

# Technium. 52/2023

2023 A new decade for social changes

## Technium Social Sciences







### Integration of the 4Cs in a CLIL-based textbook for geology students: A case study

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Abstract. Even though the CLIL method of foreign language teaching has been present for more than thirty years, the lack of adequate CLIL-specific teaching material on the market remains an undiminished challenge. One of the reasons may be the scrutiny under which the authors, language teachers, of a CLIL textbook would find themselves, since they would have to grapple with both the linguistic and non-linguistic matter equally. The textbooks "English language for geology students 1 and 2" are an attempt to fully cover a specific subject matter, in this case geology, all the while focusing on fostering student autonomy and intercultural competence. The textbooks follow the principles of the CLIL method in a novel and innovative way, putting special focus on the last of the 4Cs: culture, through geomythology and comic strips. The paper is divided into four parts: introduction, a discussion on CLIL teaching materials, structure and content of the chosen textbooks and concluding remarks. The author will attempt to provide an overview of the textbooks within the CLIL context and to show how they manage to cover the criteria set by CLIL in assuring a stress-free learning environment in which students can acquire skills necessary for success outside the walls of a university classroom.

Keywords. CLIL textbook, geology, comic strips, geomythology, intercultural competence

#### **1. Introduction**

In the ever-changing world of foreign language teaching, the search for an adequate method through which this is to be approached seems to be an incessant one. With the language teaching curriculum constantly combating the increasingly complex demands of the post-schooling world, the CLIL (Content and Language Integrated Learning) teaching method "reveals itself to be one of the best approaches for collaboration, reflection and action research in university education" [1] (pp. 86-87). Indeed, the CLIL method, with its emphasis on the 4Cs – Content, Cognition, Communication, Culture – represents the means with which students' language needs can be fully met and can thus potentialize the language learning capacity of those students by imbuing them with motivation and talent [2] (p. 9). This method is valuable because "any subject matter in CLIL is transformed into a meaningful linguistic context for language acquisition and practice," thereby broadening the number of alternatives offered to teachers and students alike when it comes to the context of the language classroom [3]. Many of those alternatives are dependent on interfaculty cooperation and the development of



interdisciplinarity, as just some of the many advantages of the CLIL method inclusion in L2 teaching.

Moreover, the CLIL method accentuates the creation of students' intrinsic motivation for language learning by allowing them access to not only the purely linguistic and pragmatical aspects of it, but by also granting them with the opportunity to gain "non-philological" knowledge [2] (p. 59) and communication skills. This, in turn, as Beko [2] (p. 59) points out, would indubitably lead to the development of skills like creativity and innovative critical thinking which are pivotal for further development and success no matter the field of study.

Nevertheless, the many positive points of CLIL notwithstanding, this teaching method is still heavily compared to ESP or *English for Specific Purposes*, even though there are many notable differences between the two approaches. Most emphasis is put on the actual aims of the two approaches which are teaching and learning of a foreign language on the one hand, and the focus on content on the other, for ESP and CLIL respectively [4] (p. 69). The factor which contributes most to the wide acceptance of ESP compared to CLIL may be, in part, due to CLIL's complexity and the demands it places on the teacher. While ESP is focused on providing students with sufficient language skills for them to master a certain subject matter, CLIL is "dual-focused" and places equal emphasis on both the language *and* the subject matter [4] (p. 69). With that being said, compared to ESP, the CLIL method "triggers more intensive cognitive activity due to the lessons that are centred on simulating the linguistic intelligence through enhanced reasoning and communication across cultures" [5] (p. 362). It is, thus, obvious that for the CLIL method to be applied appropriately, there are numerous demands which need to be met, both on the side of the teacher, the curriculum, and the teaching materials, as well as on the side of the student.

#### 2. CLIL Teaching Materials – from NO to YES

When it comes to the matter of the teaching materials, however, that is where we enter an arena of the underdeveloped, if not absolutely vacant. Though the market for ESP textbooks may be filled with titles on English for economists, medical workers, management, sports, etc. to name a few [6] (p. 318), there is a glaring insufficiency of those titles based on the CLIL method. Despite the many advantages of the CLIL method, recent analyses have shown that CLIL-based materials are lamentably unavailable [7] (p. 206). This is a trend heavily noticed among language teachers, that teaching materials based on the CLIL method are scant and that they are put in a position where they need to create their own [8] (p. 139) in order to accommodate for the proper integration of the 4Cs in the language classroom.

The aforementioned inevitably leads to the teachers themselves taking on the mantles of textbook authors and writing textbooks for their students [6] (p. 318). This, of course, is a serious undertaking since the teacher here is doubly exposed, for not only does he/she have to bear in mind the linguistic demands of the material, but also the relevance and accuracy of the content which most often deals with non-philological subject matters. Teachers with the aspiration to create CLIL materials at a university level are expected to have a great level of "didactic flexibility", but also access to a facilitating academic environment with a dynamic approach to the transformation of approaches to learning [7] (p. 206). Moreover, the active engagement and participation of teachers in creating new and class-appropriate teaching material may contribute to overall school effectiveness.

As Coyle, Hood and Marsh [8] (p. 159) stress, the creation of quality CLIL material can demand of the teacher not to modify or assess an already existing text, but to write a completely new piece of material for their class. For this purpose, teachers of the CLIL method have to be



well-versed not only in the language, but also in the subject matter which they are in the process of teaching/writing [2] (p. 25). As Beko, Mićović & Imami [5] (p. 362) write, CLIL professors need to apply "new methods, teaching materials and approaches" whilst at the same time becoming facilitators and mediators on a crossroads of language and specific subject matter teaching.

Moreover, as if the very act of producing a quality CLIL textbook is not enough of an undertaking, it must comply with the dual concept of integration which is at the core of CLIL. According to Mehisto [10] (p. 16), CLIL teaching materials strive towards creating "relational links between intended learning, student's lives, the community and various school subjects". He goes on to explain that real CLIL material should foster student understanding of what learning is and how it can be applied outside of school, through building intrinsic motivation and guiding students towards independent research [9] (p. 16). This was also expressed by Beko [2] (p. 35) who says that the CLIL curriculum, ideally based on CLIL material, should follow a "transformational curriculum" which goes against the traditional one which insists on basing the schooling of students on "understanding and possessing the greatest amount of information". CLIL materials and textbooks should be directed at providing students with an all-encompassing, open view of the subject matter, through adequate language, in order to create a learning environment of opportunity, creativity and intuitive rationalization.

Many of these aspects of CLIL material which have been discussed in the paper, have been incorporated in the recently published textbooks "English for geology students 1" and "English for geology students 2" by the author Lidija Beko. In publishing these textbooks, professor Beko seems to stay true to her words that "it is essential that 'tedious' harmonisation, conformity and inertia should never become a reality" [2] (p. 43) when it comes to the foreign language teaching practice. Following the tenants of CLIL, these textbooks seem to represent a showcase example of the strivings of CLIL, and as such will be discussed in terms of their development of and contribution to the four Cs and the CLIL teaching method in general.

#### 3. Structure and Content of the Textbooks

Textbooks are seen as an integral part of any language classroom, with both the students and the teachers relying on them as the primary source of study, practice, and teaching material. Well-designed and carefully written textbooks have long constituted an indispensable part of any curriculum, especially in the pre-Internet era, since they were the focal points of references for main and auxiliary resources for classroom use. As Richards [11] (p. 127) points out: "the extent of language activities worldwide could hardly be sustained without the help of the present generation of textbooks". Adding to the advantages of using textbooks, Hall [9] (p. 213) writes that textbooks "provide a written record of what has been studied, allowing for revision and continued study beyond the classroom". Thus, it logically follows that a CLIL classroom should also find itself in need of textbooks, since they are defined in its theoretical scope as "the central connection between the curriculum and the student" [7] (p. 206).

The two CLIL textbooks in question, "English Language for Geology Students 1" and "English Language for Geology Students 2" will be regarded through the lens of their adherence to the tenants of CLIL and its expectations when it comes to creating valid teaching material. The basic concept as defined by Mehisto [10] (p. 17) states that "CLIL-specific learning materials support the creation of enriched learning environments where students can simultaneously learn both content and language, whilst becoming more adept learners of both". Furthermore, when referring to the specific context of teaching CLIL at University level, Beko



[2] (pp. 48-49) writes that CLIL material should also allow for the development of academic discourse whilst focusing on spoken production and verbal rationalization.

All this points to the many complexities surrounding the creation of appropriate CLIL textbooks. However, the two textbooks clearly show that such a task is not impossible. Focusing on the field-specific language of geology, prof. Beko's books will be taken as study cases for the teaching of English for geologists. The two books are divided into six units each, every unit focusing on a different area of geological study. Namely, the first book contains units on Minerals, Fossils through times, Geological theories through times, Continental drift, The Rock Cycle and Weathering, Erosion and Sedimentary rocks, whereas the second book's units cover the topics of Landslides, Metamorphic Rocks and Gemstones, Mineral deposits, Hydrological cycle and groundwater, Surface water and Glaciers and Geophysics. It is clear that the first "C" referring to valid "content" has been covered.

Following the principles of CLIL, content must be integrated with studying since it is equally important as the language itself, and it serves as the main motivating factor since it assures the full meaning and importance of writing [6] (p. 321). In the case of these textbooks, each text is around 1000 characters long, and provides ample information on the subject matter at hand, serving as a valid study tool in its own right, as an introductory course to basic geological concepts. Beko writes: "When a language teacher decides to help students learn geological or mining concepts, he primarily draws attention to the cognitive complexity of a given context" [2] (p. 50). Indeed, the language in which the texts in the textbooks are written is on a high level, as is to be expected from a scientific text. This is a clear demonstration of the *authenticity* of the teaching material, as defined by Beko and Mićović [6] (p. 319). They state that a text should, in fact, be complex and unabridged since simplified texts run the danger of creating a deceiving model of "unnatural and inappropriate" language [12] (p. 319).

The reading texts included in the textbooks demand active participation and focus on behalf of the student, not only because of the complexity of the language, but also because of their encounter with the geological subject matter itself. As Beko [2] (p. 47) writes: "Language in geological science is not only a matter of expertise, but also requires a student to become a good scientist and writer, and moreover, a self-confident and convincing exhibitor of his knowledge and identity". Thus, the marked complexity of content in the textbooks is in line with the science it covers and with the expected level of knowledge one should have upon finishing the planned course.

Each text is followed by a vocabulary section, where the extracted words have been divided into three categories: Academic Flashcards, Geological Flashcards and Mineral Flashcards. The term "flashcards" seems to have been used to emphasize that those words have been specifically targeted since they represent high-frequency vocabulary which is necessary for vocabulary development [12] (p. 292). Moreover, even though teaching and learning vocabulary through this kind of "guided" process may seem a bit on the traditional side, the approach differs in the sense that it deters from the techniques of purposeful vocabulary teaching and allows the students to develop their own strategies of memorizing the vocabulary, making "flashcards" only a suggestion within a pool of options. This, in turn, increases the student's independence and he/she is encouraged to find his/her own way and pace of learning vocabulary [13] (p. 175).

Another interesting aspect of content appropriation in the textbooks is its multilayeredness. The concepts introduced and developed in the reading texts are later furtively revised and expanded through the "non-scientific" parts of the unit. Namely, each unit is divided into three reading parts, followed by the following segments, in order: Grammar Spot,



Geological Wonders, Profession, Geology Mystery Files and Geology through Myths. Each of these sections deals with the topic previously discussed in the reading texts and further expands on it by providing the students with material which is out of the purely scientific scope of the first three parts, accentuating the intrinsic and indivisible connection between the lingo of academia and the "outside world". Moreover, these segments also point out the practical applicability of the concepts learned in the reading texts. This is what Mehisto states should be one of the aims of a CLIL textbook - to incorporate authentic language and authentic language use [10] (p. 22).

It is interesting to note that this kind of content presentation is also an example of *scaffolding*, which is found at the core of the CLIL method. Scaffolding represents a form of "aided learning" and it relies on the idea that students are to be aided in the process of learning by using "scaffolds" i.e. to help them reach an attainable level of knowledge, through texts, tasks and situations which are not too cognitively demanding, yet still represent a challenge [6] (p. 320). Gibbons [14] (p. 8) states that through scaffolding, students are led to achieve beyond what they could reach on their own. This is particularly important for CLIL, since here students are faced with a double challenge – not only do they need to learn a new language, but they are also faced with a new (and potentially difficult) subject matter. Scaffolding here serves the purpose of mitigating cognitive overload. Walqui [15], as described in Mehisto [10] (p. 24) suggests "contextualizing (adding context to academic language)" and "re-presenting the text (using a new genre to present the same content)" as some of the strategies through which to apply scaffolding. "The ultimate goal of scaffolding", Mehisto [10] (p. 24) writes, "is to support students in becoming self-directed learners who can seek out resources and people to support them in their ongoing learning".

In the context of the two textbooks, content scaffolding has been achieved through a form of "material dispersal", which means that once the subject matter has been defined and explained in the text, it is immediately put into a different context in the following segments, most notably in the segments: Geology Mystery Files and Geology through Myths. These two segments represent the actualization of the Fourth "C" – Culture, since they are a blend of content and real-life/historical scenarios, which greatly vary based on the circumstances surrounding them.

#### 3.1 The comic strip

The first segment, Geology Mystery Files is an innovative contribution in the field of teaching English to geology students, since it deals with the subject matter in a rather intriguing manner. Namely, each unit in the textbooks has this segment which could be divided into two parts, the first one being the story of the "mystery file" in question, whereas the second part is a comic-strip presentation of the said story. The use of a comic strip in a university textbook is a prime example of the diverse opportunities offered to teachers and students through the CLIL method since it allows for a plethora of applications [16] (pp. 148-149). All the stories included in the segment and subsequently visually represented in the comic strip are from the field of geoforensics, which is a real-life demonstration of the applicability of knowledge in geology. Moreover, this crossover demonstrates a shift in focus in the very idea of a university textbook. By allowing the students a window into a real-life scenario in which they can see the pragmatical application of an abstract concept, this becomes an "experience simulation" which moves the purpose of learning from the educentric to the lifelike, in accordance with actual, realistic expectations.

The instructions for this segment of the units go as follows:



These real-life mysteries are examples of complex multi-disciplinary processes, involving geologists, the police/investigators, witnesses, the judiciary, and the media. Running through the textbook, they provide a basis on which students can build role plays to practise the communication of detached geological knowledge and facts to other disciplines. Teachers should feel free to improvise with the material to best meet the needs of their students. [17] (p. 39)

In the instruction for the segment, we can see an intention for meaningful learning to be engaged. This kind of learning, according to Mehisto [10] (p. 25), allows students to develop their learning autonomy through the control of their experience of learning. By having an open-concept approach to what can be perceived as a language exercise, but is more than that in a CLIL context, the students can develop a sense of free-reign over their knowledge, while the teachers are encouraged and motivated to actively engage in the development of the textbook. In this sense, the textbook becomes only a starting point, an aid, in a much more complex process, rather than the focal point of the process.

Furthermore, one aspect of using comic strips in L2 teaching is the incorporation of what can be termed "experiential learning" which Consorti et al. [18] define in the context of teaching medicine, but could equally be applied to any other scientific field. Experiential learning, thus, "emphasizes practical application of knowledge, reflection, and active involvement" [18] in events which are made to resemble those students could be faced with once they engage in active application of their studies.

Another extremely important aspect of the incorporation of comic strips in the textbook is the visual enhancement of the learning experience. Beko & Mićović [6] (p. 318). point out that "illustrations are one of the most visible parts of the teaching material" and are a significant help when it comes to singling out and organizing information. Granted, the textbooks are indeed very generously illustrated with relevant photographs, models and 3D illustrations which serve as practical demonstrations of the concepts defined in the texts, since geology (and mining) "rely heavily on presentations [and] key products of geological practice include the verbal and visual presentation of data through maps, graphic trees, sketches, field notes, stereotypes, graphs, 3D techniques, etc" [2] (p. 46). These visual representations, as stated by Coyle, Hood & Marsh [8] (p. 125) can be used to guide CLIL implementation.

Nonetheless, the implementation of the comic strips in a textbook goes beyond the visual. There are many aspects of incorporating a comic strip in a scientific textbook. Firstly, it has the capacity to convey different kinds of messages in an artistic manner [16] (p. 146), thus easing the acquisition and memorization of the information. Secondly, the humoristic side of the comic strip makes the content more interesting, and the retention more probable and longer lasting [16] (p. 146). Thirdly, by "disrupting" the expected pace and structure of a university textbook, which translates into a more dynamic classroom, the use of comic strips in class can help create a positive learning environment in which the student feels encouraged and supported to express their own creativity and thoughts [16] (p. 147).

The use of comic strips in a CLIL textbook is envisioned as a combination of a reading and speaking activity, in which the students are given a narrative of the story in the comic first, followed by its visual representation. The exercises for this segment could be based on the students completing a story based on the information in the comic [16] (p. 148) or trying to predict the outcome of a certain situation. Also, the comics themselves could be altered in such a way that the speech balloons could be covered, and the students are required to fill in the conversation based on the information from the narrative [16] (p. 148). The possibilities for



using this segment abound and it could be a welcome break from a scientific and strict approach to a complex subject matter. In the paper by Consorti et al. [18], on the use of comic strips within a medical classroom, it was explained that students' reactions to the comics were overwhelmingly positive. They point out that one of the primary reactions noticed was that of *engagement*, whereas *enjoyment* was the subsequent most frequent one [18]. This only goes to show that even in a high-stress and high-anxiety scientific classroom, the use of comic strips serves not only an educational, but an alleviating function as well. Furthermore, as a scaffolding technique, comic strips can be used to help loosen the feeling of cognitive overload mentioned earlier in the paper as well as relinquish the anxiety connected to the polarizing right-wrong answer context of a traditional classroom. The use of comic strips allows for the application of newly acquired language without tension and with a fluidity stripped of the burden of accuracy.



Figure 1. Example of a comic strip from the textbook (Credit: Mijat Mijatović)

#### 3.2. Geomythology

Another segment in the textbook where we have a merge of narrative and the visual is the segment "Geology through Myth". This, of course, heavily relies on the concept of *geomythology*, which is a term coined by Dorothy Vitaliano, a geologist at the University of Indiana. By geomythology we consider the tales and stories surrounding the origin and occurrence of certain geological phenomena, which we know today are based on certain natural processes. However, these myths are not to be neglected, since they do provide certain



information on big geological events such as earthquakes, tsunamis, volcanic eruptions, or floods, to name a few [7] (p. 207) from times when there were no official records of such occurrences.

This novel approach of using the subject matter of geomythology to further enhance and elaborate on the linguistic content is fully supported by CLIL, since it heavily relies on the incorporation of the C referring to culture in the very creation of the teaching material. Since content cannot be extricated from culture, this experimental model rests on three didactic goals [2] (p. 63): 1. to deepen the interest of students in geological heritage through myth; 2. to increase the linguistic productivity and creativity through narration; 3. to serve as an incentive for further modernization of the students' linguistic and scientific manuscript. The use of geomythology in her textbooks has been explained by Beko herself, who said "through the idea of using myth, we wanted to tap into the geoheritage of the planet and, through language exercises of debating, practice and acquire discourse constructions which would allow students to express, question, state disagreement and agreement in a new, useful and easily memorable way" [7] (p. 208).

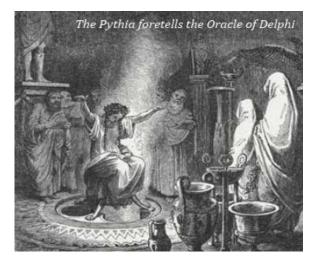
Furthermore, another important aspect to be taken into consideration when discussing the use of myth, specifically geomythology, in a CLIL textbook and classroom is its potential for the development of intercultural consciousness [4]. The myth in general is a very complex narrative form in which we find a core system of intertwined religious, economic, managerial, and familiar aspects which create unbreakable systems with a profound effect on our world view [19] (p. 570). It must go without saying that such a concept is at the very essence of CLIL for its capacity to actively engage the speaker in the subject matter while activating different aspects of the thought and learning process, precisely through the complex connection between language, culture, and communication.

What is more, as was the case with the comic strip, there is a visual representation for almost all the geomythological narratives in the textbooks. This is in line with Mehisto's [10] (p. 25) criteria for creating CLIL-specific material, since it fosters an environment where facilitates meaningful learning, and allows students of different learning and study preferences to have choice and some control over the learning process. Moreover, all the myths are connected with the topics discussed in the textbooks, so it is also a form revision and hands-on application of what was learned. Additionally, since the incorporation of geomythology is an example of a multidisciplinary approach, it can also be used towards "identifying data on past events from the history of our planet" [2] (p. 63) further strengthening the linguistic connection between content and culture within the textbooks.



Technium Social Sciences Journal Vol. 52, 85-96, December, 2023 ISSN: 2668-7798 www.techniumscience.com

**Figure 2**. An example of a picture accompanying the myth narrative in the textbook (Gas Induced Prophecies of the Oracle of Delphi)



This approach, furthermore, can also inspire students to see their own subject matter from a different point of view. By fostering intercultural competence, students are directed to explore (individually even) certain cultural segments, such as cultures of a specific community or from a specific area, encouraging understanding, respect, and cooperation [20] (p. 484), with no regard for race, gender, economic status or any other form of social branding or prejudice.

There is a plethora of ways in which the geomythology segment of the textbooks could be used. The author herself focused on those exercises which enhance and combine academic skills analysis, synthesis, hypothesis, innovation [2] (p. 64)– through academic speaking. For each myth covered in the textbook, the students are given a lead-in on a certain point in academic speaking, followed by useful phrases and expressions which they are to use in a subsequent debate on the topic of the myth.

The author then suggests one or two debate statements where the students are encouraged to discuss on the issues at hand. For example, the statements from the Oracle of Delphi myth are: **"The Oracle of Delphi is nothing but a hallucinogenic gas."** or **"The fame of the Oracle of Delphi is due to hallucinogenic gases."** [17] (p. 177). By extracting the geological matter from the proposed myths, the students are given an opportunity to take part in a debating atmosphere with offered phrases and expressions (facilitating the use of proper discourse and mitigating the anxiety of verbal performance), and they are also directed to use and develop skills of hypothesizing, evaluating, summarizing, analysis, to name a few [7] (p. 208) thus developing their proficiency in academic discourse. In addition, the geomythology segment of the textbook opens the opportunity to insert the Flipped Classroom model of teaching in which "the students acquire a leading role in their learning, while the teachers act as a guide facilitating the learning content." [9]

The use of geomyth in a CLIL textbook can be perceived as taking students on a journey which opens their eyes to different and diverse realities through raising intercultural competence which nurtures open-mindedness and acceptance [19] (p. 573). From an educational perspective, both the myth and the comic strip carry great teaching and learning potential, since they make way for numerous new and dynamic approaches to language learning and teaching, all of which can be different from one another since they reflect the individuality and specificity of the teacher, student or class in question. This malleability of the material, despite its scientific



Technium Social Sciences Journal Vol. 52, 85-96, December, 2023 ISSN: 2668-7798 www.techniumscience.com

and methodological backing, is a showcase of the advantages of CLIL within a specific scientific context and goes great lengths to show that it is indeed possible to teach in compliance with CLIL.

Figure 3. An example of a proposed academic speaking lead-in

#### Asking for opinion

English is a language in which everything we say needs to be backed up with arguments and/ or said in a tentative, indirect way so as not to sound like we are imposing our opinion, but still stating it loud and clear.

Alongside with this, we also need to pay attention to our co-speakers. It would be considered extremely rude to simply spew out our own thoughts on an issue without asking the other person/people to express their own opinions on the matter.

However, since the nature of English is such as it is, this too has to be done in a very polite and inviting manner. Of course, we have many phrases which are used for this, but the ways in which one can do this is in no way limited to the following expressions.



#### 4. Concluding remarks

As was stated before, creating CLIL-specific material is no easy feat, since it demands the full engagement on behalf of the teacher and the whole academic community in which the teacher operates. Not only would it have to cover both the linguistic and the field-specific side of the matter, but it would also have to be created in such a way to actively engage the students and motivate them on various levels in order to facilitate learning and acquisition. The overarching goal of any CLIL material, in this case textbook, should be to create a safe learning environment, in which the students can express and use their language in a stress-relieved way, knowing full well that they are not being constantly scrutinized or assessed, but that the sole goal of any activity is to help them learn.

The two textbooks covered in this paper go a long way in the right direction. With the adequate division of units, logical organization of the material, alongside the additional, "non-scientific" segments, the textbooks prove that it truly is possible to write and teach based on CLIL material and that the advantages abound. Focusing specifically on the two innovative aspects of these textbooks – the comic strip and geomythology – it is demonstrated that the CLIL approach offers a freedom not present in the traditional, or even the ESP approach to language learning, since it is not solely focused on content, but the intricate network of connections which inextricably bind content to cognition, culture and communication. Through the application of the CLIL method in these textbooks, what is created is a well-rounded approach to L2, giving the students ample knowledge and skills to tackle different tasks and linguistic undertakings, be it in a school/university environment, or in real-life scenarios and situations.

Removing the expected educentric core from these textbooks, they demonstrate the capacity of CLIL to generate a language learning material which is both visually and lexically developed, with the sole aim of increasing the students' competence both in terms of L2 acquisition as well as critical independent thought, with an added emphasis on intercultural competence. The textbooks grant students the possibility to learn the language, practice reading



and speaking, gives insight into the world outside the confines of university structure, and in so doing, prepares them for extracurricular situations where they will be asked to cope on their own, without the safety net of a classroom. Moreover, by including cultural aspects, through comic strips and geomythology, inspiring students to do independent research and further exploration, the textbooks accentuate the need for multiliteracy and a multidisciplinary approach to language learning, with the aim of developing intercultural competences in students, which is now needed more than ever in the out-of-school world, and which is at the very heart of the CLIL method.

#### References

- [1] Piquer Vives, I., Galés, N.L. Interview: Reflecting on CLIL innovation. An interview with Do Coyle and Elisabet Pladevall. Bellaterra Journal of Teaching & Learning Language & Literature, **2015**, Vol. 8(1), pp. 86-93.
- [2] Beko, L. INITIAL APPLICATION OF THE CLIL METHOD AT THE FACULTY OF MINING AND GEOLOGY. Faculty of Mining and Geology, University of Belgrade, 2021.
- [3] Zhu, R., Chan, S.Y. The Clash between CLIL and TELL: Effects and Potential Solutions of Adapting TELL for Online CLIL Teaching. *Appl. Sci.* **2023**, *13*(7), 4270; <u>https://doi.org/10.3390/app13074270</u>
- [4] Yang, W. THE DEVELOPMENT, ADOPTION AND EVALUATION OF THE INTEGRATION OF AN ESP AND CLIL TEXTBOOK: PERSPECTIVES FROM THE CLIL LEARNERS. ESP Today, 2020, Vol. 8(1)(); pp. 68-89. e-ISSN:2334-9050. Retrieved from:

https://www.esptodayjournal.org/pdf/june\_2020/4\_Wenhsien\_Yang\_full\_text.pdf .

- [5] Beko, L., Mićović, D., Imami Malja N. SUPPORTING THE DEVELOPMENT OF THEORY OF PRACTICE IN CLIL CLASSROOM IN HIGHER EDUCATION - A CASE STUDY OF FMG. IRASA Conference- SETI II 2020, Book of Proceedings. Belgrade, 2020, pp. 360-366.
- [6] Beko, L., Mićović, D. SOME ASPECTS OF IMPROVING ENGLISH LANGUAGE TEXTBOOKS FOR GEOLOGISTS AT THE UNIVERSITY LEVEL: CLIL VS. ESP. Philologist, University of Banja Luka, 2022, XIV 2023/27, pp. 317-331.
- [7] Beko, L., Mićović, D. THEORY OF PRACTICE AND A BRIEF OVERVIEW OF TASK DESIGN IN UNIVERSITY CLIL TEACHING – AN EXAMPLE OF GEOMYTHOLOGY. Philologist, University of Banja Luka, 2022, XIII, 2022/25, pp. 203-221.
- [8] Coyle, D., Hood, P. & Marsh, D. CLIL: Content and Language Integrated Learning. Cambridge University Press, 2010.
- [9] Hall, G. Exploring English language teaching. Language in action. Oxon: Routledge, 2011.
- [10] Mehisto, P. Criteria for producing CLIL learning material. Encuentro 21, 2012, pp. 15-33. ISSN 1989-0796. Retrieved from: https://files.eric.ed.gov/fulltext/ED539729.pdf.
- [11] Richards, J. Beyond training. Cambridge: Cambridge University Press, 1998.
- [12] Beko, L. SOME CONSIDERATIONS OF DEVELOPING MULTILITERACY THROUGH FOREIGN LANGUAGE TEACHING. IRASA Conference - SETI V 2023, Book of Proceedings, **2023**, pp. 290-297.
- [13] Beko, L. Vocabulary Acquisition through Lexical Cards. Language for Specific Purposes: Challenges and prospects, Book of Proceedings, **2011**, pp.172-181.



- [14] Gibbons, P. Scaffolding Language Scaffolding Learning: Teaching Second Language Learners in the Mainstream Classroom. Portsmouth: Heinemann, 2002.
- [15] Walqui, A. Scaffolding Instruction for English Language Learners: A Conceptual Framework. The International Journal of Bilingual Education and Bilingualism, 2006, 9 (2), pp. 159-180.
- Beko, L., Mićović, D. Comic Strip and Geoforensics in CLIL English Language Classes
  Students' Attitudes. Teaching Innovations, Belgrade, 2022. XXXV, 2022/1, pp. 144-156.
- [17] Beko, L. English for geology students 1. Faculty of Mining and Geology, University of Belgrade, 2023.
- [18] Consorti, F., Fiorucci, S., Martucci, G. and Silvia Lai. Graphic Novels and Comics in Undergraduate and Graduate Medical Students Education: A Scoping Review. *Eur. J. Investig. Health*
- [19] Beko, L. ASPECTS OF RAISING INTERCULTURAL AWARENESS BY MEANS OF MYTHS THROUGH CLIL APPROACH ON GEOLOGICAL STUDIES. CULTURE OF POLIS, **2018**, XV/35, pp. 567-576.
- [20] Beko, L. PROMOTING THE TEACHING OF INTERCULTURAL COMPETENCE THROUGH CLIL APPROACH IN HIGHER EDUCATION INSTITUTIONS. CULTURE OF POLIS, **2017**, XIV/34, pp. 483-490.