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Using CLIL and Wiki in Collaborative Learning

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Abstract

The paper describes a pedagogical experiment carried out at the Czech Secondary School for EU Administration, Prague. It reports learning outcomes and overall experience in collaborative learning through CLIL in Social Science lessons supported by Integrative Learning Technologies.
The main learning objective was to enhance English communication skills, particularly functional language for academic and general purposes in classroom situations through collaborative learning. Moreover, the pedagogical experiment was supposed to show the extent of students' effort to create and use collaborative materials for their learning. The paper is structured in four main parts. In the first part three stages of the teaching and learning process involved in the experiment are briefly introduced combining three learning theories (Neo-behaviourism, Constructivism and Connectivism). In the second part, the general concept of wiki (wikispaces) is dealt with, including the practical usage for collaborative learning. The students implemented a class wiki into their independent home studies, where apart from learning materials given by a teacher they used students' portfolio pages and team pages. These pages were managed by individuals or teams and served as collaborative materials for further learning or as source materials for test preparation. In the third part, the paper presents the most frequent English functional language used by students during their collaborative activities. The final part deals with the outcomes and gives answers to the following questions:

a) *Are students willing to work on collaborative materials?*
b) *Do students use collaborative materials for their learning?*
c) *Do students consider doing tasks on their portfolio and team pages as an important part of their learning?*
d) *Do students think that their English communication skills have improved by working on collaborative tasks?*
e) *Does collaborative learning improve their functional language for academic and general classroom situations?*
f) *Do students find the use of wiki interesting, motivating and improving their computer skills?*

1. Introduction

The Secondary School for EU Administration (SSEUA) provides four specializations. One of them is Diplomatic Services, where the students study three foreign languages. The school management came with the idea of implementing English into different subjects 3 years ago to give the students more opportunities to practise English. Unfortunately, there was no subject teacher, who wanted to participate. Finally, a teacher with a diploma in teaching English and Social Science got involved into CLIL methodology. To persuade subject teachers to use at least CLIL "showers" in their lessons, the CLIL teacher wanted to design a course, where the students communicate in English mainly with their partners and the teacher plays the role of a facilitator. As a wiki gives the opportunity for team teaching, a language teacher can help without being present in a classroom. Reflecting the above mentioned, we focused on problems of functional language for academic and general purpose.

2. Research sample, design and methodology

The pedagogical experiment was carried out at the SSEUA, Prague, Czech Republic. The school has more than 800 students whereas all study English and two modern languages (German, Spanish, French and Russian). To support meaningful communication in English and enhance English communication skills, one class of 30 students was taught Social Science in CLIL by means of ICT support according to Simonova and Poulova [1]. In our experiment CLIL lessons were supported by the use of wiki environment. The students were exposed to one a 45-minute lesson a week during the school year 2013/14. They were divided into ten groups of three students for the whole course. During the course the students worked both individually and in teams. They were also assessed individually or collectively depending on given tasks. Each student had unlimited access to teacher's materials which were displayed on the wiki and class collaborative pages. The team pages and student's portfolio page were accessed only to the members of each group.

The teaching and learning processes have been designed to promote maximum communication without omitting other language skills (reading, writing, and listening). The whole process consists of three stages. The first stage includes presenting new knowledge or information to students by the teacher with the help of the wiki platform, a text-analysing activity or an expert group activity. This stage refers to Neo-behaviourism [2], where a teacher is a guarantee of transferring basic knowledge to students, so that they are able to gain an insight into the whole issue.
The second stage represents active learning (Constructivism) [2]. Students are responsible for seeing the issues in context and developing their own experience. This stage has two phases. In the school phase students work in pairs or teams on activities which encourage them to use general classroom communication skills, e.g. asking questions, giving feedback, asking for help, repeating, checking or interpreting data. During the home phase, students work within the wiki environment. Each student has their own portfolio page, where they submit their homework, usually based on comparing ready-known information (pre-concept) with "just-learnt" information or give an opinion on related issues. The students give a short assessment or self-assessment on a current learning issue or their performance during a lesson. This should help them to improve their functional language for academic purposes, e.g. for predicting and justifying, comparing and contrasting or showing preferences and giving opinions as well as to extending their experience.
The third stage deals with creating student's own learning space/environment via the Internet. This process refers to Connectivism, where "*knowledge is distributed across a network of connections, and therefore that learning consists of the ability to construct and traverse those networks"* [3], which supports the idea of creating learning groups on the Internet. Students work in teams of three to four students on a team/collaborative wiki page. The whole team contributes to their page after each lesson. Students should post their reflection on a lesson as well as they should add some materials concerning their interests or needs. The team members can see each other portfolio pages, so that they can be inspired while working on their tasks at home. They comment member's contributions and react to their comments. The whole communication is supervised by the teacher, who irregularly posts their own comment and assesses the content of the page from subject-content or foreign language point of view. This supervision should help students stay focused on learning and develop not only academic and general functional language, e.g. agreeing, disagreeing or presenting work but also be responsible for creating collaborative materials.

2.1 Wiki environment

There are two main reasons why the wiki (wikispaces.com) was chosen as the main online collaborative platform. Firstly, "*the basic wiki has several properties that make it ideal framework for composing different time and place environment. Applications engineered within the style of wiki interactions can support a variety of learning activities ranging from tightly to loosely coupled collaborations. Wiki-based collaborative applications can also support metacognitive tasks, like reflection or self/co-explanation", Larusson defines* [4]. Secondly, the wiki is considered to be a user-friendly tool. The wiki is a website allowing users to create and edit pages easily and collaboratively. It can serve as a tool for synchronous and asynchronous communication and also enables students and teachers to keep track of any changes made into students' contributions, which might build their awareness of students' learning process. Furthermore, it might serve not only as a platform for a teacher's assessment of student's progress or frequency of contributions (adding, deleting), but also it might provide the information about student's interests, motivations and giving space for creativity.

2.2 Communication

Including functional language for academic and general classroom situations into teaching and learning process depends on a variety of factors e.g. (overall learning outcomes, the specific objectives set, the degree of complexity of the input, the students' experience with language; what they already know, what is to be recycled, what they should know, the students' learning style...etc.). Functional language should be taught as a separate introductory activity or introduced within the lesson. At the beginning of the course students were handed out a list of the most useful phrases for general classroom situations. During the lessons the students were asked to use the phrases as much frequently as possible and fill into the list any new phrases they needed. The page with phrases was also on a wiki and students freely added new phrases. Regarding functional language for academic purposes the students needed mainly phrases for presenting their work, interpreting data, predicting and justifying and comparing and contrasting. At the beginning the students struggled a lot, because it was completely new to them. However, with proper scaffolding the students made great progress.

3. Research results

Generally speaking, any opportunity to communicate in foreign language is contributory. Reflecting the teacher's subjective feedback the analyses of team and portfolio pages, plus post-course questionnaires as well as the focus-group discussion show that the students have made progress in using functional language for academic and general purposes. Furthermore, it seems that the progress has been significantly higher in an academic area. This conclusion was based on a partial subjective qualitative analysis, not published yet, but it served as the background of further steps. As English language textbooks (B1 level) rarely support functional language for academic situations, learning Social Science with CLIL gives the meaningful opportunity to learn and practise it while collaborating on the wiki.

And, what do thirty students (respondents) think about this new approach in teaching and learning? Answers are displayed in Table 1. All displayed questions are taken from a post-course questionnaire containing 37 questions divided into four groups (general learning skills, CLIL-language skills, cooperation/collaboration and wiki environment (six-item scale answers, three of them represented yes-answers, the others represented no-answers)..).

Table 1. Respondents' answers.

Question	YES-answer (n)	NO-answer (n)
Are students willing to work on collaborative materials?	21(70 %)	9(30 %)
Do students use collaborative materials for their learning?	28(93 %)	2(7 %)
Do students consider doing tasks on their portfolio and team pages as an important part of their learning?	24(80 %)	6(20 %)
Do students think that their English communication skills have improved by working on collaborative tasks?	24(80 %)	6(20 %)
Does collaborative learning improve their functional language for academic and general classroom situations?	22(73 %)	8(27 %)
Do students find using a) wiki interesting, b) motivating and c) improving their computer skills?	a) 26(87 %) b) 27(90 %) c) 9(30 %)	a) 4(13 %) b) 3(10 %) c) 21(70 %)

From all of the above, it can be said, that although 70 % students worked on collaborative materials, more than 90% used them for their learning. 80 % students consider "doing homework on the wiki" as an important part of their learning. It is similar to Su and Beaumont findings: "*About 59 % students perceived that R&D wiki helped to develop their initiative in learning independently."* [5]. More than 70 % students stated that their communication skills including language for academic and general purposes had been improved. On the other hand, they did not very often use higher order activities. Kessler and Bikowski pointed out: *"It seems that students working in autonomous spaces are inclined to engage in tasks that require less critical thinking."* [6]. Implementing wiki environment into lessons had an impact on about 90 % students' motivations to learn not only the subject but English as well. Only 30 % students improved their computer skills, which might reflect a user-friendly attitude of the wiki.

Conclusion

The students most appreciate the fact that they are able to speak on different topics in English, they can express themselves in many different ways (graphs, mind maps, pictures, videos etc.) and they are assessed not only by the teacher but as well by their peers - team members. Most of students are in favour of cooperating in teams, even though sometimes it was very challenging. Although there are a few studies, e.g. by Kam and Katerattanakul [7], which consider synchronicity for the most important aspect of collaborative learning, there seems to be enough studies, e.g. by Coll, Rochera and de Gispert [8], which find asynchrocity especially in self and peer-assessment fundamental. Nevertheless, there are a few students who do not like working in teams, and they consider the whole idea of CLIL and using the wiki neither motivating, nor contributory to their studies.

In conclusion it can be stated that the experiment has approved the idea of implementing CLIL and a wiki platform into teaching and learning process. Next step will be to focus on integrating more learning skills into lessons, although learning skills are an inevitable part of school curriculum, there are not fully integrated into teaching and learning process as they should be.

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