THE USE OF TRANSLATION IN A CLIL CLASS

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Abstract
This article aims at exploring the role translation can play within a CLIL environment. Although the practice of translation has increasingly acquired importance in our societies, it has often been excluded from the language class and identified with an obsolete methodology. Yet, in our multicultural societies, translation – understood as a fundamental form of cultural mediation – has become an essential tool in all professional and non-professional contexts. Consequently, as this article argues, translation can certainly become a valuable tool and, in consideration of its fundamental aims, be effectively (and beneficially) included in a CLIL course. Indeed, as this article demonstrates, a Learning Unit where translation works in synergy with CLIL methodology is likely to be perceived as stimulating and motivating by students, thereby facilitating the development of various skills.

Keywords: Intercultural communication; interlinguistic translation; intersemiotic translation; intralinguistic translation; Teaching English as a Second Language.

Introduction: The goals of CLIL
Content and Language Integrated Learning (CLIL) was conceived as a teaching methodology that could promote not only the achievement of higher linguistic skills, but also integration, mutual understanding and the mobility within Europe. Indeed, the cultural dimension has been repeatedly emphasized by European political forces, that aim at implementing approaches to language teaching (and learning) that could enrich students at different levels, in order to forge truly European citizens.

The dimensions on which CLIL focuses, then, are various: linguistic, cognitive, cultural and intercultural. This clearly means that teachers should be equally versatile and possess different skills: they naturally need to obtain a linguistic competence that can enable them to convey the contents of their disciplines in a foreign language (generally a C1 level as defined by the Common European Framework of Reference for languages); they also need to possess some knowledge of Applied Linguistics (in particular teaching a foreign language, as well as their specific discipline); fundamentally – since CLIL methodology is essentially aimed at forming active and functional members of our societies, which are marked through and through by
important migratory flows and the coexistence of different cultures on the same
ground – teachers need to develop skills within the field of intercultural
communication too.
The basic reason to implement CLIL courses is to render the context in which a foreign
language is used as natural as possible, in order to allow students to use language
while ‘doing’ and accomplishing other tasks, and lower the affective filters which often
render the assimilation of a language difficult (Dulay & Burt, 1974; Krashen, 1981;
Arnold 2001; Prickett, 2015).

This is the reason why CLIL methodology emphasizes the importance of resorting to
different types of materials and encourages teachers to relay on the new
technologies. Indeed, the variation of the way the contents are communicated to
students is not only essential in order to maintain their level of attention high, thereby
resulting more engaging and – as a consequence – more motivational, but also
effectively reproduces the way the world students act in works. It is actually
undeniable that our societies are multimodal and visual, that they need – in order to
be decoded – specific skills (cultural, linguistic, digital etc.), and that they reflect the
fundamental hybridity of our epoch.

This is the reason why, in a CLIL class, resorting to audio-visual products, images,
verbal texts – which might even present the same contents in different formats –
results extremely useful. In particular, audio-visual products help create that
naturalness deemed as fundamental in a language class. In actual fact, what is
reproduced on screen is not ‘real life’, in that it is often either openly fictional or at
least rehearsed. In spite of this, the presence of moving images, actual (albeit two-
dimensional) people, spoken language and authentic voices certainly render the
environment more natural. As a matter of fact, these are all elements that bring with
them not only prosodic features such as intonation, pitch, stress, etc., which perform
– as emphasized by scholars such as O’ Connor & Arnold (1961) and Brazil (1985)
different functions, but also body-language, gaze behaviors, specific turn-taking
mechanisms, vocalizations that can be reproduced in a written text only with some
difficulty etc., namely elements that all concur to the decodification process, and that
might therefore result beneficial to learners.
Furthermore, the exploitation of visual elements appears consistent with the visual
literacy members of contemporary societies are required to develop and are certainly
bound to be experienced as highly motivational by students who are native to those
societies. As researchers have highlighted, in fact, the exploitation of this type of
product can actually facilitate the learning process (Stempleski 1987; Stempleski &
Arcario, 1992; Tomalin & Stempleski 1993; Shrosbree, 2008; Pae & Shin 2010), making
the learning experience more engaging from an emotive perspective too – an aspect
that has been recognized as fundamental (see for instance: Muñoz, 2006; Balboni,
2013) – ultimately enhancing their future performance.
Different types of translation in CLIL

On the basis of what has been said above, it appears only natural to appreciate the important role translation could play in a CLIL environment. Obviously, it is important to move away from old (pre)conceptions of translation as a mechanical activity aimed at transposing a source text into a target text in a different language. First of all, it is essential to bear in mind that interlinguistic translation is only one of the various forms of translation (and it encompasses also specific forms such as audio-visual translation, adaptation etc.).

As Jakobson suggests in his seminal “On linguistic aspects of translation” (1959), we can identify at least three main types of translation – namely interlinguistic, intralinguistic and intersemiotic – which can all be usefully exploited in a CLIL class. Understandably, these different kinds of translation have to be adapted to the work CLIL entails and can be resorted to on the basis of the specific goals the CLIL Unit (and its various phases) have. Interlinguistic translation, for example, can be profitably exploited, but should not be utilized simply as a way to make students understand a text originally produced in English more swiftly.

On the contrary, in those situations when students experience great difficulties in comprehending the text (be it written or spoken) teachers should resort (as suggested below) to intralinguistic translation instead. Yet, interlinguistic translation too can become a valid tool and should not be eschewed simply on the basis of fundamental misconceptions about what a language class (and, more specifically, a CLIL Unit) should be. Teachers should in fact be always aware of the fact that this methodology primarily aims at creating a natural environment that could assist the development of European citizens, able to act and interact in given social contexts on the basis of their linguistic skills. It therefore follows that students should be identified not as monolingual, but as bilingual learners (Liebscher & Dailey-O’Caine); that the classroom should be identified as a bilingual, bi (at least)-cultural and intercultural community (Zanoni, 2016), and that phenomena of code-switching should be considered natural (Lasagabaster, 2013).

It therefore appears clear that also the notion of translation, understood here in its interlinguistic variety, is pivotal, since it has since long been posited essentially as a form of cultural mediation (Shell-Hornby, 1990; Katan, 1999; Garzone, 2002). Furthermore, in a context such as a CLIL class, the different levels of culture (from the specialist and technical to the invisible aspects of culture), originally identified by Hall (1959), and later re-elaborated by Brake et al. (1995) among others, are (or should) be accounted for, in order to put at the students’ disposal the necessary tools to take active part in our societies and enable them to manage the intercultural encounters life will inevitably expose them to. Thus, translation – whose strategies and procedures aim at developing such tools in the most varied contexts – should not be ignored.
Yet, there teachers often oppose strong forms of resistance to the adoption of translation in a language class, possibly due to the fact that, to this day, translation is often conceived mainly in terms of grammatical translation. However, as authors such as Riera & Arévalo (2013) or Di Martino and Di Sabato emphasize (2017), exploiting translation during the process of language teaching/learning can prove extremely useful. In particular, resorting to interlinguistic translation in a CLIL environment can help teachers bring to the fore various linguistic and cultural aspects of the language studied, and therefore plays an essential role in the development of those skills CLIL focuses on.

Clearly, it is important to bear in mind that the various methodologies envisaged by CLIL are very flexible and adaptable to the different realities teachers are confronted with (in terms of the resources the school can put at the teachers’ disposal, the students’ age, their linguistic level etc.). However, within each Unit, translation – in all its forms – can become valuable, if not as an ‘end’, certainly as a ‘means’.

Through interlinguistic translation, cultural, historical and etymological aspects of a language in a given text might be analyzed; intralinguistic translation might be beneficially exploited, as suggested above, in order to explain the contents introduced, ask learners to re-elaborate a text (re-writing it in different forms – for example creating subtitles or dialogues – summarizing it etc.), whereas intersemiotic translation can become useful both from the teachers’ perspective (offering a wide range of potential materials that could be suitably selected, i.e. audio-visual products such as videos, documentaries, television series, films; comics/graphic novels; paintings; photographs etc.) and from the students’ perspective too, as it can stimulate their re-formulation skills (for instance, students could be asked to describe a picture or a photograph using verbal language; they could be required to find – or draw – images that could aptly represent the text on which they are working with the teacher or some of its paragraphs etc.).

Indeed, since subject-specific discourses are per se often multimodal, presenting not only written texts but including non-verbal, visual/audio material, graphic or symbolic representations (Unsworth, 2004; Leisen, 2005), the methodologies adopted should equally rely on this idea of multimodality which, as this paper suggests, often relies on different forms of translation.

As Halllet maintains in a segment that could be implicitly adapted to the notion of intersemiotic translation introduced above, “translation is part of the teacher’s role of the mediator and his knowledge of different ways of symbolizing (slices of) the world” (Hallet, 2006, p. 129). Furthermore, the scholar proceeds by stating that “it is of utmost importance that teachers develop an awareness of the different languages and discursive cultures that different disciplines (and the related school subjects) have developed as ways of looking at and constructing the world” (Hallet, 2009, p. 2), thereby implicitly referring to the notion of cultural translation and the importance that the cultural dimension acquires in the expression(s) of every community. Moreover, it is possible to interpret the subsequent statement made by the scholar – according to which teachers “must be able to translate very specific disciplinary
ways of saying and expressing things into the learners’ language”, thereby encouraging students to integrate scientific concepts into their everyday language (Hallet, 2009, p. 2) – as a reference to the notion of intralinguistic translation introduced above.

Not only this, but because, as mentioned supra, the language of learners is very often a language composed of verbal language as well as images, sounds, symbols etc., intersemiotic translation appears all the more fundamental. As a consequence, if teachers want to ‘translate’ the language specific to a discipline in a language that learners can recognize as theirs, they should select multimodal materials and adopt a multimodal approach to the materials themselves.

**Investigating Science in English**

This paragraph provides an example of a CLIL Unit in which different forms of translation are utilized in order to demonstrate how this methodology can (and often already does) work in synergy with others in order to create a stimulating and effective CLIL module.

Obviously, in this instance we are not talking about courses of studies in which entire disciplines are taught – throughout students’ entire secondary education in a foreign language. On the contrary, we are focussing on the elaboration of CLIL Units that can be developed within a discipline which is generally taught in the learners’ source language. As a consequence, the choice of the topic(s) to be tackled in the foreign language is of fundamental importance and largely depends on the CLIL models adopted. Indeed, the selection varies according to whether teachers decide to develop a CLIL module mainly oriented towards the disciplinary contents rather than the language or *vice versa*, and whether they want to organize their work as ‘full-immersion’, rather extended courses, or more intensive and shorter courses.

What appears essential, however, is the general idea that CLIL Units should not be conceived simply as means to approach the contents of a specific discipline or a particular topic in a different language (which generally leads to an exclusive focus of the whole unit on the acquisition of specific lexis). On the contrary, CLIL should encompass various and varied activities, able to stimulate students at the level of both content and language.

If this is so, it is partly because CLIL was originally conceived as a way to promote excellence in the learning of foreign languages, as indicated by the Resolution dated March 31, 1995, which referred to the achievement of learning and teaching processes of better quality within the field of foreign languages in all educational systems of the European Union (see: Gazzette C 207 del 12.8.1995). Partly, it is due to the fact that it has been recognized that the lexical items of specific disciplines constitute only a percentage of the lexis which determines the language of specific disciplines (Hoffman, 1985; Magris & De Vincentis, 1992), which, on the contrary, present extensive use of ordinary language too. Finally, this aspect derives from the
fact that what renders a language discipline-specific is closely related to the genre and the sub-genres themselves from which a communication stems and which, while belonging to the same discipline, therefore change according to the medium and the channel used, the register adopted, the targeted receiver etc.

As a consequence, teachers should envisage CLIL Units that, while conveying some of the lexis specific to specific disciplines, could stimulate other reflections as well, foster various skills and generally work towards the development of what Bloom defined Higher Order Thinking Skills (1956).

This paragraph, therefore aims at suggesting materials and activities that could be usefully adopted in a CLIL Unit focussing on Science. This work was conceived for students attending the fifth year of an Italian Scientific High School who have obtained a B2 level of English. The Unit should be developed during a period of two weeks, for a total of eight hours. The aim is twofold and encompasses both didactic and methodological aspects. On the one hand, in fact, the Unit wants to enable students to understand the way some viral infections are transmitted and how they can lead to dramatic outcomes, while introducing some of the basilar aspects of the language of science and biology. Simultaneously, the Unit encourages students to organize their arguments, describe and explain a situation, make hypotheses and conjectures, give advice. In order to be developed, this Unit requires a previous knowledge, on the students’ part, of topics such as the constitution of cells, human blood and the Central Nervous System.

In order to develop this Unit, it was decided to focus on a viral infection which, albeit by now rather rare, is nonetheless extremely significant, given that almost inevitably leads to death, namely rabies. The Unit incorporates various topics and focuses on different linguistic and, as we shall see, cultural skills, providing different kinds of materials that distinguish themselves in terms of genre, channel and target.

1. **First phase: Gathering basic knowledge about rabies**

Given the lexis and the content that characterise some of the written and audio-visual materials selected for this Unit, the latter begins with an activity meant to revise some of the fundamental notions of human biology, namely the constitutions of cells. At the time chosen for the execution of the CLIL module, students have already acquired the fundamental vocabulary in their source language, in this case Italian, and they are bound to recall the appropriate lexical items, which can thus guide them in their completion of the first activity. In this instance, (interlinguistic) translation is not the focus of the activity itself, which actually provides the English words students need to complete the image below. In spite of this, students – while retrieving their previous knowledge on the topic in order to complete the picture by labelling the different parts of the cell correctly – are bound to (if only unconsciously) resort to translation.

This notion appears therefore closely related to those cognitive theories of perception according to which, as with structuralist and poststructuralist notions of the linguistic construction of reality, the simple ‘viewing’ or reality can be equated to a
reading process and, as a consequence a form of translation, thanks to which the hard reality of the world is mediated (i.e. translated) through language, which can then enable human beings to describe and interact with that same reality. The notion of translation this activity implicitly refers to, can in actual fact become the starting point of a discussion with the class, during which the teachers tries to make students notice the similarities between the signifieds attached to the same signifiers in one language and the other, encouraging them to identify the common etymology of the scientific words introduced:

Rabies virus and related viruses are members of the Rhabdoviridae family, genus Lyssavirus (which is derived from the Greek word lyssa, meaning “madness.” Rabies derives from the Sanskrit word rabhas, which means “to do violence”). Rabies virus causes human encephalitis through zoonotic infection. The lyssaviruses differ antigenically but are morphologically similar and neurotropic. Rabies virus is an enveloped bullet-shaped virus, 180 nm long and 75 nm wide, composed of five structural proteins. Rabies virus contains one copy of a single-stranded, non-segmented, negative (noncoding) RNA of approximately 12,000 nucleotides. The virus envelope contains glycosylated G-protein spikes that bind to cells. The matrix (M) protein is located on the inner virus envelope, inside which the virus nucleoprotein (N) tightly binds the viral RNA to form the nucleocapsid core.
Once the highlighted words have been defined and explained, by resorting to intralinguistic translation strategies, students are required to identify those features that might be considered typical of the language of science. Students can thus work in small groups of four, and once they finish their list, they can compare their findings and their suppositions with the other groups of the class. On the basis of these lists, teachers can organize some activities on noun-phrases (“glycosylated G-protein spikes”) and compound words. Thus, students are asked to compile a ‘revision chart’ of the way compounds are formed in English (noun + noun; adjective/adverb + past participle; number + noun; prefix + adjective; prefix + noun; noun + suffix etc.) and complete a simple activity aimed at identifying – on the basis of the example provided within the text above, i.e. “encephalitis” – the general meaning of a short list of suffixes and prefixes. Learner are thus required to provide at least one example of each (as for instance with haematology, otitis and cardiopathy), translating intralinguistically the words suggested in order to explain their meaning using ordinary language.

As a prompt, the teacher provides an example, such as “Tracheotomy”, that is identified as a compound formed by the noun ‘trachea’ (which could be translated into ordinary language as ‘windpipe’) and the suffix ‘tomy’ (meaning ‘incision’, ‘cutting into’), therefore indicating a surgical procedure aimed at creating an opening into the trachea.

Furthermore, another characteristic of the language of science which will not have gone unnoticed in the text above, is the presence of numerals and acronyms. Thus, beginning with the interpretation of “RNA”, as found in the extract provided, students are asked to compile a list of other acronyms usually utilized in scientific language. Indeed, many of these acronyms are regularly resorted to by doctors too – for example when prescribing specific treatments, tests etc. – and students can thus be encouraged to recall their previous (informal) knowledge on this matter. Naturally, in order to complete the second phase of this activity – namely provide an extensive version of the acronym – students might need to consult an (online) monolingual dictionary, thereby becoming aware of the potential dissimilarities existing between English and Italian structures (for instance, ‘CAT’ – which in English indicates a Computerized Axial Tomography – corresponds to the test students should identify as ‘TAC’ – namely the Tomografia Assiale Computerizzata, an expression where a translation procedure of re-ordering has to be applied in order to adhere to the structure of Italian). This observation, therefore becomes the prompt for a short activity focussed on the positions adjectives and adverbs should take, can take or should never take in English.

2. Second phase: Exploiting audio-visual products
During the second phase of the CLIL Unit, students are required to watch two videos: “What happens when you get rabies” (online) – an interesting computerized animation which is bound to strike digitally native students as inventive and creative
– and “Rabies: Simple steps save lives” (online) – where a doctor in a white coat, with the occasional intrusion of nurses and other medical staff, explains to a child (within the context of a medical lab) the causes and the treatment of rabies. In order to make sure students understand the videos, the teacher organizes some listening activities, for instance asking learners to complete a ‘True/False’ exercise, in order to help them obtain a general knowledge on the matter. Subsequently, they provide parts of the scripts with blank spaces students have to fill in, thereby focussing on obtaining specific information. After this initial step, learners are thus required to analyze the information provided by the various filmic texts both from a qualitative and a quantitative perspective. To this end, teachers can facilitate the students’ task and help them organize their analyses by providing them with a chart to be filled in, such as the following, asking them to find other categories of analysis too:

<table>
<thead>
<tr>
<th>Sender</th>
<th>What happens when you get rabies</th>
<th>Rabies: Simple steps save lives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Context of situation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Register</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of information provided (causes, symptoms, prevention)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount of information provided</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This analysis, focused on formats that differ in terms of ‘register’ and ‘user-friendliness’ – can thus help students realize that even very popular products, which rely on captivating presentations of the content, can indeed be extremely informational. In addition, since in these products verbal language is supported by images, drawings, etc., precisely thanks to the visual aids exploited, which work in synergy with intralinguistic translation strategies of amplification, expansion and explicitation, these filmic texts offer the necessary explanations to enable receivers to enjoy the product, while informing them and making them aware of this condition. Once learners have completed this activity, they are asked to work in groups of four or five in order to create the English subtitles for the two videos. Each group is assigned 5 minutes of one of the two videos and, as homework, they can actually create a subtitled version of the videos the teacher (provided the school has implement an online platform for the class) put at their disposal. Through this intralinguistic form of translation, students are thus encouraged to re-elaborate the material and, since creating subtitles implies space and time constraints, they are forced to focus on the language used and take into consideration for example the
length of the words selected, the potential synonyms that might result more helpful etc.

3. **Third phase: Visual representations of rabies**

During this phase of the Unit, teachers present a series of posters about rabies such as the one represented in figure 2, where some of the basic pieces of information about this infection (causes, symptoms and treatments) are given. The teacher elicits comments on the students’ part about the poster introduced below, encouraging them to analyse both verbal and visual elements, the way they relate to each other and to the information students have already acquired.

During this phase, the emphasis is laid on the adoption of effective strategies of information packaging, the exploitation of specific typographical and graphic devices, and the valuable employment of images, which all concur in creating a text which results highly informative and simultaneously user-friendly.

On the basis of the information provided in these posters (as well as others that the students themselves might find on the web), they are asked to elaborate the information which is provided through verbal language as well as images, graphs, percentages etc., and create a discursive text about the condition of rabies.

Once this activity is completed, each student exchanges the result of this intersemiotic and intralinguistic translation with that of a classmate, each student correcting (at the level of both content and language), the work of others.

*Figure 2: Poster released on the occasion of The World Rabies Day (September 28)*

More elaborated and narratively more complex, the story “*Disavventura al Parco*” (*A misadventure in the Park*) – published in Italian on the webpage *IZSVe Pets* – represents a good starting point for another series of activities. Indeed, the teacher can either present the Italian text to students, asking them to turn the various dialogues into a narrative in English (thereby exploiting both inter and intra-linguistic
translation, as well as exercising the learners writing skills) or can present the story with empty balloons and ask students to create the dialogues that in their opinion take place during the various phases of the story:

**Figure 4: A Misadventure in the Park**

Source: https://www.izsvepets.it/cani-randagi-rabbia-e-rischio-di-contrarre-malattie-poster/

4. **Fourth phase: Intercultural aspects and the development of HOTS**

During the last phase of the Unit, this work on the viral infection of rabies can clearly be used to trigger discussions about the importance of vaccinations in animals, extending then the discussion to human beings. Indeed, Mureșean and Paștiu (2016) emphasize how, in Teaching English as a Foreign Language, the introduction of controversial topics in class is highly beneficial, in that it gives students the possibility to develop their English language skills, their oral and written communication abilities, and their critical thinking skills. Thus, dividing the class in two groups, the teacher organizes a “debate”, during which the two groups are required to provide arguments in favour and against vaccinations. This is in actual fact an extremely relevant topic, at present, and can give learners the opportunity to learn how to organize an argumentative text, how to present specific opinions, defend their perspectives and give advice. Furthermore, because of the different types of materials available on the web, both in written and audio-visual form, this kind of work can help students realize how different cultures may approach health issues and, more specifically, the topic of vaccinations. To this end, it might be productive to show for instance the World Health Organization page (figure 3) or a video such as “Hydrophobia in Rabies” (online).
In these and other products, in fact, the main areas affected by the disease are identified – through verbal and visual language – with Asian and African countries. The teacher can therefore ask students to prepare, in groups of four or five, a brief essay on the diffusion of rabies in different countries, the political forces involved, the funds invested, the prevention campaigns launched etc. Naturally, if members of different communities are present in the class, the discussion can become even more stimulating, testifying the important role different (national and cultural) contexts play in global issues too, thereby helping students appreciate, understand and respect the differences existing between one culture and another, thus assisting educational institutions in the formation of responsible members of a truly intercultural society.

**Conclusion**

Naturally, these are only some of the activities that might be developed in a CLIL Unit focusing on Science (and the rabies virus in particular). The work presented here is simply meant as a suggestion of possible awareness-rising activities, which can clearly be adapted to the various contexts in which CLIL methodology is adopted. However, I hope this paper has demonstrated how translation in its various forms can actually become a valid tool in a CLIL class and can help students learn incidentally both content and language (Hu & Jiang, 2008; Hulstijn, 2013).
References


[38] Hydrophobia in Rabies. Retrieved from https://www.youtube.com/watch?v=OtiytbJzQc