USING WIKIS IN AN ENGLISH FOR SPECIFIC ACADEMIC PURPOSES (ESAP) CONTEXT: UNIVERSITY STUDENTS' PERCEPTIONS AND REFLECTIONS

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Abstract

This study explores students' perceptions regarding the use of wikis in their learning of English for Specific Academic Purposes (ESAP). First year university students of the department of Commerce, Finance and Shipping were given a questionnaire prior to and after their ESAP course. Students worked with wikis during the entire semester and recorded their reflections concerning the wiki integration and its perceived effect on their language learning. The results show that the wiki experience was a positive one overall.

1. Introduction

With the expanding role of computers and new technologies, language teachers are incorporating technology in classrooms more and more. According to Dębski (cited in Rubin and Sarid, 2007, p.777), language learning through technology has multiple benefits since, among others, it creates "… learning environments in which students can easily exercise their creativity, engage goal-driven activity and combine learning a language with reflection about language and learning strategies". Moreover, the growing presence of new technologies in everyday life along with the fact that more and more students are growing up in the digital environment mean that students have begun to feel comfortable using computers in the language classroom (Quarshie-Smith, 2004).

Recent years have seen a trend towards the increasing use of Web 2.0 technologies in education. Unlike traditional Web 1.0 technologies, Web 2.0 technologies are changing the way information is published (Cone, 2005). They offer a variety of unique and powerful information sharing and collaboration features. These so-called social web applications, such as wikis, blogs, and podcasts, allow users to develop web content collaboratively (Alexander, 2006), interact, contribute

and share. They can also be used as digital portfolios, where users keep a collection of electronic data, such as text, images, electronic files, hyperlinks on the Web. E-portfolios available online can be accessed by a large audience and, thus, can be used to engage students in learning with others within a collaborative environment, which can, in turn, enhance the learning process. These Web 2.0 technologies are perceived to offer more extensive outcome-oriented possibilities for communicative language learning (Carmesin, Devilly and Tooher, 2009).

Wikis, one of these Web 2.0 technologies, were introduced nearly two decades ago (Evans, 2006). Since then, they have been gaining ground in the academia. Their potential educational value as a means to promote deeper learning has also been realised in English as a Second Language (ESL) (Baya, 2006; Godwin-Jones, 2003; Kiliçkaya, 2008; Langdon, 2005; Lynch, 2004; Lund, 2008; Franco, 2008). Nevertheless, addressing wikis in a CALL perspective at the tertiary level needs to be further examined (Kovacic, Bubas and Zlatovic, 2008).

Kovacic, Bubas and Zlatovic (2007) have touched this newly evolving learning opportunity in the field of English for Specific Purposes (ESP) and evaluated the potential uses of a wiki in teaching ESP courses. One of their main conclusions is that incorporating wikis in ESP (and ESL) courses is a useful and innovative way of enriching the learning environment of students. Such a practice not only takes the classroom "into the real world that the students inhabit", but most importantly "brings their real world into their classroom" (Harding, 2007, p.8). In addition, Gardner (2000) and Masgoret and Gardner (2003) claim that language learning achievement is greatly influenced by learners' attitudes to their learning situations. Li (2012) reviewed the past research on the use of wikis in second/foreign language classes, concluding that the use of wiki in ESP is still emerging and the following four main research themes can be isolated in the current body of literature: collaborative writing process, writing product, perceptions of wiki-based collaborative writing, and effects of tasks.

Wiki-based collaborative writing seems to be the most examined topic area, sometimes along with students' perceptions on such task. Hardly any previous research reports on students' perceptions of the use of wiki in ESP as a learning environment, which facilitates construction of knowledge, let alone any research reports on failed experiments of the use of wiki technology or students' attitudes to the use of wikis is negative.

This article reviews the use of wikis in English for Specific Academic Purposes (ESAP). It explores how students perceive the use of wiki as a learning platform in their language learning throughout a whole semester.

2. Literature review

2.1. Theoretical background

Constructivist approaches to teaching and learning, including that of language teaching and learning, have emerged from the work of psychologies and educators such as Bruner, Piaget and Vygotsky (Wood, 1998, p.39). In social constructivism culture and context are of vital importance in order to understand what happens in society and construct knowledge based on it (Derry, 1999; McMahon, 1997). Social constructivism is based on specific assumptions about reality, knowledge, and learning. Social constructivists assume that reality is constructed through human activity. Reality is the product of groups of people working together (Kukla, 2000). In the same token, individuals create knowledge through their social and cultural interaction with each other, and with the environment they work in (Ernest, 1999).

Constructivist learning environments emphasise authentic tasks occurring in a meaningful context rather than abstract out of context instruction and provide real-world settings or case-based learning (Jonassen, 1994). They enable context- and content-dependent knowledge construction. They also encourage thoughtful reflection on experience. Learners are challenged with tasks that refer to skills and knowledge just beyond their current level of mastery. This captures their motivation and builds on previous successes to enhance learner confidence (Brownstein, 2001).

In social constructivism instructional approaches, assessment is used as a tool to enhance both the student's learning and the teacher's understanding of the student's progress. It can include reflective journals/portfolios, case studies, group-based projects, presentations (verbal or poster), debates, role-playing, etc. Within social constructivism, students can be involved in the whole process of assessment, which includes criteria setting, method, marking and feedback.

Information and Communication Technology can support social constructivist teaching and learning in many ways: e-mail, the Internet and other telecommunications provide a means for dialogue, discussion, and debate. These constitute interactivity that leads to the social construction of meaning. Students can

talk with other students, teachers, and professionals in communities within or far from their classroom. Telecommunications tools can also provide students with access to many different types of information resources that help them understand both their culture and the culture of others. Networked or linked programmes provide a unique platform for collaborative work. For example, students can write for real audiences who respond instantly and who participate in a collective writing activity or can engage in an online problem-solving issue. Simulations can also make learning meaningful by situating something to be learned in the context of a "real-world" activity such as running a communication and Internet online services, or writing up newspaper stories.

2.2. Wikis in educational contexts in general

Although wikis were introduced nearly two decades ago (Evans, 2006), they have only recently begun to gain ground in the academia. Wiki, created by Ward Cunningham in 1995 as a What You See Is What You Get (WYSIWYG) collaborative tool to be used on the Internet (Leuf and Cunningham, 2001), is a useful tool for facilitating online education. Wikis are often used to support various online teaching and learning activities and they can replace the traditional linear approach of presenting the course content with, for certain fields of knowledge, a more appropriate networked approach (Bruns and Humphreys, 2005). E-learning practitioners are moving beyond their comfort zone by using wikis to enhance the process of teaching and learning online (Augar, Raitman and Zhou, 2004).

A wiki is a web communication and collaboration tool that can be used to engage students in learning with others within a collaborative environment (Parker and Chao, 2007; Franco, 2008). Langdon (2005) claims that with the emergence of such social communication tools on the Internet students have more access to writing and communicating in general, in real contexts and for real audiences. Since wikis encourage students to be co-creators of course content (Wang and Turner, 2004), they can be claimed to encourage student-centred learning environments. They are centred more on content rather than design and are used for sharing knowledge, which grows over time (Godwin-Jones, 2003).

From what has been described so far, the concept of the wiki is in line with constructivist perspectives. Through interacting with each other, sharing,

collaborating and accessing information, students can construct their own EFL reality, knowledge and learning.

2.3. Wikis in ESL

Since the use of wikis became novel in second language learning (Godwin-Jones, 2003; Chang and Schallert, 2005; Rueckert et al., 2007), it has attracted the interest of many researchers. Langdon (2005) concludes that using wikis and blogs proved useful in ESL project assignments since it sparked excitement about writing. Mak and Coniam (2008) used wikis among ESL learners in a secondary school in Hong Kong as a collaborative writing platform to produce – with minimal input and support from their teachers – wiki content that describes the different facilities and features of their school, which would be presented to parents as an information brochure. The purpose for writing using the wikis enhanced the authenticity of the task. Franco (2008) used wiki-based peer-correction with the aim of developing writing skills of Brazilian EFL learners, proving that an increasing interest in belonging to an online community emerged from students together with higher degrees of motivation.

2.4. Wikis in EAP/ ESP

The use of wikis in tertiary English for Academic Purposes (EAP) and English for Specific Purposes (ESP) courses has also attracted some researchers' attention. 'Electronic literacy' has been a course aim in EAP contexts for some years (Shetzer and Warshauer, 2000).

Kovacic, Bubas and Zlatovic (2007) used a wiki in tertiary level ESP courses to deliver various web-oriented learning activities (e-tivities), which supplemented their traditionally delivered language course. Student evaluation at the end of the semester showed a positive outcome, concluding that the use of wiki in ESP (and ESL) courses is a useful and innovative way of enriching the learning environment of students with adequate ICT skills and access to the Internet. In another study, Kovacic, Bubas and Zlatovic (2008) tested the applicability of wiki technology in teaching ESP and English as a Foreign Language (EFL) at university level. The goal of the authors was to innovatively use a wiki by engaging the students in various types of individual and collaborative online learning activities (e-tivities), and most of the e-tivities were evaluated positively by students. Moreover, the wiki technology proved to be easy to use, simple, efficient as well as effective.

Wikis have so far mainly been used for collaborative writing, enhancement of task authenticity, peer correction and presentation of course information. They have proved to have increased both the interest in belonging to a virtual community as well as student motivation. Meanwhile, it is hard to find research that reports on failed experiments to use wiki technology or where the attitudes of students to the use of wiki were negative. As Zaphiris, Zacharia and Rajasekaran (2004) point out, similarly to findings related to CALL effectiveness, findings related to the use of wiki should also be interpreted with caution, since most journals tend to publish studies with positive gains.

2.5. The benefits of wikis use in language learning

Various researchers identified the following benefits of wiki use in language learning. According to Kovacic, Bubas and Zlatovic (2007), the uses of wikis enable students to do the following:

- engage in dialogue and share information among them in group projects, engage in learning with each other, by using wikis as a collaborative learning environment in which to actively involve in their own construction of knowledge (Boulos, Maramba, and Wheeler, 2006).
- overcome isolation in distance learning and connect through synergy in the co-authoring of online content, in creativity and critical thinking during collaborative group activities, and in increased participation in the creation of learning content and problem solving learning activities, based on a constructivist design (Bruns and Humphreys, 2005; Majchrzack, Wagner and Yates, 2006).
- engage in "mini-projects", project-based courses, or act in a general study environment, thus taking part in the implementation of "active" and "rich" pedagogies (Schneider and Paraskevi, 2005)
- engage in asynchronous communication, and cooperation (De Pedro et al., 2006).
- develop Internet-based communication literacy and create course content collectively (Bubas and Kermek, 2007)
- write, edit and discuss online educational content, and create online glossaries and repositories of supplemental educational material (Reinhold, 2006).

One of the great advantages of wikis with regard to language learning, process writing and revision, is that as students work towards the final document, all intermediate copies are retained. This provides an invaluable learning tool for students

whereby they can see what errors they initially made - and subsequently corrected. Besides, the picture of revisions themselves may provide a useful research tool for the teacher oneself in looking at development in students' writing (Mak and Coniam, 2008).

Further applications of wikis in the tertiary context can be described as follows:

- learners write collaboratively (Loudermilk and Herm, 2006)
- learners create reports, presentations and graphical pages with links to external sources. (Kim, 2004)
- learners gather, organise and share writing, photos, videos, presentations and other digital creations (Chen et al., 2005)
- learners use wikis as electronic-portfolios (University of Delaware IT-User Services).
- learners use wikis as a source of information and knowledge (Parker and Chao, 2007)
- learners disseminate information, interact in groups and engage in exchange of ideas (Augur, Raitman and Zhou, 2004)
- learners post homework assignments, to which the teacher can respond with written comments and even corrections through the 'Discussion' feature (Ferris and Wilder, 2006)
- learners freely edit any page in a website thus engaging in cooperative learning, and in that way allowing a learner community to teach each other something in a learner-centred fashion (Franco, 2008).
- learners record their thoughts and reflections on learning wikis.

Most importantly, wikis become a space for self-examination and self-reflection. They offer a meaningful context for students to move towards autonomous learning (Franco, 2008) and a positive interdependence of group members (Parker and Chao, 2007). Additionally, wikis encourage a sense of belonging among students, due to the virtual learning space that is created.

2.6. The challenges encountered during the use of wikis in language learning

In spite of the many benefits of wikis perceived in the body of literature, previous research also reveals that there are certain challenges involved. The challenges depend on the features of each wiki. For wikis which are open resources to the world and can be altered by anyone, as with Wikipedia, for example, the online collaborative

encyclopedia (Lund, 2008), pages may be susceptible to intrusive or irrelevant comments or editing, or indeed even malicious hacking (Mak and Coniam, 2008), thus wiki content can be misleading if incorrect (Olson, 2006). Another disadvantage is the lack of control over published content and the inability of making the content visible only to enrolled students of a particular course (Elrufaie and Turner, 2005). Moreover, the use of a wiki in ESP courses requires careful planning and preparation, monitoring and moderation of students' work, as well as reflection and adequate feedback to the students after they have completed their wiki-based assignments (Kovacic et al., 2007).

Some more challenges relate to the technical problems of wikis, from the perspective of the student. In particular, Lund (2008) reports formatting problems, particularly referring to students' inability to save their edits in their selected font or color. Such technical glitches may discourage the use of wiki as a collaborative platform. The fact that simultaneous edits by wiki users are allowed but not successful is yet another problem identified by Parker and Chao (2007). Finally, Alyousef and Picard (2011) comment on students' complains regarding the unequal contribution among wiki participants.

3. The Study

3.1. Study aims and research questions

Following Gardner (2000) and Masgoret and Gardner (2003), who claim that language learning achievement is greatly influenced by learners' attitudes to their learning situations, this study aims to investigate the perceived effect of using wikis in an ESAP course.

The study essentially had two research questions, which were addressed through students' perceptions:

1. Does the use of wikis contribute to students' learning in an ESAP course (English for Commerce, Finance and Shipping)?
2. How is that done?

To gain greater depth for such an objective, the participants' perspectives were collected before, during and after the course.

3.2. Context and participants

This study was conducted at the Language Centre of the Cyprus University of Technology. The Centre offers compulsory English (EAP, ESAP) and other languages. It aims at promoting literacy, including e-literacy. The Language Centre uses smart, multimedia language classes equipped with up-to-date hardware and software. Each class has 20 multimedia personal computers with Internet connection and web browser software. Instructors use ready-made commercial materials or develop their own, which are designed to consolidate students' language abilities for academic and specific academic purposes.

The 33 subjects (26 female and 7 male) were all the registered first-year students at the Faculty of Management and Economics, in the Department of Commerce, Finance and Shipping, Cyprus University of Technology, Cyprus. 28 of them were Cypriots while 15 were Greeks. Their age ranged from 17 to 24 with 82% being 18 years of age. They attended "English for Commerce, Finance and Shipping" (ENG191), a compulsory ESAP course. The programme lasted thirteen weeks, from mid January to beginning of April of 2009.

Although students' knowledge and attitudes towards ICTs change, the knowledge and attitudes of the particular students at CUT have not changed much towards wiki because the first time they get to use wiki in their life is when they do this course. The course is still being taught and wikis are still being used as an integral part of it. More recent data is planned to be collected and used five years after the completion of this research study.

3.3. The learning environment - The ENG191 Course

L2 courses that incorporate technology in combination with face-to-face (f2f) instruction have been found to promote L2 learning (Ayres, 2002; Felix, 2001). Felix (2001) reported that the incorporation of technology into face-to-face instruction helped L2 learners of Italian, Japanese and English feel more comfortable with technology and the target language.

The researchers of this study opted for blended instruction (face-to-face and online). In particular, wikis were used to provide an online forum for ENG191 students outside contact hours, and develop students' e-literacy skills and confidence. Students met twice a week in a multimedia smart language classroom for one and a half hours each session. The aim of the course was to equip students with both

language and computer skills as transferable skills necessary for their continuing academic and professional work (Kovacic et al., 2008).

Course grade depended on classroom participation and homework assignments (10%), presentations (10%), final examination (40%) mid-term examination (20%), and the production and development of students' wiki online electronic portfolio (20%).

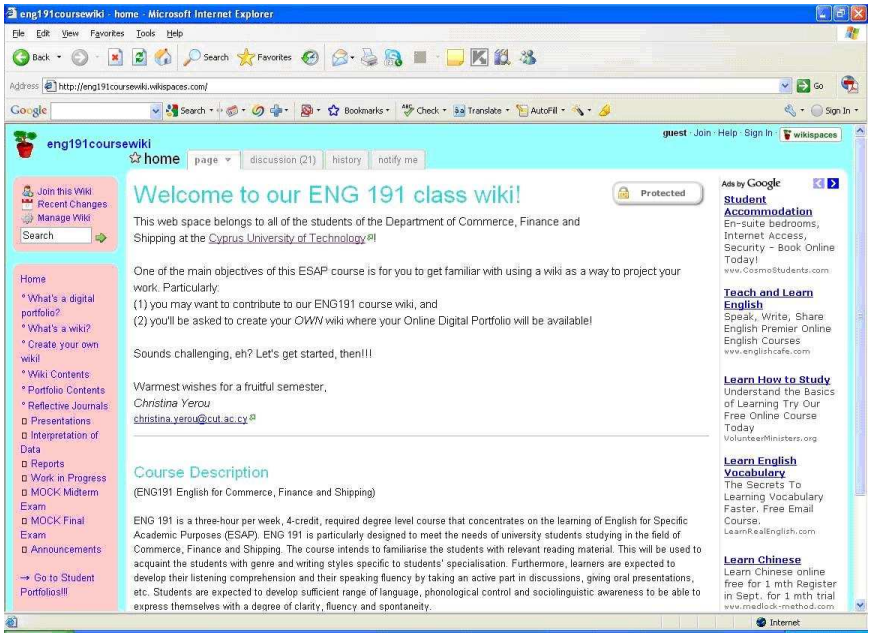

Figure 1. Screenshot of the ENG191 course wiki homepage.

Before opting for the Basic Plan of Wikispaces.com, the researchers had studied a number of wiki farms. Wikispaces was chosen because of many of its many features, which were considered to be particularly practical and useful. Among other features, Wikispaces is free and password-protected, easy to be created and updated, uses open editing functionality, and lets its users create unlimited internal wiki pages. First, the instructor set the course wiki (http://eng191coursewiki.wikispaces.com/); then the subjects were invited to become members of it, which would automatically give them access to edit its pages.

On the central wiki, the instructor created a page with links to students' individual wiki pages (http://eng191coursewiki.wikispaces.com/Student+Porfolios). Students were instructed how to create their own wikis, which they could use as

private individual spaces. Communication among members could take place either through the course wiki or through each other's wiki.

The individual student wiki content resulted from a class discussion and was uploaded by the instructor on the course wiki. In an attempt to determine the content of students' portfolio, the teacher created a wiki page on the course wiki and invited students to make their suggestions as to what would be useful and relevant. Instructor and students collaborated and came up with three sections, each consisting of several sub-sections (http://eng191coursewiki.wikispaces.com/Porfolio+Contents).

The course and student individual wikis were all linked and formed a wiki site. Students used the wiki site for a whole semester and were involved in a variety of tasks. The wiki constituted an online environment where learners could find course information at any time, have access to course material, share their work, engage in asynchronous communication and cooperation, therefore learn to become e-literate.

3.4. Design and procedure

Students of the ENG191 course completed tasks based on teacher-guided instructions. An example of such an activity required students to interpret the data found on financial statements of real companies. This task involved a number of steps, which are as follows: visit the class wiki, click on a hyperlink to get to an official website that provides financial statements of companies, select a company and the type of financial statement i.e. Balance Sheet, select to view its data either as annual or quarterly data, and finally interpret the data and start writing a description of it on the wiki. This report had to be composed collaboratively by students in pairs of the course who had to share its content until its final form and upload it to their own as well as the class wiki. Moreover, students created and continuously edited ESAP glossaries, gathered, organised and shared homework, projects, reports, Microsoft PowerPoint presentations, and photos. In addition, they created internal and external links, participated in text discussions, recorded their reflections on learning and used wiki as their ESAP electronic portfolio.

To incorporate wiki technology into the ENG191 programme, a four-phase plan was followed. Through a series of worksheets and teacher guided searches, during Phase One (Investigate), which took place in the first three weeks, students learned about wikis and electronic portfolios. Students were also explained how these two were going to be used during their course. During this stage they became

members of the course wiki and started participating in it. During Phase Two (Design), which lasted two weeks, students created their personal wiki by following the teacher's instructions uploaded on the course wiki. During Phase 3 (Plan), which lasted three weeks, students were mainly involved in planning the contents and the layout of their wiki. Towards the end of this phase, students discussed and decided how information and content would be structured in their wiki and e-portfolio. This ensured consistency among students' individual ENG191 wikis. Content to the personal wiki pages was uploaded gradually by each student as the course continued. The final stage, Phase 4 (Create), had a four-week length during which learners added more and more content to their personal wiki pages. Students had to export and submit the final version of their personal wiki during the last week of the semester.

Students' views regarding wikis were collected prior to the beginning of the course with the use of a pre-questionnaire. From the beginning of the semester, students were also asked to begin keeping a reflective journal, in other words, note down their reflections (i.e. thoughts and impressions) on new things they would learn, particularly as regards their wiki experience. There was no fixed structure required in terms of how to organise their reflective journal notes: However, students were given some suggestive guidelines as to what could be included. Each ENG191 student produced a three-entry reflective journal. Each entry commented on a different learning wiki experience. Essentially, Entry 1 focused on the first time students used the course wiki and became its members, Entry 2 on students' impression right after the creation of their own personal wiki, and Entry 3 on students' overall experience of working with wikis for a whole semester.

Finally, students were asked to complete a post-questionnaire (See Appendix A). This course evaluation survey was designed to collect data on various aspects of the use of the wiki in general, and more specifically on the usefulness and value of a number of diverse wiki activities incorporated in the course. The post-questionnaire was distributed to all ENG191 students on the last session of the semester.

3.5. Results and discussion

The results are discussed according to the methods adopted in the previous section, first focusing on the findings related to the pre-questionnaire, reflective journals, and finally the post-questionnaire.

3.5.1. The pre-questionnaire (quantitative measure)

The pre-questionnaire was completed by 33 out of 33 students on the first day of classes, in week one of the spring semester. Data analysis of the pre-questionnaire was conducted using SPSS (Statistical Package for the Social Sciences), version 11.5. After the students' demographic details, the pre-questionnaire required information regarding students' computer-literacy, enjoyment of using ICT and willingness to work with ICT for their ESAP programme and familiarity with wiki.

All learners considered themselves computer-literate. In specific, most of them (73 %) claimed to have a high level of computer literacy, and 27% claimed to have a lower level. 73% enjoyed the use of ICT tools to a great extent and 27% to an average extent. 32 of 33 of the participants expressed their eagerness to have ICT tools integrated in their ESAP course while only one student responded negatively.

When asked about their familiarity with wikis, none of the students believed to be very familiar with wikis. In fact, 79% claimed to be unfamiliar with wikis, while only 21% considered themselves to be either familiar or somewhat familiar with wikis. In the pre-questionnaire, students were also required to indicate their awareness of what a wiki is, with a 'Yes', 'No' or 'Not Sure'. Respondents who indicated 'Yes' or 'Not Sure' were encouraged to describe their understanding of 'wiki'. None of the students answered with a certain 'Yes'. In fact, the great majority of students (94%) did not know what the term meant. 6% of the students were uncertain and attempted to provide an explanation of the word. A student wrote down the word *'Wikipedia'*, the online collaborative encyclopaedia, which is, indeed, the most famous wiki. Another student's guess, though, was that a wiki is "something like a vocabulary or something that gives you information about a search".

Students were also asked to indicate the purpose (personal, academic or both) for which they used wikis. For the pre-questionnaire, despite the fact that students were not aware of the term, 24% of respondents considered or assumed that wikis were associated with academic study rather than personal use.

3.5.2. Students' reflective journal entries (qualitative measure)

Apart from quantitative methods used in this study (pre and post questionnaire), qualitative research was also applied to gain valuable insight into students' perceptions regarding the use of wikis as a means of delivery of their ESAP course. In

this study's context, meaning was extracted from students' reflective diaries. No qualitative research software was used for the data analysis. These were manually analysed.

Although reflective journal writing was not compulsory, 31 out of 33 students completed their diaries. Students' impressions of the use of wikis recorded in their reflective journals referred to both the course and their individual wikis. Through the manual analysis of 31 student diaries, two main patterns were revealed. The first pattern concerns students' feelings on the use of wikis (Table 1). The second one deals with students' perceptions of the usefulness of the wiki as part of their ESAP course (Table 2).

Different students used different words or phrases to express how they found the wiki experience. These expressions were classified and counted. Although we expected some comments like "demanding" or "too time-consuming", we were surprised to find out that students' comments were positive. Table 1 shows that more than half of the students (52%) used the word "interesting" to describe the integration of wikis in their ESAP course. Almost one third of the respondents (29%) used the words "amusing", "enjoyable" or "fun" to describe their wiki experience. The use of wikis was described as "nice", "useful", "helpful", and "easy" (13%). 6.5% of learners found the wiki "really important" or "like a game". To some other students, the use of wikis was found to be "an educational experience" (3%), "fascinating" (3%), "incredible" (3%), "beautiful" (3%), or "serious business" (3%). It is interesting to note that no negative descriptions or comments were made.

Table 1: Students' feelings based on wiki use.

	Course wiki	**Individual wiki**	**Total Responses - Frequencies (f)**	**Total Responses - Percentages (%)**
Interesting	11	5	16/31	52%
Amusing/ Enjoyable/ Fun	5	4	9/31	29%
Great/ Amazing/ Pleasant experience	4	4	8/31	26%
Nice	4	/	4/31	13%
Useful / Helpful	1	3	4/31	13%
Easy	3	/	3/31	9.7%
Really important	1	1	2/31	6.5%
Like a game	1	1	2/31	6.5%

Educational experience	/	1	1/31	3%
Fascinating	/	1	1/31	3%
Incredible	/	1	1/31	3%
Beautiful	1	/	1/31	3%
Serious Business	1	/	1/31	3%

As regards students' feelings based on wiki use, some more conclusions can be drawn as to how the wiki made students feel. A significant percentage of the students felt "excited" (64.5%), while a similar number (58%) claimed to feel "happy". Although the word 'happy' is a bit vague, it could probably be interpreted as enthusiastic or motivated. Students also felt "more confident" (35%), "proud" (29%), "glad" (13%) and "satisfied" (13%). To describe their feelings towards the wiki, students also used the words "pleased", "creative", "enthusiastic", "impressed" and "secure". Again, no student made any negative comment.

Another theme emerging from students' reflective journal entries is the students' perceived usefulness of the wiki use (Table 2). Students indicated the areas in which they perceived the wiki could help them. Above all, learners found the wiki to be useful in their learning of English, indicated by 29% of the subjects. Additionally, learners believed that the use of wiki helped them in "developing computer literacy skills" (26%), "Internet skills" (19%) and "Academic skills" (16%). These skill categories or themes were used and identified by students themselves in their journals and constituted part of the qualitative data. Other skills, which were improved, according to students' own thoughts and words, were organisational, social as well as creative skills.

Table 2: Students' perceived usefulness of the wiki experience.

Areas ▼	**Course wiki**	**Individual wiki**	**Total Responses - Frequencies (f)**	**Total Responses - Percentages (%)**
English language in general	5	4	9/31	29%
Grammar	1	1	2/31	6.5%
Vocabulary	1	1	2/31	6.5%
Computer skills	4	4	8/31	26%
Internet skills	3	3	6/31	19%
Academic skills	1	4	5/31	16%
Organisational skills (i.e. filing, time management, prioritising)	1	3	4/31	13%

Social skills	1	1	2/31	6.5%
Wikis	1	1	2/31	6.5%
Being selective	1	1	2/31	6.5%
e-portfolios	/	1	1/31	3%
Creative skills	/	1	1/31	3%
Other subjects	1	/	1/31	3%

Apart from the main patterns that derived from the manual analysis of the qualitative data, three other issues of vital importance came to the surface. Among those were the senses of achievement and belonging. In fact, more than half of the learners (61%) claimed that the use of wiki during their ESAP course gave them a sense of achievement. Students felt that they managed to achieve something great through the wiki experience, something of which they were proud:

- "I didn't believe that someday I could do something like this (…) I was very impressed of what we did." (At.Ch.)
- "I am excitingly proud of my creation." (An.An.)
- "I am the producer of this wikipage." (Ch.Va.)
- "I feel really proud of my work." (Va.El.)

11 out of 31 students, which is more than one third, mentioned that the wiki experience gave them a sense of belonging. This result is consistent with other research findings discussed earlier (Franco, 2008; Parker and Chao, 2007). Below are some examples of students' comments related to this aspect:

- "Having become a member of this wiki has helped me understand how it feels to belong to an online community." (Ma.Ma.)
- "I can say it feels nice belonging to such a place!" (Al.Ch.)
- "I feel I belong to an online community!" (Ch.Va.)
- "I know how nice it is to belong to a group where you can do and learn many interesting things" (Wi.Na.)
- "Now I feel part of the group (…) I feel part of a small society and a familiar environment." (Va.So)

Another trend that became evident from students' diaries was that 52% identified great progress when comparing their feelings before and after using the wiki. Initially, students seemed to feel rather strange or frustrated. After their wiki experience throughout the semester, their feelings became clearer and more positive.

- "When our instructor told us that we were going to use a wiki for this semester we said "oh my God, what is this?" Gradually, I got used to the idea of using the wiki. At first it was difficult to appreciate its usefulness, but now that we are more familiar with it, we realise that it offers a lot of benefits. I feel very happy because we work on something different from other previous English courses." (Di.Pa.)

- "And through time I got used to it in a way that it doesn't feel like a burden but it's more like fun." *(*Av.Ge)
- "At the beginning I found the wiki very difficult I was afraid to use it but now I like it so much and it is like a game for me!!" *(*Wi.Na.)
- "At first all these things appeared in my mind like a huge mountain but now, I feel that I am just some steps before its peak.....!!! ;) ;)" *(*Me.El.)

3.5.3. The post-questionnaire (quantitative measure)

This study attempted to investigate, through students' perceptions, the impact of the use of wikis in ESAP specifically in the areas of electronic literacy, English (academic and professional) and social skills. The post-questionnaire was designed in such a way so that each of the components or skills was addressed.

The post-questionnaire was completed by all 33 students in week thirteen, the final week of spring semester classes. Post-questionnaires were analysed with the use of SPSS, version 11.5.

Computer Literacy Skills

Based on social constructivism, wiki provided a platform for enhancing students' digital literacy. The latter constitutes an integral part of today's literacy and constituted an integral part of the ESAP course in question. Wiki was students' main digital learning environment. It helped students construct Computer Literacy knowledge and skills through the provision of authentic learning tasks occurring in a meaningful context, and with the provision of real-world settings rather than abstract out of context instruction as supported by social constructivism.

While before studying this course none of the students was aware of what wiki was, after the course data indicated that all students were aware of what it was. After the use of the wiki, all students considered themselves to be either very familiar (39%), familiar (52%) or somewhat familiar (9%) with wikis. 88% of learners felt that the wiki experience helped them enhance their Computer Literacy Skills; 12% thought that the use of wikis helped them a little. None of the students denied the contribution of wikis to their e-literacy skills development (Table 3).

All thirty-three students admitted that their computer literacy skills were enhanced, particularly because they learned what a wiki is, how to create their own wikis, as well as how to insert links, both internal and external. 97% of students learned what a digital portfolio is and 94% of them completed wiki worksheets

through teacher-guided searches and developed a digital portfolio. 91% of students learned how to participate in the ENG191 course wiki, upload their answers to the course wiki, and present their wiki by choosing appropriate colour, font, page layout, design, etc. Other computer literacy skills learned and developed were exporting individual wikis to a storage device such as a DVD or CD (88%), uploading files such as Word documents, images, etc. (85%), suggesting links through online searches (85%), conducting independent internet searches (82%) and participating in a wiki discussion (70%) (Figure 3).

After having used wikis for an entire semester, 73% students indicated that they used wikis for academic study purposes, while 27% of them used it both for academic and personal purposes. All wiki activity occurred within the real-life environment of ESAP learning.

Table 3: Contribution of the ENG191 Wikis in the Development of Computer Literacy Skills.

	Total Responses - Frequencies (f)	**Total Responses - Percentages (%)**
Learning what a wiki is	33/33	100%
Creating my own wiki	33/33	100%
Inserting links, both internal and external ones	33/33	100%
Learning what a digital portfolio is	32/33	97%
Completing wiki worksheets through teacher-guided searches	31/33	94%
Developing a digital portfolio	31/33	94%
Participating to the ENG191 course wiki	30/33	91%
Uploading my answers of the wiki worksheets to the course wiki	30/33	91%
Presenting my wiki by choosing appropriate colour, font, page layout, design etc.	30/33	91%
Exporting my wiki to a storage device (i.e. CD, DVD)	29/33	88%
Uploading files such as Word documents, images etc.	28/33	85%
Suggesting links through my online search	28/33	85%
Conducting independent internet searches	27/33	82%
Participating in a wiki discussion	23/33	70%

Academic English Skills

Students' knowledge and skills in Academic English were also enhanced through the use of the wiki. According to 95% of the learners, the use of wikis had greatly contributed to the development of their Academic English skills. This occurred through students working in pairs on bibliographical references and online articles related to Commerce, Finance and Shipping and collaborated online as well as using the wiki to write summative reviews of the articles. They also learned how to build

their individual wiki (digital) work portfolios, through sharing information and skills and helping each other.

Through information shared on the course wiki and related tasks, students learned to identify and acknowledge the basic characteristics of bibliographical references. 97% of the students indicated that they learned to build a digital portfolio as well as identify and acknowledge bibliographical references on their online digital portfolios. The use of wiki gave individual students the opportunity to follow their development of academic English and share it with the rest of the class community.

The wiki also constituted a forum where students had the opportunity to share knowledge and practice reflective learning, which constitutes a very important aspect of self-assessment. According to data analysis, 91% of students learned how to reflect and present and share online the development of their academic English knowledge in such areas as Style and Formality, Paraphrasing, Textual Quotations and List of References. 85% of ENG191 learners also developed autonomous learning skills through independent Internet (Table 4).

Table 4: Contribution of the ENG191 wikis to the development of Academic English Skills.

	Total Responses - Frequencies (f)	**Total Responses - Percentages (%)**
Building a digital portfolio	32/33	97%
Identifying/ Acknowledging sources (bibliographical references) in my online digital portfolio	32/33	97%
Learning how to reflect on my own learning	30/33	91%
Presenting and sharing online the development of my academic English knowledge in such areas as Style and Formality, Paraphrasing, Textual Quotations and List of References	30/33	91%
Developing autonomous learning through independent Internet searches	28/33	85%

Professional English Skills

94% of the learners stated that the wiki experience helped them improve their professional English skills. 97% of the students felt they had improved in describing trends and interpreting data through online financial statements, charts, graphs, etc., in building their individual digital portfolio and in creating a wiki page for oral presentations. Building a glossary related to their discipline was another skill improved, indicated by 94% of the learners; 91% of ENG191 students enhanced their professional English skills of surveying reports or annual reports, visiting websites

which are relevant professionally, and becoming aware of the wealth of existing websites related to their field of study (Table 5).

Table 5: Contribution of the ENG191 wikis to the development of Professional English Skills.

	Total Responses - Frequencies (f)	**Total Responses - Percentages (%)**
Describing trends and interpreting data through online financial statements and charts, graphs, etc.	32/33	97%
Building my individual digital portfolio	32/33	97%
Creating a wiki page regarding oral presentations	32/33	97%
Building a glossary with terms of my discipline	31/33	94%
Surveying reports and annual reports	30/33	91%
Visiting websites related to my field of study	30/33	91%
Becoming aware of the wealth of existing websites related to my field of study	30/33	91%

Social Skills

The wiki experience seems to have helped 88% of the learners to improve their social skills to a great extent. Collaborating in developing computer, academic, and professional English skills for their digital portfolios was a major social skill enhanced, as indicated by 91% of the learners. 88% indicated that the wiki experience helped them improve their skill in helping each other in the different aspects of wiki creation as well as visiting their classmates' wikis. Yet another skill enhanced through the use of wikis, indicated by 64% of ENG191 learners, was communicating with their peers through the course wiki (Table 6).

Table 6: Contribution of the ENG191 Wikis to the development of social skills.

	Total Responses - Frequencies (f)	**Total Responses - Percentages (%)**
Collaborating in developing computer, academic, and professional English skills for my digital portfolio	30/33	91%
Helping each other in the different aspects of wiki creation	29/33	88%
Visiting my classmates' wikis	29/33	88%
Communicating with my peers through the course wiki	21/33	64%

Other Findings

Apart from the enhancement of e-literacy, academic English, professional English and social skills, certain other conclusions have been drawn as regards students'

experience from the use of wikis in their ESAP course. The post-questionnaire contained a list of statements for which they had to express their agreement or disagreement.

88% of the students indicated that they enjoyed the wiki experience. 82% of the students were highly motivated to work in their ENG191 course mainly because it involved use of wikis. An equally high percentage enjoyed writing their personal page of their wiki, considered wiki activities helpful for the improvement of their ESAP skills and enjoying learning about and using ICT tools more than prior to the course. 79% of the learners believed that the use of wikis was useful to them and that they learned from visiting their classmates' wikis. Due to the integration of wikis, the ENG191 course made them realise the potential of ICT tools in learning. 61% expressed both their enjoyment in writing their reflective diary throughout the semester and their willingness to continue exploring ICT tools (i.e. wiki) beyond the ENG191 course.

4. Conclusion

Students' perceptions of wiki use in their ESAP course were particularly positive and surprisingly encouraging. In essence, participants believed that the use of wiki enhanced their learning of English in the areas of Computer Literacy, Academic English, Professional English and Social Skills. More specifically, 95% of students ranked Academic English skills to be the skills most developed through the integration of wikis in their ESAP course. Professional English skills were also very highly rated by 94% of the students. Computer Literacy and Social skills were equally highly rated by 88% of learners.

The study's impact could be seen to be significant in two ways. First, the use of the course wiki served as a guide through which students could autonomously work on their ESAP course. Second, the e-portfolio available on students' individual wikis boosted students' confidence and created a great sense of achievement and belonging.

The experience has persuaded the researchers there is certainly potential in the integration of wikis into ESAP courses in tertiary education. The findings of this study advance the understanding of student perceptions about the use of wikis in ESAP courses.

As extracted from the literature review, research so far has primarily focused on wikis as tools for collaborative writing in English General Purposes (EGP). This

study explored the students' perceptions of the use of wiki as part of the blended delivery of their ESAP course, in other words, as a knowledge-construction learning environment. Students used their course wiki as a central point of communication, sharing information and discussion. They also used their individual wikis, which were linked to the course wiki site, to demonstrate samples of their work, reflect on their work, share information, learning and experiences and generally have a personalised online environment for their ESAP learning.

Based on social constructivism, ESAP students constructed knowledge through the culture and context of the ESAP course and the use of New Technologies, which constitute an integral part of communication and learning. Their ESAP reality was constructed through the activities they were involved in, which were achieved through the use of wiki. This group of ESAP students produced the reality of ESAP and new technologies by working together on various tasks in wiki. They created knowledge of ESAP and use of wiki through their interaction with each other online and with the wiki environment they worked in. Their learning occurred through anchored instruction (anchored around ESAP topics), peer learning, team work and collaboration, with the use of wiki, real-world and contextualised problem-based learning.

As a learning environment, wiki helped construct knowledge through the provision of authentic tasks occurring in a meaningful context, and with the provision of real-world settings rather than abstract out of context instruction. The wiki learning environment encouraged reflection on experience. Students were challenged, and as a result motivated with specific tasks.

Following the social constructivism instructional approach, assessment included reflective journals and portfolios. Informational and Communication Technology supported this social constructivist teaching and learning through the use of the wiki (course and student individual wikis), by providing a means for sharing, dialogue, and discussion. Students talked with the teacher and other students in their community within their classroom. The wiki provided them with access to different types of information resources that helped them understand the use of English for the specific purposes of their studies and future profession. Also, the wiki provided a platform for collaborative work and sharing. The use of wiki in this particular ESAP course supported online teaching and learning activities and thus replaced traditional linear approach of presenting course content and enhanced the process of teaching and

learning online. The wiki provided a student-centred learning environment, which centred more on content rather than design and was used for sharing knowledge over time. The wiki provided a platform for sharing, collaborating, accessing information, and constructing ESAP reality, knowledge and learning. The use of wiki proved useful since it sparked interest and motivation in ESAP learning and the use of technologies.

On the whole, this research project has added a new dimension in the use of wiki in language and EGP teaching and learning in general, and in ESAP in particular. It has described a case where the wiki has been used in ESAP, not for a specific language skills, but as a holistic language learning environment for construction of knowledge within a social constructivism framework. As students' perceptions indicated, this has enhanced students' learning in the various areas discussed and has increased their motivation.

References

Alexander, B. (2006). Web 2.0: A new wave of innovation for teaching and learning? *Educause Review*, 41(2), 32-44. (March/April). Boulder: Educause. http://www.educause.edu/apps/er/erm06/erm0621.asp

Alyousef, H., and Picard, M. (2011). Cooperative or collaborative literacy practices: Mapping metadiscourse in a business students' wiki group project. *Australasian Journal of Educational Technology* 27(3), 463-480.

Ayres, R. (2002). Learner attitudes towards the use of CALL. *Computer Assisted Language Learning*, 15, 241-249.

Augar, N., Raitman, R. and Zhou, W. (2004). Teaching and learning online with wikis. Paper presented at the Beyond the Comfort Zone, ASCILITE Conference, Perth, Australia.

Baya, G. (Summer 2006). Using wikis to foster collaboration in writing tasks. *IATEFL CALL Review*, 24-29.

Boulos, M.N.K, Maramba, I., and Wheeler, S. (2006). Wikis, blogs, podcasts: A new generation of Web-based tools for virtual collaborative clinical practice and education, *BMC Medical Education* 6, 41.

Brownstein, B. (2001). Collaboration: The foundation of learning in the future. *Education*, *122*(2), 240-247

Bruns, A. and Humphreys, S. (2005). Wikis in teaching and assessment: the M/Cyclpedia project. In *Proceedings of the 2005 International Symposium on Wikis* (pp.25-32). San Diego, CA.

Bubas, G. and Kermek, D. (2007). Courseware tools and social software in a hybrid university course: A case study with an evaluation of the online components. In *Proceedings of the International Technology, Education and Development Conference – INTED2007*, Valencia, Spain.

Carmesin, B., Devilly,, D. and Tooher, M. (2009). Wikilingua.ie: Towards using Web 2.0 technologies in language learning and teaching. In *International Conference ICT for Language Learning Conference Proceedings 2nd Edition*. Milan: Silmonelli Editore University Press (Edited by Pixel)

Chang, Y.F. and Schallert, D.L. (2005). The design for a collaborative system of English as Foreign Language composition writing of senior high school students in Taiwan. In *Proceedings of the5th IEEE International Conference on Advanced Learning Technologies – ICALT'05* (pp.774-775). Kaohsiung, Taiwan.

Chen, H.L., Cannon, D., Gabrio, J. Leifer, L. Toye, G. and Bailey, T. (2005). Using wikis and weblogs to support reflective learning in an introductory engineering design course. In *Proceedings of the 2005 American Society for Engineering Education Annual Conference & Exposition* (pp.12-15), Portland, Oregon.

Cone, E. (2005). Rise of the BLOG. CIO Insight. http://www.cioinsight.com/article2/0,1397,1786020,00.asp

De Pedro, X., Rieradevall, M., López, P., Sant, D., Piñol, J., Núñez, L., et al. (2006) Writing documents collaboratively in Higher education (I): Qualitative results from a 2-year project study. *Congreso Internacional de Docencia Universitaria e Innovación (International Congress of University Teaching and Innovation),* Barcelona: July 5-7. http://uniwiki.ourproject.org/tiki-download_wiki_attachment.php?attId=98&page=Uniwiki-Congressos

Derry, G. N. (1999) *What Science Is and How It Works.* Princeton, NJ: Princeton University Press

Elrufaie. E. and Turner, D.A. (2005) A wiki paradigm for use in IT courses. In *Proceedings of the International Conference on Information Technology: Coding and Computing – ITCC'05* (pp. 770-771). Las Vegas, NV: IEEE Computer Society.

Ernest, P. (1999). *Social Constructivism as a Philosophy of Mathematics: Radical Constructivism*. Albany, NY: SUNY Press.

Evans, P. (2006) The wiki factor. *BizEd*, January/February: 28-32. http://www.aacsb.edu/publications/Archives/JanFeb06/p28-33.pdf

Engwiki. (2007) Engwiki project main page. http://cmc.foi.hr:8080/eng-wiki/index.php/Main_Page

Felix, U. (2001) The Web's potential for language learning: The student's perspective. *ReCALL* 13, 47-58.

Ferris, S.P. and Wilder, H. (2006). Uses and potentials of wikis in the classroom. *Innovate: Journal of Online Education* 2 (5), http://www.innovateonline.info/pdf/vol2_issue5/Uses_and_Potentials_of_Wikis_in_the_Classroom.pdf.

Franco, C. de Paiva. (2008). Using wiki-based peer-correction to develop writing skills of Brazilian EFL learners. *Novitasion-Royal* 2(1), 49-59.

Gardner, R.C. (2000). Correlation, causation, motivation, and Second Language Acquisition. *Canadian Psychology* 41(1), 10-24.

Godwin-Jones, B. (2003). Blogs and wikis: Environments for on-line collaboration. *Language Learning & Technology* 7(2), 12-16.

Harding, K. (2007). *English for Specific Purposes*. Oxford: Oxford University Press.

Jonassen, D.H. (1994). Thinking Technology: toward a constructivist design model. *Educational Technology*, 34(4), 34-37.

Kaplan, N. (1995). E-Literacies. *Computer-Mediated Communication Magazine*, 2(3), 11.

Kiliçkaya, F. (2008) PBwiki: Web 2.0 tool for collaboration. *Teaching English with Technology: A Journal for Teachers of English* 8 (2), http://www.tewtjournal.org/VOL%208/ISSUE%202/A%20WORD%20FROM%20A%20TECHIE.pdf.

Kim, D.H. (2004). *Critical Review: Collaborative Writing with Wiki* [White Paper]. http://www.eslweb.org/criticalreviews/Collaborative%20Writing%20with%20a%20Wiki.pdf

Kovacic, A., Bubas, G., and Zlatovic, M. (2007). Evaluation of activities with a wiki system in Teaching English as a Second Language. *International Conference ICT for Language Learning*, Florence, Italy. www.leonardo-lets.net/ict/common/download/AndrejaKovacic.pdf

Kovacic, A., Bubas, G., and Zlatovic, M. (2008). E-tivities with a wiki: Innovative teaching of English as a foreign language. *VISION IT - Visions for use of IT in higher education, 14th Congress of the European University Information Systems Organisation, EUNIS 2008*, Aarhus, Denmark. [Report on the Engwiki project, winner of the EUNIS Dørup E-learning Award].

Kukla, A. (2000). *Social Constructivism and the Philosophy of Science*. New York: Routledge.

Langdon, S. (July 2005). Wikis & Blogs. UK. *IATEFL CALL Review*, 38-40.

Leuf, B. and Cunningham, W. (2001). *The Wiki Way: Quick Collaboration on the Web*. Upper Saddle River, NJ, USA: Addison Wesley.

Li, M. (2012). Use of wikis in second/foreign language classes, a literature review. *CALL-EJ* 13(1), 17-35.

Loudermilk, S., and Hern, T. (2006). Using wikis as collaborative writing tools: Something wiki this way comes – or not! *Kairos*, 10(1).

Lund, A. (2008). Wikis: a Collective Approach to Language Production. *ReCALL* 20(1), 35-54.

Lynch, S. (June 2004). EAP & ICT: Stirred, not Shaken. UK. *IATEFL CALL Review*, 9-14.

McMahon, M. (1997, December). Social constructivism and the World Wide Web - A paradigm for learning. Paper presented at the ASCILITE conference. Perth, Australia.

Majchrzack, A., Wagner, C. and Yates, D. (2006). Corporate wiki users: results of a survey. In *Proceedings of the 2006 International Symposium on Wikis* (WikiSym '06) (pp. 90-104). Odense, Denmark.

Mak, B. and Coniam, D. (2008). Using wikis to enhance and develop writing skills among secondary school students in Hong Kong. *System* 36, 437-455

Masgoret, A.M., and Gardner, R. C. (2003). Attitudes, motivation, and second language learning: meta-analyses of studies by Gardner and associates. In Z. Dörnyei (ed.) *Attitudes, Orientations and Motivations in Lnguage Larning*, (Refereed selection for The Best of Language Learning Series). Oxford: Blackwell. pp.167-210

Olson, G. (2006). New tools for learning. Retrieved January 2010 from http://faculty.eicc.edu/golson/tools.htm

Parker, K.R, and Chao, H.T. (2007). Wiki as a teaching tool. *Interdisciplinary Journal of Knowledge and Learning Objects* 3, 57-72.

Quarshie-Smith, B. (2004). Teaching with technologies: A reflexive auto-ethnographic portrait. *Computers and Composition* 21(1), 49-62.

Reinhold, S. (2006) WikiTrails: augmenting wiki structure for collaborative, interdisciplinary learning. In *Proceedings of the 2006 International Symposium of Wikis* (99-104). Odense, Denmark.

Rubin, B. and Sarid, H. (2007). English for Academic Purposes in Israel: Perceptions of E-Learning from the Perspectives of Learners and Teachers. *Lecture Notes in Computer Science* 4557, 776-785.

Rueckert, D., Kim, D., and Yang, M. (2007). Using a wiki a communication tool for promoting limited English proficiency (LEP) students' learning practices. In C. Crawford et al. (eds.) *Proceedings of Society for Information Technology and Teacher Education International Conference* (pp. 2844-2848). Chesapeake, VA: AACE.

Schneider, D., Paraskevi, S. (2005). Conception and implementation of rich pedagogical scenarios through collaborative portal sites. In A. Senteni, A. Taurisson (Eds.), *Innovative Learning & Knowledge Communities / Les communautés virtuelles: apprendre, innover et travailler ensemble, selected papers from ICOOL 2003 / Colloque de Guéret 2003* (pp. 243-268). University of Mauritius.

Shetzer, H. and Warshauer, M. (2000). An electronic literacy approach to network-based language teaching. In M. Warschauer and R., Kern (eds.) *Network-based Language Teaching Concepts and Practice* (pp. 171-185). Cambridge: Cambridge University Press.

University of Delaware IT User Services. (2008). *Wikis in Higher Education: An Exploratory Report about the Value of Wikis in Higher Education, From a Faculty Perspective*. University of Delaware.

Wang, C. and Tumer, D. (2004). Extending the wiki paradigm for use in the classroom. In *International Conference on Information Technology: Coding and Computing* (pp. 255-259), 2004. Las Vegas, Nevada, April 4-7, 1.

Wood, D. (1998) *How Children Think and Learn.* 2nd edition. Oxford: Blackwell Publishers Ltd.

Zaphiris, P., Zacharia, G.,and Rajasekaran, M.(2004). Distributed constructionism through participatory design. In Claude Ghaoui (ed.). *E-Education Applications: Human Factors and Innovative Approaches* (pp. 164-179). Hershey: Information Science Publishing.

APPENDIX 1

STUDENT POST-QUESTIONNAIRE

Dear student,

We are conducting a research study to investigate how you evaluate your own ICT skills, what you think of the use of new technologies in your ESAP (English for Specific Academic Purposes) course classes, as well as what you think you gained from your ESAP course. We would appreciate it if you could take some time to complete the relevant questionnaire. We assure you that your responses will remain strictly confidential and will be used only for the specific research study.

Thank you in advance for your cooperation.

SECTION A – FAMILIARITY, CONFIDENCE & FREQUENCY OF USING THE ENG191 WIKIS

Please tick as appropriate.

1. Do you know what a wiki is?

Yes	Not Sure	No

2. How familiar and confident do you feel with the wiki? Tick as appropriate

Very Familiar / Confident	Familiar / Confident	Somewhat Familiar/ Confident	Not Familiar/ Confident

3. How often did you use the *course* wiki during the semester?

Very Frequently	Frequently	Occasionally	Very Rarely/ Never

4. How often did you use *your own personal* wiki during the semester?

Very Frequently	Frequently	Occasionally	Very Rarely/ Never

SECTION B – REASON FOR USING NEW TECHNOLOGIES

Indicate whether you used the ENG191 course wikis for personal reasons and/ or for your academic studies. Tick any box accordingly. You may tick more than one box.

Personal Use	Academic Study Use

SECTION C – ROLE OF NEW TECHNOLOGIES IN LEARNING

Indicate how much you agree with the following statements. .

	Very much	Quite a lot	A bit	Not at all
1. Technology can enhance learning in general.				

Write a few words about what you think of this.

……

……

	Very much	Quite a lot	A bit	Not at all
2. The use of ICT can enhance ESAP learning.				

Write a few words about what you think of this. For example, you may explain how or in what ways technology contributed to your ESAP learning.

……

……

3. To what extent did each of the following ICT tools help you in your ESAP learning? Tick as appropriate.

	Very much	Quite a lot	A bit	Not at all
E-mail				
Browsers (i.e. Internet Explorer)				
Microsoft Word				
Microsoft PowerPoint				
Moodle				

You Tube				

SECTION D – ESAP CONTENT GAINS

Indicate how much you agree with the following statements.

	Very much	**Quite a lot**	**A bit**	**Not at all**
1. I think that my ESAP course was different from the English lessons during my school years.				

Specify in what way it was different. Write a few words about this.

……

……

	Very much	**Quite a lot**	**A bit**	**Not at all**
2. My ESAP course was different from my previous university English course.				

Specify in what way it was different. Write a few words about this.

……

……

	Very much	**Quite a lot**	**A bit**	**Not at all**
3. My ESAP course equipped me substantially with coping confidently with the English language needs of my future job.				

Specify in what way it was different. Write a few words about this.

……

……

SECTION E – CONTRIBUTION OF ENG191 WIKIS TO ESAP LEARNING

Indicate how much you agree with the following statements.

A. COMPUTER LITERACY SKILLS

	Very much	**Quite a lot**	**A bit**	**Not at all**
I believe the wiki experience helped me improve *my computer literacy skills*.				
Specify the extent to which each of the following ways helped:				
1. Learning what a digital portfolio is.				
2. Learning what a wiki is.				
3. Participating to the ENG191 course wiki.				
4. Completing wiki worksheets through teacher-guided searches.				
3. Uploading my answers of the wiki worksheets to the course wiki.				
4. Suggesting links through my online search.				
5. Participating in a wiki discussion.				
6. Creating my own wiki.				
7. Presenting my wiki by choosing appropriate, colour, font, page layout, design.				
8. Uploading files such as Word, documents, images etc.				
9. Inserting links, both internal and external ones.				
10. Conducting independent internet search.				
11. Developing a digital portfolio.				
12. Exporting my wiki to a storage device (i.e. CD/ DVD).				
Other (please specify): …….……..				

B. ACADEMIC ENGLISH SKILLS

	Very much	**Quite a lot**	**A bit**	**Not at all**
I believe the wiki experience helped me improve *my Academic English skills*.				
Specify the extent to which each of the following ways helped:				
1. Building a digital portfolio.				

2. Developing autonomous learning through independent Internet searches.				
3. Presenting and sharing online the development of my academic English knowledge in areas such as Style and Formality, Paraphrasing, Textual Quotations and List of References.				
4. Identifying/ Acknowledging sources (bibliographical references) on my online digital portfolio.				
5. Learning how to reflect.				
6. Developing autonomous learning skills.				
Other (please specify): ……..……..				

C. PROFESSIONAL ENGLISH SKILLS

	Very much	**Quite a lot**	**A bit**	**Not at all**
I believe the wiki experience helped me improve *my Professional English skills*.				
Specify the extent to which each of the following ways helped:				
1. Building a glossary with terms of my discipline.				
2. Describing trends and interpreting data through online financial statements and charts, graphs etc.				
3. Surveying reports and annual reports.				
4. Building my own personal digital portfolio				
5. Creating a wiki page regarding oral presentations.				
6. Visiting websites related to my field of study.				
7. Becoming aware of the wealth of existing websites related to my field of study.				
Other (please specify): ……..……..				

D. SOCIAL SKILLS

	Very much	**Quite a lot**	**A bit**	**Not at all**

I believe the wiki experience helped me enhance *my social skills*.				
Specify the extent to which each of the following ways helped:				
1. Communicating with my peers through the course wiki.				
2. Helping each other in the different aspects of wiki creation.				
3. Collaborating in developing computer, academic, and professional English skills for my digital portfolio.				
4. Visiting my classmates' wikis.				
Other (please specify): ……..				

E. GENERAL

	Very much	**Quite a lot**	**A bit**	**Not at all**
1. I enjoyed my wiki experience.				
2. I believe the use of wikis was very useful to me.				
3. I was highly motivated to work for my ENG191 course mainly because it involved use of wikis.				
4. I enjoyed writing my reflective journal throughout the semester.				
5. I enjoyed writing my personal page of my wiki.				
6. I feel I learned from visiting my classmates' wikis.				
7. Wiki activities helped me improve my ESAP skills.				
8. I enjoy learning about and using ICT tools more than prior to this course.				
9. Due to the integration of the wikis, this course made me realise the potential of ICT tools in learning.				
10. I will continue to explore ICT tools (i.e. wiki) beyond this course				
Other (please specify): ……..				