Article

**Computer Supported Collaborative LANGUAGE Learning (CSCL)**

**Abstract**

As the title suggests, the concept of Computer-Supported Collaborative Language Learning (CSCL) adopts and shares many aspects of Computer-Supported Collaborative Learning (CSCL). This article is an attempt to incorporate CSCL in English as a Second Language (ESL) and English as a Foreign Language (EFL) contexts, and to examine the potential applicability of CSCL in ESL and EFL classes.

The goal of this article is to examine potential effects of CSCL in ESL and EFL. To validate its usefulness, the theoretical framework of CSCL and the effects of collaboration in language learning are introduced. With guidelines for task design, a sample of CSCLL is presented. The specific description of the sample is designed to enhance the ESL and EFL teachers' understanding and to motivate them to use CSCLL in their teaching contexts. Practical tips for classroom implementation will be also included. In addition, potential benefits and limitations are discussed. Among these are increased authenticity, eliciting students' active participation and interaction, flexibility, reduced anxiety and higher motivation, scaffolding and collaboration, learner-centeredness, developing electronic literacy and promoting ownership and personal responsibility by webpublishing. Affordability, practicality and heavy work-load for the teachers can be considered as potential limitations. Finally, pedagogical implications for teachers and researchers are suggested.

**Keywords:** Computer-Supported Collaborative Learning (CSCL), ESL, EFL, technology-related literacy, collaborative language learning, CALL

1. Introduction

Since socioconstructuralism has become the major learning theory in the field of education as well as in second and foreign language education, the concept of collaboration has gotten attention from researchers and educators. Thus, many studies on collaborative learning have been conducted and many teachers are trying to incorporate the concept in their instructions as the studies gain more positive results. Moreover, as students are living in a high-tech century, they are getting familiar with using technology and in a way it is necessary for them to have a certain level of computer skills. In the academic world, using technology in terms of researching, communicating and having conferences have become common practice. Thus, a new literacy, electronic literacy or technology-related literacy, is needed for students to study further and to communicate effectively within their discourse community.

As the title suggests, the concept of Computer-Supported Collaborative Language Learning (CSCL) adopts and shares many aspects of Computer-Supported Collaborative Learning (CSCL). This article is an attempt to incorporate CSCL in English as a Second Language (ESL) and English as a Foreign Language (EFL) contexts, and to examine the potential applicability of CSCL in ESL and EFL classes.

In this article, the definition of CSCL and its theoretical background will be presented. Its benefits are also mentioned. Then, important features of language learning and its relationship with collaboration will be described. Also, positive research results on collaborative language learning will be introduced. Then, the project, Computer
Supported Collaborative Language Learning (CSCL), which was developed by the author, will be introduced. Sample activities with specific descriptions are also presented. Tips for classroom implementation will be mentioned. Finally, potential benefits and limitations, and pedagogical implications and suggestions will be discussed.

2. CSCL
2.1. Definition of CSCL

According to Hsiao (2000), Computer-Supported Collaborative Learning (CSCL) has grown out of wider research into Computer-Supported Collaborative Work (CSCW) and collaborative learning. CSCW is defined as a computer-based network system that supports group work in a common task and provides a shared interface for groups to work with (Ellis et al. 1991). Collaborative learning is defined as groups working together for a common purpose. They are both based on the promise that computer supported systems can support and facilitate group processes and group dynamics in ways that are not achievable by face-to-face communication, but they are not designed to replace face-to-face communication. CSCL and CSCW systems are typically tailored for use by multiple learners working at the same workstation or across networked machines. These systems can support communicating ideas and information, accessing information and documents, and providing feedback on problem-solving activities. The research of CSCL and CSCW covers not only the techniques of the groupware but also their social, psychological, organizational, and educational effects (Hsiao, 2000). Thus, CSCL is a combination of computer science, education, and psychology as the following figure shows (Wasson, 1998).

![Figure 1. CSCL](image)

2.2. Theoretical Background

CSCL adopts several theories as the theoretical framework: sociocultural theory, constructivism theory, self-regulation learning, situated cognition, cognitive apprenticeship, problem-based learning, cognitive flexibility theory and distributed cognition (Hsiao, 2000). Among them, only the four concepts that seem to be mutually related to second or foreign language acquisition, will be discussed in this section.

2.2.1. Sociocultural theory

Socioconstructivism or socioculturalism is from the work of Vygotsky (1978) and his colleagues. Vygotsky saw the process of learning as socially mediated. According to him, children experience two phases in the learning process: first, children learn through the interaction with adults (interpsychological phase) and then, they interact with themselves (intrapsychological phase). Another aspect of Vygotsky's theory is the idea that the potential for cognitive development is limited to a certain time span which he calls the "Zone of Proximal Development" (ZPD). Vygotsky defines the ZPD as "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving."
under adult guidance or in collaboration with more capable peers” (1978, P.86). In Vygotsky' view, peer interaction, scaffolding, and modeling are important ways to facilitate individual cognitive growth and knowledge acquisition. ZPD can be composed of different levels of expertise of individuals (students and teachers), and can also include artifacts such as books, computer tools, and scientific equipment. The purpose of ZPD is to support intentional learning. Vygotsky’s sociocultural approach to learning and ZPD can be successfully employed in the study of CSCL environment (Hsiao, 2000).

2.2.2. Constructivism theory

The constructivist theory of learning views that individuals are active agents, they engage in their own knowledge construction by integrating new information into their schema, and by associating and representing it in a meaningful way. The constructivist approach to learning emphasizes authentic, challenging projects that include students, teachers and experts in the learning community. Its goal is to create learning communities that are more closely related to the collaborative practice of the real world. In an authentic environment, learners assume the responsibilities of their own learning. They have to develop metacognitive abilities to monitor and direct their own learning and performance. When people work collaboratively in an authentic activity, they bring their own framework and perspectives to the activity. They can see a problem from different perspectives, and are able to negotiate and generate meanings and solutions through shared understanding. The constructivist paradigm has led us to understand how learning can be facilitated through certain types of engaging, constructive activities. This model of learning emphasizes meaning-making through active participation in socially, culturally, historically, and politically situated contexts. A crucial element of active participation is dialog in shared experiences, through which situated collaborative activities, such as modeling, discourse and decision making, are necessary to support the negotiation and creation of meaning and understanding (Hsiao, 2000).

2.2.3. Cognitive apprenticeship

Cognitive apprenticeship is a term for the instructional process that teachers provide and support students with scaffolds as the students develop cognitive strategies. Wilson and Cole (1994) describe the core characteristics of cognitive apprenticeship models: heuristic content, situated learning, modeling, coaching, articulation, reflection, exploration, and order in increasing complexity. Cognitive apprenticeship is a culture that permits peers to learn through their interactions, to build stories about common experiences, and to share the knowledge building experiences with the group. Collaborative discussion occurring in CSCL is important for student learning because it activates prior knowledge which facilitates the processing of new information. CSCL is designed to help students with acquiring cognitive and metacognitive knowledge by means of observation and guided practice (Collins et al, 1989).

2.2.4. Problem-based learning

Problem-based learning (PBL), anchored instruction, is a student-centered, contextualized approach to schooling. In this approach, learning begins with a problem to be solved rather than content to be mastered. This is consistent with new models of teaching and learning that suggest the emphasis of instruction needs to shift from teaching as knowledge transmission to less teacher-dependent learning. PBL emphasizes the importance of creating an anchor or focus that generates interest and enables students to identify and define problems and to pay attention to their own perception and comprehension of these problems (Bransford, J.D et al, 1990).

2.3. Benefits of CSCL

Pantiz categorized the benefits of CSCL in terms of academic, social and psychological aspects.
2.3.1 Academic benefits are: CSCL

- Promotes critical thinking skills
- Involves students actively in the learning process
- Models appropriate student problem solving techniques
- Personalizes large lectures
- Motivates students in specific curriculum

2.3.2. Social benefits are: CSCL

- Develops a social support system for students
- Builds diverse understanding among students and staff
- Establishes a positive atmosphere for modeling and practicing cooperation
- Develops learning communities

2.3.3. Psychological benefits are: CSCL

- Increases students' self esteem through student centered instruction
- Reduces anxiety through cooperation
- Develops positive attitudes towards teachers

3. Language Learning and Collaboration

3.1. Benefits of collaboration in language learning

As socioconstructivism emphasizes scaffolding, collaboration in learning as well as language learning becomes important. Collaboration encourages students:

- To learn about learning, to learn better and
- To increase their awareness about language, and about self, and hence about learning;
- To develop, as a result, metacomunicative as well as communicative skills;
- To confront, and come to terms with, the conflicts between individual needs and group needs, both in social, procedural terms as well as linguistic, content terms;
- To realize that content and method are inextricably linked, and
- To recognize the decision-making tasks themselves as genuine communicative activities (Nunan, 1992, p.3)

Slavin (1983) also summarized the theoretical, empirical and practical advantages of cooperative learning as contrasted with competitive learning:

...the research done up to the present has shown enough positive effects of cooperative learning, on a variety of outcomes, to force us to re-exam traditional instruction practices. We can no longer ignore the potential power of the peer group, perhaps the one remaining free resource for improving schools. We can no longer see the class as 20 or more individuals whose only instructionally useful interactions are with the teacher, where peer interactions are unstructured or off-task. On the other hand, at least for achievement, we now know that simply allowing students to work together is unlikely to capture the power of the peer group to motivate students to perform (p.128).
3.2. Positive Research Results

There are several studies which have positive results of collaboration in the instruction. The results are:

- Working together to achieve common learning goals (Slavin 1983; Sharan et al. 1984)
- Outperformance of cooperative groups of students in reading comprehension, reading vocabulary, language mechanics, language expression and spelling (Stevens, Madden, Slavin & Farnish, 1987)
- Outperformance in writing sample and oral reading measures (Stevens, Slavin & Farnish, 1991)
- Cooperative small-group method significantly outperformed the whole-class method in academic achievement (Bejarano, 1987)

4. Task Design

There are several criteria on task development. However, in this article, the two criteria, sociocollaborative learning task design and Multimedia CALL criteria, which are the basis of the task design of the project, will be the prime focus.

4.1. Sociocollaborative learning task

Meskill (1999) suggested guidelines for sociocollaborative learning tasks. The task should:

- provide ample opportunities for differing perspectives and opinions, for controversy, disagreement, resolution, and consensus building
- motivate active participation and interaction by having no one single answer or process to employ in accomplishing them
- offer some form of problem-solving (something for which computers are particularly well suited)
- designate roles for individual learners and teams to take on as they engage in these processes, helping situate learners within a community of participants
- include a motivated awareness of the forms and functions of the language used

4.2. Multimedia CALL Criteria

Chapelle (1998) suggests criteria for Multimedia CALL task design:

- Making key linguistic characteristics salient.
- Offering modifications of linguistic input.
- Providing opportunities for "comprehensible output."
- Providing opportunities for learners to notice their errors.
- Providing opportunities for learners to correct their linguistic output.
- Supporting modified interaction between the learner and the computer.
- Acting as a participant in L2 tasks.
5. The Project

5.1. Description of the project

The project is for high-intermediate to advanced college level ESL or EFL students. It has three objectives:

- To develop English Proficiency
- To foster collaborative learning
- To enhance technology-related literacy (Warschauer, 1999)

It consists of 5 modules and to complete each module, students will follow the general process of:

- Introduction
- Module description
- Self & Peer Evaluation
- Reflection Journal on their blogs

Since module 1 is an introduction and module 5 is for wrap-up, students will participate in the three main activities:

- Academic Controversy on Second Life (Module 2)
- Collaborative Writing; Developing Wiki entry (Module 3)
- Developing a WebQuest (Module 4)
Blackboard was used as the course management tool, with links to the students’ blogs, a Wiki to upload their products and a discussion board for out-of-class communication.

The following table shows the technological tools and their functions, which students will use in the project.

<table>
<thead>
<tr>
<th>Tools</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard</td>
<td>Course management</td>
</tr>
<tr>
<td>Second Life/ Discussion Board/ Class MSN</td>
<td>For Module 2 'Academic Controversy'</td>
</tr>
<tr>
<td>Wiki</td>
<td>For Module 3 'Collaborative Writing'</td>
</tr>
<tr>
<td>Discussion Board</td>
<td>For Module 4 'Developing a WebQuest', uploading final projects</td>
</tr>
<tr>
<td>Blog</td>
<td>Reflection Journal, Close relationship</td>
</tr>
<tr>
<td>E-mail</td>
<td>(optional) Giving and receiving Q&amp;A to peers and the teachers</td>
</tr>
</tbody>
</table>

Table 1. Tools and functions.

5.2. Sample Tasks and Process: Module 4 'Developing a WebQuest'

In this module (2), each team is designed to develop a WebQuest. In the 'Course Document' menu, students can retrieve information which is needed to complete the module by clicking the 'Module 4' document. Since this is the last module, it is more complicated in terms of using technological tools and making the final product.

The following is the assignment that the students are required to do in 'Module 4'.
5.2.1. The objectives of this module are:

- To understand strategies and techniques for collaborative Web-based inquiry.
- To understand the purpose and structure of WebQuest.
- To collaboratively design a WebQuest that meets stated criteria.

5.2.2. The Process

Create a WebQuest related to a topic or question of interest to you and your team members. The WebQuest should be up on Discussion Board. When your WebQuest is completed, email it to all your class mates.

You need to plan and organize the project. Your first step is to decide which member of the team will serve as the team leader for this project. The team leader's role will be to serve as a facilitator and coordinator of the project. There may be other roles that are important to your team based on their areas of expertise and interest. You may want to have one member who has strong technology skills to help in making a link of the WebQuest in the 'Discussion Board'. You will also need to decide how you will divide the tasks among the team to be sure that you develop a high quality WebQuest within the project timelines. After deciding on the topic, you can choose a template from this website: http://www.webquest.org/index-create.php.

Some of the basic planning steps your team must quickly accomplish include:

- **Identify the questions that are of the greatest interest** to you or for which you or your teammates may have some expertise. Deciding upon the topic or question that you will address in your WebQuest is the first step in developing your WebQuest. The topic should be one in which there is shared interest in your team. Preferably, it should be a topic that would be helpful to educators and might relate to some aspect of collaborative or online learning. Other topics of high interest to the group may also be considered. Suggest questions or topics that you feel might be of potential interest to your team. Also identify any expertise that members of your team may have related to the topic or question.
- **Select a team project leader.** Choose one member from your team to serve as the team leader for the WebQuest project who was not the leader for other assignments.
- **Select a technology guru who will be the lead technology person on the team.** This person will help in placing the WebQuest on the 'Discussion Board'.
- **Clarify the question or topic that your WebQuest will address.** It is important for your team to be clear about the question or topic and its scope.
- **Decide on Team member task assignments.** The members of the team, facilitated by the project team leader, will decide on the tasks that must be done to complete the project. Each member of the team should have a clear idea of the area of responsibility and tasks that he or she will perform.

5.2.3. Strategies for Developing Web-based Inquiry Project

A major criterion for your WebQuest is that it represents a clear, concise and coherent project. The development of a coherent inquiry-based WebQuest requires that you also have a coherent process for developing the WebQuest. Please read the following article by Jamie McKenzie (2000) entitled, *The Ties that Bind: Providing Support for Coherence throughout the Research Process* (http://fno.org/sum00/links2.html). It stresses the importance of coherence in the steps of the research cycle including:

1. Questioning
2. Planning
3. Gathering
4. Sorting and Sifting
5. Synthesizing
6. Evaluating

His analysis of the research cycle is directly relevant to your tasks in the WebQuest project and will guide you as you go through the following steps in developing your component of the team’s WebQuest:

**Step 1. Questioning**

Each of the questions, issues, or topics identified for the WebQuest are broad in scope and before you begin your research it is helpful to think about the specific questions that relate to the broad question. Develop a list of questions that you feel are important to answer in addressing the major question or issues. The more comprehensive your listing of related questions, the more focused your research will be and the more coherent, clear and concise your section of the paper addressing the broad question will be. To help you conceptualize your paper, develop a mind or concept map of the questions that relate to your broad question.

The following readings will help you understand the purpose, advantages, and strategies for developing a concept map in order to conceptualize the questions that will serve as the focus of your research and paper:

- Concept Mapping: [http://classes.aces.uiuc.edu/ACES100/Mind/Cmap.html](http://classes.aces.uiuc.edu/ACES100/Mind/Cmap.html)

**Concept Mapping Tool.** Inspiration is probably the most widely known and used graphic organizer tool used for concept mapping and other purposes. If you do not have access to Inspiration, you can download and use a trial version for 30 days. To download the trial version, go to [Inspiration home page](http://www.inspiration.com) and click on Download Free Trial. You can also find other helpful information about concept maps at the Inspiration web site.

**Step 2. Planning**

Think strategically about how you will organize your search for information related to the specific topics or questions you will address in your section of the paper. What descriptors will you use for your online searches? What search engines may be most helpful? In addition to the usual search engines such as Google, Yahoo, Alta Vista, Excite, and WebCrawler, you may also want to consider HotWired.com. As you plan your search, talk to others to get their suggestions and ideas for possible information sources or relevant topics.

**Step 3. Gathering**

Now that you have a clear idea of the information you will need for your component of the WebQuest, you can begin the task of finding and gathering the needed information.

Be systematic as you gather information and list each reference source, including the URL, that will be included in your WebQuest. Also, be sure to make notes of the relevant information from the source that you will use in the WebQuest.

**Sharing Ideas and Resources with Team Members.** As you are gathering information related to your specific topics or questions, be mindful of the information that is relevant to the topics or issues that are addressed by your teammates. One of the powerful aspects of working in a collaborative learning team is that, as you are doing research for your own project, you may discover resources that will be helpful to other members of your team in developing their component of the WebQuest.
Step 4. Sorting and Sifting

As you gather the information from the Web and other sources, you should begin to organize and store the information into the specific categories related to your questions or topics.

Step 5. Synthesizing

Now that you have gathered substantial information related to your topic or question, you will need to view it from different perspectives and to combine and recombine the information elements in ways that help you better understand the topic or question. As noted by McKenzie (2000), like pieces of a jigsaw puzzle, you will rearrange the information elements you have gathered until a clear picture emerges.

Step 6. Evaluating

At this point you will be able to see the big picture and determine the extent to which you feel you are able to address your specific questions or topics. Are there any gaps in the information? Are there weaknesses? Are there remaining points or issues that you still do not understand? Are there holes in the logic of evidence? Based on your answers to these questions, you may do some additional information gathering to specifically address the gaps or weaknesses.

Step 7. Finalization of WebQuest

You will very likely start developing your component of the WebQuest even while you are doing the synthesizing and evaluating. Often the gaps or weaknesses in the development of the answers or differing perspectives related to the question are not made evident until you start developing the final coherent WebQuest. Don't feel that you cannot share your work with others until you are satisfied that your WebQuest is entirely complete and polished. It is often helpful to share your initial version with others to help you to clarify issues, develop ideas and identify other helpful information resources. You should also consistently read the WebQuests of other teams to give them helpful feedback and encouragement.

5.2.4. Evaluation

After completing the module, each student will participate in the evaluation process: self-evaluation, peer-evaluation, product-evaluation for both their and other teams' WebQuest. The following are rubrics for each evaluation.

- **Self Evaluation**

<table>
<thead>
<tr>
<th></th>
<th>Exemplary 4</th>
<th>Very Good 3</th>
<th>Developing 2</th>
<th>Beginning 1</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td>Always does assigned work without reminders.</td>
<td>Usually does assigned work. Seldom needs reminders.</td>
<td>Rarely completes assigned work. Needs frequent reminders.</td>
<td>Always relies on others to complete work.</td>
<td></td>
</tr>
<tr>
<td>Communication</td>
<td>Listens and speaks an equal amount.</td>
<td>Listens. Occasionally talks too much.</td>
<td>Does most of the talking. Seldom allows others to speak.</td>
<td>Always talking. Never allows others to speak.</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2. Self Evaluation Rubric.

#### Peer Evaluation

<table>
<thead>
<tr>
<th>Contribution</th>
<th>Exemplary 4</th>
<th>Very Good 3</th>
<th>Developing 2</th>
<th>Beginning 1</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Always does assigned work without reminders.</td>
<td>Usually does assigned work. Seldom needs reminders.</td>
<td>Rarely completes assigned work. Needs frequent reminders.</td>
<td>Always relies on others to complete work.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Communication</th>
<th>Exemplary 4</th>
<th>Very Good 3</th>
<th>Developing 2</th>
<th>Beginning 1</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listens and speaks an equal amount.</td>
<td>Listens. Occasionally talks too much.</td>
<td>Does most of the talking. Seldom allows others to speak.</td>
<td>Always talking. Never allows others to speak.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Duties</th>
<th>Exemplary 4</th>
<th>Very Good 3</th>
<th>Developing 2</th>
<th>Beginning 1</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs all duties of assigned role.</td>
<td>Performs nearly all duties of assigned role.</td>
<td>Performs few duties of assigned role.</td>
<td>Does not perform duties of assigned role.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collaboration</th>
<th>Exemplary 4</th>
<th>Very Good 3</th>
<th>Developing 2</th>
<th>Beginning 1</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never argues with group members. Helps group reach mutual decision.</td>
<td>Rarely argues with group members. Considers all views.</td>
<td>Sometimes argues. Sides with friends and does not consider all views.</td>
<td>Usually argues with group members. Wants to have things their way.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 3. Peer Evaluation Rubric.

#### Evaluation for the WebQuest – your team

Rubric for Evaluating WebQuests

<table>
<thead>
<tr>
<th>Overall Aesthetics: This refers to the WebQuest page itself, not the external resources linked to it.</th>
<th>Beginning</th>
<th>Developing</th>
<th>Accomplished</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall visual appeal</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
<td></td>
</tr>
<tr>
<td>Background is gray. There are few or no graphic elements. No variation in layout or typography.</td>
<td>There are a few graphic elements. There is some variation in type size, color, and layout.</td>
<td>Appealing graphic elements are included appropriately. Differences in type size and/or</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Introduction**

<table>
<thead>
<tr>
<th>Motivational effectiveness of introduction</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction is purely factual, with no appeal to relevance or social importance.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Introduction relates somewhat to the learner's interests and/or describes a compelling question or problem.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Introduction draws the reader into the lesson by relating to the learner's interests or goals and/or engagingly describing a compelling question or problem.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cognitive effectiveness of the introduction**

<table>
<thead>
<tr>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction doesn't prepare the reader for what is to come, or build on what the learner already knows.</td>
<td>Introduction makes some reference to learner's prior knowledge and previews to some extent what the lesson is about.</td>
<td>The Introduction builds on learner's prior knowledge by explicitly mentioning important concepts or principles, and effectively prepares the learner for the lesson by foreshadowing new concepts and principles.</td>
</tr>
</tbody>
</table>

**Task:**
The task is the end result of student efforts, not the steps involved in getting there.

<table>
<thead>
<tr>
<th>Cognitive level of the task</th>
<th>1 point</th>
<th>3 points</th>
<th>5 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task requires simply comprehending web pages and answering questions.</td>
<td>Task requires analysis of information and/or putting together information from several sources.</td>
<td>Task requires synthesis of multiple sources of information, and/or taking a position, and/or going beyond the data given and making a generalization or creative product.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technical sophistication of the task</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task requires simple verbal or written response.</td>
<td>Task requires use of word processing or simple</td>
<td>Task requires use of multimedia software, video, or conferencing.</td>
<td></td>
</tr>
</tbody>
</table>
**Process:**
The process is the step-by-step description of how students will accomplish the task.

<table>
<thead>
<tr>
<th>Clarity of process</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process is not clearly stated. Students would not know exactly what they were supposed to do just from reading this.</td>
<td></td>
<td>Some directions are given, but there is missing information. Students might be confused.</td>
<td>Every step is clearly stated. Most students would know exactly where they were in the process and what to do next.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Richness of process</th>
<th>1 point</th>
<th>3 points</th>
<th>5 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few steps, no separate roles assigned.</td>
<td>Lots of variety in the activities performed. Different roles and perspectives are taken.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some separate tasks or roles assigned. More complex activities required.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Resources**
*Note:* you should evaluate all resources linked to the page, even if they are in sections other than the Resources block. Also note that books, video and other offline resources can and should be used where appropriate.

<table>
<thead>
<tr>
<th>Quantity of resources</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few online resources used.</td>
<td>Moderate number of resources used.</td>
<td>Many resources provided, including off-line resources.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quality of resources</th>
<th>1 point</th>
<th>3 points</th>
<th>5 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links are mundane. They lead to information that could be found in a classroom encyclopedia.</td>
<td>Some links carry information not ordinarily found in a classroom.</td>
<td>Links make excellent use of the Web’s timeliness and colorfulness.</td>
<td></td>
</tr>
</tbody>
</table>

**Evaluation**

<table>
<thead>
<tr>
<th>Clarity of Evaluation Criteria</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students have no idea on how they'll be judged.</td>
<td>Criteria for success are at least partially described.</td>
<td>Criteria for gradations of success are clearly stated, perhaps in the form of a rubric for self-, peer-, or teacher use.</td>
<td></td>
</tr>
</tbody>
</table>

**Total Score**

Table 4. WebQuest Evaluation Rubric - your team.

- **Evaluation for the WebQuest – the other team**
### Overall Aesthetics:
This refers to the WebQuest page itself, not the external resources linked to it.

<table>
<thead>
<tr>
<th>Overall visual appeal</th>
<th>Beginning</th>
<th>Developing</th>
<th>Accomplished</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background is gray. There are few or no graphic elements. No variation in layout or typography. OR Color is garish and/or typographic variations are overused and legibility suffers.</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
<td></td>
</tr>
<tr>
<td>There are a few graphic elements. There is some variation in type size, color, and layout.</td>
<td></td>
<td></td>
<td></td>
<td>Appealing graphic elements are included appropriately. Differences in type size and/or color are used well.</td>
</tr>
</tbody>
</table>

### Introduction

<table>
<thead>
<tr>
<th>Motivational effectiveness of introduction</th>
<th>Beginning</th>
<th>Developing</th>
<th>Accomplished</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction is purely factual, with no appeal to relevance or social importance.</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
<td></td>
</tr>
<tr>
<td>Introduction relates somewhat to the learner's interests and/or describes a compelling question or problem.</td>
<td></td>
<td></td>
<td></td>
<td>The Introduction draws the reader into the lesson by relating to the learner's interests or goals and/or engagingly describing a compelling question or problem.</td>
</tr>
<tr>
<td>The Introduction builds on learner's prior knowledge by explicitly mentioning important concepts or principles, and effectively prepares the learner for the lesson by foreshadowing new concepts and principles.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Task:
The task is the end result of student efforts, not the steps involved in getting there.

<table>
<thead>
<tr>
<th>Cognitive level of the task</th>
<th>Beginning</th>
<th>Developing</th>
<th>Accomplished</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task requires simply comprehending web pages and</td>
<td>1 point</td>
<td>3 points</td>
<td>5 points</td>
<td>Task requires synthesis of multiple sources of information,</td>
</tr>
<tr>
<td>Technical sophistication of the task</td>
<td>1 point</td>
<td>2 points</td>
<td>3 points</td>
<td></td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>---------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>Task requires simple verbal or written response.</td>
<td>Task requires use of word processing or simple presentation software.</td>
<td>Task requires use of multimedia software, video, or conferencing.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Process:**
The process is the step-by-step description of how students will accomplish the task.

<table>
<thead>
<tr>
<th>Clarity of process</th>
<th>1 point</th>
<th>2 points</th>
<th>3 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process is not clearly stated. Students would not know exactly what they were supposed to do just from reading this.</td>
<td>Some directions are given, but there is missing information. Students might be confused.</td>
<td>Every step is clearly stated. Most students would know exactly where they were in the process and what to do next.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Richness of process</th>
<th>1 point</th>
<th>3 points</th>
<th>5 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Few steps, no separate roles assigned.</td>
<td>Some separate tasks or roles assigned. More complex activities required.</td>
<td>Lots of variety in the activities performed. Different roles and perspectives are taken.</td>
<td></td>
</tr>
</tbody>
</table>

**Resources**
*Note:* you should evaluate all resources linked to the page, even if they are in sections other than the Resources block. Also note that books, video and other offline resources can and should be used where appropriate.

<table>
<thead>
<tr>
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<th>2 points</th>
<th>3 points</th>
</tr>
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**Evaluation**

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<td>Students have no idea on how they’ll be judged.</td>
<td>Criteria for success are at</td>
<td>Criteria for gradations of success are</td>
<td></td>
</tr>
</tbody>
</table>
least partially described. clearly stated, perhaps in the form of a rubric for self-, peer-, or teacher use.

Table 5. WebQuest Evaluation Rubric - the other team.

5.3. Tips for classroom implementation

Teachers can modify each module depending on the class objectives, students' level of language proficiency, and technology assistance. Teachers also can combine CSCLL in the regular class instruction as on-line and off-line classes. Teachers can also use only the CSCLL as the main instruction as in a distance learning context. Since it is likely that most of the students are not familiar with the instruction in terms of using technological tools for communication with the teacher and team members, developing and uploading final projects, and evaluation, it is very important to have a practice or demonstration period with simple tasks at the beginning of the course. It is also important for teachers to give immediate feedback to the students when they have problems with technology use as well as content knowledge learning to motivate students for continuous engagement. In addition, since most of the work should be done by each team's collaboration, the effort from both the teachers and students to maintain a supportive group environment for successful collaboration and facilitative communication is also important. Specifically for the 'Module 4', it is also suggested that if the students are recommended to read the evaluation rubrics before they develop the WebQuest, it would be helpful for them to make decisions on what to focus and how to develop the WebQuest according to the stated criteria.

Concerning technological tools, blogs can be used as eportfolios to save students' work and check what they have achieved at the end of the course. Teachers can develop a class webpage as the course management tool, or they can use the Wiki or a blog as the course management tool. Teachers also can develop online evaluation using Survey Monkey.

5.4. Potential benefits

There are several potential benefits on CSCLL.

- Authenticity: CSCLL tasks use authentic materials with vivid audio-visual aids and also encourage students to use various technological tools for their learning.
- Active participation and interaction: students are learning by actively doing the task. This helps long-term memory.
- Flexibility: for the students, they can choose subtopics, the mode of communication, and the content of the report depending on the tasks. For the teacher, they can design tasks depending on the students' needs and class objectives.
- Scaffolding & collaboration: CSCLL itself is designed to foster collaboration which gives the students opportunities to learn from each other.
- Learner-centeredness: the task should be done by the students, so they have control over their learning.
- Reduced anxiety and higher motivation: as other Computer-Mediated Communication (CMC) tasks, students will have less anxiety and higher motivation while they are communicating in CMC environments.
- Electronic literacy: by reading and writing online and using various technological tools in the process of goal accomplishment, students will enhance their electronic or technology-related literacy.
Ownership and personal responsibility: by webpublishing on the Wiki and a blog, students can have ownership and personal responsibility of their writings.

Meta-cognitive skills: by writing a reflection journal on their blogs, students can enhance meta-cognitive skills on their learning process as well as critical thinking skills on the topics.

5.5. Potential limitations

There are potential limitations of CSPLL:

- Affordances (Hampel, 2006) and practicality: as other CALL classes, teachers should consider the affordances in terms of tool availability and internet access. Moreover, since it requires a lot of time and effort, the teachers should also consider its practicality and pedagogical effectiveness in designing and implementing a task.
- A lot of work for teachers: it is the teacher's main job from designing a pedagogically sound task to implementing it in an actual class. To be successful, the teacher should be very knowledgeable not only on SLA theories and task design, but also on technical skills for better choice of the medium of instruction. It is also recommended for teachers to be aware of students’ needs and their characteristics.
- The possibility of lack of access to the Internet via a fast and reliable connection.
- Keeping a supportive and collaborative learning community: Since all the work is done by collaboration, it is crucial to keep a supportive learning community for the success of the course. Thus, it needs consistent efforts to consciously and unconsciously maintain such environments from the teachers and the students. However, sometimes it is hard to keep such a friendly environment, especially when the students are from different cultures. Thus, it is recommended to develop a protocol to compensate for conflicts.

5.6. Pedagogical Implications

CSPLL is an appropriate language learning environment to foster students’ communicative skills. Since all the work should be done by collaboration with group discussion, students can have a lot of opportunities to negotiate meaning (Long, 1985) and to be exposed to 'i+1' input (Krashen, 1985) of more proficient students. Those are essential elements to develop communicative skills. Moreover, students can develop critical thinking skills by participating in problem-solving processes of the tasks. Students can also develop meta-cognitive skills by reflecting on their learning on the blogs at the end of each module and giving and receiving feedback from peers and the teacher. Various uses of technological tools to complete each module lead students to have technology-related literacy. And while they are doing research, they can also develop content knowledge.

The concept of CSCL can be applied to disciplines other than ESL and EFL, such as maths and science, because of its high flexibility in terms of creating tasks and using technological tools.

6. Conclusion

The goal of this article has been to examine the potential effects of CSCL in ESL and EFL contexts. To validate its usefulness, the theoretical framework of CSCL and the effects of collaboration in language learning were introduced. A specific description of the sample unit was included for ESL and EFL teachers to enhance their understanding and to motivate them to use CSLLL in their teaching contexts.
CSCL might be a new instructional method for ESL and EFL teachers. Thus, CSCLL might be unfamiliar and even strange for them. However, CSCLL has no significant difference from other Computer-Assisted Language Learning (CALL) tasks and teaching methods. If the teachers have a desire or willingness to design innovative teaching materials or tasks using technology, there would be no critical difficulties in adopting CSCLL in their classroom instruction. The proposed program will enhance ESL and EFL learning while promoting students' collaboration and developing students' electronic literacy.

References


Panitz, T. (Year not available) The Case For Student Centered Instruction Via Collaborative Learning Paradigms. Available at: http://home.capecod.net/~tpanitz/tedsarticles/coopbenefits.htm


(1) To log in, you need to have an ID and password. Please contact the author if you need them.

(2) This module modified tasks of a CSCL course (http://www.edb.utexas.edu/cscl/2007/welcome.htm).

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University of Texas at Austin (USA)