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Computer-assisted language learning and effectiveness at the CLCS language modules in Trinity College Dublin

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Abstract

This paper discusses computer-assisted language learning through the prism of learner autonomy. It describes the first evaluative study that was conducted at the Centre for Language and Communication Studies (CLCS) at Trinity College in 2011 regarding the potential of ICT to promote learner autonomy, based on the incorporation of computer work in the language courses offered by CLCS. The methodology used for this research is presented along with a brief questionnaire and interview data account to offer an overall view of the students' and teachers' opinions of computer work and how this affected their learning process. Finally, conclusions are drawn along with suggestions for future improvement.
Key words: ICT, student attitudes, teacher attitudes, teaching methodology

Introduction

The evening language modules, an institution-wide language programme offered at the CLCS at Trinity College in Dublin have been running in College since 1993, with the aims of increasing student mobility, giving added value and enhancing career prospects. The primary emphasis in the modules is on communication since it "is the main goal, and also the principal means of learning" (CLCS Language Modules Course Booklet: 4). Within this framework of seeking opportunities for exposure to linguistic input in order to enhance language learning, the CLCS has explored ways of supplementing the hours of classroom interaction and instruction and to provide students with opportunities to acquire language skills beyond the traditional classroom setting and by continuing their tradition in encouraging autonomous language learning. Introducing though a variety of digital resources, is not the key to achieving higher rates of learning. The effective use of technological language resources by the students is ensured by motivating them to concentrate on their learning needs and to monitor their own learning process. The application of the principles of learner autonomy to curriculum design (Little, 1997: 56), along with the need to exploit the benefits of learning technologies, have been identified as priorities of an institutional basis. This is obvious in the use of the European Language portfolio, collaborative learning, project work and presentations, native speaker instructors and as much use of the target language as possible, even at A1 proficiency level.

Computer-Assisted Language Learning and Autonomy

CALL has been defined by Davies as the "academic field that explores the role of information and communication technologies in language learning and teaching" (2001: 13). Technology offers opportunities for enabling interactions which would otherwise be impossible to occur in the traditional classroom, and as Benson states, this supports learner autonomy (2001: 8). However, CALL technologies and language learner autonomy are characterised by complexity in their interdependence and the potential for learner autonomy development often depends on the context variety of the technological applications.

The Council of Europe's Modern Language Project placed autonomous adult life-long learning at the forefront. Holec has defined learner autonomy as "the ability to take charge of one's own learning" in his 1981 project report to the Council of Europe (p.3). Moreover, Little (1991: 3), inspired by constructivist theories of language learning, reinterpreted the concept of autonomy by

emphasizing on effective self-directed learning and he clearly contends that successful second language teaching "is governed by three interacting principles: learner involvement, learner reflection and target language use" (Little, 2007: 23). A brief analysis of the theoretical framework of the three pillars of learner autonomy that constitute the basis of the CLCS language courses follows.

Learner Involvement

The term learner involvement has been interpreted as the learner's engagement with and responsibility for all aspects of his/her learning process. Therefore, the widely known inspiring phrase of "learning how to learn" has emerged and has been inextricably related to learner autonomy. The basic parameters of learner involvement centre on the learners' responsibility for planning, monitoring and assessing their own learning. The advantage of using technologies towards this direction is, according to Beatty (2003: 145), their provision of "more opportunities for learners using the same CALL program to study different things or study the same things in different ways". Moreover, web based technologies can offer students a variety of online information gap exercises, opportunities for experiential learning and publishing of student work on e-learning platforms or even online collaboration and communication with native speakers (Felix, 2002: 8).

However, Murray's (2005) article stresses the need for learners to possess a solid language background for the learning technologies to be implemented and exploited in a successful way. Relevant research which advocates that second language learners have difficulty evaluating the reliability of online texts is cited by her in support of the previous statement (Murray & McPherson, 2004).

Reflection

Regarding this principle, Little (2007: 24-25), relying on socio-cultural theories of language learning, recognises the reflection that emerges in instances of social speech, like the collaborative reflection between the teacher and learners in the form of negotiations, that eventually develop into an alternative type of learner thinking.

Commenting on the applications of technology in the field of language learning, Skehan (2003: 392) asserts that a careful planning and administration of introductory and follow-up activities is required to raise the students' language awareness and to enable them to view computer-based interaction as an opportunity for reflecting on language (p. 407). Finally, Levy and Stockwell (2006: 91), advocate that for CALL sessions "setting the topics encourages more goal oriented, cross-cultural, useful and lengthy discussions" and this is offered by the webquests and projects that are completed during the CLCS courses.

Target Language Use

According to the principle of target language use, all classroom activities should take place through the medium of the target language (Little, 2007: 25). The ability to use the target language to perform communicative functions constitutes a basic characteristic of autonomous learning. In combination with the use of the Internet network, a wealth of authentic materials is offered. In a study of the students' interaction in computer assisted class discussion (CACD), Chun (1994) discovered the students' tendency to consult their fellow students, to engage in peer-evaluation, and to monitor their discussions at a higher rate compared to that in their class context. Likewise, computer generated second language communities provide ideal environments for learners to perform a number of activities along with providing researchers "with opportunities to observe identity, affect and personal autonomy at work" (Murray, 1999: 306-7).

The role of Technology

In a large part of the CALL literature, the role of the computer is discussed and associated to the role of CALL technologies. According to his Stevenson (2008), technology appears to assume different roles, including those of a resource, a tool and an environment. In the cases where technology assumes the role of a resource it mostly encourages teaching because the curriculum content and institutional policy place its control at the teacher's discretion (ibid. 845-7). When technology is conceived of as a tool then its functional nature is prioritized. Stevenson's research revealed the tendency of the teachers to introduce learning activities that targeted skill combinations and which offered the students the opportunity to use digital technologies at their own time (2008: 847-9). Finally, technology in her role as environment offers a focus on the student-learners since they "control their own trajectory through exploration, experiment and personal creativity"(p.849). However, within this framework of the student focused language learning Murray (2005: 196) underlines that "the teachers need to scaffold instruction using technology".

Research Context

The evening language modules offered at CLCS are attended by approximately 300 students and the languages covered include: French, German, Irish, Italian, Spanish, Turkish and Korean. The Language Modules use the Council of Europe Common Reference Levels as a guide to the proficiency level of each class. The Common Reference Levels are a useful and transparent way of describing what a language learner can do in the languages s/he speaks. There are six levels, from A1 (beginner) to C2 (advanced).

The general *ideology of the modules* lies in the communicative approach and target language use as a means of language learning. More specifically, the weekly sessions are designed to engage students in regular active use of the target language, since it is through using the language that one learns, develops and practises his target language skills. B1 and B2 levels are conducted entirely in the *target language* by native-speaker teachers. A1 and A2 level classes use the target language as much as possible as the medium of instruction and interaction and apart from the teachers, native teaching assistants participate during the tasks.

The Language Modules' approach requires students to take an active part in the business of communicating in the target language, working collaboratively with peers on projects and tasks, and interacting with one another and with native-speaker student assistants assigned as helpers to the groups. This method of working is both important and valuable for the students to be aware of their own strengths and weaknesses in working in collaborative groups and to learn how to assign, and adhere to roles in group projects.

Integration of Course Blended Learning

The courses combine the traditional type of lecture with CALL. The assumptions followed by the instructors of CLCS when blending traditional lectures with the use of Internet are emphasis on learner guidance, access to different styles of language used for different purposes and teacher guidance for selecting and structuring the appropriate CALL activities. In the first case, the guidance of students in what to learn cultivates their autonomy as learners; access to different types of language and the structuring of activities is succeeded, according to Chapelle (2001), when the instructor favours approaching languages on the Internet, since there their main styles are reflected on different occasions to accomplish a variety of purposes (p. 3). The teacher's role comes into view when suggesting links to be visited online that include the target language of the learners but also have a level of difficulty that is appropriate for the learner's level. Consequently, at CLCS, the instructors that involve students in the creation of projects, encourage the access of students to online information by ordering the learning activities and providing clear instructions on the sites to be visited by the students to facilitate the process of language learning online. Such an approach includes oral and communicative tasks in classroom (i.e. role-plays, discussions, etc.)

as well as grammatical and more traditional work along with guided practice and autonomous "language exploration" on-line.

Project work and the Internet

Within the framework of the CLCS language modules, students need to take responsibility for organizing their learning and managing their time and resources outside class. The project work requires that they spend time on their own, researching materials, exploring the Internet, consulting dictionaries and reference grammars, editing and fine-tuning their text, shaping their contribution to the project, and so on. A1 and A2 level classes prepare a group-based project like a short interactive presentation (in the language they are learning) over a period of 3 weeks by researching on the internet, and perform their presentation in the 4th week of the project cycle (CLCS Language Modules Course Booklet: 8). Examples of beginners' presentations include scenes in a pub or restaurant, mock TV shows, etc. The B1 and B2 level classes are based on successive cycles of project work. During the year, students engage in a range of *class projects* and each generates group-based tasks leading to a class presentation in the final week of the cycle. As an example, during the introductory phase, students engage in a mini-project, the main purpose of which is to familiarize them with the experience of working through the medium of the target language; collaborative learning approaches; effective use of multimedia facilities and resources.

Method

To provide an *overview of the participants of the study that took place during the spring term of 2011*, a group of 37 students from a total of 200 responded to the questionnaires, coming from a variety of fields of study and having attended the CLCS evening language modules. The languages studied were some of the following: French, German, Irish, Italian, Spanish, Turkish or Korean at levels ranging from beginners A1 to B2 according to CEFR. The number of the teachers that participated were 5 out of a total of 8. Participation in interviews reduced to 11 students and 5 teachers.

Research Objectives

The general purpose of the research is to understand the implications of using computers in language courses. More specifically, the research focuses on the attitudes of students towards computer use during the courses as well as on the effectiveness of using this medium. Through these research findings, evaluation of the whole lesson procedure is attempted that could eventually contribute to the improvement of the course but also offer significant insight of the use of computers in the educational process.

Research Tools

In our case, research was preceded by classroom observations, based on completing an observation template with categorised notes. These informed the design of the student and teacher questionnaires that were later on distributed on-line in order to gain an understanding of both parties' views regarding the effectiveness of computers in the language courses and their contribution to motivational learning. Finally, while the questionnaires were collected, interviews of volunteers were taken to exemplify aspects of the quantitative questionnaire study that could not be quantified.

Student and Teacher Questionnaire and Interview Data

The findings from the student and teacher questionnaires outline the relationship and the attitudes of both towards the use and language learning effectiveness of the CLCS computer room integration to the language courses.

When requested to indicate the best part of their chosen CLCS language module the students indicated group work, with a very high percentage (29.4%), as the most favoured feature with their classmates and project work following. On the other hand, the teachers mentioned that the best part of their language course is the interactive participation of students and the project group work conducted in the computer labs.

The majority of students agreed that the introduction of computers in their language learning courses has contributed to the enrichment of their language vocabulary (39.3%) and has hence increased their learning gains.

When the questionnaire centers on the difficulties and least favorite course parts, the students focus on "not being able to use the language very well", with the "project work" coming second" in both questions. As a result, most of the students (42.3%) have stated that they do not experience feelings of confusion while working in the computer rooms, with only a 7.7% agreeing to this statement and indicating the use of target language and unclear instructions as a possible source of confusion in the computer rooms. Half of the teachers though, (50%) mentioned that the students do not like using their target language but also commented on the work load that influences student study.

Regarding the students preference to spend more time in the classroom or the computer room, only a 15.4% answered that it would indeed prefer to spend more time in the computer room, with a 11.5% partly agreeing to this.

From the students that disagreed, the justification of their choice included their interest in computers (45.5%) and the usefulness of searching the web (27.3%).

Regarding the crucial question of whether the visit to the computer rooms provides any additional motivation for language learning in terms of initiating student interest a large proportion of students appears to agree with this.

40% of the teachers, though, disagree to the motivation and interest the computer rooms can provide, with only a 40% of them agreeing to the computers motivational contribution and 20% partly agreeing.

The sites visited by the students are mainly chosen on their initiative (42.3%) and only a 4.5% mentions cases of teacher suggestions or a type of negotiation between students and teachers (8.3%). The classroom activities included grammatical or vocabulary structures, oral work in pairs and project preparation and in the computer rooms more collaborative project preparation and fundamental group support existed.

Regarding the resources consulted, the student preferences were visiting websites and translation tools and scarce use of podcasts, video and audio files.

The student suggestions for additional helpful language learning resources brought YouTube and WebCt first, blogs and social media second but others suggested that no additional resources would have been useful (42.3%). Suggestions in the following chart also included online subscription dictionaries, clips of TV programs or radio shows, songs or taught classes online.

Finally, the teacher suggestions for additional useful resources to consult in the computer rooms brought blogs first, followed by the option that no more resources would have been beneficial.

Data Analysis

Upon completing the detailed description of the collected research data the following section focuses on 5 categories addressing issues like computer room work, computer familiarity, target language use and learner support in the computer rooms along with suggestions for further improvement.

Computer room work

The class observation revealed the basic structure of the CLCS courses, especially regarding the activities in the computer rooms. After the first part in the classroom, where the students discuss

and decide on the vocabulary to be used for their project topic, the lists of keywords are drawn that will drive the students' research in the computer rooms. There, the activities are at times suggested by the instructor who offers links for online practice of grammar and vocabulary or alternatively the students are devoted to web browsing of the list of keywords to discover documents useful for the writing up of their assigned topic. This process actively exposes the students to an attempt of reading and comprehension of advanced target language input that cultivates their interest in the language and the relevant culture. Comprehension is facilitated by the occasional presence of the teaching staff or the online consultation of dictionaries or translating software.

Computer familiarity

In order to evaluate the effectiveness of the use of computers in the language courses of CLCS, it is a prerequisite that the teachers possess the necessary technological literacy and that the students are equally able of using software and possess web browsing experience. The student and teacher questionnaires and interviews have clearly shown that the majority feels comfortable with the use of computers. The contradictions found at times are a result of other intervening factors (i.e. target language use, group member distraction, unclear instructions, etc.).

Use of the target language in the computer rooms

Whether computer room work offers students a chance of using the target language is a controversial issue. Although initially the students identified themselves as comfortable when using the target language, most of the students also revealed in the questionnaires their tendency to use English whenever opportunities for interaction appeared. This preference could be a result of the students' low linguistic level in the case of beginners that did not allow them or offer them the confidence to interact in the target language for fear of communication breakdowns. It could also be a consequence of lack of structure for the computer room work; The teachers though insist that the students use the target language (TL) but this is largely dependent on their presence and on the students' disposition for doing so. Consequently, the suggestions were that more encouragement in language use would be needed by establishing class rules that encourage students to apply already acquired knowledge in opportunities for interaction in the computer rooms.

Learning independence through Project work and group work in the computer rooms

Regarding the levels of interaction and group work in the computer rooms, the students felt that this environment favored group work since they recognized the need to negotiate while searching the net in order to follow a common pattern for their searches, depending on the group's goals. They mostly favored working both ways though. This combination allows for consulting a group member for explanations or understanding instructions. The student resources consulted for project work would be checked by the instructors to ensure their reliability and appropriateness but the majority of choices in the computer room research was student dependent. However, at times, especially when the level of the students was low, the teachers provided sheets with suggested links as a means of guidance and instruction. The independent work of the students was enhanced by their individual work but also by their internet related homework.

Nevertheless, a large number of teachers disagreed to the fact that their students have more interaction opportunities while being in the computer rooms, although they recognized the computers' contribution to meaningful interaction.

Learner support: Instructions

The students mostly mentioned that a degree of more detailed instructions for searching online was needed (as students were occasionally completely free on conducting their research) although some observed that there were suggestions of keywords and links that guided the online search on the project topic. This periodical freedom, especially for beginner levels that were not confident in target language use, was intimidating as it resulted in browsing pages with a huge amount of unknown structures and vocabulary. A more careful selection of sites to be consulted should have been developed according to topic, with links mediated for the students' level and accompanied by detailed and comprehensive instructions without excluding the opportunity for students to consult what works best for them.

Learner support: Software

The students' preference for visiting websites and translation tools was often a result of the previous structure of their visits to the computer room for research. The students have indeed suggested additional resources that would have been helpful in the language learning process like YouTube and WebCt but there were also those who suggested that no other resources would have been useful. The first two suggestions were probably within the framework of creating a course structure through WebCt where the modules' requirements, projects and instructions would be clearly outlined along with audiovisual materials to enhance student support. Contrarily, the teachers' views brought websites, audio files and podcasts to the forefront.

Learner Support: Activities

Most of the activities suggested by the students indicated their need for more grammar, vocabulary and listening practice in the computer rooms; these were introduced by doing online exercises on websites but were not adequately maintained throughout the year. According to them, this suggestion would be more rewarding than unstructured project topic research and it justifies their preference for creating a catalogue of the available computer room resources in order to organise their visit there. Some of them also stated that referring to a grammar or course book would have covered these weaknesses. In order to address these student needs, the teachers suggested an increase of the course duration or omitting parts of the project work.

Learner Support: Staff role and assistance

The support required by the students was partly satisfied by the presence of the language assistant in the computer rooms. However, the presence of the teachers could act as a positive pressure towards achieving fluency. The teachers supported the view that assistance in the computer room was offered by them and the language assistants. They shared student surveillance but also contributed to corrections of materials there interchangeably, since big classes were divided in groups before visiting the computer rooms.

Suggestions for Future Improvement

As a result, the students appear to favor the work in the classroom but they do recognize the benefits from their visit to the computer rooms. The following measures constitute the ultimate suggestions that were officially proposed as a means of improving the teaching and learning process at CLCS. Despite the fact that teachers appeared to favor classroom work as a solution to the problems faced by the students and in order to devote more time for exemplifying problems with grammar, vocabulary and project work they were also willing to do the following: increase the time allocated for the whole duration of the course in a way that the course parts could equally develop different aspects of the language and leave sufficient time for computer room practice and research.

The questionnaire and interview findings indicated potentials for these three elements to develop in the computer rooms of language modules, depending on a better structured visit to

the computer rooms and continuous consultation of the teachers for unknown vocabulary when visiting links tailored for the language level of the students. The motivation for language learning is also dependent on the choice of project topics that address the interests and language level of the students but also on the software in the computer room and the link suggestions of the teaching staff. Moreover, better outlined goals for each group project in collaboration with the contribution of the instructor could lead to a more coordinated group computer room research where the assigned roles would be clear and the collected information non duplicated.

Finally, another measure for improving the computer room work would be to attempt to increase the time spent there by working both on practice exercises and web-quests for the project. It would also be helpful if the instructor organized the visits there by exhibiting the type of research that students should do, being present to offer support and provide a sheet with guiding information and continuous suggestions for research without eliminating the students' personal interests and contribution when they offer suggestions for resources and topics. Hence, decisions should be negotiated so a correspondence between level and effectiveness of the projects exists to satisfy the goals of the students. The negotiation would combine the teachers' experience in terms of cases where a project topic could not be suitable for a beginners' level with the students' contributions to achieve autonomous learning. An effective way of implementing this would be to upload all necessary links, sheets with information, topic suggestions and translation tools or online dictionaries on a learning platform like WebCt where, before each activity in the computer room, the students could visit it and follow the research or practice the steps outlined for their course. Moreover, the gap between the taught course contents and the final assessment should be bridged so that the students could be validly evaluated on structures they have been taught. A correspondence between course activities and assessment exercises should also be effectuated.

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