

your brain does. The benefits of learning a second language seem, in fact, to be proportional to the effort expended by the brain. Because language is complex, speaking or learning a foreign language gives your brain a good workout. It's now known that learning another language is one of the most effective and practical ways to increase intelligence, keep your mind sharp, and buffer your brain against aging.

But which is the most effective way of teaching a foreign language?

In addition to cognitive characteristics of the learner (e.g. IQ level, other languages that he/ she knows) that make it easier to master a language starting early in life, the environments in which native speakers and second language learners typically experience language vary in critically relevant ways. A suitable example which reveals the difference between these learning environments is that preverbal infants listen their language spoken for months before they begin to talk, giving them, for example, an extensive exposure to article-noun phrases before they have to produce them, and their first productions consist of one-word utterances. In contrast, students older than 5 years old and adult second language learners are expected to understand and produce complex sentences within the first weeks of instruction. This focus on larger communicative goals in the classroom could hinder attention to local relations among words, such as links between specific articles and nouns. Moreover, adult second language learners frequently see articles and nouns as separate items in written texts, which could also interfere with the process of establishing strong links between particular articles and nouns. Although top-down instruction from the teacher can help students form meta-level knowledge about grammatical relations, this type of learning may not facilitate the development of automaticity in using this knowledge in spoken language.

Moreover, because students learn Greek in classrooms with many other learners, they frequently overhear classmates making grammatical errors (e.g. ο κόκκινος πεταλούδα), which could also have negative consequences for the language representations they are in the process of forming. In addition to these, taking into consideration that Greek grammar is an aspect where most mistakes are been noticed, young and adult learners often listen Greek phrases grammatically wrong also from their family environment. All of these factors indicate that infants and adults encounter a new language in quite different ways. One consequence is that young students in Greek schools and adults learning a second language in a classroom do not go through the period of very gradual item-based learning of language-specific collocations, such as gendered articles and nouns or past tense verbs.

The significant results of my doctoral research combined with all the aforementioned factors in language learning and the fact that learners of Greek language and languages similar to Greek (e.g. Spanish, German, Italian) learn grammar from a teacher who often calls attention to grammatical rules - an approach that is less likely to support formation of the robust grammar and vocabulary, essential for maximizing efficiency in incremental processing of spoken and written language- lead us to an innovative method of teaching and learning Greek language where students are exposed to utterances through consistent input establishing language links - in grammar and vocabulary - strong enough to facilitate efficiency in rapid language processing.

• **Future Innovative Projects in teaching and learning Greek language: The role of technology**

I have worked as Research Associate in different research projects. My research activity includes the development of an online unit in teaching medical terminology under the title "Innovative Approaches in Teaching Medical Terminology" that was awarded and funded by Macquarie University. This successful interdisciplinary research project received the Learning and Teaching Macquarie University Award. A recent project includes the development of an online cognitive training program aiming to reduce the risk of Mild Cognitive Impairment elaborating the beneficial characteristics of bilingualism.

Technology is an important factor in forming an innovative and creative environment in teaching and learning Greek language for the students. Recent research studies have shown that the not yet widely incorporated technological tools gave the students opportunities to access authentic language materials, supported collaborative and independent learning and emphasized the flexibility to get access to materials and e-activities. Finally, students alluded to the benefits of e-activities for assessment and self-assessment.

One future project targeting elementary and secondary school students could be the development of a Virtual Reality Platform integrating Cognitive Training and bilingualism. Software also could be developed for enabling robots interacting in Greek. This will allow robotics to be integrated into the curriculum of teaching Greek as a second language. Both projects are targeting bilingual communities of Australia and are implementing psycholinguistic activities.

The future directions in light of the materialization of new methods and approaches for second language education aiming the Greek language should be formed accordingly to the needs and characteristics of the students in the 21st century.