Designing tasks for online collaborative language learning

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ABSTRACT

Collaborative online language learning, made possible through the use of networked computers, is often based on the principles of social constructivism and is thus purposely open-ended, self-directed and makes extensive use of authentic resources. Designing learning tasks for use in telecollaborative environments is a challenge. The aim of this article is to provide guidelines for creating effective online collaborative tasks. After discussing the ways task design may relate to theories of learning, a definition of an online collaborative task is proposed. Practical guidelines and an example for constructing collaborative tasks are then presented. The article concludes with recommendations for future work in task research and design.

In Computer applications in second language acquisition, Chapelle (2001: 2) throws out the challenge that ‘anyone concerned with second language teaching and learning in the 21st century needs to grasp the nature of the unique technology-mediated tasks learners can engage in for language acquisition …’. These tasks remain central, even as our classrooms continue to expand far beyond a set of four walls. One area of expansion comes through the student use of globally networked computers to develop online projects. Recent trends, both in mainstream computer-supported collaborative learning (CSCL) and computer-assisted language learning (CALL), point to ‘project-oriented’, ‘network-based’ and ‘telecollaborative’ work (Debski 2000; Kern and Warschauer 2000; Koschman, Hall and Miyake 2002; Belz 2003). In light of such trends, a key part of Chapelle’s challenge is to think of ways to construct tasks so that we can make effective use of these vast computer networks. Earlier attempts to migrate classroom-based tasks to online environments have not always been successful, as a poor understanding of task design principles for the new environment may blunt pedagogical aims, confuse task writers, cause difficulties for learners and result in low task completion (Johnson 2000; Corbel, Gruba and Enright 2002). Clearly, as we make greater use of networked environments, we need to gain experience in developing and using technology-mediated tasks. With collaborative learning in mind, an overview of the way tasks align with educational theory and a brief sketch of social constructivism may help our discussions.
Aligning tasks with educational theory

The role of a task in online learning shifts, of course, depending on its intended use and underlying pedagogical theory. For example, if a teacher believes that Web surfing is a productive learning activity, her tasks would have few explicit directions or outcomes. In this instance, she would defend her view of learning as a ‘discovery’ of new information based on individual need (Bruner 1985). By contrast, a teacher who advocated sequenced instruction would design each task so that it would make an incremental contribution to a larger set of carefully constructed modules. This teacher would defend his task design on a ‘structured’ approach to teaching (see, for example, Jonassen, Hannum and Tessmer 1999). Table 1 provides a summary of several potential task roles as they relate to key variations in online instruction.

Table 1: Key approaches to online instruction

<table>
<thead>
<tr>
<th>Networked computer usage</th>
<th>Attributes</th>
<th>Related learning theory and role of tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Web-surfing’</td>
<td>Use of online materials is unstructured and self-directed; individual understanding is emphasised</td>
<td><strong>Discovery:</strong> As a general rule, tasks are not strictly set because students are seen to learn best when they are motivated to find, organise and use materials that suit their individual interests and needs (Bruner 1985)</td>
</tr>
<tr>
<td>Collaborative environment</td>
<td>Complex, collaborative projects are facilitated by the use of online technologies; little imposed structure</td>
<td><strong>Social constructivism:</strong> Tasks serve as catalysts to help scaffold and guide small groups as they work together to achieve an ill-defined goal (Debski 2000; Driscoll 2000)</td>
</tr>
<tr>
<td>Resource centre</td>
<td>Online resources serve to complement and assist learning in an area of interest</td>
<td><strong>Expository:</strong> Tasks are meaningful when associated ‘with what is already understood; appropriate resources strengthen context and deepen associations (Gagné and Driscoll 1988)</td>
</tr>
<tr>
<td>Independent learning centre</td>
<td>Online resources relate to a specific course alongside guidelines that correspond to specified curriculum levels (‘resources’ rather than ‘courses’)</td>
<td><strong>Elaboration:</strong> Tasks are set in such a way that they develop specific abilities and become more challenging as understanding in a specific subject area matures (Ausubel 1963; Reigeluth 1987)</td>
</tr>
</tbody>
</table>
As Table 1 suggests, an underlying pedagogical theory affects the way a task is constructed. The foundation of much online collaborative learning rests in the principles of social constructivism.

### Constructivist principles

Social constructivists promote close ties between authentic activities, collaborative learning, a variety of materials, the student ownership of outcomes and critical reflection. According to Driscoll (2000), the five key principles of this learning theory are as follows:

**Integrate authentic activity within a complex learning environment.** Students readily discern what will and will not be useful to them. They know, for example, that the Internet will be part of their lives. The use of real Internet resources heightens a sense of authenticity and provides motivation.

**Emphasise social negotiation as integral to learning.** Placing a collaborative task at the core of a class focuses student attention on group dynamics and interpersonal communication; task completion hinges on students’ collaboration. Audience awareness, a key part of effective communication skills, is also developed at several levels through interpersonal, group, institutional and, potentially, global interactions.

**Juxtapose content, include multiple modes of representation.** Collaborative tasks, by their very nature, contain a juxtaposition of ideas and information. Working through a range of electronic resources with colleagues helps students to gain experience in a variety of modes: spoken, written, individual, group and technologically mediated.

**Keep instruction relevant to student needs.** Well-designed collaborative tasks allow scope for students to shape outcomes; their ownership of the work is made clear from the beginning. As a need arises in relation to a
Reflect on practice. Thinking about what went right, what went wrong and how it can be improved next time is a powerful way to deepen understanding. Done well, reflection encourages a critical perspective and transferability of learning to other contexts.

Defining collaborative L2 pedagogical tasks

In an overview of work on second language learning tasks, Bygate, Skehan and Swain (2001) offer six definitions of these tasks. Interestingly, they criticise the numerous earlier attempts to define tasks in a ‘context-free approach’, as these have ultimately proven ‘unsatisfactory since they inevitably have a limited range of application’ (Bygate, Skehan and Swain 2001: 9). For our present purposes, a focus on these authors’ ‘pragmatic/pedagogical’ definition of a learning task is useful:

A task is an activity, influenced by learner choice, and susceptible to learner reinterpretation, which requires learners to use language, with an emphasis on meaning, to attain an objective. (Bygate, Skehan and Swain 2001: 11)

Their definition clearly sets out key factors of task design. We can rework their definition to fit our own networked computer environment context, and underpin it by highlighting social constructivist principles as follows:

A collaborative online task is a loosely directed activity, shaped and interpreted by members of a learning team, which requires learners to communicate through the use of networked computers, with an emphasis on the production and integration of authentic online resources, to achieve a milestone within a larger project that itself is extensible to other contexts.

To serve as a basis for collaborative projects we can, therefore, build upon the Bygate, Skehan and Swain (2001) definition by emphasising the ‘loosely directed’ nature of constructivist tasks. But how loose should the initial design parameters of such tasks be? Certainly, there is ongoing debate concerning the degree to which designers need to structure open-ended collaborative work (Beatty 2003: 107). In general, however, Jonassen and Land (2000) advise that activities designed for online learning environments be ‘scaffolded’ in achievable steps. Here, the influence of elaboration theory (Ausubel 1963; Reigeluth 1987) within a collaborative setting provides guidance for inexperienced learners. As students gain experience in self-directed learning, it is hoped that they can later move towards more open-ended goals.
At this point it is useful to scrutinise the need for online collaborative tasks to use and create authentic texts. Although ‘authenticity’ is another concept that is open to debate (see, for example, Bachman and Palmer 1996; Chapelle 1999), Little, Devitt and Singleton (1994: 45) argue that such texts ‘fulfil some social purpose in the language community for which it was produced’. Accordingly, they see that tasks designed for authentic purposes need to: a) relate to real-world activities; b) avoid predetermined outcomes; and c) vary in levels of complexity. In a further extension, Chapelle (2001: 55) discusses criteria for CALL task appropriateness. Here authenticity is integrated within a cluster of other necessary factors that include language learning potential, learner fit, meaning focus, positive impact and practicality.

**Theory into practice**

The use of clear design procedures, reproducible templates and model sites can assist task writers. The comprehensive WebQuest site (webquest.sdsu.edu) for native speakers provides solid guidelines for task design (Dodge 2002) that can be readily adopted for second language programs. Consider the following six steps to writing online collaborative tasks as shown in Table 2.

<table>
<thead>
<tr>
<th>Task component</th>
<th>Purpose</th>
</tr>
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<tbody>
<tr>
<td>Introduction</td>
<td>Prepare and motivate learner interest in the area.</td>
</tr>
<tr>
<td>Statement of objective</td>
<td>Describe clearly and simply what you expect learners to achieve.</td>
</tr>
<tr>
<td>Steps and processes</td>
<td>Explain the steps that learners should go through to achieve the objective.</td>
</tr>
<tr>
<td>Resources</td>
<td>Provide a list of authentic online resources that learners can use to achieve the objective.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Tell learners how to check their work through the provision of model responses that relate to a specific goal within an established curriculum.</td>
</tr>
<tr>
<td>Reflection and extension</td>
<td>Encourage learners to think about what has been learned and how to apply that learning to different contexts.</td>
</tr>
</tbody>
</table>

(Adapted from Corbel, Gruba and Enright 2002: 26)

Three points require particular attention. First, any integration of authentic online resources should include sites that are well established and professionally produced so as to reduce the chore of maintaining a set of appropriate online tasks. The evolving nature of the Internet frustrates inexperienced students who are looking for sites or specific pages that
are no longer being served. Second, task designers need to provide model responses on which students can evaluate their own learning. Self-assessment fosters independent learning, autonomy and, ultimately, the confidence to transfer learning to other contexts. Finally, task developers need to complete the tasks themselves both to check that introductions are truly motivating and the aims are clear, and also to correct possible gaps in the task-completion process.

Online collaborative tasks can be situated within the context of a larger project. In an ideal situation, each project generated in a single classroom contributes to an overall theme, and each task within a project resonates in some way with that theme. Ideal tasks involve every member of the class, both within project teams and across the class as a whole, as expertise is shared among the entire group. Through this sharing, individual students can see and reflect upon the ways in which their contribution relates both to the team and to the wider organisation. Effective collaborative tasks are appropriate, extensible and encourage reflection. Table 3 provides an example task written for intermediate-level adult migrant students.

**Table 3: Example collaborative task**

<table>
<thead>
<tr>
<th>Task component</th>
<th>Online text</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>The Melbourne Zoo is world famous for having a wide variety of Australian and international animals. The animals enjoy living in a near-natural habitat. You have a day to visit the zoo as part of a team of international specialists. Each team member must write a report on their special area related to zoo-keeping. Your part of the overall report will be submitted, via email, to the zoo management as they look for ways to further improve the Melbourne Zoo.</td>
</tr>
<tr>
<td>Statement of objective</td>
<td>By doing this task, you will improve your ability to write a collaborative report. You will also gain experience in the following areas: skimming and scanning, summarising main points, identifying important information and learning vocabulary in context.</td>
</tr>
</tbody>
</table>
| Steps and processes  | First, think of yourself as part of a team of international specialists who are conducting a worldwide survey of the conditions of the world’s zoos. In this activity, you will investigate the conditions for animals at the Melbourne Zoo. Second, choose a role from the following list:  
  • animal doctor;  
  • living conditions and natural environment specialist;  
  • feeding specialist;  
  • mating habits and habitat specialist;  
  • protection of endangered species specialist. Once you’ve decided on your role, click on that role to begin to research your area. After you have collected all the information... |
Table 3: Continued

<table>
<thead>
<tr>
<th>Task component</th>
<th>Online text</th>
</tr>
</thead>
<tbody>
<tr>
<td>from your group, write your section of a collaborative report on the conditions for animals at the Melbourne Zoo.</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td>Click here to check your report against the model written by a teacher according to CSWE 3 standards.</td>
</tr>
<tr>
<td>Conclusion and</td>
<td>You have now learnt about the Melbourne Zoo. Tell your friends about zoo highlights: Will Yakini’s mother have another baby soon? How does this zoo compare with others that you have visited around the world? Get together with another student to work out a design for a T-shirt to advertise the rainforest section of the zoo.</td>
</tr>
<tr>
<td>extension</td>
<td></td>
</tr>
</tbody>
</table>

(Adapted from Corbel, Gruba and Enright 2002: 35–36)

Although the ultimate aim of the example task in Table 3 is to produce a collaborative report, the task is constrained so that an individual only writes a section of the report, since our students are not always able to collaborate. However, by placing the task within a larger project, such as ‘Touring the Zoo’, it can be extended and related back to an overall theme. In this case, each team in the class could examine ‘entertainment options’ across the city, and then debate the merits of each reported venue. If the resources are available, the task could also act as a catalyst for students to create their own online materials (for example, a team could write a guide for international visitors to the zoo). Any texts they created could potentially be useful to readers who wanted information on the presented topic.

Finally, because ‘reflection’ and ‘extension’ are key tenets of social constructivist approaches to learning, a key characteristic of collaborative tasks is to ensure they can be used to stimulate further learning. Task designs, therefore, need to be concluded in such a way that they encourage students both to think about what they have learnt and how to apply that learning in other contexts.

Further development

One way to meet Chapelle’s (2001) challenge regarding technologically mediated tasks lies in our collective attempts to define them, write them and try them out with our own students. As we move from theory to practice through networked computer environments, we need to be acutely aware of how task design can be underpinned by sound pedagogical approaches. Research can be focused on four key areas: 1) understanding actual student use of technologically mediated tasks, for example, how they use such tasks in both online and offline contexts; 2) the use of collaborative...
tasks within groups; 3) collaborative task usage across groups; and 4) the role of collaborative tasks in assessment.

As our field begins to consider the need to develop ‘multiliteracies’ (Cope and Kalantzis 2000) – so that our students can cope with a greater variety of text types, intertextual references and modalities – we need to expand our list of factors that may influence the use and definitions of online tasks. We should also consider making explicit statements regarding mode of presentation in task design. For example, ‘video-mediated’ tasks need to be clearly differentiated from ‘audio-mediated’ tasks when we set out to design online listening activities. We will need a stronger understanding of the attributes of a multimedia production if we are to exploit it effectively (Chun and Plass 1997).

Another way to meet the challenge of understanding effective technologically mediated tasks is to find ways to better teach their design and use. Ideally, a dedicated professional development program should ‘shift away from isolated coursework in CALL to the development of a sequence of situated technology experiences for teachers’ (Egbert, Paulus and Nakamichi 2002: 122). We need to create purposeful training modules that address the unique demands of online collaborative environments. Staff development materials that foster effective online task design for use both in teaching and action research already exist (Corbel 2001). Beyond that, however, teachers must experience for themselves ‘learning how to learn’ in networked teams, and come to consider using social constructive approaches to teaching rather than remaining somewhat suspicious of them (Debski and Gruba 1999). By using some structured guidelines and inspiration from existing WebQuest sites, second language instructors can construct their own materials, try them with colleagues and meet the challenges of designing technologically mediated tasks.

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REFERENCES


