ICT and English as a Foreign Language in the Bioethical Education: An Innovative Teaching/Learning Process.

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Abstract

The increasing role of technology has changed the teaching and learning process in the classrooms developing strategic objectives on content and language. Bioethical Education is a segment of the great education sector and, thanks to Information and Communication Technology; nowadays it can be developed more easily. It has a lot to benefit from the new frontiers created by ICT, like websites, e-mails and video conferences which have permitted teachers and learners to make ideas exchanges about current bioethical issues faster. The work can be introduced in the vast panorama of the teaching/learning process. It explores the numerous innovative possibilities of learning comparing ideas through the Internet and through the study of English as foreign language.

The study focused on writing techniques, in particular on how to write an essay in English using innovative ICT practices. The discussion was about topics relating to Bioethics and current affairs. The topics proposed were: Respect for life, Quality of life and Euthanasia. Through the use of digital devices students were able to develop meaningful, real-world works in which they applied their learning. They were asked to write an essay on topics presented applying writing techniques and using expanded and creative technology. Students answered related questions which helped them to better reflect on the positive and negative aspects of the issues they were dealing with.

Results indicated that innovative ICT – based activities may turn flipped class experience into a new model of learning through ICT practices. Students produced very interesting multimedia products and discussed them in English showing their results to the evaluation commission and each student had the opportunity to analyze and evaluate his/her own work and the tools used to create it as well as to evaluate his /her level of learning.

In conclusion the use of Information and Communications Technology (ICT) for language learning and for the discussion on bioethical dilemmas, such as the search for better quality of life, respect for life and Euthanasia has been considered an innovative and crucial way to change education successfully by both students and educators. Finally the work records their aim of proposing and communicating ideas relating to current, opposing, heatedly and debated bioethical issues dealt with a ICT close collaboration.

1. Introduction

The increasing role of technology has changed the teaching and learning process in classrooms developing strategic objectives on content and language. The Advanced English course at the Faculty of Medicine Federico II in Naples has focused on English for Academic Purposes (EAP) [3], but some topics have also dealt with bioethical issues. Bioethical Education is a part of a great educational sector and, thanks to Information and Communication Technology; nowadays it can be developed more easily. It has a lot to benefit from the new frontiers created by ICT, such as websites, e-mails and video conferences which have permitted teachers and learners to set up idea exchanges about current bioethical issues much faster. This course design is based on the assumption that collaborative learning through the usage of technology- and web-based group projects makes the teaching/learning process easier. In fact digital, collaborative learning creates a stronger sense of belonging with other groups of students and gives them more confidence in dealing with bioethical issues using academic writing skills.

According to the Common European Framework Of References For Languages: Learning, Teaching, Assessment (Council of Europe) [13] any form of language use and learning could be described as follows: "*Language use, embracing language learning, comprises the actions performed by persons who as individuals and as social agents develop a range of competences, both general and in particular communicative language competences. They draw on the competences at their disposal in various contexts under various conditions and under various constraints to engage in language activities involving language processes to produce and/or receive texts in relation to themes in specific domains, activating those strategies which seem most appropriate for carrying out the tasks to be*

accomplished. The monitoring of these actions by the participants leads to the reinforcement or modification of their competences." [13]

English for specific purposes [1] used in this course is defined to meet specific needs of the learners and it is focused on the language which may be related to chosen disciplines, in this case ESP for bioethical issues.

2. Methods

The course was designed to meet the specific needs of the learners, who were required to use the language as a tool for their work and for their research fields by using specific lexis, discourse procedures, and text genres.

The participants attended the first term of the Advanced English course at the Faculty of Medicine Federico II in Naples; they were aged between 18 and 23. As to their level of education, they all had a high school diploma. As regard the level of English all students developed various degrees of competence. The level achieved by the majority of students was B1 as described in the CEFR (the Common European Framework of References for Languages). The course aimed to empower students' academic writing skills through digital, collaborative learning, developing the techniques of writing an abstract, an essay and a scientific paper. As regard the Academic Writing learning, students developed the following items [9]:

1	Writing a paragraph : • Unity and coherence in a paragraph • Logical order and concrete support • Types of sentences • Noun clauses • Writing and organizing an essay
2	Writing a Scientific Paper a) Key points: • Identify a question • Pose a hypothesis • Research and investigate the question • Interpret and document information • Organize and rearrange materials • Determine the desired format for the paper • Read the "Instruction for Authors" to format the paper • Write the paper • Revise, rewrite and revise as needed • Submit for publication b) Arrangement of a scientific paper : • Outline • Title • Abstract • Introduction • Material and methods • Results • Discussion • Conclusion c) Focus on the abstract: • What is an abstract and what is its purpose • Types of abstract • The main parts of an abstract • The language of an abstract
3	over to you : • Writing an essay

2.1 Contents and Methodology

The discussions dealt with topics relating to Bioethics and current affairs. The topics proposed were: Respect for life, Quality of life and Euthanasia [2]. Through the use of digital devices students were able to develop meaningful, real-world topics to which they applied their learning. They were then asked to write an essay on topics presented applying writing techniques and using expanded and creative technology. Students answered related questions which helped them to better reflect on the positive and negative aspects of the issues they were dealing with.

They started from the definition of the term "bioethics", which was coined in 1970 by Van Rensselaer Potter, an oncologist at the University of Wisconsin. Since the publication of his book "Bioethics. A Bridge to the Future"[15], the number of bioethical centers around the world has multiplied, defending and spreading almost everywhere the concept of quality of life, providing new hope for better future and creating a basis to ensure the highest levels of health to a large number of people. The theme was an important starting point for students' reflection. It aimed for an arduous and specific objective: identifying values and rules which will drive human actions and the intervention of science and technology on life itself. The questions which students were asked to answer were [11]:

- What is life?
- When does it begin?
- When does it finish?
- Where does it lead us?
- What is quality of life for you?
- What is respect for life for you?

The discussion went on about Euthanasia [12]. The questions asked were "What would you do if someone you love asked you to help him/her to die? Do you think that accepting euthanasia would mean not having respect for human life? [12]

Students were asked to work in groups and to discuss the topic through existing research on the Internet about related articles on specific web sites, presentations, video conferences, online journals and so on. The teacher, in order to present the topics and the related tasks, used an interactive whiteboard (IWB) and personal power point presentations.

The groups worked collaboratively on three different essays answering the questions previously mentioned. In the final phase, the students discussed what they had produced. Each group presented their final review of group projects to the other groups of students and to the teacher, reflecting on the EAP techniques used and on their own ideas in the field of Bioethics. Each group produced a piece of academic writing in which they expressed their own opinions about the topic discussed. Some groups said that they were against the practice of euthanasia since no one is able to take decisions regarding the life of other people. They focused on the vulnerability of human beings and how human wishes could change during a person's life. As a matter of fact, a man's or a woman's wishes expressed during a certain period of his/her life might not longer be the same years later. Other groups of students, whilst considering that a real difficulty existed in deciding and taking a clear position regarding euthanasia, asserted to be in favor of this practice. They claim that the will of sick people must be respected in any case, even when they are seriously ill or when they are not able to understand and express themselves autonomously. For almost all groups, the discussion on the validity of the practice of euthanasia remained open because the risks which could be posed by it were numerous and difficult to prevent and manage. [12]

3. Results

Results indicated that innovative ICT –based activities may turn the flipped class experience into a new model of learning through ICT practices. A flipped class [8] gave teachers an opportunity to use ICT tools in order to deepen specific topics such as bioethical ones. Through materials created by teachers such as presentations, audio files, photos, etc., students could study their topics not only in the class, but also outside it. Digital learning, online searches, internet and very advanced technological tools such as interactive white boards and specific software had the ability to define the way and the method of communicating and discussing course material virtually, not only in a classroom, but also in other contexts. A technologically enhanced learning environment provides students and teachers with a practical opportunity to develop the course aims. The digital communication tools used by students and teacher, such as Google documents, electronic journals, related documents and video conferences, were an essential contribution for the success of the course. They enabled students and teachers to work together and to set their goals. With the help of

digital support, the teacher had a very important role. The teacher was the facilitator and the mediator in the learning processes both of individuals and groups [8]. The teacher initiated and accompanied students' learning processes through cognitive apprenticeship and through a constant feedback on language and content. Students' motivation and enthusiasm increased heartily as they could communicate with each other in a calm and collaborative classroom atmosphere. As regards critical points the students' participation and the time constraints were the weakest ones. Not all participants, infact, were able to attend classes regularly and as a consequence they couldn't participate in all the activities planned. Although attendance was generally smooth. As regards the time constraints the English course amounted to 40 hours. Nevertheless 80% of students reached the goal. Students produced very interesting pieces of work and discussed them in English showing their results to the evaluation commission formed by the teacher and other groups of students. Each group had the opportunity to analyze and evaluate its own work based both on the Academic Writing techniques used and on the bioethical issues discussed.

4. Conclusion

In conclusion the use of educational technology in Information and Communications Technology (ICT) for language learning and for the discussion on bioethical dilemmas, such as the search for better quality of life, respect for life and euthanasia can be considered an innovative and crucial way to change education successfully by both students and educators. Bioethics carries with it a movement of thought, a cultural vein, around which today a lively debate has developed all around the world. Nowadays *Quality of life*, *Respect for life*, a general rediscovery of *"life"* and levels of *well-being* have been improving also thanks to Bioethical Education which includes values education. Values education has a very important place in in teaching languages because learners have the opportunity to develop their critical thinking skills. In fact, students have been required to reflect on different current crucial situations and they have expressed their perspectives, thoughts and feelings related to these issues. The work records the aim of proposing and communicating ideas relating to current, opposing, heatedly- debated bioethical issues dealt with using close collaboration with ICT in an EAP course.

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Recommended websites:

National Bioethics committee:
- http:77www.governo.it/bioetica/index.html
- Website: http://portaledibioetica.it

Journals of clinical research and Bioethics:
- http://www.omicsonline.org/clinical-research-bioethics.php
- https://bioethics.georgetown.edu
- http://www.bioethics.net/editions/american-journal-of-bioethics

The Common European Framework of References for Languages: Learning, Teaching, Assessment (Council of Europe):

http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf