AN ENGLISH GRAMMAR AND A BILINGUAL GLOSSARY ACTING AS COMPLEMENTARY TOOLS FOR A CLIL-BASED COURSE

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Abstract

This paper describes how two complementary tools, an English grammar and a bilingual (Italian-English) glossary, can be expanded by University students attending a CLIL (Content and Language Integrated Learning) course in which a funerary archaeology lecturer, an English language instructor and an archaeologist work together, integrating content and language. This work is part of a wider project carried out at the Division of Palaeopathology, History of Medicine and Bioethics, and approved by the University of Pisa. Starting from a sample of Italian and English monographic texts and other publications in printed or electronic form dealing with the subject of funerary archaeology and other related research areas (anthropology, field archaeology, anatomy and chemistry, which can provide new insights into past civilizations, cultures and practices so far undiscovered), we have extracted separate, preliminary lists of specialized terms. The students working alone, in pairs or in groups, are asked to expand these lists, tracking down additional words with their definitions and example sentences drawn from other authoritative sources. The information with specification of the authors and detailed bibliographical references should be written in independent appropriately labelled files, and sent to the computer analyst responsible for the computer software editing. The reading of various definitions at different levels of depth will enable the user to understand better, have a clearer and more exhaustive picture of a particular word, concept, or phenomenon. The glossary, addressed to the students who are at the same time creators and users of the product, can also be of interest to professors, scholars or translators who need to dispose of the specialised terms of funerary archaeology in a language other than their own. Many of the definitions and other types of useful information can be exploited to illustrate the different grammar points and structures of an easy-to-use on-line English intermediate-level grammar book, to study the grammar not in isolation but in meaningful contexts and real-life situations, to encourage the learners to become active explorers of the language. This ongoing grammar can be a valuable resource for students with minimum linguistic knowledge and competence, but also be useful to those wishing to improve the English language, enhancing their learning proficiency. Implementation of the two complementary products - grammar and glossary - will proceed together, contributing to the learning of funerary archaeology on the part of the students, both learners and creators of the two tools. As we know, the possibilities offered by the computer in terms of space, links, cross-references, etc. make it possible to organize and customize the material, meeting as much as possible the users' needs. The technological tools increasingly available in the educational context support both the subject and language teacher in making the learning process easier and more engaging, helping clarify certain concepts in a non-traditional way in order to accomplish various instructional objectives.

Keywords: Funerary archaeology, CLIL, glossary, grammar, technology.

1   INTRODUCTION

This paper illustrates an experimental project which uses Content and Language Integrated Language (CLIL) methodology for funerary archaeology classes delivered to the students of a three-year degree programme at the Department of Oncology, Transplants and New Technologies in Medicine of the University of Pisa (Cignoni, Fornaciari, 2009). In particular, we describe two complementary activities performed during the courses, which consist in the creation of a glossary on the one hand, and the enrichment of an English grammar on the other. The idea for the project came from the native speaker working at the Institute for Computational Linguistics (ILC) of the National Research Council (CNR) in

Pisa, who wanted to experience CLIL methodology in English for the study of funerary archaeology. As we know, the CLIL approach consists in integrating language with non-language content in a dual-focused learning environment. It is designed to improve linguistic skills without impairing the acquisition of contents, and has proved to be one of the most effective methods for learning a foreign language (Marsh, 2002). Furthermore, it changes the concept of the traditional teaching-learning process, previously focused on the lecturer, to shift and centre it on the students. Over the last decade, CLIL experiences have increased in many European countries, generally on a voluntary and experimental basis and outside the institutions (D'Angelo, Garcia Pascual, 2009). In the Italian educational system, the integration of content and language is becoming an important issue, and an increasing number of schools and universities seem to be interested in carrying out bilingual education in their profiles. In this project, the students use English within the context of a specific subject and are exposed to the foreign language for a longer period of time than in traditional language courses, so that language proficiency and communicative competence are enhanced.

The students wishing to enrol on the funerary archaeology course are submitted to a written and oral test aimed at assessing their knowledge of English and their interests or experiences relative to the subject matter. Teachers can interact better with the trainees if they are informed about who they are, their background and their understanding of the subject matter, as previous experiences influence the students' views of learning, their motivations for learning and the ways in which they approach it. For learning to become truly meaningful, students must be able to relate new information to previous experiences, so as to build and develop new knowledge by linking the logical structure of the subject to their perspective (Villa Sanchez, Poblete Ruiz, 2008).

The CLIL-based classes are supported by a number of texts dealing with the discipline of funerary archaeology, and in particular by *The Archaeology of the Dead* (Duday, 2009), which is divided into thirteen lectures focussed on particular aspects of the subject-discipline, including primary and secondary burials, multiple and collective burials, decomposition processes, filled and empty spaces, ornament and dress, etc. The teachers set both the language and content objectives of the lessons, identifying the main teaching points, simplifying and adapting them to the level and needs of the trainees, in order to acquaint them with the topics to be presented. Some parts of Duday's text have been abridged, in order to make them easier to read, and to fit the students' intermediate level of English, which is a pre-requisite for attendance on the course. Important and useful words and expressions likely to be problematic for the students have been highlighted, and illustrations or photographs shown during the classes are supplied with clear explanatory captions. Students have shown to appreciate the use of these authentic materials, in addition to intensive exposure to the foreign language through recorded lectures, tutorials, and other listening materials. The lessons are organized in such a way as to follow one after another but can also be taught separately. A rapid explanation of the relevant grammar points by the language teacher is followed by an in-depth study of the text, and by various types of activities, including question-answering, gap-filling, matching words with definitions, jumbled sentences, etc. CLIL methodology allows to develop lexical competence in the target language as well as subject competence in the specific field. The trainees are made responsible for their own learning strategies, becoming active and motivated learners in their lifelong learning process. Students are highly motivated if they are offered true-to-life tasks and activities that will help them not only during their degree courses, but also in their future activities as archaeologists.

Speaking is an essential part of CLIL: the students develop fluency in foreign language, using it to communicate for a variety of purposes, including related presentations to be delivered to the rest of the participants. They first work in *buzz* groups, consisting in short discussions in twos, then in *snowball* groups, with the buzz groups turned into larger groups, and then in *cross-over* groups, by mixing the students, so that they can share their opinions and experiences, changing partners within each group. In this way, the members of the new groups have the task of reporting what has been said in the original groups. Before the end of the course, the students are asked to prepare a short dissertation in English concerning a topic agreed upon with the teachers. The essay helps the learners improve their knowledge and understanding of a particular aspect of the discipline, and is followed by a powerpoint presentation on the topic, to be delivered to their peers. These mult-varied activities are designed to enhance the receptive, productive and interactive skills, and to help the learners gain deeper knowledge and better understanding of the discipline. English in the CLIL classrooms is also a favourable environment for the acquisition and practice of academic language functions like defining, describing, explaining, narrating, classifying, hypothesizing (Dalton-Puffer: 2007). The teachers focus their attention on relevant words and expressions, on the specialized terminology of the discipline, enhancing the comprehension of the discipline. Slides showing burials, artefacts, tools used for field activities also facilitate the students' understanding of the subject matter.

The teachers take advantage of CLIL methodology, encouraging oral production, promoting peer interaction and creating a collaborative team work environment, with the aid of different technologies, which have become invaluable and vital research tools in all fields of education and research. Integrating computers and other technologies into instruction will provide the learners with the possibility of spending more time in contact with the target language, engaging them in authentic learning tasks, more involving than those carried out using more traditional forms of work. When students are motivated to understand, and engage with the material with which they are presented, they are more likely to adopt strategies that will lead to deeper levels of learning (Cignoni, L., Fornaciari, G., 2009b).

This paper is structured as follows: the introduction explains the importance of CLIL, and how it is used for a funerary archaeology course; section 2 describes the methodology used for the compilation and enrichment of an English-Italian bilingual glossary; section 3 explains how an already existing English grammar can be supplied with contextualized definitions and examples taken from authentic specialized texts dealing with the same discipline. Finally, section 4 accounts on the importance of a CLIL course for funerary archaeology fieldwork activities.

2 GLOSSARY

One of the activities of the course consists in enriching an already existing English-Italian glossary of words and expressions pertaining to the discipline of funerary archaeology. Funerary archaeology is the study of the funerary practices, rites and beliefs of past populations, but also of the tools, clothing, excavation methods, archaeological sites in which evidence of past activities is preserved, providing new insights into civilizations, cultures and practices so far undiscovered.

Starting from a small sample of monographic texts, including *The Archaeology of the Dead* (Duday, 2009), *Burial terminology* (Sprague, 2005), *Death and burial in the Roman World* (Toynbee,1971),*The Archaeology of Disease* (Roberts, 1995), *Death in England* (Jupp, 1999) and other publications in printed or electronic form, the subject, language and archaeology teachers have extracted lists of specialized terms and other useful expressions and merged them into a rudimentary database in the form of a glossary. Using the Excel application of Word, each term is accompanied by definitions or contextual fragments which appear alongside the name of the author(s) providing the relevant information (Fig. 1).
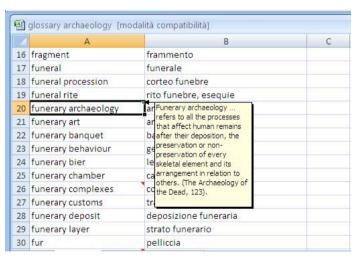

Fig 1: Screenshot from the glossary, showing a definition for the expression *funerary archaeology*

The glossary is aimed at meeting as much as possible the requirements of the users who need to dispose of specialized words in a language other than their own. Basically, the glossary is addressed to under- and post-graduate students, but professors and scholars, translators and interpreters for whom a glossary of specialised terms relative to a given universe of discourse is essential can also benefit from this work. For this reason, the availability of a handbook of this type can be extremely useful to facilitate the learning and acquisition of this particular terminology. The bilingual glossary can be used in institutional or academic settings for educational purposes, for the teaching of funerary archaeology, providing information that is currently not so easy to reach on the part of the student. The

learner can read the short definition of a term in a language other than his own supplied with one or more definitions and/or contextualizations, and then check the corresponding term in his own language. The reading of various definitions can contribute to the comprehension of a term, help the user understand better, have a clearer and more exhaustive picture of a particular word, concept, phenomenon.

The glossary defines a variety of terms associated with funerary archaeology and other closely related disciplines such as field archaeology, anthropology, anatomy and biology. The bilingual glossary is organised in conventional form, with each lexical entry - in roman - listed alphabetically, and each English term accompanied by its Italian equivalent. A headword composed by more than one word, for the sake of alphabetical ordering, is treated as a single word. The Greek or Latin words from which many terms have derived and which are frequently used to refer to a particular concept or phenomenon are also included (e.g. *acetabulum*, *hallux, dentalia*). We use the spreadsheet Microsoft Excel to store the corresponding words in three vertical columns, each assigned to a different language, the first for the English, the second for the Italian, the third for the Greek or Latin word (when available). The enterprise involves recording not just the term but also a brief contextualized definition in English, accurately quoting the source, certified and scientifically reliable, from which the information is drawn. The possibilities offered by the computer make it possible to exploit the technological tool, tailoring it to the users' needs. This ongoing project, at present covering a total of around 1,000 words, is constantly enriched with new entries, definitions and contextualizations.

The students engaged in expanding this glossary are assigned different topics agreed upon with the teachers. Working alone, in pairs or in groups, they are requested to track down new words and definitions, and to collect a personal archive of English-Italian vocabulary items pertaining to a particular field of interest. Each term should be accompanied by one or more definitions, e.g. barrow (It. *tumulo*) "is an earthen mound, usually containing at least one human burial or cremation inside", or scraper (It. raschietto) "is a type of stone tool, with at least one working edge… probably used for wood-working or scraping animal hides", or coffin (It. *bara*), which is different from the bier (It. *feretro*): "the latter transports the corpse from home to the place of burial". A careful selection of the specialized terminology facilitates comprehension and helps develop lexical competence in the target language as well as subject competence in a particular field.

Different students responsible for the different aspects of the discipline, and divided into small groups on the basis of their language levels, explain the meaning of particular words and share ideas in order to achieve common, practical goals. Therefore, a group of students can be studying the names and functions of tools, in particular those often found during the excavations, such as trowels, spoons, knives, etc.; another group the types of disturbances often occurring, such as roots, burrowing, etc.; a third group the different position of corpses during the excavations, etc.. Other information may include the location of the burials, the size of each tomb, the material it is made of, dating, sex, social position. Alongside the religious beliefs concerning death, further features to be investigated are the dates of epidemic diseases or tragedies and which groups were affected.

Those parts of a text that can provide useful information but that are very long, semantically too rich, and/or difficult to extrapolate and to use as definitions or that require the knowledge of some background information, have been exploited as contextualizations. As we know very well, no definition is ever completely exhaustive, but the consecutive reading of a number of quotations at different levels of analysis and difficulty can help give a fuller and clearer understanding of what a word, concept, or phenomenon mean. The glossary, addressed to the students who are at the same time creators and users of the product, is designed to make up for the lack of availability of a specialized bilingual glossary related to this particular domain. In fact, despite the variety of glossaries currently on the market, there is a strong need for specialized products in this particular field.

3 GRAMMAR

The same texts used for the expansion of the glossary can be exploited for the enrichment of a basic-level ongoing English grammar (Cignoni, 2012, forthcoming), designed as a simple guide and ready-reference resource for the Italian learners wishing to improve their language skills and at the same time gain knowledge about the discipline. Contextualized examples illustrating the most important grammar points and structures are incorporated in the grammar, which uses guided discovery to show the patterns of the language and to teach from the context to the grammar rule rather than the rule alone. The grammar contains a large number of definitions and contextual fragments which accompany the main grammar points and is gradually enriched by the students with examples taken

from the acknowledged funerary archaeology texts chosen for the course. The examples illustrating a particular grammar rule should not only show the use of the word in context, but also be rich in content, providing some useful notions about the discipline. As a matter of fact, example sentences allow to discover important information about a particular concept and in many cases are even more useful than the definition itself. In a number of cases, some words may need to be clarified through examples as they may be difficult to define.

Traditional grammar presentation is combined with subject-related activities that allow students to practise newly acquired grammar points in a real world context. The students reading different chapters of a book, or article, select example sentences where possible in the form of definitions containing grammar points of the English language. In some cases the same definition is used for both the glossary list and the grammar. Implementation and enrichment of the complementary glossary and grammar proceed concomitantly, and at a later stage can be organized and stratified at different levels of difficulty.

The examples so far available in our grammar have been extracted from *The Archaeology of the Dead*, as well as from other specialized texts assigned to each student. The following is an extract from the English grammar, with some contextualized examples illustrating the plurals of English nouns.

Noun plurals

1. The plural of nouns is formed adding *s* to the singular form (*doctor, doctors; door, doors*).

2. The nouns ending in *y* preceded by a vowel regularly add *s* (*boy, boys; tray, trays*).

3. The nouns ending in *y* preceded by a consonant drop *y* and add *ies* (*baby, babies; family, families*).

> *In all societies, one category of the dead is subject to particular funerary practice, stillborn children or **babies** who die within a few days of birth*. (The Archaeology of the Dead, 58).

4. The following nouns form the plural adding *es,* namely those ending:

- in *o* (*tomato-tomatoes*), except for the names of musical instruments (*piano*, *pianos*, *banjo*, *banjos*);
- in *s* (*glass-glasses*);
- in *x* (*fox-foxes*; *tax-taxes*; *brush-brushes*);
- in *z* (*buzz-buzzes*);
- in *ch* (*sandwich-sandwiches*; *witch-witches*);
- in *sh* (*dish-dishes*).

5. Some nouns have an irregular plural form (*man*, *men*; *woman*, *women*; *child*, *children*; *person*, *people*; *foot*, *feet*; *tooth*, *teeth*; *mouse*, *mice*; *goose*, *geese*). The plural of *person, persons* is used only in specialized language, especially in legal language.

> *On some pictures of the Fontainebleau school, **women** are very often painted with rings on the intermediate phalanges.* (The Archaeology of the Dead, 23).

> *We know that children of the same age can have different dimensions and that children of the same height can have different ages.* (The Archaeology of the Dead, 60).

> *Some elements of ornament and dress, such as brooches or earrings, may be specifically feminine, while weapons are commonly reserved for **men***. (The Archaeology of the Dead, 94-95).

6. Some nouns remain unvaried, in that they are identical in the singular and in the plural (*fish, sheep, deer*).

The aim of this grammar is to help students correct some of the most common kinds of errors, including wrong use of prepositions, articles, relatives, distributives, determiners, verbs followed by preposition, verbal tenses or verbal forms (Sisti, 2009: 41).

Authentic examples of language extracted from the English texts by way of definitions or contextualized examples contain different language items or specialized terms. A rapid explanation of the relevant grammar points is followed by activities and tasks of different types, ranging from question-answering, to gap-filling, true/false sentences matching words with definitions, jumbled sentences, sentence formation, etc. Basically, many of the tasks traditionally used for English foreign language classes can be tailored to the needs of the content courses, aimed at enhancing the students' language and developing their receptive, productive and interactive skills. The students discuss disciplinary knowledge in English, interacting with the teachers but also among themselves. The knowledge of basic grammar points can be exploited to study the contents of the works selected for the funerary archaeology course; for instance the following portion of text is drawn from Duday's work, precisely from Lecture 3 which is concerned with the arrangement of offerings and elements of ornament and dress.

> Elements of grave furniture or dress <u>could be used</u> as offerings but this <u>is</u> not <u>always</u> the case. The deceased <u>may have been buried</u> with <u>their</u> clothes and their own jewels (for example, the wedding ring that we leave on the fingers of <u>the dead</u> because for us it is an integral part of them).

A number of lexical items are highlighted, in particular the passive forms of the present conditional (*could be used*) and past conditional (*may have been*), possessive adjectives (*their*), relative pronouns (*that*), adjectives used as nouns (*the dead*). These grammar points can be taught, or revised or studied in further detail, according to the students' level and requirements.

4   FIELD ACTIVITIES

The use of authentic, context-based materials related to funerary archaeology within the framework of a CLIL methodology for the education of trainee students provides opportunities for classroom as well as fieldwork participation. The vocabulary concerning modern field technology, a rigorous discipline of observation and recording, fundamental to understanding the history of past populations, more specifically includes the terminology related to aerial and balloon photography, high-resolution georadar survey, laser equipment for measurements, total station, and Geographic Information System (GIS), the science that allows to view, interpret, and visualize data concerning maps, globes, reports and charts (Fornaciari, A. *et al.*, 2010).

Since the year 2007 University students have attended the archaeological field work taking place at Benabbio, a small Tuscan village near Bagni di Lucca in the north of Tuscany. So far, a number of individuals buried in the medieval cemetery near the Church of the castle, and other burials of people who died during the 1855 cholera epidemic have been exhumed (Fig. 2).

Fig. 2: Exhumations in Benabbio (Lucca), northern Tuscany

The participants in the excavation activities are offered the opportunity to gain practical experience not only in archaeological excavation, but also bioarchaeological investigation, cooperating and exchanging ideas and experiences with students from different countries, using English as international language of scientific communication, sharing knowledge and skills. Foreign exchange

visits are also designed to help incoming mobile students cope with their new cultural and linguistic environment and, in turn, to promote interest on the part of the residents in learning about other nations and cultures. The participants in the excavations share what they have discovered with their peers and are provided with stimulating material. Archaeological sites hold a wealth of information about a community and its changes over time, much of which can be studied by examining the burials.

The students discover, for example, how old the members of the community are, the changes that have occurred in length of time span, differences related to social group or sex, family size and composition, and record the artefacts when they emerge from the ground (Fig. 3).

Fig. 3. Artefacts from the Benabbio archaeological site

The excavations run by the palaeopathologist and archaeologist who are authors of this paper, and who have worked for many years in the field of funerary archaeology, help encourage and train students who learn about the archaeological   processes, observing and discussing them as they are encountered on site.

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