting this design is in furthering student independence in a relatively contained environment, where the navigational scope is limited, where sites may be pre-screened for content and language and where appropriate guidance in using the sites may be provided. Brandl (2002) argues that this design is suitable for beginning and intermediate learners, who no longer require close intervention by the teacher for comprehension. He points out that less teacher preparation is required than for teacher-determined designs, but appropriate guidelines must be devised for assessment of the open-ended outcomes which are typical of the mode of learning (assessment by computer is generally impossible). It will be noted
that by and large the web quests discussed above comply with Brandl’s notion of teacher-facilitated design.

6.6.4 Learner-determined approach

In the third type of approach, the “learner-determined” approach, the learners rather than the teacher determine the topics and web-based resources and the ways of exploring them. This form of learning relies most strongly on principles of autonomy and combines a constructivist approach with the development of higher-order cognitive skills. This approach is very similar to that outlined in Skehan (2003) above. Brandl (2002) states that this “open-ended approach to exploring Internet-based resources” will not work unless students “have a solid foundation in their language skills” (p. 95). It is therefore most appropriate for students at advanced levels. It requires the least upfront teacher preparation of the three designs under discussion, but assessment may be most difficult and may require a substantial amount of time.

The main differences between the three designs are summarised in Table 42 below:
6.6.5 Combining the options

The discussion of these alternative modes of offering web-based resources to students demonstrates how each mode may involve different aspects of pedagogy, technology and organisation. Since each type is associated with specific advantages and disadvantages, language learning and teaching may best be served if tasks involving student access to specifically selected, enhanced multimodal texts are combined with tasks involving direct student
access to authentic web-based resources, with differing degrees of teacher and student control. The selection of a particular form of access must be supplemented by appropriate task design in all cases. In particular, the potential for using the web as an authentic context for learning must be considered in relation to providing sufficient focus on form, fostering learner autonomy and freeing up teacher time for development or assessment of web-based tasks.

6.7 Reference tools for making input comprehensible

6.7.1 TBLT perspectives on reference tools

The IILL Survey revealed that online dictionaries and other reference works are the most frequently used types of ICT applications in Higher Education. They obtained higher frequency rankings than online news media and other web sites on life and culture in the target language, which are instances of the web-based resources discussed in the previous section. Online dictionaries and reference works belong to the realm of “computer-as-tool” applications (Levy, 1997). One of the functions of online dictionaries and reference works, as web-based tools, is to make web-based resources accessible for learners.

Willis and Willis (2007) consider the use of the analogue counterparts of such tools (as has been pointed out, ICT remains rather peripheral in their TBLT framework) in a broader context by linking them to the provision of focus on form during task-based work. They put them on a par with a teacher, as “an authority” to be consulted “when they [i.e. language learners] ask for the meanings of specific items”, or “when they mine written language in preparation of a coming task”, etc. (p. 133). This description aligns seeking assistance from an external authority rather closely with the concept of ‘scaffolding’ which is associated with sociocultural approaches to SLA. This was also the perspective from which Luzón (2007) introduced the use of tools in the context of web quests (see section 6.4 above). Others have interpreted the use of such tools for reading, listening and writing from an Interactionist
perspective, emphasising how they may be used to resolve breakdowns in communication that occur during receptive or productive language activities (Chapelle, 2001: 71).

Irrespective of the underlying roots in language learning philosophy, TBLT readily accommodates dictionaries and other reference tools into the task-based framework. Depending on the task type, task phase and skills focus, such tools may be consulted at different stages during task performance, with a primary focus on meaning getting and meaning making during the pre-task and task stage and a primary focus on linguistic form and accuracy during the post-task stage. TBLT design suggests that in outlining the task an initial stage should be built in in which an appeal is made to the learner’s own linguistic resources before external authorities in the form of teacher, dictionary or other references are called upon.

This opens up the perspective of making use of the vast number of reference tools on the web. For English, for instance, Cambridge Dictionaries Online (http://dictionary.cambridge.org/), Collins Cobuild (http://www.collinslanguage.com/shop/english-reference.aspx), Oxford Advanced Learner’s Dictionary Online (http://www.oup.com/elt/catalogue/teachersiste/oald7/lookup?cc=global), and Merriam-Webster Online (http://www.merriam-webster.com/) offer excellent dictionary access to learners for free. For reference on other aspects, such as grammar and writing, English learners may also refer to sites such as UEfAP.com (http://www.uefap.com/) for Academic English or Onestopenglish (http://www.onestopenglish.com/) for General and Business English. A comprehensive catalogue of reference tools and other internet resources available for most of the world’s languages can be found at iLoveLanguages (http://www.ilovelanguages.com). In line with the guidelines on teacher intervention presented in section 6.6 above, a key task of the teacher is to pre-select the dictionaries and reference tools that are most appropriate to the task at hand.
6.7.2 Effectiveness of using electronic reference tools

As Chun (2006) points out, most SLA research on digital reference tools in this field has focused on electronic dictionaries and glosses which are accessible direct from the text through links, which may be either marked (highlighted) or unmarked in the text. On the basis of the many studies carried out in this area, she concludes:

… that L2 vocabulary is remembered better when learners look up picture or video glosses in addition to translations of unfamiliar words but that, when given the choice, learners tend to prefer and use simple translations of words. The pedagogical issue is then to determine whether and how to encourage readers to use the multimedia glosses available to them, particularly when vocabulary acquisition is one of the concomitant goals of reading.

(Chun, 2006: 78)

For one thing, this suggests that it is advisable to make use of glosses, dictionaries and other reference works which provide multimedia support of the lexicon (which traditional print-based media obviously cannot offer). This is an additional criterion that teachers should consider when selecting suitable reference tools for students to use in the task-based context.

For another, Chun’s observation pinpoints an additional aspect of learner training: it is essential that students are taught how to use the potential that multimedia affords or else they may simply rely on text translations, which may be less effective for learning if used as the only form of enhancement.

Referring to a previous study by herself (Chun, 2001), Chun (2006) also suggests that when learners are given a choice between an instructor-created internal glossary linked into the text and an external dictionary not linked into the text, they will consult the internal glossary more frequently. Similar
findings were reported in previous research (Hulstijn, Hollander, & Greidanus, 1996). Readers will also recall important ideas from the text better when they have access to both internal glosses and external dictionary than when they only have access to the external dictionary. Obtaining the external dictionary information requires more steps and decisions on the part of the learner, which is one of the reasons why learners do not make frequent use of such tools during incidental reading (Hulstijn et al., 1996).

6.7.3 (Semi-)automatic tools for referencing

These observations reinforce the need for implementing the types of text enhancement described in section 6.5 above. It was pointed out there, however, that handcrafting the prerequisite links may be cumbersome and time consuming, which is one of the reasons for aiming at a combination of premodified and authentic texts (but not the only one, since using unmodified, authentic texts is also strongly motivated by language learning pedagogy). It may be possible, however, to save on the time investment needed for teacher-preparation of text enhancement, if automatic or semi-automatic tools are used to create the required links in real time (i.e. when students are working with texts). We will end this section on the use of supporting tools by discussing some tools that have been developed for this purpose.

6.7.3.1 GLOSSER: an NLP-tool for text enhancement

A tool which was specifically designed to make authentic reading material comprehensible to language learners is GLOSSER (Dokter & Nerbonne, 1998; Nerbonne, Dokter, & Smit, 1998). Several versions of the program were developed, including one for Dutch learners of French. GLOSSER makes use of Natural Language Processing (NLP) techniques for morphological analysis and part-of-speech disambiguation to automatically provide learners studying foreign language texts with the following additional information for each word:
A translation of the word, with examples, collocations, etc.; in the case of the implementation for Dutch-French, this was based on an electronic version of a well-known bilingual French-Dutch dictionary (*Van Dale Hedendaags Frans*);

- Morphological information consisting of the lemma of the word and grammatical (part-of-speech) information;

- Examples of other occurrences of the word derived from a large text corpus, including a bilingual corpus.

An example of the main GLOSSER screen is shown below.

Figure 18: Main screen of the GLOSSER program
GLOSSER was one of the first programs to provide these forms of input enhancement automatically. In addition to saving on time for designing pre-sketched texts (which we have shown to be a crucial aspect of offering enhanced input to students), user studies reveal significant gains in the time needed for looking up words compared to looking them up in a traditional dictionary (Dokter, Nerbonne, Schürcks-Grozeva, & Smit, 1998). The importance of facilitating “the burden of dictionary use” and providing “easy-to-access electronic glosses” is one of the pedagogical recommendations made in Hulstijn et al. (1996: 337) to keep the learner focused on the meaning of the text.

Placing the use of GLOSSER in a wider pedagogical framework, Nerbonne (2003) refers to previous findings by Hulstijn (Hulstijn, 1992) which suggest that readers should be encouraged to guess the meanings of the words from the context first and use dictionaries only in the second instance. Although this was not implemented in GLOSSER, Nerbonne (2003) surmises that this might have made the use of the program more effective. Rather than building this feature into the program, however, it is possible to induce this use by judicious task-design, for which the TBLT framework provides the basis.

Some suggestions in this direction were already presented above in the TBLT guidelines on consulting dictionaries and other reference works as external “authorities”: TBLT task design should encourage learners to make use of their own linguistic resources before they resort to external resources such as dictionaries, grammar references or the teacher. In reading tasks, it is particularly important to set the initial focus on overall comprehension rather than direct attention to individual words. Willis (1996) suggests that teachers should plan several consecutive readings of texts in designing text-based tasks. The use of GLOSSER, particularly the dictionary function, would be most appropriate during the final readings when tasks zoom in on more detailed aspects of meaning, for which reference to external resources may be required. The program would also be a particularly useful for awareness
raising during the post-task stage, where it would provide a potentially richer set of tools than the Keyword-In-Context (KWIC) programs promoted for this purpose by Willis and Willis (2007) (see section 6.8 below).

Language learning might be even more effective if the dictionary functionality could be modified. As indicated above, multimedia support might be more beneficial for vocabulary learning than text-based enhancement alone. In addition, using a bilingual translation dictionary poses practical difficulties in the mixed-language international setting that is typical of much HE today, which is why a monolingual learner dictionary might be preferred. This is an environmental aspect of implementation, which is not only relevant to the use of translation dictionaries in language teaching methodology, but also has consequences for the language used in computer applications more generally, for instance in the user interface and texts used for feedback.

Unfortunately GLOSSER has been discontinued, but the program demonstrates that highly advanced applications are technologically feasible and may be pedagogically useful as well as relieve critical time constraints in task design. It is therefore a good example of how Intelligent CALL (ICALL) may meet crucial aspects of technology, pedagogy and the institutional environment when the implementation of IILL is aimed at.

6.7.3.2 Other NLP-supported tools for text enhancement
NLP-supported applications, encompassing aspects demonstrated by GLOSSER, are only just beginning to become available for language learning. Examples are, for instance, UltraLingua Weblex (http://www.ultralingua.com) and WordChamp Web Reader (http://www.wordchamp.com) (LeLoup & Ponterio, 2005). Ultralingua Weblex provides definitions (in English or French) and translations (to and from English, French, Spanish, German, Italian and Portuguese) for words occurring in web pages in these languages. It is complemented by a suite of downloadable spelling and grammar checkers. The WordChamp Web Reader
complements a set of vocabulary tools based on the use of flashcards. Rather than relying solely on NLP for providing definitions in 138 languages, it leverages the potential of social collaborative computing by allowing users to submit their own translations of any word in the text. In doing so, it effectively builds on one of the underlying principles of the Flexibility-Activity Framework to acquire learning content through student participation and contribution. Since WordChamp also comprises several tutorial functions, a more extensive description of the program is given in section 6.8 below.

As LeLoup and Ponterio (2005) point out, these two programs are potentially useful vocabulary learning tools, particularly if combined with teacher-provided lists of reading materials (cf. Brandl’s recommendations on the use of teacher-determined and teacher-facilitated approaches to offering input, discussed in section 6.6 above) and complemented by productive activities such as the following:

- Write a few sentences in your own words giving the gist of the article.
- Summarize each paragraph’s main points in your own words.
- Maintain your personal list of new or difficult vocabulary words and expressions.
- Write a one-paragraph reaction to the facts and opinions in the article.
- Tell someone else about the article you read.

(LeLoup & Ponterio, 2005: 6)

The authors argue that “[f]ocusing on meaning and doing something with the passages read will help reinforce vocabulary acquisition” (p. 7). This is very much in line with TBLT thinking and the TBLT frameworks presented earlier.
provide insights in how these activities may be set up by combining in-class task-based work with such out-of-class reading tasks.

6.8 Tutorial software for language focus

6.8.1 Tutorial CALL

The IILL survey showed that tutorial software continues to be one of the most frequently used types of applications for language learning and suggested that it is also used by teachers who generally appear to be in favour of contemporary views of language learning and teaching. It was pointed out that the use of tutorial applications as a predominant type of application has been generally reported in the literature during the last ten years, where it is often associated with traditional (‘behaviourist’) rather than contemporary (communicative, task-based) approaches to language teaching and learning. Consequently, teachers embracing more progressive views on language learning may be ill at ease in accommodating tutorial applications in their repertoire of language learning materials.

Hubbard and Bradin Siskin (2004) note that one of the reasons that tutorial CALL has been marginalised is that it is regarded as inconsistent with contemporary learning theories. They present convincing arguments against such a view, claiming that the association with behaviourism is unfounded, but not pursuing the relationship with contemporary frameworks further. They primarily attribute the benefits to the various forms of “teaching presence” that tutorial CALL may provide. This not only includes evaluation of user input, as in Levy’s (1997) definition of the term, but also “hypertext glossaries, captioning, grammatical explanations and other elements placed there specifically to support language learning” (p. 457). Tutorial CALL, they argue, has been shown to be particularly effective in teaching aspects of grammar and vocabulary, reading and listening, and pronunciation. It will be noted that these are the very areas for which the respondents in the IILL Survey used tutorial software most frequently.
In this section, we will examine the relationship with contemporary views on language learning more in depth by exploring the scope for using tutorial programs in the context of TBLT. This will reveal that there are several options for integrating tutorial applications, in the broad sense intended by Hubbard and Bradin Siskin (2004), at appropriate points during the task-based pedagogical sequence. This provides further support for the view that the use of tutorial CALL is not inconsistent with contemporary views on learning as is often assumed.

6.8.2 Tutorial CALL and TBLT

In the outline of TBLT as a guiding framework to our study in chapter 2, the uncertain status of tutorial software in TBLT theory and practice was alluded to. Skehan (2003) dismisses the role of the “computer as orchestrator (or magister)” since it is based on a view that is “antithetical to the use of tasks” (p. 402). This harks back to a distinction made by Higgins (1983) between a “magister” approach (where pace and learning path are primarily determined by the teacher-developer) and a “pedagogue” approach (where students are given control of the learning process). As Skehan (2003) points out, the use of the computer as orchestrator “is little more than an implementation of Wilkins’ synthetic syllabus: itemised and largely decontextualised presentation of materials leaving the learner the forbidding task of synthesising and applying what has been “learned”” (p. 402). Skehan’s own proposals for the use of technology (based on interaction with authentic web resources, see section 6.3 above) fit in much better with the pedagogue approach to learning. In a similar vein, the other discussions on the role of ICT in TBLT introduced in chapter 2 leave little room for the role of the computer as orchestrator: they invariably emphasise the role of the teacher in guiding, facilitating and evaluating the learning process, regarding the teacher in the role of pedagogue in the sense of Higgins (1983) above.
This is not to say, however, that tutorial software has no place in TBLT praxis. It may be a suitable medium, particularly in teacher-led, classroom-based settings. Schrooten (2006) describes the use of tutorial applications in this context and Doughty and Long (2003) list several tutorial applications in this setting (‘CALL implementation’) as a point of departure for discussing the use of technology in a distance learning context. These examples demonstrate that, in a blended language learning environment such as that in many HE institutions, tutorial applications may have a role to play in providing opportunities for language learning in a TBLT curriculum. In the TBLT setting their use is most likely combined with other activities, including tasks not using technology, typically under the guidance of a classroom teacher.

The place for tutorial software in TBLT suggests itself naturally from the TBLT frameworks outlined above. The post-task stage in Willis (1996) which is reserved for language focus readily invites suggestions for using ICT. The use of tutorial ICT integrated at this point into the task sequence conforms to the TBLT specifications with regard to the timing of meaning focus before form focus (Samuda & Bygate, 2008: 208). It therefore meets one of the criterial aspects of TBLT. Willis (1996) makes a distinction between language analysis and practice tasks, consisting of consciousness-raising and language practice activities respectively (see Figure 19 below). Tutorial software is mainly relevant with regard to the language practice activities, but we will also consider the use of ICT for language analysis here.
In discussing the options for analysis and practice, Willis (1996) and Willis and Willis (2007) make some suggestions for the use of technology themselves. We will build on their suggestions and argue that the actual scope for using technology in this context and the benefits to be gained by it may in fact be considerably larger, which opens up further perspectives for integrating technology in TBLT frameworks.

6.8.3 Supporting language analysis

In relation to language analysis, Willis (1996) and Willis and Willis (2007) focus specifically on KWIC (keyword-in-context) concordancing as a technology for sharpening the learner’s awareness of how words occur in grammatical structures and collocation patterns. Following the typology proposed in Levy (1997), KWIC concordancing should be regarded as a tool rather than tutorial program (“The tutor evaluates, whereas the tool does not”), but the line between the two types here is thin, since KWIC readily lends itself to automatic generation of gap-fill exercises. Willis (1996) argues that such analysis activities “give learners time to systematise and build on the grammar they know already, to make and test hypotheses about the grammar and to increase their repertoire of useful lexical items” (p. 103). Web access to
large text-based corpora and online KWIC concordance programs are now available for several languages (Lamy & Klarskov Mortensen, 2007), putting this type of awareness raising within reach of many language learners. TBLT suggests that the post-task language focus stage is an appropriate place in the pedagogical sequence for applying such tools.

In Willis and Willis (2007), arguments are made for acknowledging the importance of word frequencies as a basis for language instruction (pp. 192-196). Other than the KWIC programs discussed above, they do not explicitly consider the use of technology in this context. Additional options for using technology here are, however, available. A set of programs that may be put to good use for post-task analysis in an academic setting would be, for instance, the *AWL Highlighter* and the *AWL Gapmaker*. These tools are based on the *Academic Word List* (AWL), which focuses on a frequency range beyond the most commonly used words considered by Willis and Willis (2007). The list covers approximately 10% of any academic text (most of the other words of such texts belong to the 2000 most common words in English and a small portion of specialist words). It is divided into 10 sublists according to frequency (Coxhead, 2000; Coxhead & Byrd, 2007). These sublists provide the basis for the functionality of the *AWL Highlighter* and the *AWL Gapmaker*. The programs allow students to paste academic texts, including texts that they have written themselves (up to 2400 words), into a web-based form. The *Highlighter* highlights academic vocabulary from the designated range by displaying it in bold, while the *Gapmaker* converts the vocabulary into gaps, producing a cloze text as a result. This makes the tools perfectly suited for awareness raising and recall of the vocabulary concerned. More specifics on the AWL tools and how they are used in HE in the Netherlands are given in Example 4 below.
The **AWL Highlighter** and **AWL Gapmaker** are easy-to-use tools intended to raise awareness of and allow practice in the use of academic vocabulary. The tools, available at [http://www.nottingham.ac.uk/~alzsh3/acvocab/](http://www.nottingham.ac.uk/~alzsh3/acvocab/), were developed by Sandra Haywood, University of Nottingham (UK) and can be used online. The tools are based on the *Academic Word List* (AWL), compiled by Averil Coxhead, University of Victoria, Wellington, New Zealand ([http://www.victoria.ac.nz/lals/staff/Averil-Coxhead/awl/](http://www.victoria.ac.nz/lals/staff/Averil-Coxhead/awl/)). The AWL is a list of 570 academic word families (stem plus closely related affixed forms) extracted from a corpus of 3.5 million words in 400 texts from 28 different subject areas in 4 academic disciplines: arts, commerce, law and science. The AWL does not include the 2000 most common words from Michael West’s *General Service List* (West, 1953). The AWL is divided into 10 sublists, rank-ordered according to decreasing word frequency. Each sublist consists of 60 word families, with the exception of sublist 10, which contains the 30 word families of the lowest frequency (Coxhead, 2000).

In the **AWL Highlighter** users (teachers or students) can paste texts into a web-based form and indicate the frequency range that is appropriate (the range is inclusive, i.e. contains all words up to that frequency). An example of the **AWL Highlighter** screen is shown in Figure 20 below:
Upon submitting the form, a text file opens in which the academic vocabulary items are displayed in bold (the file may be copied or saved if needed). An example of the resulting output file is shown in Figure 21 below. The AWL Gapmaker works exactly the same, but instead of highlighting the items it removes them from the text.
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Several language centres in the Netherlands have introduced the AWL tools into their teaching in the context of the INTUIT project. Although the settings in which it is used may vary and may not be typical of task-based language learning in all cases, the usage guidelines developed in one of the participating institutions provide a sense of the potential of the AWL tools in supporting task-based pedagogy and may be used to highlight some of the issues involved.

The language centre of the University of Tilburg is using the AWL Highlighter and Gapmaker in an academic course on reporting and argumentative writing. The aim of
using the tools is to approach vocabulary learning in context in a way that is different from the traditional bilingual word lists and promotes learner autonomy. This is evident from the instructions provided to students at the time of piloting the programs:

1. Look at the text(s) set for homework this week. (For independent study, now and in the future, you can also use a text of your own interest. For on-line sources, look at the links page. Copy and paste, or type it into the AWL Highlighter; process it and print it. You will see the academic words highlighted in bold.)

2. Read the text(s) through a couple of times so that you understand the main ideas.

3. Select the academic words you want to learn. Study them carefully. For example:

"The plans include planting trees and hedges to protect crops from grazing animals and wind erosion."

Use the context:

- to try to get an idea of the meaning:
  It's necessary to protect crops from erosion, so erosion has a negative meaning.

- to consider other words it is used with
  erosion is used in the phrase wind erosion

- to consider the grammar of the word
  erosion is used in the singular, with no article, so erosion is an uncountable noun

4. To see more examples of the word in different contexts, use an English-English dictionary, for example try the Cambridge On-Line Dictionary, or use concordance lines. Another option would be the Longman On-Line Dictionary.
5. When you feel you have a good understanding of the academic word and how it is used, create your own sentence. Use the word in a sentence about yourself, your family, your country or your studies. For example:

"Soil **erosion** is a problem for the farmers in my region."

6. When you have studied several words and written your own sentences for them, paste or type your sentences into the **AWL Gapmaker**. Print the gapped sentences, without the key. One week later use these gapped sentences as an exercise to test yourself.

Alternatively, choose a paragraph or two from the text to make a gap fill exercise.

You can exchange tests with your classmates. To make it easier for them, add the key.

7. The AWL Highlighter can also be used to help you improve your writing. Process an academic essay you have written. If there are only a few academic words, you will know that you need to add more. Look at Sub list 1 of the AWL: can you find a way to add some of the words that you know to your essay?

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These instructions can be used to demonstrate how several aspects critical to TBLT design have been implemented in this technology-enhanced reading and writing context:

- The starting point for using the AWL tools are teacher-selected texts set for homework (the teacher provided the initial highlighted texts), but students are prepared for independent, future use of the tools in the context of other texts that they may encounter (instruction 1).

- The focus on the overall meaning of the text precedes focus on individual words
(instructions 2 and 3).

- The use of other tools in making the input comprehensible is recommended (instruction 4).

- Writing is used as a way of furthering comprehension and recall of the vocabulary items concerned (instructions 5, 6, 7).

- The independent use of the Gapmaker is promoted for practice and recall of academic vocabulary (instruction 6).

- Collaboration with classmates is recommended as a method for further practice (instruction 6).

- The use of the Highlighter is placed in the broader context of academic writing (instruction 7).

These materials were developed for an early pilot in the INTUIT project. In evaluating the project results, Heck (2006) reports that truly independent use of the tools by students themselves was not much in evidence. If students applied the tools independently, it was mainly for checking academic papers to be handed in. Although not all students were convinced that this was a better way of learning vocabulary than the traditional word lists, they agreed that it was a good way of raising their awareness of academic vocabulary and that they paid more attention to using academic vocabulary after having used the AWL tools than before. Students generally found the tools easy to use and motivating. The teachers attributed the limited use of the tools to the fact that the pilot was added onto an existing course after the course had already started. In subsequent runs of the course and other courses in which the AWL tools are used, the use is now introduced from the start, the tools are demonstrated early on in class by means of a PC and data projector, and the relevance of student independence, particularly as a preparation for future learning (in the institutional setting outside specific language learning courses, and outside the institutional setting) is emphasised throughout. Nevertheless, this experience and similar experiences with other tools in the INTUIT
project show that realising student autonomy is one of the key concerns in implementing IIL. This issue will be taken up again in section 8.6 below.

The AWL site (http://www.victoria.ac.nz/lals/staff/Averil-Coxhead/awl/) contains links to several other web sites, where supplementary exercises on the AWL are available.

An excellent, more general resource for teachers providing further ideas on supporting learning of the lexicon is Cobb’s Compleat Lexical Tutor (http://www.lextutor.ca). In the section on tools in support of web-based reading above (section 6.7) several other tools were introduced, which may also be used effectively at the post-task analysis stage. There are thus a great many options for supporting language awareness by means of technology in a task-based context, particularly in the area of vocabulary acquisition.

6.8.4 Supporting language practice

The options for technology support are even greater when the possibilities for implementing language practice activities are considered. Willis (1996) introduces this concluding stage of the task sequence as a phase for the “practice of words, phrases, patterns and sentences” arising from the analysis activities following the task cycle (p. 100) and suggests several kinds of exercises in support of these language practice activities. This includes a reference to the use of computers:

A large number of schools and institutions now have computers, and some have CALL (Computer-Assisted Language Learning) facilities. These are quickly getting more affordable and user-friendly. CALL activities are often quite good for practice purposes, especially if students work in two or threes and use the target language to reach decisions. Many games can also be used to give practice in reading
and completing texts. Learners can also input their own stories or texts, and turn them into games.

(Willis, 1996: 113)

More than 10 years after her original proposal, a plethora of “CALL facilities” and games is offered on the Web for free, which makes it possible to set up form-focused, post-task work as more than a peripheral or optional activity. If the use of tutorial programs is considered by the classroom teacher (exercising her role in selecting suitable materials for learning in the web-based environment), they are most easily accommodated at this post-task practice stage, where they would not disturb the prerequisite order of the pedagogical cycle suggested by TBLT task design.

<table>
<thead>
<tr>
<th>Look at these sentences from some of the texts that you have read and heard. Can you remember which of these words are used to fill in the blanks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>absolutely, exactly, incredibly, pretty, quite, rather, very, very very</td>
</tr>
</tbody>
</table>

1. My parents were … strict with me actually.

2. My Mum was … easy-going.

3. I wouldn’t say my Mum was easy-going ….

4. The velociraptor could move … fast.

5. It had … powerful jaws.

6. I had a … nasty experience about, er, height.

7. I was on this … narrow little parapet.

8. I was … petrified.

Table 43: Example of form-focused language exercise, based on Willis and Willis (2007: 129).
Some form-focused exercises proposed in Willis (1996) and Willis and Willis (2007), such as the ones demonstrated in Table 43 above, could be readily implemented as tutorial CALL. In fact, computer implementation of this example as a fill-the-gap or selection exercise would represent one of the simplest forms of CALL. The point worth noting, however, is that the introduction to the exercise clearly indicates that it is conceived of as following a meaning-oriented reading task in the task-based pedagogical cycle. In many cases, such a relationship with meaning-based work is not evident from the plethora of exercises available on the Web. It is not so much the format of such exercises, but the role and position in the task sequence that determines their suitability for TBLT-based language pedagogy.

It should be noted that proposals to focus explicit attention on language aspects by providing “language exercises” are common in TBLT. In Nunan (2004), for instance, such exercises are associated with “enabling skills”, “designed to develop skills and knowledge that will ultimately facilitate the process of authentic communication” (p. 22). Like Willis (1996) and Willis and Willis (2007), Nunan presents several examples, for instance, of language exercises with a lexical focus, and language exercises with grammatical focus consisting of fill-in-the-gap exercises, which could easily be implemented as CALL.

The use of tutorial software, therefore, although not mentioned explicitly in the major TBLT frameworks, fits in quite naturally with the proposals for integrating language exercises in the TBLT context. In terms of the pedagogy component of our model of integration (cf. chapter 2 above), then, there is considerable scope in TBLT for introducing computer-based exercises. Different kinds of form-focused CALL exercises are not necessarily out of tune with TBLT principles, provided they are applied judiciously at appropriate points in the pedagogical sequence.
With regard to the second component of integration, technology, it was already pointed out in chapter 5 that tutorial applications are well suited for dealing with “restricted” user input types typical of exercises focusing on linguistic and receptive language skills. In contrast to tasks, with their focus on open-ended communication and process-oriented assessment, exercises with linguistic outcomes frequently of a less open-ended nature are much more amenable to evaluation by computer.

In view of the third component of integration, the educational environment, the use of such exercises in a task-based setting offers teachers and students the same flexibility as in differently oriented settings (including form-focused, traditional settings), particularly the possibility for students to work on their own outside the classroom context. Classroom time is a valuable commodity in the TBLT framework and the proposals for setting student work for practising linguistic aspects as an out-of-class activity are suggested by the TBLT frameworks themselves. Willis and Willis (2007) discuss several “ways of making more efficient use of classroom time” (p. 214). They suggest setting grammar exercises for homework, also because “[t]his has the advantage of each learner being able to work at their own pace and to try to work things out for themselves” (p. 214). It will be noted that these are precisely the most important benefits of ICT reported by the respondents in the IILL survey and that the survey showed grammar to be an area where tutorial software is frequently applied.

In addition, Willis and Willis (2007) promote “independent vocabulary learning” outside the classroom. They argue that “[h]elping learners to learn topic words and phrases can take up a lot of class time and is not necessarily the best way of approaching something which ultimately depends on rote learning” (pp. 215-216). Adducing evidence from Meara (1995) and Nation (2001), they propose using word cards (in addition to keeping vocabulary notebooks) for efficient and effective learning of vocabulary. This is again an
area where tutorial programs, particularly flashcard types of software, are widely available.

One such program is WordChamp, which was introduced in section 6.8 above for its features to support web-based reading through its Web Reader component. WordChamp effectively combines tutorial functions for vocabulary learning with features for exploring the web autonomously. As discussed in section 6.3, in order to make the most out of this web-based learning experience, students would need to be properly instructed during the pre-task phase, following the guidelines for task-based design described above. Students might for instance be instructed to provide user translations for unknown words and expressions by looking them up in teacher-recommended online dictionaries. Or they might be invited to review and edit translations by other users, possibly peers in the same (online) class. These would be methods for providing focus-on-form during task-based interaction with web-based reading resources. The flashcard activities, based on the vocabulary mined during text exploration, would provide an opportunity for additional focus-on-forms practice, typically situated at the post-task stage, where they would serve to rehearse and consolidate the vocabulary acquired during the reading of the web-based resource. In offering these opportunities for web-based learning in combination with functions for consolidation and personal record keeping, WordChamp comes close to one of the types of programs which Skehan (2003) envisages would be useful in the web-based language learning context:

[I]t would be advantageous to have software which allows learners to build a personalised record of what they have learned, for example, through programs which record, consolidate, and test vocabulary, or through programs which record where they are in terms of interlanguage development.

(Skehan, 2003: 408)
The second type, which would probably require far more sophisticated error diagnosis and learner profiling techniques is not yet available for general use (see Heift & Schulze, 2007 for the current state-of-the-art in this field)).

More details on how WordChamp works can be found in Example 5 below.

**EXAMPLE 5: WORDCHAMP**

WordChamp ([www.wordchamp.com](http://www.wordchamp.com)) is a web-based “language learning network” primarily designed for foreign language vocabulary learning. The program’s main functionality is based on the use of flashcards, which as Burston (2005) observes in an early review of the program, are “more attuned to rote memorization associated with behaviorist learning paradigms” (p. 479) than with communicative language teaching. Nevertheless, as Burston points out, there is “a body of psycholinguistic research that substantiates both the efficiency (time to learn) and effectiveness (retention) of flashcard usage” (p. 479). In addition, WordChamp flashcards may be supported by audio recordings providing a form of multimedia input enhancement which may be beneficial to language learning (cf. Chapelle, 2003; Chun, 2006, discussed above). The Web Reader component is particularly helpful in overcoming the problem that flashcards may promote the use of decontextualised language (typical of linguistically oriented, synthetic language learning syllabuses). The Web Reader makes it possible for students to work independently in meaning-focused activities on the basis of authentic web resources. It provides semi-automatic input enhancement, primarily through translation and pronunciation, a personalised record of vocabulary studied and automatic compilation of flashcards and generation of flashcard exercises on the basis of the vocabulary highlighted in the text. An example of the BBC site ([www.bbc.co.uk](http://www.bbc.co.uk)) rendered in the WordChamp Web Reader is shown in Figure 23 below:
User translations (in this case from English to Dutch) are shown in an on-screen pop-up window for *retirement* and the related verb *retire*, with options for consulting a verb chart for *retire* and playing a recording of *retirement* and practising it through listen-and-repeat (supported by an audiographic representation of the recording). The user can choose to add these words to a practice list by clicking on the translations and saving the list for subsequent practice. A course management system allows teachers to set up online classes, create homework assignments, and track student progress. The web reader may be deployed in homework assignments to send students to particular web sites, together with appropriate instructions and deadlines for completion of the web-based task.
Although the predominant reliance on translation and pronunciation for input enhancement may be limiting in some respects (in spite of support for 138 languages in the system), there is nevertheless considerable potential in realising contextualised vocabulary learning on the basis of active student involvement with authentic web resources.

In assessing the potential of WordChamp for language learning, it should again be noted that a task-based approach in which authentic web resources are used for contextualised, student-centred vocabulary learning is a feature of task design rather than software design. Teachers holding different beliefs about language learning might find completely different uses for the same software, e.g. by using the flashcards in support of structure-based syllabuses, adding their own translations rather than allowing students to add theirs, in line with the strong reliance on teacher control typical of structure-based syllabuses. This underscores the importance of implementing technology in relation to pedagogy.

The above discussion on using digital reference tools for language analysis and tutorial programs for language practice during the language focus stage of the task sequence reveals that there is significant potential for using instructional software in the context of task-based, meaning-focused, student-centred language pedagogy. The IILL survey, other surveys and CALL literature generally reveal a high-frequency use of this type of software. It is claimed here that the use of tutorial software need not necessarily be at odds with TBLT. The IILL survey showed that there was no direct connection between the selection of tutorial applications and conservative (‘behaviourist’) views on language learning, but it did reveal relationships of such software with the benefits of making learning more time independent, adjusting it to individual student levels, offering possibilities of monitoring student progress and providing opportunities for repeated practice. It is a misconception that
tutorial programs are particularly associated with traditional views on language learning: TBLT suggests several ways in which the attested benefits of tutorial programs may be profitably exploited in a task-based language learning environment.

In terms of our model of integration, using tutorial software at the post-task stage for language focus is thus an area where factors of technology, pedagogy and environment coincide in a way which provides optimal conditions for learning.

As indicated in the description of the Hologram project (chapter 3) and the discussion of enhancing input in section 6.5 above, the Flexibility-Activity Framework suggests that we should “aim for activity” and “design for activity” (lessons 14 and 15). This underscores the importance, also in TBLT, of regarding tasks as leading components of language learning design, and it helps us to view content-based tutorial exercises as supportive, rather than leading elements in task and curriculum design. If development time is an issue in designing language learning tasks (which clearly it is, since it is generally mentioned as the greatest obstacle to teaching innovation), then the time is best spent on designing the tasks first and considering how existing practice materials (analogue or digital) can be adapted in support of the task, much in the way that Willis and Willis (2007) suggest integrating TBLT with existing course books and traditional modes of teaching (pp. 199-231). To come back to an issue raised in discussing the development of TBLT-based tutorial software by Schrooten (2006), in many cases, putting the program into the task may indeed be better than putting the task into the program on the basis of these considerations. And if the development of tutorial software is taken on, this is better done collectively, possibly by students themselves, and by exchanging the materials developed in communities of prospective users.
6.9 CMC in support of interaction

6.9.1 CMC and TBLT

Compared to the web resources and tutorial applications discussed previously, CMC (with the exception of email) appears to be used much more infrequently. Paradoxically, it is a form of ICT most widely researched and frequently associated with cognitive, affective and intercultural aspects which may be beneficial for language learning. The relatively infrequent use versus the attested high potential gives CMC particular relevance to the potential-practice debate in CALL.

In chapter 2 it was pointed out that interaction is one of the defining characteristics of TBLT. Interaction occurring between language learners, between language learners and teachers, or between language learners and NSs in the context of carrying out task-based work is regarded as a key process in promoting language learning. It was pointed out that the terms interaction and collaboration refer to the cognitive aspects and social aspects of learning respectively and are rooted in different traditions in language pedagogy. TBLT, as has been shown for instance in section 6.7 on using tools for making input more comprehensible, encompasses aspects from these different traditions and does not associate ‘interaction’ with the cognitive traditions exclusively. In this section, we will refer to interaction in this broader sense and occasionally use it interchangeably with the term collaboration.

In TBLT interaction, particularly oral interaction, may occur during each step in the pedagogical task sequence, but it is especially associated with the performance of the task itself. Although spoken interaction may be the skill targeted by the task, TBLT often applies interaction in support of each of the communicative skills. Reading and writing tasks may involve a considerable degree of spoken interaction (e.g. in the pre-task or post-task stage), particularly because, as was pointed out above in discussing the technology
options for reading and vocabulary learning, combinations of receptive and productive tasks may be more beneficial for language learning than focus on any of these skills alone.

Although both cognitive and sociocultural accounts have stretched the notion of interaction to contexts involving only one participant interacting with texts (intrapersonal interaction or self-mediation, i.e. in reading or listening to web-based input discussed in sections 6.3-6.7 above), the focus in this section will be exclusively on technology in support of interaction between individuals. The options for using communication and collaboration tools in support of this interpersonal interaction in our target setting in which opportunities for face-to-face interaction co-exist with opportunities for online interaction will be considered more in depth.

CMC is a technology increasingly used in everyday interpersonal interaction. As was discussed in chapter 2, this is one of the reasons why the CEFR recommends the use of CMC in language teaching, associating it with the language activities of written interaction and spoken interaction (Council of Europe, 2001: 82; cf. Murphy-Judy & Youngs, 2006: 57). In order to prepare learners for communication in the real world, it is argued, language teaching should make use of the communication tools of the real world. The use of CMC in this sense constitutes an instance of “situational authenticity” (Ellis, 2003: 305) and thus meets one of the important goals of TBLT.

6.9.2 Options for CMC in and out of class

In chapter 5, it was suggested that in the typical setting studied by the IIL survey, with opportunities for class-based face-to-face interaction, there is less need for CMC, particularly synchronous CMC (SCMC), which obtained the lowest frequency rankings overall. Laurillard (2002) claims that the “communicative media are designed to provide a solution to a logistical problem rather than a pedagogical one, and were only ever used in education to communicate with students who are geographically distributed” (p. 145).
Where such media offer a lifeline in distance education, their advantages may be less readily felt in blended learning contexts, such as that targeted by our study. However, as was pointed out above, in such settings technology offers significant advantages for fashioning learning outside the classroom, which is particularly important given the constraints on the time available for face-to-face teaching. As with the technologies reported on earlier, the potential of CMC for IILL, which appears to be underexploited, is benefited from most if gains in pedagogy can be obtained which offer a solution to a logistical problem at the same time.

Out-of-class CMC use enhances the flexibility of learning which the Flexibility-Activity Framework regards as a key aspect of using technology for learning-related purposes. In particular it increases the flexibility related to delivery and logistics, by making learning and teaching more independent of place and time (Collis & Moonen, 2001: 10). It should be noted, however, that the advantages of temporal independence are less direct with SCMC, since it involves bringing learners online at the same time. However, if the teacher is not one of the SCMC participants and small groups or pairs are allowed to perform the tasks at times of their own choosing, considerable time independence is possible even with SCMC. Since the pedagogical effectiveness of CMC for language learning has mainly been observed with communication in dyads or small groups (Blake, 2000; Pellettieri, 1999; Salaberry, 2000; Tudini, 2003), this would seem to make setting SCMC tasks as out-of-class activities a feasible option for language teaching. Making them work together outside class provides an excellent way of promoting independent, collaborative learning. The results of the IILL survey suggest that in a blended learning setting such uses in which learners use CMC to perform language learning activities in pairs or small groups outside class are much less often considered than using technology for individual work outside class. As indicated above, the research literature indicates that there may be substantial pedagogical benefits which also apply to the use in such settings.
CMC extends the range of discourse options available to language learners and teachers. The pedagogical benefits reported encompass aspects of language development and intercultural communication (Belz, 2008), both of which are issues of central concern in TBLT. A key distinction in this respect is the scope of application of CMC. Within the scope of a single class, CMC can be used to increase the options for communication and collaboration between the learners and between the learners and teachers of that class. This type of interaction is what Thorne and Black (2008) call “intraclass interaction”. But CMC may obviously also be used to extend the scope of communication and collaboration to the world outside the language class. To distinguish between communication and collaboration involving participants from the same class and communication and collaboration involving participants from a class with external participants, we will use the terms “intraclass interaction” and “extraclass interaction” respectively. This latter term comprises both the “interclass partnerships” and “intercommunity partnerships” distinguished by Thorne and Black (2008), but does not necessarily imply interaction in the context of pre-established partnerships. Other distinctions, e.g. between intracultural CMC (Abrams, 2006) and intercultural CMC (Lomicka, 2006), have also been made. These may cut across the distinction between intraclass and extraclass interaction in ways that will be discussed below.

6.9.3 CMC for intraclass interaction

Using CMC within a language class takes the form of using it for communication between peers (and teacher) in the context of a language class. If applied in the classroom, particularly in TBLT, CMC will have to compete for time and pedagogical effectiveness with non-CMC spoken interpersonal interaction, which, even in the most positive accounts of CMC, it was never meant to replace. In outlining TBLT as a guiding framework in chapter 2 it was pointed out that face-to-face classroom interaction holds a central position in task-based pedagogy as the default mode of interactional
exchange. TBLT puts a premium on the unique potential of the classroom for direct teacher intervention (cf. Doughty & Long, 2003) and for matching up out-of-class work (including the web-based activities described in sections 6.3 and 6.4 above) with essential pre- and post-task activities in class (cf. Skehan, 2003). Moreover, from a more general educational perspective, the classroom fulfills an essential role in providing the social dimension of learning (“social presence” in terms of Garrison and Anderson’s (2003) learning framework). The most promising avenue for implementation is therefore in using CMC in this class-based context to supplement and strengthen class-based interaction.

In her overview of CMC research in intraclass L2 contexts, Abrams (2006) mentions the following pedagogical benefits associated with different types of multimodal, synchronous and asynchronous computer-mediated communication (SCMC and ACMC):

- More student interaction; less reliance of L1; larger variety of discourse functions (Chun, 1994);
- Opportunities for reflection and analysis of interpersonal interaction; less accuracy, heightened motivation (Kern, 1995);
- More equal participation; higher participation of shy students; more formal, more complex language (Warschauer, 1996);
- More positive attitude towards writing; higher writing scores (Sullivan & Pratt, 1996);
- Increased risk taking and creativity with L2, greater sociability, improved teaching practices (less teacher control) (Meunier, 1998);
- More self-expression, less anxiety; higher perception of writing ability, more confidence in writing and speaking; opportunity for delayed error correction; less reliance on L1 (Beauvois, 1995);
• Less anxiety, shift of attention from accuracy to meaning (in synchronous CMC) (Arnold, 2002);

• Interaction patterns in SCMC similar to face-to-face interaction; jigsaw tasks most conducive to negotiation of meaning, more negotiation in interaction with NSs; student motivation and language awareness (Blake, 2000);

• Better ability to recognize and produce new lexical items (Smith, 2004);

• Higher morphosyntactic awareness; extended repair sequences leading to improved L2 in writing (Pellettieri, 2000);

• Improved oral production in terms of communicative units produced after SCMC; improved fluency and proficiency after SCMC, not after ACMC or oral practice (Abrams, 2003);

• Shared contexts for interaction (intersubjectivity); more off-task and pragmatic exchanges; more risk taking (Darhower, 2002);

(Potential benefits of intraclass CMC, summarized from Abrams (2006))

Like several of the technologies discussed previously, CMC is not often considered as a procedural option for realising interpersonal interaction in major accounts on TBLT. And although the attested benefits are not always uncontested and highly dependent on the context of use, many are sonorant with principles and objectives from the TBLT frameworks presented earlier. This indicates that it may be advantageous to make use of CMC within TBLT on a larger scale than current practice suggests. This is even more relevant since some benefits of CMC are reported to have a positive impact on oral interaction, which we have seen to be central in TBLT.
6.9.4 Impact of CMC on oral performance

Payne and Whitney (2002) demonstrate significant gains in oral proficiency development of learners using SCMC over learners in a control groups taught in face-to-face classrooms only. Abrams (2003) showed that the amount of language produced during oral performance was higher with groups of learners who had practised using SCMC than with those who had had ACMC or face-to-face practice. Sykes (2005) found higher complexity and more variety of speech acts in oral interaction with a group using written chat than with a face-to-face group and an oral chat group. Commenting on this, Belz (2008) suggests that these gains are due to the complementary nature of written chat and oral interaction. She concludes:

Furthermore, students in the WC [written chat] group were the only ones who had consistent practice in both the oral and written modes; such multimodal processing may account for better learner performance. This is an important finding for the design of classroom tasks that speaks to the advantages of blending, that is, the alteration of CM [computer mediation] with more traditional forms of instruction.

(Belz, 2008: 53)

The TBLT frameworks presented previously suggest guidelines for implementing such design. The precise specifications would obviously depend very much on the nature of the task, but a task sequence could be devised in which students rehearse the task through written chat in the relatively safe online environment and perform it in the more challenging, open classroom afterwards (in line with the recommendations in Willis (1996) to gradually move to wider audiences during the task cycle).

The complementary potential provided by oral interaction, SCMC and ACMC respectively may thus help to cover both accuracy and fluency aspects of oral
production and interaction. SCMC allows more time for reflection and self-repair than oral interaction. Even more time is afforded by ACMC. As Levy and Stockwell (2006) indicate, this relates the use of these media to the critical factors of planning time and exerting pressure (cf. Skehan, 1998; Skehan, 2003). ACMC, they argue, “allows the learner far more time to think about a response, and provides sufficient time to consult resources such as dictionaries or grammar reference books, or even to seek assistance from other people” (Levy & Stockwell, 2006: 98). In this respect, although still interactive by nature, ACMC is much closer to writing and presenting (spoken production) than to spoken interaction. With SCMC, such recourse to external assistance is generally less feasible, while in oral interaction it is usually impossible. The task-based framework may build on this differential potential by using different forms of CMC in support of different language skills and different aspects of linguistic competence.

6.9.5 Additional design considerations

Abrams (2006) presents many useful pedagogical considerations for designing tasks and assignments based on the application of CMC in the classroom. Although not strictly informed by the TBLT frameworks presented above, they meet many principles typical of task-based methodology. As an illustration of this, her proposal for designing a task on travelling and vacation is given in Table 44 below.
### ICT AND TASK DESIGN

<table>
<thead>
<tr>
<th>Beginning level</th>
<th>Intermediate level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning objective</td>
<td>Create a web site informing American visitors of German travel and vacation practices, discussing the efficacy of public transportation in the US and of increasing vacation time for Americans</td>
</tr>
<tr>
<td>Practice and build the relevant vocabulary in extended discourse</td>
<td>SCMC forces more negotiation of meaning, retains immediacy of topic, students' discourse abilities may still be limited, more suited to a conversation rather than formal writing (which is more characteristics of ACMC)</td>
</tr>
<tr>
<td>SCMC or ACMC</td>
<td>Combination ACMC and SCMC</td>
</tr>
<tr>
<td>SCMC</td>
<td>1. open-ended discussion or decision-making task in SCMC</td>
</tr>
<tr>
<td>ACMC</td>
<td>2. collaborative writing task in small groups, the entire class creates a web site</td>
</tr>
<tr>
<td>Group constellation</td>
<td>Small group or large class interaction because more contributors can offer more diverse opinions on the topic at hand</td>
</tr>
<tr>
<td>Dyads or small groups to reduce the cognitive demand for students (they do not have to follow too many other comments); increased negotiation</td>
<td>Build necessary vocabulary by reading articles or watching video prior to CMC: modes of transportation, travel destinations</td>
</tr>
<tr>
<td>Required preparation</td>
<td>Read about different issues on the main topic, perhaps interview native speakers prior to CMC</td>
</tr>
</tbody>
</table>
An aspect worth noting with respect to CMC is that the written or spoken records of CMC sessions, which have opened up opportunities for the substantial amount of research in this area, are also beneficial as part of the learning process. Such records make it possible to set up a post-task language focus stage for linguistic analysis and language practice along the lines of the TBLT frameworks presented earlier. Making these records available generally requires little teacher intervention and since they can be accessed independently of time and place, they may be used to further promote student independence, which we have seen several times now to be an indispensable corollary of the use of technology. Abrams (2006) relates the use of such
records to facilitating ongoing assessment, since the written transcripts or spoken records of CMC sessions may also be included in language learning portfolios (p. 192). We will come back to the use of digital portfolios in section 7.3 below.

The advantages of CMC for intraclass interaction discussed so far relate primarily to affective and cognitive aspects of language learning. These can be linked to additional benefits such as the opportunity for working outside the classroom and recording the actual language used during interaction. Obviously, the existing classroom practices are a factor in determining how useful these options are as a complement to face-to-face learning. If too much teacher control, too little student participation, unwillingness to speak, etc. are not issues of concern in the classroom, there may be less need to use technology as a way of addressing these. In fact, TBLT does much to resolve such issues without the use of technology. But if such issues do occur, CMC offers extra discourse modes for helping to resolve them.

In heterogeneous groups, specific problems may arise with students coming from different linguistic and cultural backgrounds. In this context, in addition to building on the cognitive and affective benefits mentioned above, this may position CMC as a tool for intercultural awareness and understanding in intraclass interaction. In extraclass interaction, to which we will now turn, these intercultural aspects are usually one of the primary reasons for using CMC, but the cognitive and affective benefits associated with intraclass interaction mentioned above may obviously also apply to extraclass interaction.

6.9.6 Using CMC for extraclass interaction

Using CMC in extraclass interaction relates to the use of synchronous and asynchronous communication tools to connect L2 learners with L2 users outside the classroom. A well-known form is collaboration between learners of different languages and cultural backgrounds, implemented in the form of
e-mail tandem projects or other telecollaboration projects (Appel & Mullen, 2000; Little, 2001; O’Dowd, 2003). But as Thorne and Black (2008) point out, other forms of collaboration between learners are also possible, such as in an on-campus project between heritage speakers of Spanish and L2 learners of Spanish (Blake & Zyzik, 2003). And a third form of extraclass interaction concerns communication and collaboration between L2 learners and NSs in authentic NNS-NS interaction, as documented in, for instance, Kitade (2000), Leahy (2004), and Tudini (2003). Although such collaboration may be motivated by linguistic and affective factors similar to those discussed for intraclass interaction above, extraclass interaction makes use of the unique potential of CMC for supporting intercultural communication.

This form of extraclass interaction facilitated by CMC constitutes an example of participatory learning promoted by general learning frameworks such as the Flexibility-Activity Framework, which as was pointed out in chapter 2, values aspects such as “becoming a member of a community” and “the ability to communicate in the language of this community and act according to its norms” (Collis & Moonen, 2001: 22, citing Sfard, 1998). This is also the perspective in sociocultural views on the role of technology in language learning, such as those presented in Kern and Warschauer (2000) and Warschauer (2000b).

Warschauer (2000b) coined the term “integrative CALL” to describe this participatory perspective on CALL. He proposes that we should have our students “perform real-life tasks and solve real-life problems in a community of peers and mentors”. The “purpose of interaction” in this context is “to help students learn to enter new communities and familiarise themselves with new genres and discourses” (no page number). Since this type of interaction may be difficult or even impossible to achieve in traditional classroom-based settings, language teachers considering the use of CMC for language learning may particularly value these options for participatory, intercultural learning that computer-mediated extraclass interaction affords.
ICT AND TASK DESIGN

In an extensive overview of the literature and research on CMC for intercultural exchange, Lomicka (2006) mentions that “[l]earning a language through sustained contact with a NS partner can heighten the language learning experience and motivate learning for students” (p. 211) due to the following benefits:

- Participation in intercultural projects can increase cultural awareness;
- Participation may also promote reflection on one’s own culture;
- Working with a NS partner, provides opportunities to observe the culture and language first hand through a personal connection;
- NS contact offers a very different experience from learning through traditional tools, such as a text book.

(Lomicka, 2006: 211)

CMC offers great potential for contact with the target language and has particular relevance in view of the fact that only a small proportion of students have the opportunity for spending study time abroad (Blake, 2008a: 2). Communication with authentic users of the language also brings in the dimension of linguistic variation. Rather than having to rely solely on a restricted set of linguistic models (often the classroom teachers), students can thus be exposed to more varieties of the target language. In the face of global communication which is increasingly based on use of a common language (often English) by NNSs, this may also include varieties by users from different language backgrounds and different regions across the world (Warschauer, 2000a). This dimension is probably brought out most clearly in spoken forms of CMC, including videoconferencing. In this respect, it should be noted that in the CEFR, being able to understand spoken and written texts in non-standard varieties is a requirement of language learning competence at
C2 level (near-native command). Using (spoken) CMC in intercultural communication may be most feasible at higher levels of proficiency.

Lomicka (2006) explores the research findings on the use of the different types of synchronous and asynchronous media in this context. The one-to-one nature of email exchanges may reinforce the personal element of the communication, while the communal nature of discussion boards makes them more suitable for group work. Her discussion of chatting relates the intercultural aspects of this type of communication to the cognitive and affective aspects mentioned in the previous section. She also includes videoconferencing and websites in the range of CMC tools for intracultural communication. In the context of an existing intercultural project (Raison d’Etre), she provides the following guidelines on using each of these tools:

<table>
<thead>
<tr>
<th>Tool</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Email</td>
<td>Establishes a personal connection between NNs and NSs and promotes regular writing exchanges in the target language</td>
</tr>
<tr>
<td>Discussion board</td>
<td>Allows for communication between all participants, thus extending both knowledge and perspectives beyond the keypal partnership</td>
</tr>
<tr>
<td>Textual chat</td>
<td>Develops a synchronous, direct academic dialogue between paired NNSs and NSs that will be extended through other means of communication</td>
</tr>
<tr>
<td>Videoconferencing</td>
<td>Enhances textual chat by providing a sense of “knowing” and “seeing” the partner; emphasises collective reactions and creates a sense of community within the physical classroom but also between each class regardless of location; functions as both an individual and whole-class activity</td>
</tr>
<tr>
<td>Website</td>
<td>Displays international collaboration, student writing, asynchronous interaction and provides a synthesis of all activities through micropublishing</td>
</tr>
</tbody>
</table>

Table 45: Technological communication tools in the Raison d’Etre Project, based on Lomicka (2006: 223).

These guidelines are more generally applicable in a task-based language learning context.
As Lomicka (2006) points out, the practical aspects involved in setting up extraclass collaboration may include dealing with aligning academic calendars, agreeing on assessment procedures and criteria and arranging technical pre-tests. Similar problems are mentioned in O’Dowd (2003). Leahy (2001) adds that there may also be considerable differences in matching students because of different levels of proficiency or different expertise in peer reviewing, etc. These comments are in line with findings from the survey carried out by Toner et al. (2008), which also suggested that SCMC, particularly videoconferencing, may be difficult to set up. This may partly account for the fact that extraclass interaction, in spite of its potential for intercultural communication (which unlike the potential of some forms of intraclass interaction cannot usually be realised through traditional classroom interaction), appears to be used infrequently as an option for language learning in our target setting. As pointed out in the context of intraclass interaction, there is considerable flexibility (as well as pedagogical effectiveness) in setting up SCMC activities as pair work out of class. This encourages the use of small group / dyadic web conferencing, rather than whole-class videoconferencing, which, in addition, may also be easier to set up logistically and technically.

Notwithstanding the benefits of CMC for intracultural communication, in a context where opportunities for face-to-face interaction exist, it is best regarded as an extension, not a replacement, of face-to-face communication. In relation to this, Tudini (2003), studying language learning through chats from an interactionist perspective in an extraclass context, reminds us that chatting is at best a useful preparation, or a “bridge” to oral communication:

Chatting with NS in chat rooms cannot replace oral interaction in real life contexts, nor can it provide the physical aspects of oral discourse such as pronunciation and other non verbal features. However, the opportunity to negotiate would be of particular use to the external student who aims to become a competent speaker of the target
language. Chatting with NS in a chat room where only the target language is spoken provides an authentic and purposeful cross-cultural experience which is otherwise limited to the language teacher, members of the local community or other learners. This is an opportunity which should not be restricted to external students.

(Tudini, 2003: 157)

Tudini suggests that the best conditions for language learning based on chatting with NSS can be created when online tasks are combined with offline tasks. This is further support that CMC activities, also those untapping the benefits of extraclass intercultural interaction, are best combined with class-based oral interaction in the tradition of the TBLT frameworks outlined above. In view of the limited time for face-to-face interaction in the classroom, this potential of CMC is highest if teachers are “able to incorporate it into the students’ out-of-class assignments” (Blake, 2008a: 2).

6.9.7 Weblogs, wikis, virtual worlds

In the IILL Survey weblogs, wikis and virtual worlds were included in one category of web publication and collaboration tools. It is not unusual to consider these technologies together. Sykes, Oskoz and Thorne (2008) assess the usefulness of these emerging technologies because they may each provide “meaningful contexts for L2 language development” and “a means for adding real world relevance to in-class uses of internet-mediated communication tools” (p. 528). This aligns them closely with the forms of CMC previously discussed. Weblogs and wikis (referred to as “second-generation CMC tools” in Blake (2008a)) provide alternative options for micropublishing (Murray & Hourigan, 2006), with weblogs offering good potential for “self-expression” and writing for and interacting with real audiences (including expert groups and L2 communities), and wikis being very suitable for “collaborative content creation” (with the option of tracking individual participation) (Sykes, Oskoz, & Thorne, 2008). Weblogs and wikis offer a form of writing (written
production), but have the potential of making the writing more authentic, multimodal and interactive.

Self-expression and collaboration are also a characteristic of virtual worlds, but the focus in such “multiuser virtual environments” (MUVEs) (Cooke-Plagwitz, 2008) or “synthetic immersive environments” (SIEs) (Sykes et al., 2008) is not on publishing for the real world, but on acting in an imaginary world, which “may be realistic in the sense that it mimics a face-to-face experience in which learners interact with other’s avatars synchronously online” (Cooke-Plagwitz, 2008: 549). Such simulated environments may offer particular advantages in teaching “pragmalinguistic and sociopragmatic skills” in “diverse social contexts and settings” (Sykes et al., 2008: 537), while the integrated communication facilities (including voice-based synchronous communication) make it possible to build on the affective, social and cognitive benefits that CMC may afford more generally (see above).

By promoting meaningful, problem-oriented forms of interaction and collaboration, linking into the real world (blogs, wikis) or simulating aspects of the real world in synthetic environments (virtual worlds) and appealing to different aspects of language learning, these emerging technologies are potentially attractive to TBLT-practitioners.

The IILL Survey showed a relatively high frequency of use of wikis and weblogs. The reported frequency of use was higher than most forms of CMC, with the exception of text-based email and discussion. All synchronous or voice-based forms of CMC had lower frequencies. Virtual worlds were the least used reported type of application (section 5.4.1). This may signal critical differences between weblogs and wikis on the one hand and virtual worlds on the other with respect to the potential for wider implementation.

Weblogs and wikis are easy to use and may be integrated with virtual learning environments (Blake, 2008a; Murray & Hourigan, 2006). In fact, for ease of use, the task-based writing projects documented in Lys (2004) and Stevens
would most likely involve the use of weblogs instead of HTML-based web pages if they had been set up today. This would also resolve most of the technical problems in setting up and maintaining such pages (Lys, 2004). Although interactive, weblogs and wikis are not synchronous in the sense that multiple learners need to use them at the same time (unlike SCMC). Moreover, the writing is similar to traditional forms of writing in that it is generally positioned as an out-of-class activity.

Virtual worlds, on the other hand, share many properties with SCMC. They usually require simultaneous presence of a teacher and group of learners. Although fully capable of offering students immersion in realistic contexts (Sykes et al., 2008), the issue of activating students’ linguistic resources may be more difficult to resolve without teacher presence than with weblogs or wikis. The pedagogical effectiveness of virtual worlds for language learning is still to very much an object of study, but for the time being at least, they are “simply too complicated for many educators to use” (Cooke-Plagwitz, 2008: 551).

These differences between weblogs and wikis on the one hand and virtual worlds on the other relate to the critical factors of Collis and Moonen’s 4-E model of implementation (pedagogical effectiveness and ease-of-use) and suggest that weblogs and wikis are well positioned for wider implementation, whereas virtual worlds, in spite of their potential for taking participation- or contribution-oriented learning to the next level, for the moment at least, have less potential for institution-wide introduction.

6.9.8 CMC-related technologies

The discussion of the potential of CMC also puts a perspective on the use of digital language labs for language learning. Although digital language labs are available in many institutions, these appear to be often used as multimedia labs without much use of specific language lab functionality. Toner et al. (2008) report that only a minority of teachers (27.6%) use labs for collaborative language tasks, while a majority (63.2%) situate such tasks in
regular classrooms (p. 14). They attribute this usage pattern to insufficient skills in the use of specific language lab functions, but teachers may well prefer regular classrooms equipped with a single computer and data projector as a facility for classroom interaction.

Although current digital language learning labs offer additional features for integrated multimedia, access to the internet, collaboration, and interactive exercises, the main function of digital language lab software is class-based teacher-controlled interaction. TBLT, and CLT more generally, do not encourage teacher intervention or teacher control during task performance, which may account for the low use of digital language labs for CMC reported in some studies. It may also explain to some extent why the main use of digital language labs is for individual work, often in self-access, using the full range of different ICT programs available, which are often internet-based and therefore more flexible than the features offered in language lab packages (cf. also the study of Figura & Jarvis, 2007 for the use of computer-based materials in this context). These uses may obviously include CMC for interacting with NSs outside the classroom context, whether in interclass international partnerships or more open forms of communication with target language speakers. For intraclass interaction, making learners communicate through headsets when they are facing each other is often regarded as artificial (task unauthentic). As argued above, if CMC is used for interaction between students from the same class, setting it as an out-of-class activity away from the teacher is usually a better option since it may provide extra opportunities for communication which may be recorded so that teachers (or peers) can respond to them (if desired) at a time that suits them best. Current language lab software has little to offer in support of these types of out-of-class activities.

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10 Out-of-class learning is obviously a characteristic of virtual language lab software used in distance learning, but the interaction remains controlled by the teacher and takes place at preset class times. In that sense, it is different from the out-of-class use of CMC intended here.
### 6.10 Summary

Summary of aspects relevant for implementation of task-related technologies:

<table>
<thead>
<tr>
<th>Pedagogy: Web input</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>● The web provides language in use as input for learning and may be used as a basis for situationally authentic or interactionally authentic tasks (including activities encouraged by the CEFR);</td>
<td></td>
</tr>
<tr>
<td>● In order to avoid ‘passive’ immersion, learners’ linguistic resources must be engaged by appropriate task design and learner training; providing sufficient focus on form is a critical aspect of meaning-based tasks;</td>
<td></td>
</tr>
<tr>
<td>● A crucial role is for the teacher as selector of appropriate web materials and guide for students in learning to navigate these independently; varying levels of teacher and student control may be provided in making web-based input accessible to students;</td>
<td></td>
</tr>
<tr>
<td>● Web-based work lends itself well for individual or collaborative out-of-class activities, but a combination with class-based work is desirable for reporting back and intervention;</td>
<td></td>
</tr>
<tr>
<td>● Authentic web-based input should not be the only channel of input for students; they may be better served if it is combined with enhanced input, developed by teachers, enhanced automatically, or enhanced by other students; different types of enhancement (glosses, audiovisual support, elaboration) may be needed in support of different aspects of language learning;</td>
<td></td>
</tr>
</tbody>
</table>
Reference

- Reference works, such as online dictionaries, grammar books, etc. are important for scaffolding the learning process during each stage of the task cycle; they may also be applied during language-oriented work after the task has been completed;

- Internal glosses are consulted more frequently than external dictionaries; access to internal glosses and external dictionaries may have a greater effect on learning than access to external dictionaries only;

- Multimedia glosses may be more effective than textual glosses, but given a choice, readers may more often use the text versions; learners should be trained in how to use references for maximum effect;

- Automatic referencing and linking to text corpora provides an alternative to having students engage in KWIC activities, but may also support students during meaning-oriented activities during the task cycle (KWIC is typically applied for language analysis after the task);

- If students add their own annotations to texts, this may not only benefit them, but also other learners.

Tutorial

- TBLT allows tutorial programs to be integrated at the end of task sequence (language focus stage) for analysis and practice; the pedagogue approach advocated for TBLT is an aspect of task design which does not preclude tutorial software as part of the task;

- Grammar, vocabulary, pronunciation and reading and listening lend themselves well for support by tutorial software;

- The conception of a built-in tutor does not imply full control of the program in sequencing the learning; multiple levels of student control may be built in;

- The possibility for built-in feedback and student monitoring enhances the utility for out-of-class use;

- Tutorial applications for structural language aspects (e.g. vocabulary) may be integrated with presentation of the structures in real contexts of use;

- The context of use rather than inherent properties of the software determine whether is conceived of as 'behaviouristic';
CMC

- Opportunities for enhanced language development (between learners in class): more (varied) interaction, more time to think, more equal participation, improvement in learner attitudes, oral proficiency gains;
- Opportunities for enhanced cultural awareness and intercultural communication and participation in target language community (primarily in extraclass settings);
- More effective in dyads than in (large) groups;
- Synchronous forms compete stronger with face-to-face interaction than asynchronous forms; demotes use in the classroom in blended setting;
- Written or spoken transcript for review by teachers, peers or students themselves;
- Weblogs and wikis support self-expression and collaboration in writing; easy to integrate in typical language learning setting;
- Virtual worlds: unique opportunities for immersion and mimicking of outside world; integration more difficult.

Web input

- Web input may be multimodal, allowing learning to be served by different media channels;
- Hypertext provides a common method of enabling different forms of input enhancement;
- (Semi-)automatic text enhancement offers a potential alternative for teacher-designed enhancement, which may be labour intensive;

Reference

- Reference tools may be most effective if they can be accessed through direct links in the text;
- Multimedia support desired (for learning gains);
- Automatic glosses and other forms of reference are technically possible;

Tutorial

- Usually delivered on/through the web today;
- Authorable vs. fixed-context tutorial programs;
- Primary reliance on closed answer checking; simple matching algorithms; more advanced processing technologies becoming available (e.g. WordChamp);
- Speech recognition in commercial products, including for testing;
### CMC
- Many forms are integrated into VLEs (including recent wikis and weblogs);
- Multimodal support, often combinations of text, voice and/or video based communication.

<table>
<thead>
<tr>
<th>Environment: Web input</th>
<th>Reference</th>
<th>Tutorial</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The decision to use teacher-centred or student-centred approaches to offering web-based input is partly determined by the time available to teachers for preparation and evaluation of such materials;</td>
<td>- Many reference tools are freely available on the web; this allows for easy integration with language learning tasks, but also brings these tools within reach of more students than paper-based versions;</td>
<td>- One of the primary functions of tutorial programs is to support the learner outside the classroom in form-focused work where automatic feedback is often possible;</td>
</tr>
<tr>
<td>- Commercial products with built-in input enhancement should be considered if teacher-designers have too little time for input enhancement;</td>
<td></td>
<td>- The educational environment may regard tutorial software as belonging to outdated theories of learning (behaviourism, programmed instruction);</td>
</tr>
<tr>
<td>- Enhancing texts collectively (with other teachers, students, possibly in other institutions) may be an effective way of developing enhanced input materials;</td>
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</table>

### CMC
- Frequently used tools in the ‘real world’, facilitating 'horizontal integration';
- Provides extension rather than replacement of classroom in blended learning settings;
- Combinations with face-to-face communication;
- Preferably used extraclass to maximise potential for independent learning; this may also be in pairs, even for SCMC.

Table 46: Summary of aspects relevant for implementing technologies for tasks