Wikis and academic writing: Changing the writer–reader relationship

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Abstract

The development of information and communication technologies has resulted in the emergence of new kinds of academic genres and literacies. The more recent social web applications empower learners to create online content in a collaborative way. This paper focuses on the use of wikis in the course of Effective Communication in English. It aims to describe how the course wiki was used to teach writing for academic and professional purposes, and to analyse what impact using the wiki had on the writer–reader relationship. The case study employed several research techniques, including participant observation, text analysis and a self-report questionnaire. The texts published by students on the wiki were examined for reader-oriented features and interactional metadiscourse resources. The results indicate that using the wiki for writing activities made students pay close attention to grammatical correctness and structural coherence. Nearly 60% of the students reported that writing on the wiki made them consider their audience. The extent of the writer–reader interaction was further confirmed by a high use of engagement markers in the argumentative texts. Thus, writing on the wiki can contribute to raising awareness of the audience and to increasing the use of interpersonal metadiscourse.
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1. Introduction: English for Academic Purposes (EAP) and information and communication technology (ICT)

EAP education in the digital age calls for new pedagogical paradigms which can help learners to develop new literacies and skills required for successful communication in academic and professional contexts. As witnessed by the popularity of sociocultural and constructivist approaches in language teaching, collaboration can play a vital role in helping learners to build knowledge and acquire skills that facilitate learners' integration into given discourse communities or specific communities of practice (Wenger, 2006). There has been a great deal of EAP research into the needs analysis of the discourse, literacies and skills required to operate in different target contexts (Dudley-Evans & St John, 1998; Jordan, 1997). In the meantime, the development of new technologies has resulted in the emergence of new kinds of academic genres and discourses, but the impact of these developments on EAP has been given relatively little attention (Swales, 2004): Hyland and Hamp-Lyons (2002, p. 8) note that "the full implications of the communications revolution are not yet appar-

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ent or completely understood, and we still have a long way to go before we can be sure we are using its potential most effectively in our teaching". There is therefore a real need for further research in this area, as information and communication technologies keep evolving.

Two studies in particular, Slaouti (2002) and Warschauer (2002), have pioneered research into online academic literacy. Drawing on the results of a survey conducted at the University of Manchester, Slaouti considers the impact of the web on academic study skills with reference to information processing, whereas Warschauer explores the question of how computer-mediated communication (CMC) can be used in academic writing courses. Both Slaouti and Warschauer focus on the earlier version of the web, which they view as "an enormous database, a world-wide library" (Slaouti, 2002, p. 112), characterised by a content-based, one-way interaction with the user. At the turn of the millennium, the web was still perceived as something to be used with caution; it was seen as "a resource that is a mix of standards and near anarchy . . . there is currently nothing prohibiting anyone publishing as and when they want" (Slaouti, 2002, p. 107). Since then, control over the publishing domain has been totally and irreversibly lost with the emergence of Web 2.0 the social or 'writable' web, which empowers the user to take an active role in the creation of content (O'Reilly, 2005). As Rupert Murdoch was moved to comment: "to find something comparable, you have to go back 500 years to the printing press, the birth of mass media . . . . Technology is shifting power away from the editors, the publishers, the establishment, the media elite. Now it's the people who are taking control" (as cited in Reiss, 2006). Today, in education systems throughout the developed world, many, although by no means all, of our students are competent internet users, "digital natives" (Prensky, 2001) who make daily use of software such as social networking, blogs, wikis, podcasts, vodcasts, and social bookmarking. Fortunately, the philosophy behind the social web is in line with contemporary collaborative paradigms in education that rely on building communities of practice (Wenger, 2006). As far as general foreign language education is concerned, Kárpáti (2009) proposes a new educational paradigm for "social CALL" and provides a good overview of how different social web applications can be used by teachers and learners. Myers (2010) analyses the discourse of blogs and wikis, showing what makes them distinctive as genres and what impact these social web applications have on the language. However, except for a few studies (e.g. Murray, Hourigan, & Jeanneau, 2007), these new online tools have received little attention in the more specific context of EAP.

For Slaouti (2002, p. 120) "the WWW deserves to find its place within our teaching but not simply as a resource for project work". Yet fostering learning through online collaboration has proved to be no small task. In the early days of online education, including EAP, the web was primarily used for information retrieval, and the use of software, such as online fora or email, was often limited either to information exchange or to self-expression (e.g. Hanna & de Nooy, 2003; Pawan, Paulus, Yalcin, & Chang, 2003). Interaction among students was mainly 'one way', with scarce references to comments of other students. Thus, it emerged that clear structure and task design were indispensable in fostering learner interaction and collaboration (Kuteeva, 2007).

In the context of EAP, how can we move away from using online tools exclusively for retrieving or exchanging information, and begin to foster learner collaboration? It seems that the more recent social web applications offer a greater potential for empowering learners to create online content in a collaborative way. This paper focuses on the use of wikis in the course of Effective Communication in English at Stockholm University; it aims to describe how the course wiki was used to teach writing for academic and professional purposes, and to analyse what impact using the wiki had on the writer–reader relationship. Following Kern (2006), who points out a need for more qualitative research into the application of ICT to language learning, this study seeks to make its contribution by particularly focusing on EAP. The following sections set out a theoretical framework for the ensuing empirical study, focusing on the importance of writer–reader interaction in academic writing. Next, the background, method and results are presented and discussed in the light of relevant previous research.

2. Wikis and academic writing

A wiki has been defined as a "freely expandable collection of interlinked web pages, a hypertext system for storing and modifying information – a database, where each page is easily edited by any user with a forms-capable Web browser client" (Leuf & Cunningham, 2001, p. 14). Its basic features include creating and editing texts, linking different pages through hyperlinks, inserting images and links to other sites, tracking changes and comparing different versions of the text. Most wiki engines are open source (e.g. Wikispaces, PmWiki, TWiki,

TikiWiki, and the Wikipedia engine, MediaWiki). In the context of EAP, this software can be used for collectively producing, organising and sustaining textual, visual, and auditory resources, thus creating an environment that relies on learner interdependence. From the sociocultural point of view, the wiki holds the potential for advancing and realizing a collective zone of proximal development (Vygotsky, 1978, as discussed by Lund, 2008).

Thus, a wiki provides a platform for collaborative writing. Wikipedia, the largest wiki project, is often frowned upon in academic circles, largely due to its alleged bias and lack of credibility, reminiscent of the earlier perception of the web (Slaouti, 2002). Nevertheless, the scale of the project makes it unique, and, whether we as teachers like it or not, many students use it in their studies. As Dalby (2007, p. 6) puts it: "Wikipedia contains nonsense alongside the sense; it contains propaganda and error alongside the facts. It's fiercely up to date, except when it isn't. Wikipedia is an encyclopedia for the world as it is". Thanks to the success of the Wikipedia project, an overwhelming majority of people in academic life are familiar with the wiki software, including its major functions and the layout of a typical wiki page (article, discussion, edit, and history), which is different from traditional html websites. In fact, the Wikipedia article can be considered one of the new academic genres (Myers, 2010), but this question will remain outside the scope of our discussion. What is of interest for our purposes is the democratic nature of the Wikipedia and the collaborative philosophy behind it. If any reader can become a writer of the same text, does writing become more reader-oriented? In other words, does a wiki provide a more natural environment for reader-oriented writing?

In EAP, writing has been seen as a social activity dependent on the relationship between writer, reader and the social context (e.g. Hyland, 2000; Thompson, 2001). Hyland (2002) refers to reader-oriented approaches to teaching and researching writing, including writing as social interaction, writing as social construction, and writing as power and ideology. The first two perspectives are particularly relevant here, since they lay emphasis on the writer–reader relationship and the notion of the writer as a member of a given discourse community. Although Hyland describes the interactionists and the constructivists as opposing schools, the former working from individuals to groups and the latter proceeding from social groups to individuals, in practice, these two approaches seem to be complementary. This way, we can perceive writing as a cyclical process in which writers simultaneously shape their discourse to involve the reader and are influenced by the reader's expectations resulting from community practices; it is this view of writing that inspired the study presented in this paper.

Related to reader-oriented writing is the concept of metadiscourse, "the cover term for the self-reflective expressions used to negotiate *interactional* [emphasis added] meanings in a text, assisting the writer (or speaker) to express a viewpoint and *engage with readers* [emphasis added] as members of a particular community" (Hyland, 2005, pp. 37–38); one of its key principles is to express writer–reader interaction. Metadiscursal devices can be viewed as resources indicating the writer's position towards the content or the reader of the text. There are several taxonomies of metadiscourse (e.g. Crismore, Markkanen, & Steffensen, 1993; Hyland & Tse, 2004; Thompson, 2001; Ädel, 2010), but "no taxonomy can do more than partially represent a fuzzy reality" (Hyland & Tse, 2004, p. 175), which is why there is no general agreement among metadiscourse researchers. As my main focus is on collaborative writing on the wiki, the distinction between 'interactive' and 'interactional' resources is particularly relevant: "interactive resources help to guide the reader through the text, while interactional resources involve the reader collaboratively in the development of the text" (Thompson, 2001, p. 58). The former concern organisational features of the text such as transitions, frame markers and text patterns (e.g. problem–solution), whereas the latter are meant to involve the reader in the argument of the text by commenting on and evaluating the content through modality and evaluation, and by assigning speech roles to the writer and the reader. Examples of such interactional resources include rhetorical questions (Widdowson, 1984), commands (Swales et al., 1998), statements from the reader to be contradicted, as well as different forms of modalisation (Thompson, 2001, pp. 65–66). Hyland and Tse (2004) offer a more comprehensive classification of interactional resources under five categories: hedges, engagement markers, boosters, attitude markers and self-mentions. These functional categories can have exponents of very varied formal types; for example, phrases with *I* can be attitude markers or self-mentions, depending on the context and collocation. Hyland and Tse's taxonomy, together with elements of Thompson's (2001), will form a basis for the ensuing analysis of interactional resources in the texts published by students on the wiki (further described in Section 4).

A convergence of the reader with the reader-in-the-text creates involvement which is perceived as "a crucial step in most types of argumentative, persuasive text, including academic papers and assignments; and collaboration is central form of involvement" (Thompson, 2001, p. 62). This idea ties in with the philosophy behind

collaborative writing on the course wiki, echoing Bakhtin's (1986) views on the dialogic nature of language use and sociocultural and constructivist approaches in education which rely on learner collaboration and dialogue (Vygotsky, 1978). In other words, this paper draws links between two theoretical approaches; while collaborative learning theorists argue that learning arises out of interaction, metadiscourse can be used to measure how this interaction is manifested in writing.

3. Background to the study

Effective Communication in English is a one-semester 10 ECTS-credit course at Stockholm University. Its overarching aim is to improve the students' ability to employ English for academic and professional purposes, covering a range of written and spoken genres (formal correspondence, argumentative texts, academic and professional reports, abstracts and summaries and oral presentations). The course is also designed to improve the students' overall language proficiency (both accuracy and fluency); a strong emphasis is also placed on the acquisition of general academic vocabulary and the development of formal writing skills. Throughout the course, each student is required to submit four written assignments, including a formal letter, an argumentative text, a summary/abstract of a formal report, and a special genre project based on each student's choice and needs. Some of these written assignments involved publishing on the course wiki.

Thus, the core elements of the Effective Communication course focus on various aspects of formal English use, leaving some leeway for each student to adapt the major tasks and assignments to his/her specific needs. This flexibility is important because in terms of linguistic, cultural, social, and educational backgrounds, the course participants comprise a very diverse group, including local and exchange students from different subject fields, as well as working or graduate students who need to improve their English for professional reasons. In the autumn semester of 2008, the Effective Communication group under investigation included fourteen students (eight females and six males), whose mother tongues included Bengali (1), Chinese (1), Czech (1), Finnish (1), French (1), German (1), Russian (1), Spanish (2) and Swedish (5). Their ages ranged from 20 to 54 (four students aged 18–25, six students 25–34, three students 35–49, and one student 50–64). Heterogeneous groups have long been a reality in higher education, but more with regard to language proficiency. In the case of Effective Communication, heterogeneity extends to students' subject fields and cultural backgrounds, thereby diversifying the learners' characteristics as L2 writers, i.e. their learning experiences, sense of audience and writer, ways of organising text, and so forth (Silva, 1993 in Hyland (2003, p. 25)). On the other hand, this kind of student diversity presents opportunities for opening a dialogue between different cultures and discourse communities and can be taken into consideration in the development of writing tasks.

A combination of two main approaches, genre and process orientation, was used to teach writing (Hyland, 2003). This arrangement allowed students to learn about the main genres of academic and professional writing, and, at the same time, fostered peer collaboration through brain-storming, drafting and peer review. Many students of Effective Communication had problems writing paragraphs and structuring texts in English, so they undoubtedly benefited from some more formal instruction in this regard. On the other hand, whenever possible the writing process involved peer revision and feedback, both in class and with the support of the course wiki. All written assignments were evaluated in terms of structure, content and accuracy. Good academic and professional writing in English is often measured by how reader-oriented a given text is, so the course participants were encouraged to write for other fellow students and, whenever relevant, for the members of their respective discourse communities, rather than for the teacher alone.

The course wiki (powered by MediaWiki, the Wikipedia engine, see Fig. 1) provided a platform for carrying out writing tasks and assignments focusing on three major topics: paragraph structure, coherence, and argumentation. The structure of the wiki was defined by the course instructor, but students participated in the choice of topics. The texts posted by the students on an individual basis were also analysed and discussed in class and afterwards revised online, thus fostering and extending peer review and collaboration.

The wiki task focusing on paragraph structure and coherence was designed around eight major topics: four related to academic life ('Internationalisation in Higher Education', 'Research and the industry', 'The Bologna process' and 'Education and ICT') and the other four to professional contexts ('Communication in a multinational company', 'Globalisation and the EU', 'Recent trends in financial reporting' and 'Humour in advertising'). Separate wiki pages were created for these eight topics, and students were divided into groups
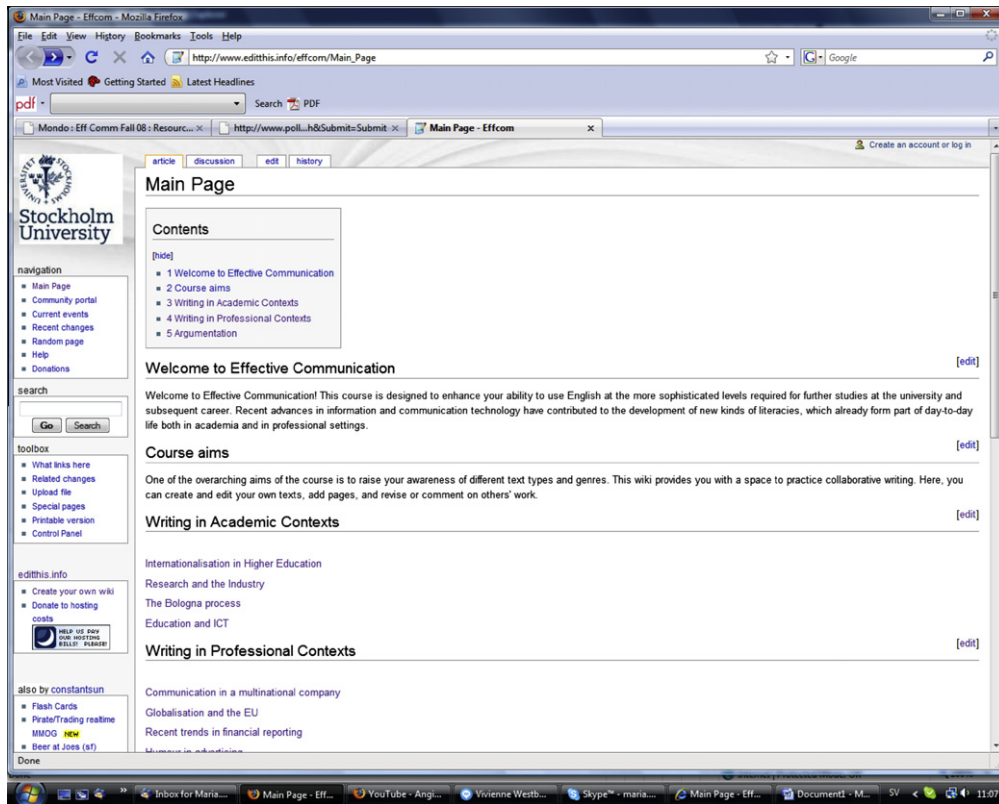
Fig. 1. Structure of the course wiki main page.

accordingly. Each student in a group had to come up with a topic sentence on one of the aspects of the major topic. These topic sentences were read and coordinated in class to avoid any overlap. Then, each student was required to write a paragraph around his/her topic sentence and post it on the appropriate wiki page so as to create a coherent text together with other students working on the same topic. It was up to each student to decide where to place the paragraph, what kind of linking expressions to use, and how to adapt the paragraph to the rest of the text. In this task, students were advised to employ 'interactive' resources (Thompson, 2001) such as transitions and frame markers. The discussion page of the wiki could be used for coordinating the content and structure of a given text. These collaboratively created texts were written over a period of up to 3 weeks and varied in terms of coherence and overall organisation. They were read and analysed in class by students not belonging to the same group, who then suggested further improvement and revision on the wiki. In this assignment, the wiki was used for collaborative writing and editing of texts on general topics. Thanks to the history tool, it was possible to see the stages in the creation of the texts and to trace each student's contribution.

The other major task to be carried out on the wiki concerned the writing of an argumentative essay. This type of text was chosen as one of the compulsory assignments because argumentation represents an essential part of academic writing, since all academic discourse is essentially persuasive (Hunston, 1994). Besides, Connor (1987) argues that there is a universal argumentation style that transcends cultural boundaries, which diminishes any potential problems in such a culturally diverse group. For this task, a separate wiki page was created for each student in the group. After posting their contributions on the wiki pages, the students were required to read and discuss each other's texts in class, following the guidelines for peer review (Björk & Räisänen, 2003) and to write comments concerning the structure, content and, if possible, correctness on the discussion page associated with each topic. In this case, each article page was meant to serve as a platform for individual, process-oriented writing and editing, whereas peer comments and feedback were posted on the discussion pages. The MediaWiki platform proved to be very suitable for this task, since it offers instant access to the text and tracks any changes.

In both tasks, using the wiki contributed to extending the readership of the students' texts and to encouraging peer feedback and collaboration, providing the course participants with a sense of a wider audience. Thanks to the history function, it was possible to trace each student's contribution and the number of revisions, including different versions of the text and stages in its creation. The discussion pages provided space for comments, feedback and exchange of ideas on a given topic, which was particularly useful for working students. However, it would be wrong to assume that the course wiki was received with the same degree of enthusiasm by all students. The ensuing sections are dedicated to an empirical study focussing on the students' self-reported experiences of writing on the wiki and on the analysis of interactional metadiscourse resources in their argumentative essays. More specifically, the following questions are addressed:

- Does writing on the wiki make students' texts more reader-oriented?
- Does writing on the wiki make students pay attention to structural organisation and grammatical correctness?
- What kind of interactional metadiscourse resources are used in argumentative texts published by students on the wiki?

4. Method

In order to find answers to the above questions, the study employed several research techniques, namely, participant observation throughout the course, formal (grammatical) analysis and a self-report questionnaire. As noted above, seven collaborative texts and fourteen individual argumentative essays were available for textual analysis. Although the sample is relatively small, this case study allows us to explore some aspects of student writing and their experiences thereof in greater detail, which would not be possible in a large scale quantitative study.

As described in the previous section, the students used the wiki for carrying out different writing assignments. They were informed about the study and consented to filling in a self-report questionnaire at the end of the course. This questionnaire was designed to explore attitudes towards using the course wiki and was partly based on the results of two previous exploratory studies (Kuteeva, 2006, 2008). However, not all data acquired through the questionnaire are relevant to the present discussion, as my main focus is on reader-oriented writing (see Appendix A containing selected sections).

As mentioned in Section 3, the students of Effective Communication were formally instructed on the use of 'interactive' resources such as transitions, frame markers and text patterns. The other kinds of resources defined by Thompson as 'interactional' were not explicitly taught, but nevertheless used by students in their writing. Thus, following the analysis of the questionnaire results, the argumentative essays published by individual students on the wiki were examined for reader-oriented features, namely the interactional resources described in Section 2, and were compared to collaborative texts on general topics written by the same students. This analysis was conducted in order to see how the students perceive and involve their audience in the reading of their texts when they write on the wiki. The interactional resources used by students were classified and ranked in the light of the taxonomy developed by Hyland and Tse (2004), with some elements of Thompson's (2001) classification of interactional resources. A corpus analysis tool (AntConc) was used for the quantification and ranking of some engagement markers such as personal pronouns, but otherwise the analysis of the content was largely qualitative.

5. Results and discussion

5.1. The writing process

The results of the questionnaire section dealing with different aspects of writing on the wiki are presented in Graph 1 and Table 1. All nine statements in the questionnaire begin in the same way: 'Writing on the wiki made me...', and include different variables concerning various aspects of the writing process for the students to rate, such as considering a potential reader, vocabulary choice, checking for spelling, grammar and syntax, and overall text organisation (see Appendix A). Graph 1 presents mean scores for different variables on a Lik-
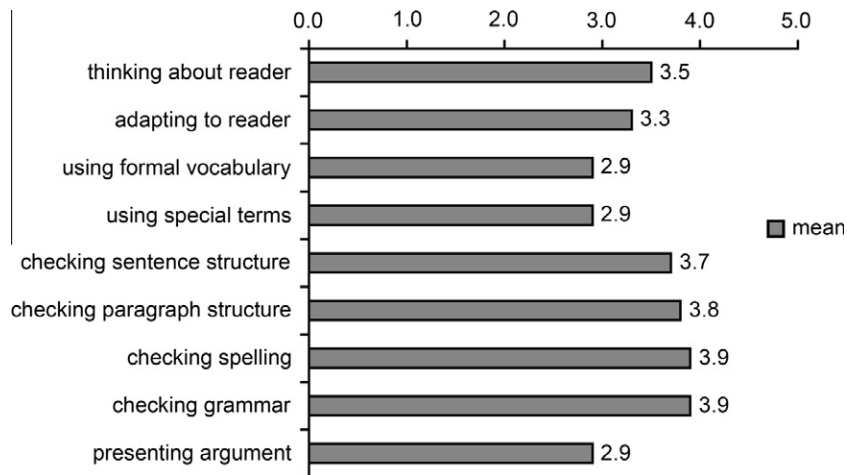
Graph 1. Mean scores of students' self-report questionnaire on the use of the wiki.

Table 1
Proportional distribution of students' responses on a Likert scale of 5 ($n = 14$; female = 8, male = 6).

Variable/grade on Likert scale	5 (%)	4 (%)	3 (%)	2 (%)	1 (%)	No answer (%)
Thinking about reader	14.3	42.9	35.7	0.0	0.0	7.1
Adapting to reader	7.1	35.7	35.7	21.4	0.0	
Using formal vocabulary	0.0	28.6	28.6	42.9	0.0	
Using special terms	0.0	28.6	35.7	35.7	0.0	
Checking sentence structure	14.3	50.0	28.6	7.1	0.0	
Checking paragraph structure	7.1	64.3	28.6	0.0	0.0	
Checking spelling	21.4	50.0	21.4	7.1	0.0	
Checking grammar	14.3	64.3	21.4	0.0	0.0	
Presenting argument	7.1	21.4	42.9	21.4	0.0	7.1

ert scale of 5 (1 = strongly disagree to 5 = strongly agree). Table 1 details the proportional distribution of student responses on the Likert scale.

It is noteworthy that, according to the self-reports, writing on the wiki made students pay close attention to the formal aspects of writing, both in terms of grammar and structure. Thus, two variables, checking spelling and grammar, represent the highest mean scores (3.9). As shown in Table 1, most students agreed that they checked their texts for grammar (79%) and spelling (71%) carefully before posting them on the wiki. On the one hand, this fact is due to a strong emphasis on form in EFL education all over the world; despite the popularity of communicative approaches in language teaching (Richards & Rodgers, 2001), it continues to be an essential element in language instruction at school level and forms a basis for most international exams required for entry in English-language higher education (e.g. TEFL, IELTS, etc.). On the other hand, unlike word-processing software, the wiki does not have any spelling or grammar checker. Nevertheless, the texts published by students contained only a minimal number of spelling mistakes. Grammatical correctness varied from student to student, but all except one collaboratively written text were of acceptable quality, as some students corrected others' mistakes (registered by the history function). This fact provides further support for the students' self-reports concerning grammar and spelling.

Likewise, checking sentence and paragraph structure have high mean scores, 3.7 and 3.8 respectively. Both these topics were taught in class, and collaborative text writing was meant to focus on paragraph structure, coherence, and the use of transition and frame markers. That is probably why 71% of respondents agreed that writing on the wiki made them pay more attention to paragraphs. As far as the choice of vocabulary is concerned, the results for both formal vocabulary and special terms are similar (mean 2.9); these neutral, average scores result from somewhat varied responses, with about the same proportion of students expressing positive, negative and neutral opinions. This variation is most likely due to differences in the topics that the students

had to write on. For example, a writer is more likely to use special terms and formal vocabulary when dealing with a topic like 'Recent trends in financial reporting' than when writing about 'Internationalisation in Higher Education'. However, writing on the wiki did not have much impact on the students' attitude to presenting arguments and ideas, with the highest proportion of respondents (43%) expressing a neutral opinion. Thus, it appears that writing on the wiki had a positive impact on students' attention to the formal aspects of writing, both at the micro- (spelling, grammar) and macro- (sentence and paragraph structure) levels.

Although the above-described variables are related to the production of quality texts, the results do not necessarily imply that using the wiki raised the students' awareness of the reader. As mentioned in Section 3, there was neither the scope nor time during the course to deal with characteristics of reader-oriented writing in great detail. Rather, peer revision and feedback were used to foster awareness of the audience, which contributes to reader-oriented writing. The questionnaire results indicate that more than half of the respondents (57%) agreed that writing on the wiki made them think about the reader of their texts, and little less than half (43%) tried to adapt their writing to the reader, which can partly be explained by the fact that their potential audience was somewhat heterogeneous. Thus, from the students' perspective, the main features of reader-oriented writing included the use of transition and frame markers, clear paragraph structure and text organisation patterns, as evidenced by the above-mentioned results.

Among the positive aspects of using the wiki listed in the ranking question (see Appendix A), the students singled out interaction, developing writing in English, access to others' work, and learning others' opinions about their texts. Some students further commented on the fact that the wiki was good for "interacting and seeing others' texts" and that "others reading my texts makes me work even more carefully". Thus, interaction and peer collaboration were perceived by the students to be the most important gains in using the course wiki. Next, we shall see how this interaction is reflected in the interactional metadiscourse resources employed by the students in their texts.

5.2. The use of interactional metadiscourse resources

Before analysing the fourteen argumentative essays posted by students on the wiki, some words should be said about the use of interactional metadiscourse in the seven collaborative texts. As pointed out in the previous section, the students gave a great deal of importance to the more formal aspects of writing because the purpose of the task was to fit each person's paragraph within a collaborative text and to ensure coherence in terms of structure and content. The collaboratively written texts consisted of well-structured paragraphs and contained a variety of transitions and linking expressions, including some references to parts of the text (e.g. "as seen before") or other authors (e.g. "as the writers above have written"). As far as interactional resources are concerned, the situation was somewhat different. There were no engagement markers in the form of questions and commands, and the use of personal pronouns was largely limited to referring to personal experience (e.g. the six instances of *I* in the corpus of 2709 words) rather than as an attitude marker. Hedges (mainly in the form of modal verbs) and self-mentions (the above-mentioned *I* phrases) were by far the most frequent interactional resource, with six instances each, followed by four attitude markers and three boosters. On the one hand, this scarce use of interactional resources reflects the informative nature of texts on general topics; on the other, it also shows a greater concern "to guide the reader through the text" (e.g. by using transition and frame markers) than to "involve the reader collaboratively in the development of the text" (Thompson, 2001, p. 58).

The persuasive nature of argumentative essays, however, implies more reader involvement, particularly when peer review and commentary take place. As mentioned in Section 3, interactional metadiscourse resources were not explicitly taught but were nevertheless used by students in their argumentative essays with varying degrees of success. First of all, it is noteworthy that their use varies significantly between different students: some used many different interactional devices, others fewer and largely of the same kind (e.g. questions or personal pronouns), and yet others, none. Those students who agreed that the wiki made them think about the reader tended to use more interactional resources and in greater variety, including different kinds of engagement markers (personal pronouns, questions, and commands), self-mentions, attitude markers, hedges, boosters and so forth. Since the overall sample is relatively small (fourteen essays totaling 6397 words) and the existing taxonomies of interactional resources often classify the same linguistic devices under different headings, student writing will be analysed from a more qualitative than quantitative perspective.

Despite some overlap and fuzziness in the classification of the interactional resources (Hyland & Tse, 2004), we can rank their use by Effective Communication students as follows:

1. Engagement markers (personal pronouns e.g. *we* and *you*, questions and commands).
2. Self-mentions (e.g. *I think*, *I would like*, etc.).
3. Attitude markers (e.g. *honestly*, *to tell the truth*, etc.).
4. Hedges (e.g. *one could say that*, *normally*, etc.).
5. Boosters (e.g. *of course*, *obvious*, etc.).
6. Statements from the reader to be contradicted (Thompson, 2001).

Engagement markers (personal pronouns such as *we* and *you*, questions, and commands, according to Hyland & Tse's, 2004 taxonomy) rank highest among different kinds of interactional resources in the argumentative essays published on the wiki. Personal pronouns as engagement markers are the most frequent linguistic device used by students. Interestingly, the pronouns *we, our* and *us* have higher frequency ranks compared to the second person *you* and *your* (see Table 2). As all texts were written by students individually, the use of the first person in the plural is meant to establish rapport with the reader and shows consideration for the audience of fellow students. On the other hand, the word *people* (ranked just below *we* but above *you*) is used more to indicate the third party, rather than the reader or writer of the text, as in the following examples:

Firstly, our laws already grant us the right to decide about our own life. That is, we can choose our lifestyle, except for suicide for sure. Also, include those artificial junk foods if we want to take or not.
We outsiders can also feel the passion and particularity of the two gay cowboys' love story and be deeply touched. (Comment on the use of 'outsiders' from a peer student: *Did u really want to 'come out' or u r expressing u liked the movie, or is there any need to reformulate this sentence?:-)*)
A lot of money our state deals with is spent in schools. These expensive institutions waste our contributions to the treasury by pretending production of people as educated as we would manage to do ourselves at home.
However people in most of the nations in the world still ignore or show unsupportive or feel shame on this relationship. The society see them as an abnormal or sinful group of people ...
The real purpose of the royal families seems to be to satisfy the people's thirst for gossip.

If there was the option of abolishing monarchy, people would make use of it.

The effect of using *you* and *your* in students' texts is very similar to that of *we* and *our*. Both *we* and *you* are often used in conditional clauses, appealing to the reader's imagination:

... if we have the guts to change the society and to let men and women share ...
If we take a look into the future of mankind, we see professions ...
If you look into the past, the women have usually been at home with the babies ...
... if you love someone, it is stupid to say that nothing will happen just because **you** are different.
... the risk is to break off with your family if you decide to assume your love.

This high use of *we* and *you* as engagement markers is in striking contrast with the collaborative texts, in which *I* predominated.

Table 2
Rank and frequency of personal pronouns and the word *people*. Total number of word types: 1679; word tokens: 6397.

Word	Rank	Frequency
We	18	40
People	31	26
I	40	20
Our	41	20
You	44	19
Us	130	8
Your	183	6

Rhetorical questions are the second most frequent interactional device used by students, with 19 instances in the entire corpus. Very often these questions include personal pronouns or other generalizations, for example:

Do you take your car wherever you go?
Smokers can no longer poison the air, but a driver of a car can?
Do people overreact about the 'serious risky food' made in China?
Do you usually eat roast foods, fast food and artificial foods in your daily life?
Why should pupils see any kind of variety?

The use of commands or imperatives as engagement markers is relatively low, and three of the four instances found start with *let's*:

Let's define what 'serious risky food' is.
Just ask yourself a question.
Let's close schools!
Let us get a global picture and look at the EURO from a broader macroeconomic point of view.

Self-mentions are the next most frequent kind of interactional resources, with 20 different collocations of *I* (see Table 2). The most common collocation is *I think* (seven instances), followed by *I would like* (three instances). The remaining ten instances include other verbs expressing mental processes (e.g. *believe*, *hope*) or feelings (e.g. *hear*). As will be shown below, some of these collocations can be classified as attitude markers, but here are some examples of the more neutral statements:

I think that if you cannot manage to take the basis into consideration when you are driving, may be you should not drive?
... I am proud to be a teacher and I am proud to be 'someone' – resisting the angry, profit seeking, partisans of the school cancellation.
I found rather alarming that nobody named any advantages for having the Euro, and it encouraged me to make some research that I would like to share with you in this article.
I can already hear some protests about Galib's wedding...

On the other hand, it is interesting that there are no instances of the pronoun *my* in the entire corpus of student essays.

Attitude markers are the next most frequent interactional resource after the three above-mentioned kinds of engagement markers and self-mentions. However, compared to the latter, the quantitative discrepancy is relatively high, as there are only eight instances of attitude markers. These take the form of either adverbs (e.g. *honestly*) or *I*-phrases expressing a strong personal view rather than self-mention, as shown below:

Honestly, all of these contain chemical synthesized poisonous substances.
These, 'someone', people apparently do not see future prosperity of our society.
Luckily, we know everyone has some responsibility. ...
I hope that Sweden will learn from its neighbor's mistake and can make a right decision: vote for the EURO at the next national referendum.
I also wonder how else you could invest that amount of money, considering how many children die every minute because of famine or diseases.
If the public got the possibility to actively decide in a democratic way, I am sure they would vote against.
To be perfectly honest, more and more I hear these two quarters...
To tell the truth, they shouldn't.

The six hedges found in student writing fall into two categories: low-value subjective modalisation (e.g. 'it might be expected that' attributed to the reader-in-the-text) and unattributed mental and verbal processing (e.g. 'it may appear') (Thompson, 2001, p. 65).

Someone might object that it is important for a child to be in a collective of peers...
The same 'someone' as before might disagree that teachers are ... They might also argue that a good tea-cher can ...
One could say that the royal family does not bother anyone...
The question that might arise is ...who actually is responsible for their situation. ...
Normally it means that ...

Boosters are relatively few, with only four instances in the corpus, three of which are found in the same essay. It seems as though students are not familiar with this linguistic device, besides the expression *of course*:

Of course nothing is free ...
One other obvious way to raise money for public transport is ...
Of course, there will be problems at the start with to few buses and subway trains ...
And it is, of course, not politically correct to limit people.

Besides the five above-mentioned major kinds of interactional resources, there are two instances of what Thompson (2001) would classify as statements from the reader to be contradicted:

A car is a possession and there are always ... thoughts that what is own is to be used how and whenever the owner likes.
Many people would say that to be able to drive in the winter, in case of snow, you need studded tyres; it is much safer and makes driving in snow easier.

However, they occur in the same essay, which means that only one student employed this strategy to appeal to the reader.

Although formal and academic in style, the argumentative texts examined here are general in content. The more personal nature of these texts justifies a higher frequency of personal pronouns and rhetorical questions, which is not the case in, for example, dissertations or research articles. This also explains a relatively low use of hedges, more characteristic of scientific writing, particularly in the 'soft' sciences (Hyland & Tse, 2004). The examples of hedges found in the argumentative essays are meant to express a position to be contradicted by the author of a given text. On the other hand, the more straight-forward statements to be contradicted were only used by one student. The same is largely true for boosters, which are used by another student as the only interactional device in his essay. Thus, the results indicate that writing on the wiki resulted in a high use of engagement markers such as personal pronouns and questions, implying a greater awareness of the audience, particularly that of fellow students.

As mentioned above, the use of interactional metadiscourse varies significantly among different students. Two factors that do not appear to have any impact on the use of interactional resources are the student's level of proficiency in English and cultural background. Some highly proficient students used relatively few or even no interactional resources, whereas other less proficient students were by far more successful in involving their reader-in-the-text, as evidenced by peer comments on the wiki and in class. Another interesting finding is that different interactional resources were used by students from similar cultural backgrounds: some Swedish stu-dents, for example, used a great variety of such resources, whereas others only used the same kind or none at all. This fact seems to confirm what Leki (1991) defines as "the failure of contrastive rhetoric" to link writing to culture. Educational and professional backgrounds, however, have a much greater impact on the use of interactional metadiscourse, pointing in the direction of specific discourse communities. Thus, students with backgrounds in the humanities and those with more developed interpersonal communication skills (regardless of the proficiency level) used more interactional metadiscourse in their writing. Another important factor here appears to be personality: the more extroverted students tended to use more interactional resources. On the other hand, students whose education or profession requires more precision and less speculation tend to give more importance to structure (e.g. paragraph structure or text organisation) and pay less attention to involv-ing the reader. For example, two highly proficient mature students, a lawyer and a finance specialist who have long been established as members of their discourse communities, produced texts that followed the recom-

mended argumentation pattern very closely. Although both students agreed that writing on the wiki made them think about the reader of their texts, their writing showed practically no signs of consideration for the potential audience (i.e. other course participants) in its lack of interactional resources, and consequently generated little peer feedback. This fact points in the direction of Hyland and Tse's (2004) findings based on a cross-disciplinary metadiscourse analysis, which associated variability in the use of interpersonal metadiscourse to conventions of given discourse communities: "writing is produced and mediated through writer's experiences of prior discourse, not explicit knowledge of rules" (Hyland, 2002, p. 43).

6. Concluding remarks

In recent years, the notion of a discourse community has been crucial in developing more relevant writing pedagogies and largely replacing the emphasis on cross-cultural differences. In the context where language learners belong to different discourse communities, which was the case with Effective Communication students, developing a sense of audience can be a real challenge. Nevertheless, collaborative learning supported by social web applications, such as wikis, can contribute to creating a more natural reader-oriented environment for developing effective and transferable writing skills, such as audience awareness, thereby diminishing any urge to give recipes. Prescriptivism has long been identified as one of the problems with teaching academic writing in English (e.g. Leki, 1991, p. 123).

This paper has described how wikis can be used for teaching traditional academic writing skills such as text organisation and paragraph structure in a collaborative environment of heterogeneous learners. In this context, any differences in educational, professional, and cultural backgrounds can offer opportunities for opening a dialogue between students, providing them with a wider sense of audience. Furthermore, the wiki holds a potential for developing other kinds of collaborative writing projects (e.g. articles, project reports, etc.) which can be developed not only in collaboration with peers, but also with members of given discourse communities in inter-institutional projects.

The results of the case study conducted among the Effective Communication students indicate that using the wiki for writing activities made students pay close attention to grammatical correctness and text organisation, which are considered by the students to be of utmost importance in determining the quality of writing. Nearly 60% of the students reported that writing on the wiki made them consider their audience, and all respondents singled out interaction, developing writing skills, access to others' work, and learning others' opinions as the main gains in using the wiki. The extent of the writer–reader interaction is further confirmed by a high use of engagement markers in the argumentative texts published by the students on the course wiki. In fact, engagement markers (personal pronouns, questions and commands), self-mentions and attitude markers are the most frequently used interactional metadiscourse resources, which is in line with the nature of the writing assignment (a general argumentative text). On the other hand, the use of interactional resources varies from student to student, which confirms Thompson's (2001) recommendations to increase formal instruction focusing on this topic.

Despite the limitations which are inevitable in a small-scale case study, it appears that writing on the wiki can contribute to raising students' awareness of the audience, resulting in more reader-oriented texts. Further research into this topic is only possible with an increased use of this software in academic contexts, which would enable us to create large corpora of student writing and to conduct large-scale surveys. In this paper I have outlined some advantages of using wikis in EAP, presented the results of its implementation, and analysed what impact using the wiki had on the writer–reader relationship. Since the wiki software allows any reader to edit or comment on the text, registering any changes and tracing their history, it gives the writer–reader relationship a wholly new dimension, which is likely to gain more importance as new online genres and literacies develop.

Acknowledgements

Appendix A

Student questionnaire
Using wikis on the Eff Comm course

Section dealing with reader-oriented writing

Writing on the wiki made me think about the reader of my texts.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me adapt my texts to the potential reader.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me use more formal vocabulary.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me use more specialised terminology.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me pay more attention to sentence structure.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me pay more attention to paragraph structure.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me check my spelling more carefully.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me check my grammar more carefully.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Writing on the wiki made me change the way I present my ideas or arguments.
☐ Strongly agree ☐ Agree ☐ Neutral ☐ Disagree ☐ Strongly disagree

Choose *three* things that you found *positive* about using the wiki. Rank them in order of importance and write 1, 2, 3 next to an item.

A. developing writing in English (____)
B. learning new vocabulary (____)
C. access to others' work (____)
D. dynamic and easy learning (____)
E. interaction (classmates, teacher) (____)
F. enough time to complete tasks (____)
G. developing topics in more detail (____)
H. writing in English on the computer (____)
I. learning others' opinions about the task (____)
J. opportunity to read in English (____)
K. other (specify) _____

Personal details

1. Gender: A. Male B. Female
2. Age group: A. 18-24 B. 25-34 C. 35-49 D. 50-64
3. Mother tongue: _____
4. Country of origin: _____
5. Country of residence: _____
6. Occupation: A. Full-time student B. Other _____

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