Redefining schooling: Implementing crosscurricularity to create critical thinkers with viable learning strategies

Konstantina Iliopoulou & Alexandra Anastasiadou

Abstract

The aim of this paper is to delve into the crosscurricular approach that will aid the students of the first grade of the Greek state high school to explore the Greek and English language in order to trace similarities and differences between the two subjects concerning vocabulary, morphology, pronunciation, grammar and pragmatics. In this way, the learners will develop transferable learning strategies which will render them autonomous learners. Furthermore, the concept of Multiple Intelligences will be fully capitalised on in the sense that the teaching methods employed in the classroom must correspond to the students’ preferences and fend for all learning styles. Tentative suggestions are introduced for ameliorating schooling that will be appropriate to learners’ needs for independence and social development as well as for redetermining the teacher’s role as a facilitator rather than a transmitter of knowledge.

Key words: Crosscurricularity, Learning Strategies, Young Learners, Fostering Learning Autonomy

1. Introduction

For the sake of our discussion, it is imperative to adopt a definition of the term “learning strategies” in order to clarify what they encompass and how they can be inculcated in students. Coyle and Varcarel (2002, p. 424) admit that despite the existence of abundant research on the importance of learning strategies in the learning process, the experts have failed to reach a unanimously accepted term for the notion of strategy. Thus, various conflicting or overlapping terms have been coined with reference to strategies:

- Wenden (1987) talks about learning behaviours,
- O’Malley and Chamot (1990) refer to thoughts and behaviours, whereas
Even though it is evident that consensus is difficult to be achieved, in this paper we will follow the perception that strategies are specific techniques that individuals use to ease acquisition, storage, retrieval and use of knowledge (Oxford and Schramm 2007, pp. 47, 48).

1.1 Classification of strategies

In an effort to clarify the taxonomy of strategies, Cohen (1996) distinguishes strategies into strategies for language learning i.e. grouping together and strategies for using language namely retrieval and rehearsal strategies. The retrieval strategies entail recalling stored knowledge whereas rehearsal ones involve experimentation with target language structures with a view to tracing the one that fits best in each learning context. Compensatory strategies (i.e. guessing from the context, using synonyms) which aid the learner to make up for missing knowledge are considered to belong to both language learning and language use strategies by Oxford (2003). In an attempt to support her view, she contends that useful as they may be for language use compensation strategies of any kind are also indispensable for language learning.

Finally, Cohen (1996) further differentiates language learning and language use strategies into cognitive and metacognitive ones. Cognitive strategies embed identification, retention, storage and retrieval of appropriate components. Metacognitive strategies refer to planning our next move, solving a problem, testing the efficacy of the solution, revising and assessing the outcome.

1.2 Importance of strategies: Literature review

Given the importance of strategies to the expand students’ learning capacity, the need for strategy training has been stressed by various theorists (Willing, 1987; Vogely, 1995; Oxford, 2001) in order to empower students to develop awareness of these cognitive tools which will aid them to become independent learners. This need for strategy training has been substantiated by a host of research revealing statistically significant correlation between strategy use and language performance, pinpointing that more able learners apply strategies to a greater degree than their low-proficiency counterparts (Oxford & Nyikos, 1989; Green an& Oxford, 1995; Dreyer and & Oxford, 1996; Goh & Foong, 1997; Mochizuki, 1999; Sheorey, 1999; Wharton, 2000, Griffiths, 2003; Lan & Oxford, 2003; Peacock & Ho, 2003; Psaltou-Joycey, 2003).

When young learners are involved strategy training should reflect methodology focusing on how these children think and learn languages. Coyle and Varcarel (2002, p. 455) recommend “a supportive and affective learning environment”. Such an encouraging learning milieu is ensured through taking account of different learning styles and intelligences (Gardner, 1983; 1999) and promoting learning across the curriculum.

The usefulness of applying crosscurricularly in the young learners’ language classroom is also stressed by Brewster, Ellis and Girard (1992, p. 37) who claim that crosscurricularly aids children to
learn how to learn by developing thinking strategies, study skills and continuity of learning throughout the curriculum. In the Greek reality Matsaggouras (2003) highlighted the contribution of crosscurricularity to the synthesis of knowledge and the evolvement of the students’ critical thinking.

2. Relating crosscurricularity to Multiple Intelligences

The key concept of the crosscurricular pedagogy is the synthesis of school knowledge by abandoning the separating lines of the school subjects which compartmentalise knowledge boosting, consequently, a multifactorial analysis of concepts that entails different subject areas. At the same time, its goal is the promotion of the learners’ abstract reasoning, learning strategies, discovery of knowledge and socialisation through cooperation (Matsaggouras, 2003).

Crosscurricularity is in alignment with the Multiple Intelligences Framework as presented by Gardner (1983, 1999). Instead of one unified type of intelligence Gardner (1983, 1999) corroborated that there are several types of intelligence and learners exhibit different combinations of intelligences, which must be accommodated in teaching. He identified the following kinds of intelligence:

Students with “linguistic intelligence” employ language in a creative mode, while those with “visual intelligence” need to see to assimilate knowledge. “Bodily-Kinaesthetic” learners need to move and touch things in order to learn, “interpersonal” students want to collaborate with others while “intrapersonal” ones opt for individual work. “Musical Intelligence” helps us to identify rhythm and relate it to knowledge and “logico-mathematical intelligence’ refers to numbers, deductions and abstract thinking. Finally, “Naturalistic intelligence” embeds interaction with nature.

The crosscurricular approach is beneficial to the learners by advancing the multiple intelligences through the link of the different disciplines. Consequently, foreign language learning and mother tongue teaching are not constrained to language learning only but they also incorporate interpersonal and intrapersonal communication, rational thinking through comparison and problem-solving by making deductions.

3. Suitability of crosscurricularity to teaching young learners

Having discussed the contribution of crosscurricularity to the advancement of the different frames of mind that the learners possess, this section will probe the efficacy of the cooperation of the Greek language and English language across the curriculum to assist young pupils to promote their critical thinking and acquire learning strategies.

Crosscurricularity is in compliance with the way young students think and learn. Young learners are still developing socially, cognitively and physically and require teaching methods appropriate to their needs.
Children require social interaction in order to access and process knowledge (Vygotsky, 1978). Vygotsky’s (1978) theory of Zone of Proximal Development (ZPD) highlighted that children can ameliorate their performance through the cooperative interaction between themselves and a person more knowledgeable than themselves, namely the teacher or a more capable peer. In the crosscurricular framework, this collaboration and reinforcement can be attained by assisting learners to find ways to spot information and trace links, that is similarities and differences while working on L1 and L2.

Bruner (1975, 1978) contended that learners need “scaffolding”, that is aid by the teacher and more capable peers so as to be empowered to perform better. A very significant factor in engaging students to collaborate with others rather than work on their own is by putting forward the importance of group work. The profit of pair and group work must be clarified to young learners in order to involve them actively in the learning process and raise their expectations during the incorporation of crosscurricular activities concerning L1 and L2.

This active participation of learners in the learning process offers them the potential to become constructive and increase knowledge and intelligence (Wood, 1998). Only in this way, will children unfold their creativity and take on responsibility of their own learning process. Taking this notion a step further, Brewster, Ellis and Girard (1991) suggest that teachers facilitate students to discover knowledge instead of presenting it ready to them. This discovery is a focal issue to the fostering of learner autonomy. In comparing and contrasting L1 and L2 the students are given the opportunity to elicit rules and patterns and thus expand their metacognition.

Children need to feel safe in the environment where they learn (Williams, 1998). Their preferences and developmental level are of utmost significance and must be taken into account and promoted. Motivation is also a key element in an encouraging learning milieu (Grabe & Kaplan, 1996). Translated into the classroom setting, this stance calls for providing a positive, enjoyable atmosphere whereby students can work through synthesising information from the two subjects and gaining insight into the interrelations of the two languages.

Crosscurricularity offers them the opportunity to collaborate in an encouraging framework, whereby they discover knowledge, they cooperate actively in the learning process through the connection of the two subjects as in real life.

4. The crosscurricular component in the Greek educational reality: Defining new educational aims and redetermining the teacher’s and learner’s roles

This part of the paper will centre on the Greek educational context and its accordance with the interdisciplinary approach. Besides, it will present the philosophical assumptions of the new national curriculum which was based on the crossthematic framework and will specify its aspirations of requiring the learners to find interactions, influences and variations between the Greek and English language.
Various social, political, financial and cultural changes have taken place lately both at a national and an international level, which along with sweeping advances in technology necessitate the restatement of the general goal of education (Government Gazette 303/13-03-03: 3733).

In this vein, the traditional role of school constrained solely to the passive transmission of knowledge is being questioned. As a result, the Greek school is demanded to determine new priorities with the aim of assisting the students to evolve holistically (ibid: 3734) as follows:

1. to ensure the opportunities that will provide all learners with the ability to develop emotional stability, critical thinking, as well as willingness for initiative and cooperation.

2. to empower students to critically access the technological innovations of information and communication and simultaneously give equal learning opportunities to all people.

3. to sustain the spirit of the European citizen without affecting negatively the national identity and cultural heritage, though.

These educational priorities and the students’ holistic development could be best realised through the application of the crosscurricular approach. Karatzia-Stavlioti (2002, pp. 56-59) corroborates that the European Union following the global tendencies, selected alterations in the educational systems of its member states recommending new curriculum orientations based on the crosscurricular approach. Therefore, the Greek Ministry of Education assigned to the former Pedagogical Institute with the design of the new Crosscurricular Unified Framework of Programmes of Study and the individual/discrete Analytical Programmes of Study for the compulsory education, namely the primary and junior high school (Government Gazette, FEK 303/ 13-3-2003).

It is worth pinpointing that Matsaggouras (2003: 48-50) opts for the term inter-disciplinary approach rather than crosscurricular since the separate subjects are kept in the Greek curriculum as the basic structures of organising school knowledge.

The linkage between crosscurricularity and teaching is set in terms of reconceptualising foreign language and mother tongue learning as a means for real life communication through the interaction of the two subjects.

Furthermore, there is also a redirection of the role of the students and the teacher. In the crosscurricular context, the role of the student changes from a passive recipient of knowledge to a critical thinker who develops the ability of “learning how to learn” (Williams, 1991, p. 206) and monitors his own learning strategies and general learning process through experiential learning (Nunan, 2004).

Moreover, Matsaggouras (2003) stresses that one of the major targets of crosscurricularity is student-centredness in that the learners are trained to take decisions either individually or cooperatively, get involved in planning the activities they will engage in and eventually receive practice at evaluating both the product and the process of their learning according to the preset aims. The new national curriculum with its emphasis on the crosscurricular aspect favours self-development through
personal and group exploration, because its foundation is learner-centredness (Nunan, 1988) and task-based learning. Thus, the learners’ needs and preferences are placed in the centre of the curriculum.

Finally, the teacher’s role is redefined abandoning the position of a judge to adopt the fruitful post of a facilitator who aids students to reach knowledge and develop learning strategies. Only in this way will the learners manage to become “learners rather than learners” (Byrne, 1988, p.26).

5. The present study

5.1 The theoretical framework

The proposed approach may be applied in the first or second grade of the Greek junior High School as young learners have different learning styles and face certain difficulties in learning an L2. Greek Language and English are the subjects to be ‘cross-examined’. What is more, we compare the Greek and English language at a linguistic level focusing on morphological, lexical and phonetic differences and similarities in loans by raising students’ awareness through various texts and contexts. Based on the findings that underlie the “utility of morphological analysis as a vocabulary acquisition strategy—regardless of language origin” (Bellomo, 2009, p. 1), as well as that “general L2 motivations are mostly affected by factors related to students’ pronunciation skills” (Kusey, 2010, p. 4) and that vocabulary has a significant role in both the L1 and L2 acquisition context (Graves, 2006) we study morphology, vocabulary and pronunciation. Our aim is to promote Learning Strategies (i.e. guessing, recognising), to fully exploit Multiple Intelligences, to redefine the teacher’s role as well as to create critical thinkers.

The main principle of the proposed approach is to engage students into abstract thinking gradually moving from easy patterns to difficult ones. Therefore, according to the pedagogical principle of graduated difficulty, we start our crosscurricular approach with morphology as its patterns are easily recognisable in both languages. Next we move on to vocabulary where patterns are more obscure than they are in morphology, but still easily identifiable and eventually we work with pronunciation. Finally, we are based on deductive (top-down logic) as well as inductive reasoning (bottom-up logic). In particular, aiming at driving our students to abstract reasoning we help them reach a conclusion by themselves either from general statements or from specific examples.

5.2 The practical part

• Morphology

Based on studies of children’s lexical innovations which reveal that children use quite often morphological generalisations (Lowie, 1998), we work deductively and students are given various examples in order to come up with the rule. We start with Greek patterns as we want to encourage
them. Furthermore, as attitudes and motivation largely affect the students’ achievement (Masgoret & Gardner, 2003), we give them technical words that they are familiar with in order to motivate them.

Examples:

<table>
<thead>
<tr>
<th>English</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surf</td>
<td>σερφάρω /serfaro/ -suffix</td>
</tr>
<tr>
<td>google</td>
<td>γκουγκλάρω/ guglaro/</td>
</tr>
</tbody>
</table>

From these words they can easily form the following rule: “In Greek the words are assimilated by adding a suffix”. In doing so, our students also learn that if they do not understand a word, they should first try to guess its meaning by decomposing this word into recognisable parts (morphemes) and arrive at its meaning on the basis of these parts. So, they are encouraged to use the knowledge of word analysis they have gained in Greek. Undoubtedly, the strategy a student will employ in this situation depends on a range of interrelated factors, such as the frequency of this word, its decomposability along with the student’s level. Therefore, the choice of the examples to be given is critical. Concerning the above examples students of first grade are familiar with the verbal suffix –άρω and understand its meaning: somebody is doing what the root of the verb means.

Next the students are given Greek loans in English. For example:

<table>
<thead>
<tr>
<th>Greek</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Αθλητής /athlitis/</td>
<td>athlete (without the -s)</td>
</tr>
<tr>
<td>Αμνησία /amnesia/</td>
<td>amnesia</td>
</tr>
</tbody>
</table>

Students have already been taught that the English language does not exhibit a variety of suffixes. So they easily form another rule regarding the English language: “In English most loan words remain intact”.

* Vocabulary

In this phase we work deductively. So we start with the rule and we ask our students to find similar words. The rule they are given with is the following one:

“Even though *some words are loan words they display a different and sometimes opposite meaning*” and additionally they are offered some examples:

<table>
<thead>
<tr>
<th>English</th>
<th>Greek</th>
</tr>
</thead>
</table>
Empathy = ability to understand other peoples’ feelings
εμπάθεια = strongly disliking sb

Sympathy = feeling sorry for sb
συμπάθεια = liking sb

Next, they are asked in groups, as this exercise is more difficult than the ones regarding morphology, to find a certain number of words (e.g. 10 words for each group). They are provided with certain links on modern literature and they are advised to use their dictionaries, both the Greek and the English one.

Then they are given the following rule: “The process of borrowing words may function both ways”.

<table>
<thead>
<tr>
<th>Greek</th>
<th>English</th>
</tr>
</thead>
<tbody>
<tr>
<td>Γλώσσα</td>
<td>Language</td>
</tr>
<tr>
<td>Μεταγλώσσα</td>
<td>Meta-language</td>
</tr>
</tbody>
</table>

We explain to our students that in Greek we say “γλώσσα” whereas in English they say “language”. The English borrowed the prefix ‘meta-’ from Greek and created the term metalanguage. Then the Greeks borrowed this word again from English and they formed the term “μεταγλώσσα”. Thus, the process of borrowing words may operate reciprocally. Additionally, knowing that researchers have indicated a noteworthy connection between vocabulary knowledge and reading comprehension (Carver, 1994), students are asked to study various texts (pedagogical and scientific articles would be appropriate as many of their terms are loans from Greek) and to trace similar words.

The above approach promotes the meaningful learning process in lexical acquisition. Contrary to strategies for rote learning vocabulary, the significant step of our methodology emerges in that the cognitive factors coincide with the main steps students are prompted to take in acquiring familiar words.

• Pronunciation

Finally, we move on to more abstract reasoning procedures than the previous ones studying pronunciation. Furthermore, there is considerable evidence showing that phonology plays a structuring role in both first and second language lexicons (Ellis, 2003). In this respect, the students are given various words with a view to eliciting the rule, that is even though the words are written in English in exactly the same way as in Greek, the English do not pronounce sounds which do not exist in their language either in the beginning or in the middle of a word (i.e. ps, gn, pn)

<table>
<thead>
<tr>
<th>English</th>
<th>Greek</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pneumonia (silent p)</td>
<td>πνευμονία</td>
</tr>
<tr>
<td>Psychology (silent p)</td>
<td>ψυχολογία</td>
</tr>
<tr>
<td>Physiognomy (silent g)</td>
<td>φυσιογνωμία</td>
</tr>
</tbody>
</table>
After being exposed to various examples students are asked, either in pairs or in groups, to find similar words from a certain text that provided by the teacher (depending on the subject we are working with, e.g. health, education).

Next the students get insight into other pronunciation patterns like: Even though |ch| is pronounced /ts/, in loan words from Greek it is usually /k/, whereas in words of Greek origin English prefer to use the compound |ph| as /f/ instead of the letter |f|. They are given relevant words in order to understand the rule.

Examples:

<table>
<thead>
<tr>
<th>English words</th>
<th>Greek loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chair, cheerful</td>
<td>BUT chronology, chemistry</td>
</tr>
<tr>
<td>Fur, fat</td>
<td>physics, phobia</td>
</tr>
</tbody>
</table>

Then, they are asked to find similar patterns. It is a quite pleasant procedure and students find it interesting and challenging.

6. Discussion and teaching implications

The most striking difference between L1 and L2 learning is that L1 learners have to discover everything about language whereas L2 learners bring knowledge about language with them to the task (Ellis, 2003). L2 learners do not have to rediscover the phonological, morphological and/or lexical principles which operate in early L1 word learning. Rather, learners are called upon to seek for any connections between L1 and L2 that will help them apply any similarities on the specificities of the L2. After all, research shows that complete deletion of L1 in L2 situation is not appropriate (e.g. Larsen-Freeman, 2000; Nation, 2003). On the contrary, when used appropriately, the use of L1 can be very beneficial (Brown, 2000).

Furthermore, the growing literature on self-directed learning in the area of L2 education connects learner autonomy to success in language learning. ‘Successful’ or ‘expert’ or ‘intelligent’ learners are regarded those who have learned how to learn. As Wenden (1991: 15 in Gan, 2004: 389) states

“They have acquired the learning strategies, the knowledge about learning, and the attitudes that enable them to use these skills and knowledge confidently, flexibly, appropriately and independently of a teacher.”

Additionally, Critical Literacy (CL) is now a core component of Greek secondary school, both in Greek and English curricula (http://dschool.minedu.gov.gr/). Therefore, being literate involves more than decoding and passively absorbing text (Freebody and Luke, 1990). In response to this emphasis, it is
vital for English as a Foreign Language (EFL) educators to identify the points of contention with L1 as well as the possibilities for promoting students’ critical co-engagement with Greek and English texts.

Under this light, learners in the secondary education context should not be exposed to strategies of rote learning, which to a greater extent, limit the use of alternative learning strategies. Rather they should be motivated to use strategies which require deeper cognitive processes. At the same time, as teachers having to manage changes in the secondary school curriculum both in content and delivery, we realise that cross subject collaboration contributes to the synthesis of knowledge and the evolvement of the students’ critical thinking. Through the suggested approach language awareness is taught. Critical thinkers are developed within the framework of redefining schooling. The student’s role changes. Instead of being a passive recipient of knowledge he/she becomes an active participant. Thus, learner autonomy is fostered. Besides, developing learner autonomy means that learners are prepared to define their own goals, take risks, and experiment with new materials (Psaltou & Sougari, 2010: 389). The teacher’s role also changes as from a transmitter of knowledge he becomes a facilitator of the learning process.

To be more specific, students are prompted to identify the influence of one Language on the other, to differentiate between the two languages, to use language for critical thinking, to gain insight into Greek and English and, also, to practise literacy across the curriculum. Furthermore, Multiple Intelligences are fully capitalised at a linguistic, logicomathematical, visual, interpersonal and, finally, intrapersonal level as student social development is achieved through cooperation. Additionally, various learning strategies are developed. To start with, students’ metacognition is promoted as they are stimulated to plan their next moves, to solve problems concerning morphology, vocabulary and phonology in Greek and English, to test the efficacy of their solution, to revise and assess the outcome.

Concerning strategies students use a number of reading strategies as they are advised to guess meaning by using all the information available in a text, to notice links to similar words in their first language, namely Greek, to use a dictionary, to distinguish patterns and to group them for easier learning. As it is in the academic arena that students will come across an influx of content specific vocabulary throughout the curriculum, either for L1 or L2, recognising frequent roots and affixes that transfer across the disciplines can support students as they make sense and attempt to retain the meanings of new words. It is truism that in order to read effectively learners need different types of knowledge, such as semantic knowledge, lexical knowledge, grammatical knowledge and phonological awareness.

“Cognitive and language processes of literacy operate with knowledge and skills at many different levels, and successful literacy is the integration of information from each of these processes in the larger process of making sense of written text”.

(Cameron, 2001:123)

Additionally, they develop rehearsal strategies, in other words strategies for practicing and comparing various language structures, as well as retrieval strategies, which means strategies to call up language material from storage, along with compensatory strategies that help students elicit and classify
the new knowledge. All in all, in response to the lack of students’ awareness of the cognitive tools and strategies available to them, the explicit teaching of how, when, and why students should employ L2 learning strategies is greatly attained to a great extent (Cohen, 1998).

Finally, the implications about teacher-training are that those who train teachers must continue to prepare them for collaborative working. In doing so, as we have shown, teachers will be able to apply it in their classes in order to help their students meet the aspirations of the school curriculum planners whilst at the same time be mindful of meeting the demands of a reshaped curriculum.

7. Concluding remarks

While the reported literature provides substantial support for engaging in collaborative working as well as learning and teaching strategies, there are certain limitations. At the moment, the strategies and the teaching methods suggested in this article must be considered as working hypotheses. Empirical evidence is needed in order to justify our claims in favour of using the suggested strategies and activities to achieve the proposed goals for the Greek and English class.

References


Cameron, L. (2001). *Teaching languages to young learners*. Cambridge: CUP.


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