Proposing a Wiki-Based Technique for Collaborative Essay Writing

Propuesta de un modelo pedagógico para la escritura colaborativa de ensayos en un entorno virtual wiki

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This paper aims at proposing a technique for students learning English as a foreign language when they collaboratively write an argumentative essay in a wiki environment. A wiki environment and collaborative work play an important role within the academic writing task. Nevertheless, an appropriate and systematic work assignment is required in order to make use of both. In this paper the proposed technique when writing a collaborative essay mainly attempts to provide the most effective way to enhance equal participation among group members by taking as a base computer mediated collaboration. Within this context, the students' role is clearly defined and individual and collaborative tasks are explained.

Key words: Collaborative writing, essay writing, wiki environment.

Este artículo tiene como objetivo proponer una técnica para la escritura colaborativa de un texto académico en inglés como lengua extranjera en un entorno virtual wiki. El entorno virtual y el trabajo colaborativo juegan un papel importante dentro de la tarea de escritura. Sin embargo, se requiere un trabajo sistemático con el fin de articular la metodología colaborativa con la herramienta tecnológica. La propuesta de este artículo intenta proporcionar una técnica de trabajo que propicie la participación equitativa de los miembros del grupo y considere las características del trabajo colaborativo y las del entorno virtual. Dentro de este contexto, el rol del estudiante es claramente definido a través de la división de tareas individuales y colaborativas.

Palabras clave: ambiente wiki, escritura colaborativa, escritura de ensayos.

Introduction

In Chile the teaching of English has become a compulsory language subject in the school curriculum and its teaching is particularly hard as Spanish is the only dominant language in Chileans' everyday life. This becomes a barrier for both those who are learning the language for communicative purpose and those who intend to teach the language. For the latter, there is a need of acquiring effective and innovative methods and techniques in order to master English as a foreign language.

Within the mastery of English, writing is the ability wherein pre-service teachers of English demonstrate to be least proficient. This may be due to the fact that writing is considered as one of the most difficult skills to develop during the learning process of a foreign language i.e., "even native speakers at university level very often experience serious difficulties in showing a good command of writing" (Lázaro, 1996, p. 89), thus students may not feel motivated. Therefore, teaching methods and learning approaches play an important role in order to encourage students' active involvement in writing and, for the purpose of this paper, involvement in academic writing.

In this context, it is assumed that students perform better in writing when collaborative learning is incorporated in the classroom. Moreover, collaborative work in a virtual environment may increase the potential of teaching and learning and may facilitate the planning and production of a written document. On the one hand, the use of the virtual environment "wiki" enables pre-service teachers to integrate technology into the classroom. On the other hand, this virtual tool involves new opportunities for writing development as students can work in or out of the classroom. Nevertheless, a didactic and systematic method is required for students to perform the task effectively.

In the revised literature review, not many studies show clearly how a collaborative writing task is carried out, therefore, in this paper a technique for writing an argumentative essay collaboratively in a wiki environment is described and explained.

Conceptual Framework

The Collaborative Construction of Knowledge

The collaborative construction of knowledge emerges from the sociocultural theory, which states that individuals are situated within a social and cultural context (Lamy & Hampel, 2007; Nunan, 2004). Its main precursor is Vygotsky (as cited in Choul, 2008), who, examining the role of interaction in children's learning, affirms that a child who works with an adult or a peer with a higher ability or more capable, can develop strategies that will allow her/him to solve problems independently.

Collaborative learning involves a set of methodological strategies which aim at maximizing the benefits of cooperation among students (Gross, 2007; Jacobs & Small, 2003; Johnson & Johnson, 1997) who work in groups in order to achieve a common goal. Students develop linguistic and communication skills through different procedures, methods, and various techniques. According to Trujillo (2002), among these methods are those who promote discovery learning such as jigsaw puzzles, student team learning, learning together, and group investigation. "The differences between each method are the degree of structure of the task, the use of rewards, and individual assessment methods" (Trujillo, 2002, p. 8).

Another essential technique is the assignment of specific roles. Gross (2007) states that "each student's role can change along the process but it is

essential to establish responsibilities to make sure students learn to work in groups" (p. 7). Barkley, Cross, and Howell (2007) classify collaborative techniques into problem solving, techniques using graphic organizers, techniques that focus on writing, techniques for reciprocal teaching, and techniques for discussion. As can be observed, different authors propose different types of collaborative learning techniques in order to promote each other's learning.

Additionally, Cassany (2008) and Johnson and Johnson (1997) suggest the following elements as characteristics of collaborative learning:

- The formation of heterogeneous groups in terms of skills, competencies, and gender.
- The existence of individual and group responsibility.
- The development of interpersonal communication skills and verbal and nonverbal communication skills.
- The metacognitive group control.
- The teacher's guidance.
- The existence of positive group interdependence and a shared individual responsibility. The concept of interdependence means that the members of the groups are dependent on each other in order to achieve a common goal. Cassany (2008) and Jacobs and Small (2003) declare that the principle of positive interdependence is a key concept of collaborative learning.

Collaborative Writing

Writing is considered a complex process that involves the selection of content, the use of appropriate linguistic features, and an adequate organization of ideas. Three phases are identified within this complex process (Flower & Hayes, 1980; Hayes, 1996; Kellogg, 1999; White & Ardnt, 1991): planning, editing, and revising. In collaborative writing, these three phases are carried out through communication, coordination, and agreement with partners in order to achieve a common goal. According to Stein, Bernas, and Calicchia (1997), during a collaborative writing task students become more aware of their learning process and "use each other as a source of knowledge" (p. 27) during planning, discussion, and negotiation of ideas.

Collaborative writing is understood as a social and recursive process that involves a group whose challenge is to achieve a single written document through interaction and negotiation of meaning (Cassany, 2001; Landone, 2004; Van Waes, 2004). Students work in small groups and start sharing ideas, debating positions and proposing arguments before starting the production of a text. In this context, group formation is very formal: Groups can be made up of a very small number of students, usually three to six people.
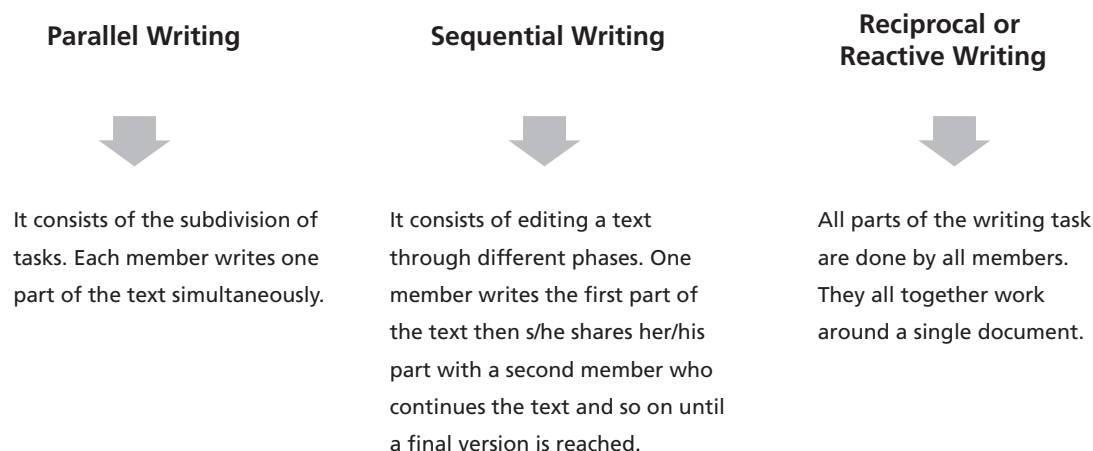
The writing teacher must create "a positive environment and must stimulate reflection and self-evaluation" (Landone, 2004, p. 3). From this perspective, the teacher's role is no longer that of the expert and the transmitter of knowledge, but that of a facilitator who monitors students' learning (Collazos, Guerrero, & Vergara, 2001; Lamy & Hampel, 2007; Smith & MacGregor, 1992). In turn, the student acquires a much more active and independent role.

According to Krause (2007), Lowry, Curtis, and Lowry (2004), Sharples (1999), and Tompkins (2008), there is more than one strategy with which to address the collaborative writing process. Figure 1 shows the coordination strategies for group writing.

Each of these strategies has advantages and disadvantages, therefore, different methods can be combined during the writing process, which demonstrates the flexibility of collaborative methodology.

Before this writing process, there is a pre-writing phase which is relevant for the completion of

Figure 1. The Collaborative Writing Process

Parallel Writing	Sequential Writing	Reciprocal or Reactive Writing
It consists of the subdivision of tasks. Each member writes one part of the text simultaneously.	It consists of editing a text through different phases. One member writes the first part of the text then s/he shares her/his part with a second member who continues the text and so on until a final version is reached.	All parts of the writing task are done by all members. They all together work around a single document.

the task. According to Tompkins (2008), during the pre-writing phase the students determine the purpose of writing. At this stage the students discuss and generate ideas for further development. This phase is crucial since the objectives of the writing task are set and the students agree on a plan to follow in order to achieve these objectives.

The Use of Wikis for Collaborative Writing Tasks

The emerging information society is based on the use of powerful technologies. These technologies aim at promoting essential changes in the way we teach and learn and demand the use of new teaching methods that enable learners and instructors to adopt new roles. The current challenge focuses on the successful integration of these new tools in order to support teaching and learning significantly and improve traditional methodologies.

In other words, the contribution does not come from the computer itself, but from the way it can be used to foster teaching and learning (Chapelle, 1997; Egbert, 2005; Sánchez, 1998; Warschauer, 2010).

In the field of computer-mediated communication (CMC) and within technology tools that can support writing development, there are different types of synchronous and asynchronous communication such as chat, Skype, forums, blogs, e-mail, wikis, and many more. Each of these tools has applications that can eventually enhance writing and, essentially, collaborative writing production, an area in which, according to Jones, Garralda, Li, and Lock (2006), there seems to be a positive view in the literature regarding collaborative learning and CMC in the area of second language learning.

In this context, a wiki, a Hawaiian term that means "quick," has gained considerable recent attention both within and outside the writing classroom and the wiki's main pedagogical contribution in the educational field is to support writing (Barton, 2005; Ebersbach, Glaser, & Heigl, 2005; Garza & Hern, 2005; Lamb, 2004). Writing lessons, which commonly focus on individual work, can take advantage of collaborative learning and a wiki environment can help to enhance students' written performance and to promote active participation.

Wiki is a type of website that allows users to work collaboratively by building texts that can be quickly and easily edited by authorized users (Bartolomé, 2008; Loyo & Rivero de Magnago, 2005;

Pennell, 2008). According to Cabero (2007), Lee (2010), and Morgan and Smith (2008), the main features of wikis are the following:

- A document can be created easily and quickly.
- It can be edited synchronously and asynchronously by multiple authorized users.
- It contains a "page history" that enables users to access previous versions of the written document.
- It allows authorized users to create new pages.
- It promotes collaborative work.
- It contains a banner that allows written comments.

Figure 2 shows the front page of a wiki environment called PBworks.

Regarding the collaborative component, although more research is needed on the use of wikis in the educational field, several researchers, according to Ioannou and Artino (2009), have advocated the use of a wiki space to engage students in online collaboration activities. Bryant (2006), for example, states that "as wikis have no predefined structures, this feature makes them ideal for collaborative writing or group projects involving multimedia" (p. 62). Likewise, Cress and Kimmerle (2008) distinguish wikis from other tools, such as blogs, affirming that "wikis provide new opportunities for learning and for collaborative knowledge building as well for understanding these processes" (p. 108). Swan and Shea (2005) also assert that "wikis have a significant potential to support collaborative learning" (p. 6). As has been stated, one of the main advantages of this tool in the teaching and learning process, then, is to maximize the collective production of knowledge.

Collaboration in the production of a written text using a wiki leads students to learn from others and to acquire different responsibilities around one shared goal, whereby the technological resource facilitates the process of interaction, communication, negotiation, and the reflection of ideas during the joint construction of the written text. In this context, the technological tool plays a facilitating role during collaborative knowledge construction, especially for learners who try to build virtual learning communities from different parts of the world.

Figure 2. A Wiki Environment

Taken from http://pbworks.com/

Some preliminary studies about the use of wikis for collaborative writing tasks in second language acquisition suggest that students increase the amount of writing and find this type of task more motivating (Kovačić, Bubaš, & Zlatović, 2007; Lee, 2010; Mak & Coniam, 2008).

According to Upton (as cited in Chen, 2008) "in such environments, students enjoy learning at their own pace, are more independent in their learning, feel that it is more convenient than attending face-to-face classes, and find it an interesting way to learn" (p. 10). This collaborative feature of wikis moves the teaching of writing from a teacher-centered approach to a context much more focused on the student, who may perform better in a learning environment where he/she can feel more confident and less overwhelmed by the teacher's pressure. Likewise, Chen (2008) contends that the use of wikis for written production not only favors collaboration but also opens editing, in which authorized users can also edit and change information, and provide a simple editing environment in terms of navigation, which is easy and allows users who are not technologically savvy to participate in a collaborative task.

In brief, collaborative writing through wikis constitutes a new alternative approach to learning and an opportunity for students to become more independent and to develop their social and linguistic skills.

The Collaborative Writing of an Argumentative Essay in a Wiki Environment

A basic argumentative essay, which is an academic text that usually reflects a particular writer's point of view, contains an introduction, two or three arguments, and a conclusion. To write a basic argumentative essay in collaboration, students need to agree on different aspects beforehand in order to produce a coherent text. Not many reviewed papers

(Hadjerrouit, 2011; Woo, Chu, Ho, & Li, 2009; Laperrousaz, Leroux, & Teutsch, 2005; Lee, 2010; Storch, 2005; Van Waes, 2004) explain in detail the distribution of tasks and the way collaborative writing has been carried out to produce a joint text in a virtual environment.
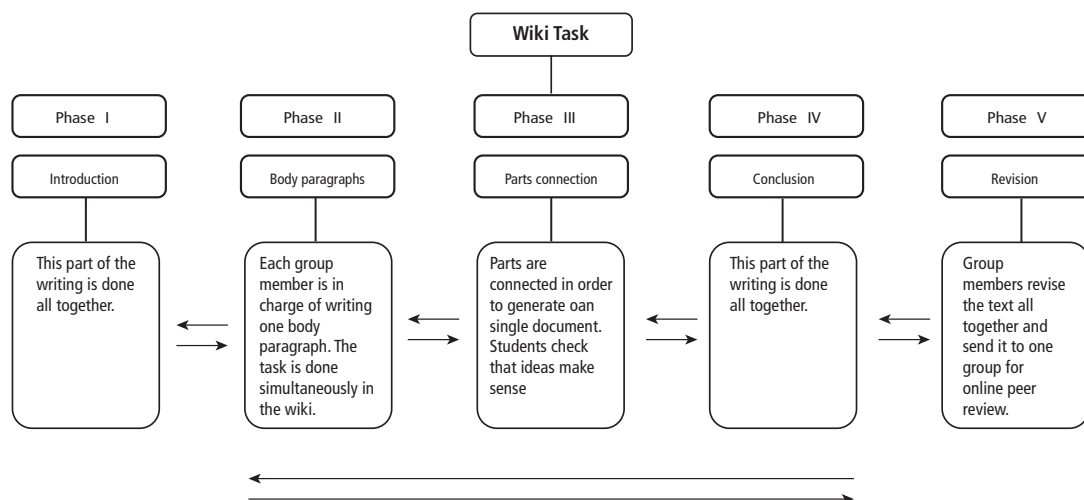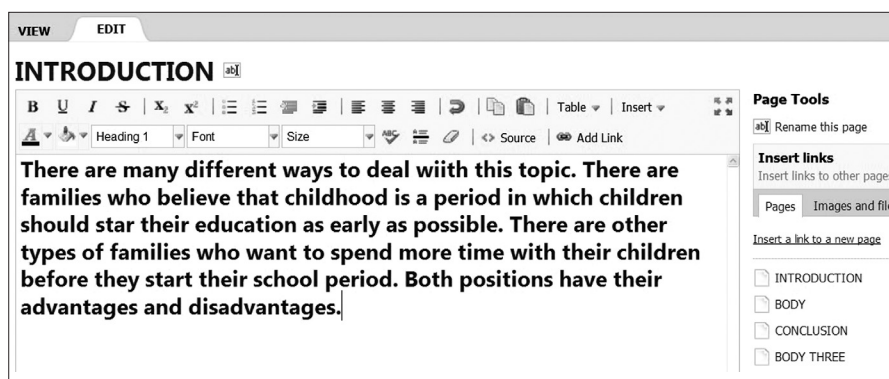
The goal of this paper is to present a technique for the online construction of a basic argumentative essay in collaboration. The technique proposed refers to the part of the process in which students start writing their text, preceding the pre-writing phase.

According to Chao and Lo (2009), "wikis alone cannot make collaborative writing happen" (p. 432). This means that for a better students' engagement there is a need for a clear methodological procedure to follow in order to benefit from computer mediated collaboration.

Figure 3 shows the distribution of tasks in a wiki environment when students write a text collaboratively in real time. As collaborative writing is considered a recursive process, the arrows indicate that writers can go backwards and forwards to improve their text by means of multiple revisions.

The introductory paragraph in a wiki environment

The introduction is the first part of the writing that tells the reader what the topic is about. Therefore, a strong introduction is crucial in order to get the reader's attention. A topic clearly defined and contexts clearly stated are characteristics of a good introduction (Cottrell, 2008; Germov, 2000; Levin, 2004). In this context, and taking into consideration that in this phase group members need each other, the recommendation is that members of the writing group should write the introduction all together in order to assure that there will be an agreement among all members on the thesis and the ideas that will be expanded upon in

Figure 3. Distribution of Tasks in a Wiki Environment

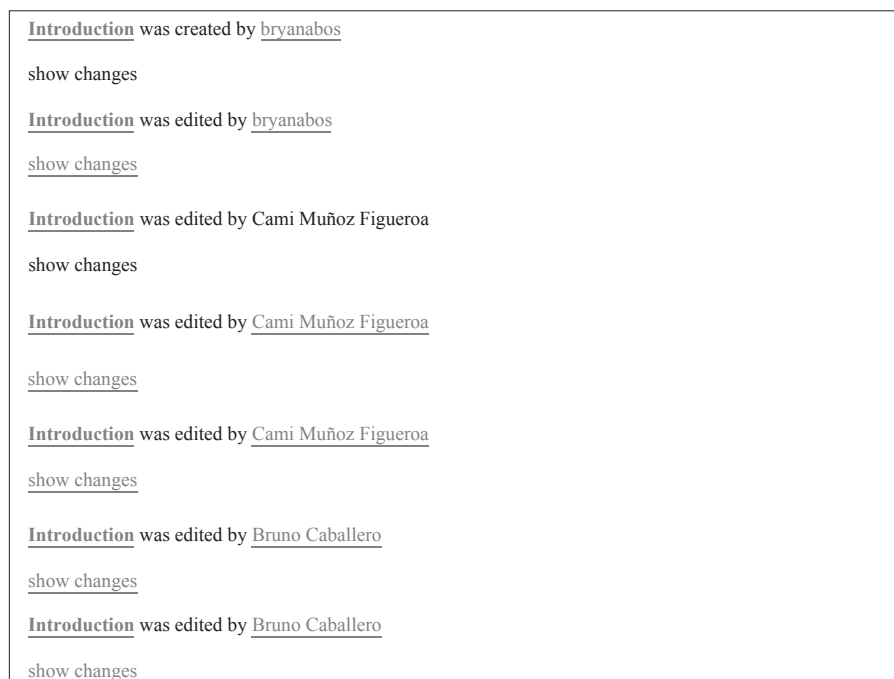**Figure 4.** Sample From Students (Introductory Paragraph)

the body paragraphs. Besides, if all group members take part in writing the introduction, this will assure logical links between the introduction and the body paragraphs in which each student will be in charge of one paragraph. Figure 4 provides an example of an introductory paragraph of an essay written by a group of undergraduate students in a wiki environment.

One of the characteristics of a wiki environment is that each author's contribution can be visualized. Figure 5 shows how each member contributed to the writing of the introduction.

The Body Paragraphs in a Wiki Environment

As technology tools used properly can significantly enhance learning, it is the teacher's role to make the best use of a wiki environment by valuing its main characteristic as a collaborative tool (Bartolomé, 2008; Egbert, 2005; Sánchez, 1998). Within this particular context, one advantage of a wiki environment is that it enables students to work on different pages simultaneously. Based on this aspect, this technique suggests that for the construction of the body paragraphs, group members should work

Figure 5. Sample From Students Working Collaboratively in a Wiki Environment

Introduction was created by bryanabos

show changes

Introduction was edited by bryanabos

show changes

Introduction was edited by Cami Muñoz Figueroa

show changes

Introduction was edited by Cami Muñoz Figueroa

show changes

Introduction was edited by Cami Muñoz Figueroa

show changes

Introduction was edited by Bruno Caballero

show changes

Introduction was edited by Bruno Caballero

show changes

individually. This means that each student should be in charge of constructing one body paragraph.

It is suggested that this phase can be carried out individually due to the fact that students already know the ideas they have to expand upon. Anyhow, in order to prevent the construction of an incoherent text, something that may occur when students work collaboratively, it is advisable that once each student finishes his part, group members should generate a single document in the wiki environment and revise each paragraph together until it sounds coherent to each group member. The wiki environment facilitates this process due to the fact that students are working in the same learning environment.

Figure 6 provides an example of the body paragraphs of an argumentative essay in a wiki environment.

Figure 7 shows the students' individual contributions to the writing of each body paragraph.

The Concluding Paragraph in a Wiki Environment

After students have connected the introduction and paragraphs, group members should write the conclusion all together. As the conclusion is a relevant part of the writing and at the same time a complex one, students must be able to come up with a good summary and find a sense of connection with the introduction. Besides, a good conclusion should also go further in the sense that it should give the reader an opportunity for analysis and reflection (Crème & Lea, 1997; Germov, 2000; Levin, 2004). For all these reasons, it can be stated that in this phase students also need each other in order to provide an appropriate and coherent closure of the writing, together with reinforcing the central idea of the text.

Figure 8 provides an example of a concluding paragraph of an argumentative essay in a wiki space.

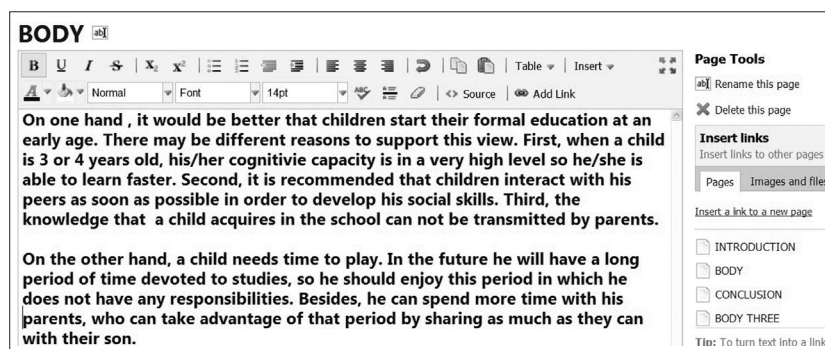**Figure 6.** Sample From Students (Body Paragraphs)

Figure 7. Sample From a Group of Students Working on the Body Paragraphs Individually
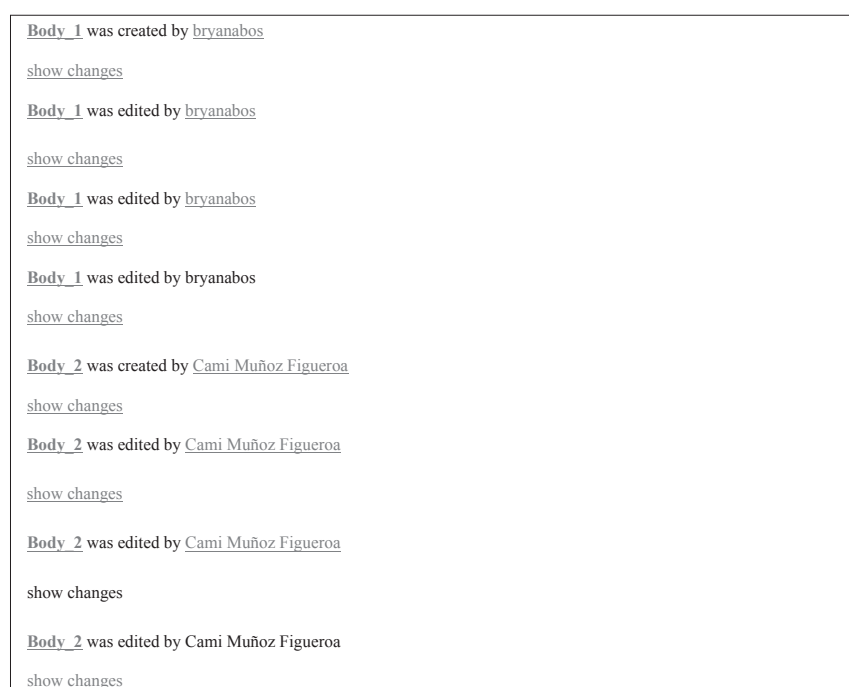

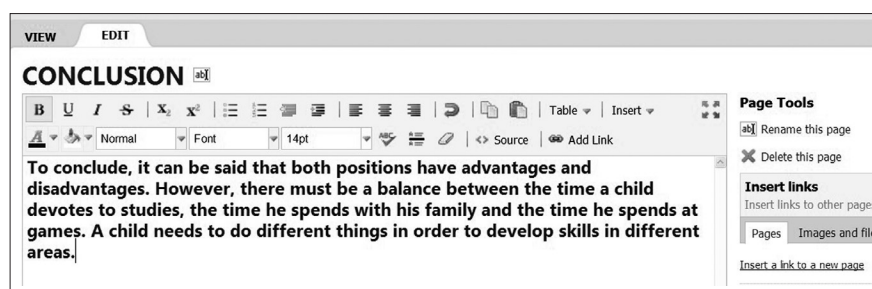**Figure 8.** Sample From Students (Concluding Paragraph)

Figure 9. Sample From a Group of Students Working Collaboratively on the Concluding Paragraph
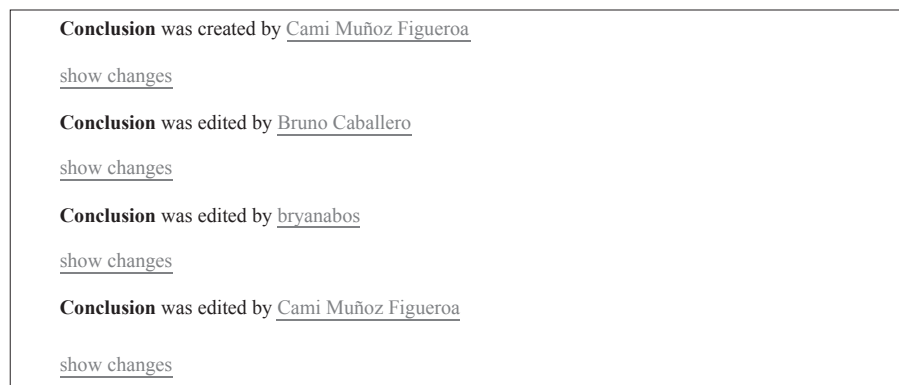

Figure 9 shows each individual's contribution to the writing of the conclusion, as four students can be seen working collaboratively to create the conclusion.

The Revision Process in a Wiki Environment

To end up this process, group members should revise the text. The review phase involves a process of re-reading the text to identify errors. Revision is an important part of the writing process and, at the same time, a difficult one, especially when revision is carried out through peer review. This step can be carried out in different ways: The group reviews the written text altogether, each group member revises one paragraph of the text or each member is responsible for a specific aspect, such as grammar, vocabulary, organization of ideas, and so on (Cassany, Luna, & Sanz, 2000; Krause, 2007).

Krause (2007), who has written about how to collaborate and write with others, suggests that during the revision phase one member of the group should read the produced text out loud while the other members of the group read along to identify errors. According to this author "reading your writing out loud to others gives the readers and writer a real sense of the voice of an essay and is a great way for writers and readers to catch small grammar errors" (p. 70). What Krause proposes is an effective way to revise an academic text. The reading aloud technique makes the process of revising the argumentative essay easier as group members solve the problem together. Furthermore, in order to take advantage of a wiki environment and to make a writing activity more engaging for students, group members can send invitations to other groups to see their drafts and to receive online feedback from their peers. Every wiki has a banner that allows authorizes users to make virtual comments and this feature distinguishes this writing tool from others.

Based on the cooperative learning techniques proposed by Apple (2006), students will also have a specific role in order to assure the achievement of goals within a collaborative environment. These roles are:

- Facilitator: A person responsible for ensuring that the group stays on task.
- Recorder: A person responsible for writing down group decisions.
- Time keeper: A person responsible for checking the time left to finish the task.

This process, in which tasks are performed in groups and individually, assures equal participation. Moreover, the writing task can be fulfilled rapidly since students are working synchronically.

Conclusion

As a conclusion the wiki-based technique proposed for collaborative essay writing aims at achieving different goals. One of these is to promote writing development among teachers of English in Chile due to the fact that they often do not devote much teaching time to developing this ability. On the other hand, this proposal also aims at promoting appropriate technology use in teaching. As Gross (2007) says, "Technology itself does not change any teaching practice, however, when it is consistent with a theoretical perspective it may have a significant potential" (p. 115). Thus, by means of this proposal teachers may get a clear view as to how to integrate technology for writing development in an effective way from a theoretical perspective. As future teachers should be exposed to innovative teaching methods, this proposal could be included in English as a foreign language (EFL) teacher preparation programs because more support and training are needed to help student-teachers develop ICT (information and communications technology) competences and to effectively integrate technology into language teaching.

Finally, this proposal is expected to be implemented in a future project in order to promote peer online feedback to help pre-service teachers become better writers and to promote autonomy and self-correction among them. Furthermore, teachers of English in Chile devote too much classroom time to teaching, which limits their time for writing revision. Thus, this future project is also aimed at facilitating their job by means of peer feedback.

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