Greek Students' Familiarity with Multimodal Texts in EFL¹

ABSTRACT

The aim of this study is to investigate Greek-speaking elementary students' familiarity with multimodal texts in English as a Foreign Language (EFL) and compare students' ability to retrieve information from multimodal texts before and after a small scale intervention. An informal, reading comprehension test including a multimodal text-constructed by the researchers-was administered to twenty three 6th grade students in a provincial city of Greece, Trikala, during their EFL lessons to explore students' performance before and after the intervention. We assumed that students' performance would be lower before the intervention because of previous lack of acquaintance with the specific types of texts during their courses. Our initial premise was verified by the results of this study; it was shown that students got lower scores in the test before the intervention in relation to the scores after the intervention. Results indicate that Greek elementary students are not used to working on multimodal texts in EFL, though some multimodal texts do appear in their course-books. Pedagogical implications, which emerge from this study, are further discussed and the need to replicate the specific findings is highlighted

Literacy Revised: Multimodality Emerges

The inauguration of the digital era, the development of the global economy, and the cultural and linguistic diversity of contemporary societies have all led to the need to redefine and broaden the limits of literacy, and have also led to the demand to create new kinds of literacies that can fulfill the current and future communication needs of citizens (New London Group 1996). The prevalence of literacy had focused mainly on language up until the New London Group met in 1996, when there was a shift towards a new, broader concept of literacy, called multiliteracies. Multiliteracies emphasize the multiplicity and integration of different modes of communication during the meaning-making process, when the written-linguistic mode of meaning is linked with the visual, the spatial, or the audio mode, and thus requires a new, multimodal literacy (Cope & Kalantzis 2000). Multimodality, therefore, represents the interconnection among the different modes of communication that are used to construct meaning from texts (New London Group 1996).

¹ Στοιχεία δημοσίευσης (Ν. 51)

As a consequence of multimodality, people, and specifically youths, are exposed to an increasing dominance of multimodal texts—both print and digital texts, such as websites, video games, picture books, texts, magazines, advertisements, and graphic novels—that include a complex interplay of written text, visual images, graphics, and design elements (Kress, Jewitt, Ogborn, & Tsatsarelis 2001; Kress & Leeuwen 2006; Unsworth 2001). In this context, meaning is derived from ways that are increasingly multimodal (Cope & Kalantzis 2000).

The increasing prevalence of these types of texts has a strong impact on education, particularly on the teaching and learning of languages, by challenging our traditional understanding of literacy to expand beyond the skills of encoding and decoding texts (Kern & Schuitz 2005). In this context, literacy pedagogy can no longer be regarded as a process that is mainly contingent on language, but as a process where the various modes of communication are either woven together or are separated to produce meaning (Kress et al. 2001). According to Kalantzis and Cope (2012), "we need to supplement traditional reading and writing skills with multimodal communications" (2). Since the understanding of written texts, in particular, is multimodal, it is not sufficient merely to have a command of reading, as it is understood in the context of classical literacy (Papadopoulou 2001). Therefore, educators need to redefine their instructional approaches to focus on teaching students to understand written information and must draw on multiliteracies' pedagogy to familiarize students with multimodal texts. Students, especially foreign language learners, have to be taught the processes involved in constructing meaning from multimodal texts since they are increasingly prevalent in everyday life.

Multimodality in EFL Classrooms

For many years, the development of communicative competence has been the focal point in second language (L2) classrooms. Royce (2007) highlights the need to extend students' communicative competence beyond the traditional, linguistic view to place more focus on multimodal communicative competence, which adopts the coexistence of linguistic and visual modes of communication. According to Ajayi (2009), multimodality can enhance literacy learning among English as a Foreign Language (EFL) learners since it goes beyond language, by promoting alternative ways to read, interpret, and compose text; for instance, students can start reading a text by relying on language and/or visuals, typography, and the layout to derive meaning from the text. In this sense, a multimodal approach is highly important for EFL students, who may face extra difficulties in L2 reading, such as L2 linguistic deficit or first language (L1) reading skills involvement (Bernhardt 2005; Carrell 1991;

Koda 2005; Macaro & Erler 2008). By providing students with the opportunity to take advantage of various semiotic possibilities to produce meaning and communicate, the multimodal approach allows for complexities, such as the ones listed above, to take place without hindering the students' ability to derive meaning from texts (Ajayi 2008), and it assists students in comprehending text content and in furthering language development (Walsh 2003).

By and large, researchers highlight the fact that little attention has been given to multimodality in second or foreign language contexts (Dominguez & Maiz 2010; Kress 2000; Royce 2007). Some studies focus on analyzing the way in which the linguistic and visual semiotic resources are combined to depict meaning in EFL textbooks (e.g., Astorga 1999; Chen 2009; Chen 2012; Song 2005), while several other studies (e.g., Bezerra 2011; Heberle & Meurer 2007; Royce 2002) emphasize the visual analysis that is based on elements of Kress and Van Leeuwen's approach on the grammar of visual design (2006). Other research (e.g., Ajayi 2009; Early & Marshall 2008; Walsh 2003) explores how students perceive and respond to visual representations in multimodal texts. Researchers have also interviewed EFL teachers to discover how they experience visual language in their classrooms (e.g., Karchmer 2001; Meskill & Mossop 2000; Petrie 2003). While there are some studies that explore the aspect of multimodality in terms of EFL text, textbook analysis, teachers' views, and students' interpretations, there is a dearth of research on experimental studies, including teaching interventions that instruct and aid students in grasping meanings from multimodal texts through reading strategies. The present article intends to contribute to this research area by exploring the impact that the interaction between the linguistic and visual mode can have on students' ability to learn from texts. Specifically, this paper investigates the impact on students after they experience a small-scale teaching intervention. The study particularly focuses on the way that students combine reading comprehension strategies, which are often used in monomodal texts, to construct meaning from multimodal texts.

The Present Study

The current paper is part of a broader research project on the contribution of strategy instruction in the improvement of elementary EFL students' reading performance. According to Dole, et al. (1991), the reading process focuses on active readers who use various strategies to construct and adjust meanings when reading texts. The majority of studies on reading strategies both in L1 (e.g., Dole, Brown, & Trathen 1996; Janzen 2003; Spörer, Joachim, Brunstein, & Kieschke 2009) and L2 (e.g., Kern 1989; Salataci 2002) deal with monomodal texts. However, today, the

texts that students are faced with are becoming increasingly multimodal and are mainly integrating the linguistic mode of communication with the visual. Because of this shift in the way we receive and view texts, the broader research seeks to explore new ground by expanding comprehension strategy instruction to multimodal texts to help EFL students strategically approach and construct meaning from the various forms of text, including multimodal ones (Prain & Waldrip 2006). EFL students were taught to use various reading strategies in multimodal texts to derive meaning and recognize desired information from the texts.

The main aim of this study was to investigate Greek-speaking, elementary students' familiarity with multimodal texts in EFL and compare students' ability to retrieve information from multimodal texts before and after a small-scale teaching intervention. This study aims to address the following questions: are Greek students accustomed to working on multimodal texts in EFL? Does the ability of students to derive information from multimodal texts change after a teaching intervention? Can EFL students use reading strategies in multimodal texts? Are girls or boys more successful in deriving meanings from texts after a strategy intervention that includes multimodal texts? This study attempts to investigate into the area of multimodality in both teaching and learning foreign languages. Before implementing the study, we assumed that Greek-speaking, elementary students were not instructed in using reading strategies or in combining all modes of communication to construct meaning from multimodal texts, but we did assume that their ability to do so could improve after a teaching intervention, where they would be instructed in a multimodal and strategic approach to examine and comprehend texts.

Methodology

A sample of twenty-three Greek students participated in the study to test our hypothesis that EFL students would achieve a higher comprehension skill level in their post-tests, after the instructional intervention, than in their pre-tests. To answer the above questions, a reading comprehension test (the pre-test), which utilized a multimodal text, was constructed and administered to the students to measure their familiarity with using reading strategies in multimodal texts. Then, we instructed students in the different ways to apply reading strategies to multimodal texts in order to construct meaning from those texts. After the intervention, the same reading comprehension test (the post-test) was given to students in order to examine the data in comparison to the pre-test as well as to note if their ability to retrieve information from multimodal texts improved.

Participants

Twenty-three (23) Greek-speaking students, fifteen (15) girls and eight (8) boys (aged approximately 11-12 years old), from a provincial town in central Greece participated in this study. However, two students were excluded from the procedure, as they did not complete both tests because of absenteeism. The students were in the 6th grade, were attending a state elementary school, and were learning EFL (specifically, level A2 according to the levels of the Common European Framework of Reference).

The Tool Used to Elicit Data

The present research is composed of the following design: a pre-test, a teaching intervention and a post-test. One week before the beginning of the intervention, an informal reading comprehension test created by the researchers incorporating a multimodal text—was administered to the students during their EFL lesson. The section of the test that focused on multimodality consisted of a floor map of the British museum in England, some notes that accompany the map, and three tasks that were designed to assess students' ability to combine information from both linguistic and visual modes in order to derive meaning from the text. The three tasks included one multiple-choice question and two short answers. The first task required that the students skim the whole text (both the visual and linguistic elements), and the second and the third task required that they scan the text. In regards to the second task, the students had to combine information from the notes with the corresponding number on the map, while also paying attention to the colors of the various departments of the museum (since each department was depicted by a different color on the map and in the notes) and then match all of this information to answer the questions correctly. The test was administered to the students by the first researcher to provide the students with appropriate guidelines and to be in control of the testing process. This specific test was part of a broader, constructed test that was oriented towards using reading strategies. The broader reading comprehension test was composed of one multimodal text—described above—and two monomodal texts that were employed to examine the use of the following reading strategies: activation of prior knowledge, development of graphic organizers, prediction, skimming, scanning, and contextual guessing.

Teaching Intervention

The implementation of the teaching intervention had been carefully designed to promote the deployment of reading strategies in multimodal texts, mainly combining

the linguistic and the visual modes of communication together to retrieve information, while also taking into consideration the children's interests. During the instructional session, the students were taught how images and words could be combined to help them identify patterns of meaning. In other words, the students were explicitly instructed to use the diagrams, tables, maps, visual typography and words to spot information and to answer comprehension questions. The teaching intervention lasted four teaching hours (approximately 40 minutes each hour) and was conducted over four weeks, one teaching hour per week.

The material used during the intervention was tentatively chosen to include visual elements and simultaneously to promote the use of reading strategies, where the process of meaning making would be contingent on the contribution of both the visual and linguistic elements of the text. Overall, four multimodal texts were given to the students. The first text was composed of two tables; each of them visually described the seven new wonders of the world and the seven ancient wonders of the world. The text was accompanied by three reading tasks (two multiple-choice questions and one matching task). The first required that students only skim the text, and the other two tasks required that they scan the text in order to answer the questions. The second text consisted of linguistic information, which described the two tallest buildings in the world, two pictures of the buildings and a diagram, which depicted the four tallest premises in the world, including their names and their height. There were two tasks: the first (which had two subtasks) asked students to skim and scan only the visual information to answer the comprehension questions, while the second task (a true/false question) asked students to scan the linguistic information. The third task incorporated a two-page extract from the comic *Asterix the Legionary*. The particular pages were chosen because of their linguistic and typographic interest, as the meaning-making process was contingent on the linguistic and visual elements. Specifically, Asterix and Obelix, two of the main characters, were about to join the Roman army along with other individuals, who came from all different parts of the world. Asterix and Obelix were having difficulty communicating since they couldn't speak the Roman language. Five tasks accompanied the text: two multiple-choice questions, a true/false questions, and two short answers, which required the students to use the reading strategies of skimming, scanning and contextual guessing to answer the questions. The fourth text was a floor map of the Victoria and Albert museum in London. Three tasks were designed to go along with this text: a multiplechoice question and two short answers that required that the students skim and scan the text, respectively.

Data Analysis

To examine if EFL students' ability to use reading strategies and derive information from multimodal texts had been affected by the teaching intervention, the quantitative data collected from the pre- and post- reading comprehension test were analyzed using the Statistical Package for Social Sciences (SPSS) version 20.0.

Results

Data were analyzed using the Paired Samples T-test in order to assess whether the means of the pre-test and post-test were statistically different. The analysis indicated that the post-test scores were higher (M=12,47, SD=4,37) than the pre-test scores (M=9,04, SD=5,81) and that this difference was statistically significant t (20)= -3,28, p= .004 (p< .005).

Then, we attempted to examine the differences during the pre- and post-test procedure with respect to sex. Although the mean scores of the girls (M=9,69) and boys (M=8,00) did not differ much in the pre-test, we observed that the girls' scores were much higher in the post-test (M=13,84) than the boys' scores (M=10,25). However, this difference was not found to be statistically significant.

Discussion

The results of this study verified our initial premise that students' performance in the pre-test would be lower due to the lack of practice with and use of these multimodal texts in their EFL courses. It was shown that students received lower scores in the test before the intervention in relation to the scores after the intervention. To be more precise, the results indicated that the teaching intervention was effective enough to make a significant difference between the pre-test and post-test scores. More importantly, teaching students how to take advantage of the different modes of a written text improved students' ability to produce information from multimodal texts using reading strategies. However, this study did not provide any support for the potential effect that the participants' sex had on the treatment. Sex did not seem to factor into students' performance on the tests. According to the results, although the teaching intervention seemed to favor the girls, the difference was not statistically significant; therefore, this potential claim would require further research to fully determine if sex plays a role in reading comprehension test performance.

Since most of the research on strategy training in L2 includes monomodal texts, this study breaks new ground in this field by exploring the combination of

reading strategy instruction with multimodal texts. In fact, throughout L1 literature, let alone L2 literature, the term "reading strategies" appears to be identified with monomodal texts. Therefore, what is needed is an extension of the concept of reading comprehension and the semantic field of reading strategies, so that the new concept can incorporate multimodal texts.

The results revealed that Greek elementary students are not used to working on multimodal texts in EFL, though a careful look at the school course book shows that it consists of a multimodal format, which mainly combines the linguistic mode with the visual. It seems that, despite the multimodal format of the course book, EFL teachers do not take advantage of multimodality and, therefore, disregard the vital role that the visual element has in the meaning-making process. After all, it is evident that children even from an early age receive information multimodally through television, narratives, computers and/or video games. The need for flexibility, autonomy, problem-solving skills and broad knowledgeability are all accentuated by changes to the traditional area of literacy, indicating that a very different approach to knowledge is needed (Kalantzis, Cope, & Harvey 2003). As texts are designed in a highly visual sense and the process of constructing meaning increasingly draws on a variety of sources (e.g., linguistic and visual), the old basics of education, which placed the most emphasis on literacy, needs to be supplemented by incorporating the visual design of texts and by teaching learners how to derive meanings from unfamiliar texts (Kalantzis, Cope, & Harvey 2003). These suggestions are very critical for EFL students when trying to comprehend written texts since they are frequently faced with linguistic difficulties. By depending on other available modes of communication in a text besides the linguistic and by using various reading strategies, students can formulate meaning from texts. Consequently, educators, especially EFL teachers, should integrate a strategic and multimodal approach in order to help students employ reading strategies to different kinds of texts, including multimodal ones, with the aim of improving their reading performance. However, the findings of this study should be replicated, and further research should be done to validate and extend these findings.

Acknowledgement

This study is part of a broader research project on the contribution of strategy instruction in the improvement of elementary students' reading performance. This study has been co-financed by the European Union (European Social Fund-ESF) and the Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF)- Research

Funding Program: HERACLEITUS II. Investing in knowledge society through the European Social Fund.

References

- Ajayi, L. 2008. "Meaning-making, Multimodal Representation, and Transformative Pedagogy: An Exploration of Meaning Construction Instructional Practices in an ESL High school Classroom." *Journal of Language, Identity, and Education* 7, nos. 3&4: 206–229.
- Ajayi, L. 2009. "English as a Second Language Learners' Exploration of Multimodal Texts in a Junior High School." *Journal of Adolescent & Adult Literacy 52*, no. 7: 585 –595.
- Astorga, M. C. 1999. "Text-image Interaction and Second Language Learning." Australian Journal of Language and Culture 22: 212-233.
- Bernhardt, E. B. 2005. "Progress and Procrastination in Second Language Reading." Annual Review of Applied Linguistics 25: 133–150.
- Carrell, P. L. 1991. "Second Language Reading: Reading Ability or Language Proficiency?" *Applied Linguistics* 12:159–179.
- Chen, Y. 2009. "Interpersonal Meaning in Textbooks for Teaching English as a Foreign Language in China: A Multimodal Approach." Unpublished doctoral dissertation, Australia, University of Sydney.
- Chen, Y. 2012. "Exploring Dialogic Engagement with Readers in Multimodal EFL Textbooks in China." *Visual Communication* 9, no. 4: 485–506.
- Cope, B., & Kalantzis, M. 2000. "Introduction: Multiliteracies: The Beginnings of an Idea." In B. Cope & M. Kalantzis (eds.). *Multiliteracies: Literacy Learning and the Design of Social Futures*. New York: Routledge.
- Council of Europe. 2001. Common European Framework of Reference for Languages: Learning, Teaching, Assessment. Cambridge: Cambridge University Press.

- Dole, J.A., Brown, R., & Trathen, W. 1996. "The Effects of Strategy Instruction on the Comprehension Performance of At-risk Students." *Reading Research Quarterly 31*, no. 1: 62–88.
- Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson, P. D. 1991. "Moving from the Old to New: Research on Reading Comprehension Instruction." *Review of Educational Research 61*: 239–264.
- Domínguez, R. E., & Maíz, A. C. 2010. "Multimodality and Listening Comprehension: Testing and Implementing Classroom Material." *Language Value 2*, no. 1: 100-139.
- Early, M., & Marshall, S. 2008. "Adolescent ESL Students' Interpretation and Appreciation of Literary Texts: A Case Study of Multimodality." *The Canadian Modern Language Review* 64, no. 3: 377–397.
- Janzen, J. 2003. "Developing Strategic Readers in Elementary School." *Reading Psychology 24*: 25–55.
- Kalantzis, M., & Cope, B. 2012. Literacies. Australia: Cambridge University Press.
- Kalantzis, M., Cope, B., & Harvey, A. 2003. "Assessing Multiliteracies and the New Basics." *Assessment in Education 10*, no. 1: 15-26.
- Karchmer, R. A. 2001. "The Journey Ahead: Thirteen Teachers Report how the Internet Influences Literacy and Literacy Instruction in Their K-12 Classrooms." *Reading Research Quarterly 36*. No. 4: 442-466.
- Kern, R. G. 1989. "Second Language Reading Strategy Instruction: Its Effects on Comprehension and Word Inference Ability." *Modern Language Journal* 73, no. 2: 135-148.
- Kern, R., & Schultz, J. M. 2005. "Beyond Orality: Investigating Literacy and the Literary in Second and Foreign Language Instruction." *Modern Language Journal* 89, no. 3: 381-392.
- Kress, G. 2000. "Multimodality: Challenges to Thinking about Language." *TESOL Quarterly 34*, no. 2: 337-340.
- Kress, G., Jewitt, C., Ogborn, J., & Tsatsarelis, C. 2001. *Multimodal Teaching and Learning: The Rhetorics of the Science Classroom.* London: Continuum.

- Kress, G. & van Leeuwen, T. 2006. *Reading Images: The Grammar of Visual Design*. London: Routledge.
- Koda, K. 2005. *Insights into Second Language Reading: A Cross-linguistic Approach*.

 Cambridge: Cambridge University Press.
- Macaro, E., & Erler, L. 2008. "Raising the Achievement of Young-beginner Readers of French through Strategy Instruction." *Applied Linguistics* 29: 90–11.
- Meskill, C., & Mossop, J. 2000. "Technologies Use with ESL Learners in New York State: Preliminary Report." *Journal of Educational Computing Research* 22, no. 3: 265-284.
- New London Group. 1996. "A Pedagogy of Multiliteracies: Designing Social Futures." Harvard Educational Review 66, no. 1: 60-92.
- Papadopoulou, M. 2001. "Multimodality as an Access to Writing for Preschool Children." *The International Journal of Learning 8*: 1-13.
- Petrie, G. M. 2003. "ESL Teachers' Views on Visual Language: A Grounded Theory." The Reading Matrix, 3, no. 3: 137-168.
- Prain, V., & Waldrip, B. 2006. "An Exploratory Study of Teachers' and Students' Use of Multimodal Representations of Concepts in Primary Science." *International Journal of Science Education 28*: 1843–1866.
- Royce, T. 2002. "Multimodality in the TESOL Classroom: Exploring Visual-verbal Synergy." *TESOL Quarterly 36*, no. 2: 191-205.
- Royce, T. 2007. "Multimodal Communicative Competence in Second Language Context." In T. Royce & W. L. Bowcher (Eds.), *New Directions in the Analysis of Multimodal Discourse* (pp. 361-390). Mahwah, New Jersey: Lawrence Erlbaum.
- Salataci, R. 2002. "Possible Effects of Strategy Instruction on L1 and L2 Reading." Reading in a Foreign Language 14, no. 1: 1-17.
- Song, Z. S. 2005. "A Study of Illustrations in Textbooks from the Perspective of Cognitive Psychology." *Journal of Beijing Normal University (Social Science Edition)* 6: 22–26.

- Spörer, N., Brunstein, J. C., & Kieschke, U. 2009. "Improving Students' Reading Comprehension Skills: Effects of Strategy Instruction and Reciprocal Teaching." *Learning and Instruction* 19: 272-286.
- Unsworth, L. 2001. *Teaching Multiliteracies Across the Curriculum: Changing Contexts of Text and Image in Classroom Practice*. Great Britain: Open University Press.
- Walsh, M. 2003. "Reading' Pictures: What do They Reveal? Young Children's Reading of Visual Texts." *Reading 37*, no. 3: 123-130.