COMMUNICATION-INFORMATION TECHNOLOGY AND FIRST LANGUAGE TEACHING IN GREEK SECONDARY EDUCATION: PRELIMINARY REMARKS

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0. INTRODUCTION

The wholesale introduction of computers into the classroom has been, as we have learned from the papers we have heard presented today, a consistent objective of most educational systems over at least the last fifteen years. It is a phenomenon based on political decisions (Selfe 1998) whose most prominent feature is the strikingly technocentric discourse in which they are formulated. At the core of this discourse lies the unthinking acceptance of two truths: one economic-national and the other pedagogical. In the first instance economic and national survival and progress are linked with the technological literacy of the next generation of citizens. In the second, the use in the teaching process of the information and communication technologies -the new technologies (NT)- is seen as a self-evidently progressive pedagogical act, one which will make it easier to realize contemporary didactic objectives (Hawisher & Selfe 1991).

It would be difficult to deny the significance of the NT in contemporary economic and social affairs, the consequences for literacy entailed by their particular nature and their widespread use (Bruce & Hogan 1998; Kalantzis & Cope 1999; New London Group 1996), and the new dimensions they bring to the teaching of language (Tweddle 1995). What is striking is the resemblance of objectives and arguments to be observed, a resemblance almost absolute in both the expression and the substance of the arguments, regardless of their political, economic, social, cultural or academic provenance. The most interesting point in this instance is that most of the relevant academic literature reinforces this dominant discourse (Barton 1994), the whole debate being concentrated, as Apple has described (Apple 1991, 60), on the method of introduction and the kind of technology to be adopted in the classroom, while self-evident and universally applicable truths are devised to provide a reason for the phenomenon. Thus it is no mere accident that, despite the huge budgets which have been and continue to be invested, despite the grand designs and lofty objectives which are proposed, there are nevertheless only a few cases in which we feel satisfied that computers are being used to advantage in daily school life (Koutsoyiannis 1998, 62-76; Bruce and Peyton 1999).

If we concentrate on the field which interests us here, the use of computers in first language teaching, we will find an extensive literature on the subject in which a considerable number of its various aspects have been studied (Bangert-Drowns 1993; Hawisher 1989; Hawisher & Selfe 1999; Koutsoyiannis 1998, 42-62). Nevertheless, there is very little debate indeed on the social, ideological and scientific variables, and, more generally, the broader cultural content (Hawisher & Selfe 1999, 40-41).

The absence of such debate is more striking, and its necessity more urgent, in the case of countries, like Greece, which differ conspicuously in educational terms from those countries where most of the relevant research is conducted. In the case of Greece I mention by way of example: the oppressively centralized nature of the educational system; the almost total lack of basic training for teachers of Greek as a first language (Xochellis 1989, 87-97); the use of one textbook and a highly specific syllabus for all the nation's schools; the familiar ideological arguments concerning the key role of the ancient language in the acquisition of modern Greek, arguments which have bequeathed us the problem of diglossia; and the chronic distortion of the teaching of the written language by an exclusive concentration on the written exposition of ideas.

It is only natural to ask how and to what extent these singularities of the Greek educational system also affect the use of computers in the teaching of Greek. In other words, how well do

those 'universal truths' concerning the positive advantages of the use of computers in language teaching stand up to comparison with actual Greek reality. Fortunately over the last two years a pilot study has been in progress on the pedagogical use of computers in a number of lessons in the state curriculum, Greek as first language being one of them, and therefore we are now in a position to attempt an exploration of these questions with the first data for research and discussion at our disposal. Before we embark on our discussion, however, we feel it will be useful to supply certain observations of an introductory nature, necessary for full comprehension of the subject.

1. COMPUTERS AND LITERACY IN GREECE: THE GENERAL CONTEXT

Three separate stages can be discerned in the process of introduction of computers into Greek schools. The first stage (1986-1992) saw the gradual creation of the first computer labs in some 500 Gymnasia (ages12-15) and Lykeia (ages 15-18). During this period these labs were used exclusively for the teaching of informatics.

The same logic was applied again in the second stage (1992-1996), despite the creation of at least eight hundred more labs in school and despite the ambitious targets set for their educational use. It was not until the current period (1996 - today) that the approach followed was radically transformed. For example, among other developments:

Instead of the wholesale introduction of computers into schools a small number of Gymnasia have received computers as part of a pilot programme (eighteen in the first phase, from which we have taken the lessons which are the subject of this study). In each of these schools a lab has been set up with ten state-of-the-art work stations, linked to one another in a local net and with direct access to the Internet. Teachers and schools are thus enabled to communicate electronically.

Software is being designed for the first time to teach the greater part of the material in the state curriculum.

The school-based education model is being applied to train teachers in the use of the computers.

It is evident from the above that the current phase is the first to involve careful planning, making productive use of international experience. One might even say that for the most part the necessary conditions for the introduction of computers into schools, as established by the findings of that international experience, were met (Pelgrum & Plomp 1993; Akker et al. 1992). However, it is widely acknowledged that the problem is complex and multi-faceted. This is what makes a careful examination of the results of this initiative, in the various subjects taught, so fascinating.

The material we propose to discuss will be the first lessons taught in the eighteen schools involved in the first phase, described as the 'pilot phase', part of the Odysseas Project. The schools are located in three different geographical regions: Achaia, Thrace, the Aegean. There are twenty six lessons in all, taught during the period 1998-99 in the regions mentioned (Patra = 3, Xanthe = 5, Samos = 3, Lesbos = 10, Ios = 5). The lessons were published on the website of the Pedagogical Institute (http://hdtc.pi-schools.gr/programs/odysseas/glossa.htm), from where we obtained them last June, and were designed by 23 different instructors (one teacher provided two lessons, and one provided three). Their description is based on a single 'lesson form', the details being provided very fully by the teachers themselves, as will be seen later on.

2. LESSON FORM

A) GENERAL FEATURES

1. Teacher(s):

2.   Place, time, number of students involved in experimental lesson

School	Date	Teaching Hour	Class/Section	Number of students

B) DESCRIPTION OF LESSON

1.   Title of lesson:
2.   Software -Internet addresses used:
3.   Place of lesson in curriculum
            Class:
            Subject:
            Lesson:
            Teaching objectives:
            Teaching approach:
            Results expected:
4.   Brief description:
5.   Structure of lesson:
            Analytic description of individual teaching steps
            Student activities
            Combination with other teaching media
            Necessary resources

C)   RESULTS - OBSERVATIONS - AREAS OF CONCERN

1.   Did any problems arise during the teaching of the experimental lessons?
2.   What were the students' impressions? Would you describe the experimental teaching as a success?
3.   General observations and issues of concern:

D)   APPENDIX (ATTACHED MATERIAL: TEACHER'S NOTES, STUDENTS' WORK, ETC.)

As you can see, the form provides us with an abundance of data concerning the whole teaching process.

The teachers were prepared at their own schools through two induction courses. The first emphasized familiarization with the technology, while in the second the teachers were supplied with software to be used in the teaching of the various individual subjects, as well as specific examples of how it could be applied. We do not have sufficient data to give a detailed account of this phase, but we can say with certainty that:

        All the teachers were trained in the use of basic software, such as Microsoft Office, Internet Explorer for access to the Internet and MS - Outlook for electronic mail.

        All the teachers were introduced to the Logonostisi programme, developed by the Word Processing Institute (IEL) for the teaching of Greek to the children of ethnic Greeks returning from the former Soviet Union, who are learning Greek as a second language. The programme can be divided into two parts: the first lays emphasis mainly on the teaching of grammar and spelling; the second offers basic word processing and Internet facilities (the possibility of communicating and retrieving material for teaching). Although the focus is on teaching Greek as a second language, either part of the programme can be profitably used in teaching it to first language learners.

        In this first stage the introduction of computers into the Greek language lesson has not been accompanied by any change in the official curriculum, nor, by extension, in the textbooks

to be studied. Thus although the teachers have been trained in the new technology, there has been no change in the state-prescribed language teaching context in which they are working.

3. OBSERVATIONS

We will now attempt a first analysis and assessment of the lessons taught in the pilot scheme. To provide as full a picture as possible, the presentation will proceed as follows: first we will present the two fundamental arguments employed in the literature to support the use of the new technologies in first language teaching. Since technology is not merely a neutral vehicle, nor of course does its pedagogical use lead automatically to an improvement in the existing state of affairs, but is substantially influenced by the circumstances of each case, we will next describe the current practise in the field in question in Greek schools, in order to have a clear idea of the pedagogical context into which the new technology is being introduced. This description will rely on the research conducted to date and on the descriptions available in Greece. Finally, we will set forth the results achieved in the field in question, as they have emerged from the current study of the 26 pilot lessons.

3.1. FIRST ARGUMENT:

One of the arguments heard most frequently over the last few years is that the Internet can make an important contribution to revitalizing language learning in schools (Pan & Zbikowski 1997). One of the claims made is that it becomes much easier to create, by use of the Internet, authentic communication situations, since the information and communication technologies are demolishing the walls which formerly divided the classroom from the real world outside (Blanchard et al. 1995; Lafer 1996; Schwartz 1990). The number of schools, for example, with access to the Internet, is growing remarkably rapidly. Thus nothing is simpler than to make use of the existence of one or more other schools with Internet access to develop joint programmes and projects, ranging from simple contact and acquaintance though e-mail to the development and completion of joint projects of broader range and longer duration.

The Internet also facilitates contact with individuals, organizations and institutions, and consequently the use of these contacts in the design of language learning communication activities. The literature contains descriptions of a large number of such initiatives, many of them imaginative and creative (Bowen 1994; Dimitrakopoulou 1999; Jody & Saccardi 1996; Lafer 1996; Reeds & Wells 1997). It is pointed out that these possibilities are of great value in the cultivation of the students' linguistic and communication skills, and in motivating them to study.

Of particular value in language teaching is the fact that technological developments make it much easier to find authentic linguistic material. This capacity is linked also to one of the principal requirements of our age, the preparation of the younger generation for entry to the world of information in which they will be living. It is claimed that the Internet is the ideal environment for this preparation, for by use of the net young people are initiated into the techniques of critical seeking and finding of information.

Let us now move on to current practises in Greece. It is well known that the creation of real communication situations, the critical searching for information and the use in language teaching of authentic linguistic material require what have been called open curricula (Kapsalis & Vrettos 1994, 13-25) or project based curricula (Frey 1986). Those involved in such curricula share a common perception of the nature of language teaching, one grounded on a linguistically and pedagogically contemporary foundation, but are not committed to using any specific and rigorously predetermined teaching material. This freedom requires greater exercise of initiative on the part of the teacher, as well as experience, for it is an extremely demanding teaching method, and one which requires a very solid grounding in theory. It is a philosophy of

teaching, of course, far removed from the familiar teaching practise based on a linear approach to the material, material measured by specific numbers of pages in the official textbooks.

It is this linear practise which is followed in Greece, and in other countries too. The teaching is closely based on the textbooks, which the Greek teacher follows faithfully (Xochellis et. al. 1990) - being allowed no freedom, in any case, to deviate from them -rarely branching out into any other source material (Flouris 1995, 350). True communication and the cultivation of critical thinking are rarely to be encountered in Greek classrooms. We know for example that the discourse generated in the classroom either follows the familiar international pattern: Question (posed by teacher) - Response (supplied by student) - Comment (supplied by teacher) (IRE pattern) (Hardman & Williamson 1998) or else takes the form of uninterrupted monologues (Efstathiou, 1985, 58-63). In the case of the teachers these monologues frequently take the form of 'didactic rhetoric' (Flouris 1995, 350), while the students' contribution to the class frequently consists of a faithful recitation of the words of the textbook (Economou 1993; Flouris 1995, 350). We might state in conclusion that from the few relevant studies available it appears that our classrooms are places where there is no real dialogue, no exercise in communication or critical thought. It is natural to ask ourselves: in an educational environment like this, how effective can the communication technology be? We must remind ourselves here that the teachers had the necessary software at their disposal and had been trained, in technical terms, to make use of it.
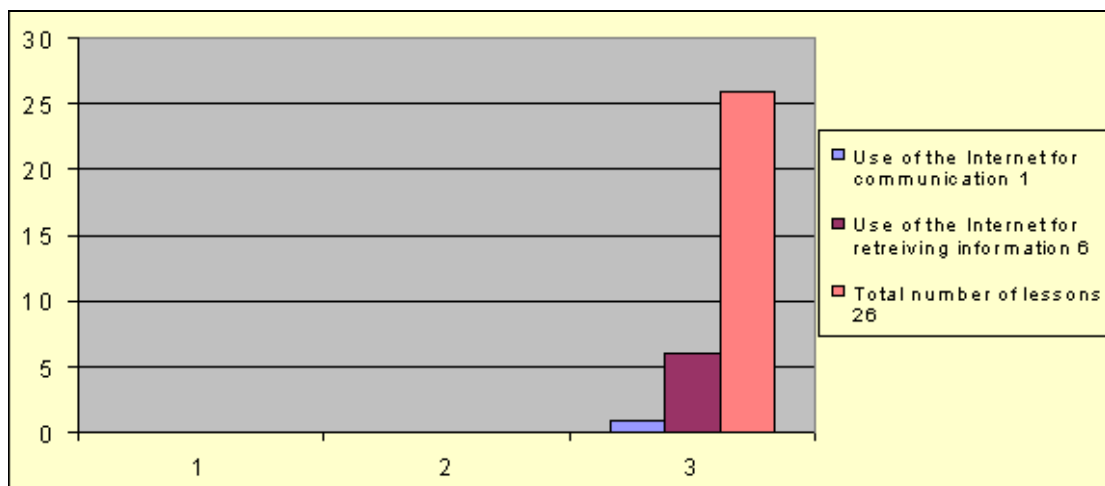

Chart 1: Manner and extent of the use of the Internet

Let us now move on to the observations arising from our research. Of the total of twenty-six lessons we examined, only one attempted to make use of the technological potential of the Internet to create authentic communication situations. In other words, in only one of the lessons was there any attempt to exploit the myriad opportunities of information technology extolled so frequently in the literature. And had we the time to examine this one lesson more thoroughly we

would see that this solitary endeavour too, while making some use of the Internet, failed to exploit its full range of possibilities.

In six of the lessons there was an attempt to use the net to search for authentic linguistic material. Two of these lessons were truly outstanding. In one of them the pupils are divided into groups of three and called on to search the web site of the Ministry for the Arts, carrying out specific projects based on worksheets. Each group is assigned a clear objective and working procedure. What strikes us, however, is that even here the whole project was completed in one teaching hour.

In the second instance, a remedial class, the twelve students are divided into two groups and instructed to visit various web sites in order to 'familiarize themselves with the most important archaeological monuments as well as the Olympic Games' and to carry out specific tasks. The remaining four lessons concentrate on the reading of information on the screen in order to provide the pupils with introductory information on various topics. These are lessons which replace one of the classic classroom teaching activities -the reading of introductory notes or information from the textbook- without adapting it to the particular features of the Internet.

We may conclude then that of the twenty-six lessons only seven attempt to make use of the Internet. Both this meager number, and also, and more important, the whole approach which was chosen for the involvement of the Internet in teaching, clearly demonstrate how hard the teachers found it to move away from ordinary, everyday pedagogical practise. It is significant that in six of the seven instances an attempt was made to link the lesson to a particular unit in the school textbook.

3.2. SECOND ARGUMENT:

Another widely used argument is that computers can be used to revitalize the teaching of the written language. There is a wealth of literature on the catalytic role of the new information technologies in the teaching of writing (Koutsoyiannis 1998, 42-62), and from this abundance we have selected the two arguments heard most frequently: in the first case, the electronic writing environment is considered ideal for applying the perception of 'writing as process'. Particular emphasis is laid on the possibility of easy experimentation with texts, without the effort of having to rewrite. The second argument claims that the opportunities created by the technology (local networks, Internet, the existence of the screen as an obvious place of reference) encourage and foster the social view in the teaching of writing. Advocates of this argument point to, inter alia: the possibility of converting the classroom into an arena for social debate, the ease of exchanging and criticizing texts by fellow students from within and outside the class, and the change of role for the teacher from instructor to helper and provider of support to the pupils as they write.

What is interesting is that debate on the pedagogy of the written language is extremely marginal in Greece and what debate there is is confined to a narrow academic circle. Thus the corresponding pedagogical practises have not evolved within our schools. The situation is made even worse by the overwhelming pressure exerted, until the last school year, by the system of examinations for university entrance, dominated as they are by the composition as exposition of ideas to the exclusion of other forms of writing. A great deal of superficial philological comment has grown up round this spurious from of writing, little of it bearing any resemblance to serious academic debate. It is thus particularly interesting to see how the teachers tried to benefit from the presence of the new technology in the teaching of writing.
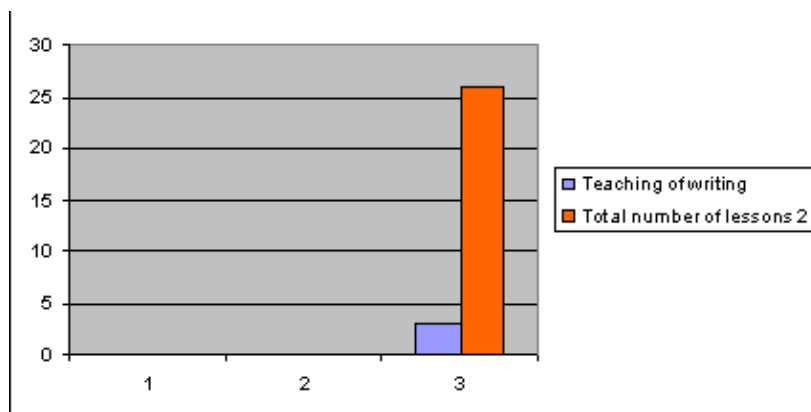
Graph 2: Extend of computer-use in the teaching of writing.

Our data inform us that the teaching of writing was attempted in three of the twenty-six lessons, two of them employing Word, one of them the Logonostisi word processing software. Yet in none of these lessons was any attempt made to exploit the potential of the computer as described in the literature. It is worth pointing out that all the texts produced were completed in one teaching hour, and that in no case was there any attempt to use the opportunities inherent in the technology to improve the texts; nor did the lessons exploit the possibility of exchanging and commenting upon texts, etc. The prevailing logic is fully conveyed by the following extract from the description of one of the lessons:

"The children wrote their assignments and I corrected them at home, writing them out clearly to make them easier to type".

Nothing at all is said of the role of the teacher, but from the context one gathers that he/she plays a very marginal part in the proceedings, as is moreover the case in the conventional composition class.

I do not feel that the results we have seen so far are cause for any great surprise, if we view them in the broader academic and pedagogical context into which the technology is being introduced. What is surprising, however, is the use of the new technology to concentrate exclusively on areas which diverge perceptibly from the material and emphasis of the curricula and textbooks currently in use. I refer to the revival, through the new technologies, of practises and ideas in language teaching formerly regarded as outmoded. It is a topic which deserves closer examination.

In sixteen of the twenty-six lessons there was an attempt to teach a certain grammatical phenomenon or the spelling of certain words. More specifically:
        in 13 of the 26 instances the lesson employed the Logonostisi programme to drill the students in the correct spelling of a series of words, specifically the homophones πού/που, πώς/πως and ότι/ό,τι;
        two of the lessons attempted to teach the conjugation of verbs;
        one attempted to teach the active voice;

one lesson focused on the recognition of conjunctions and the division of sentences into main and dependent clauses. It is worth noting that this lesson employed the Word programme.

Here the teachers had become truly subversive! They flouted not only the time limits imposed by the current curriculum (the state curriculum makes no provision for lessons on this material), but also the recommended order in which textbooks are to be used (the lessons were taught to all classes and at different times).

The diagram below shows the areas in which computers were used during the experimental stage in the 18 schools, and the proportion of time devoted to each area.
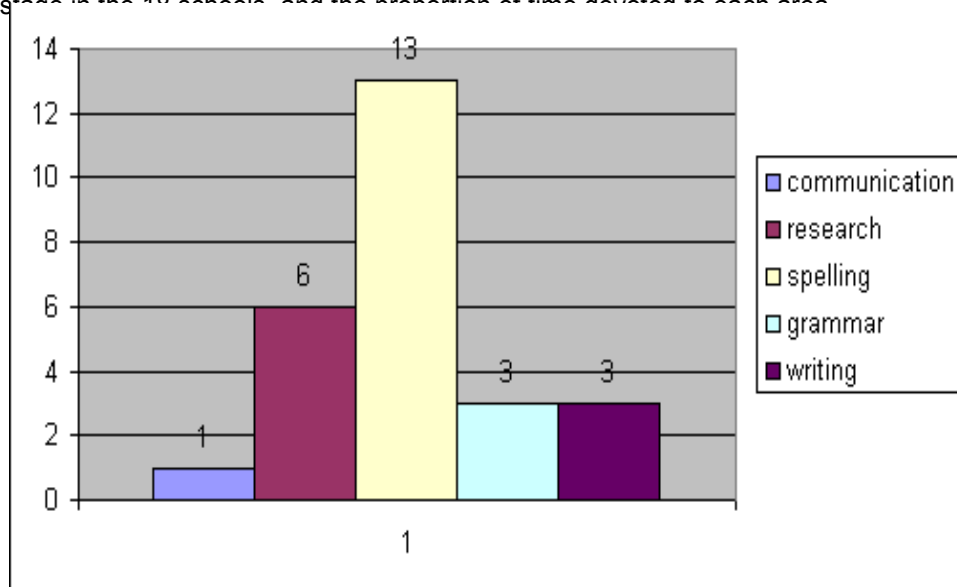
Graph 3: Areas of computer-use

The next illustration shows clearly how the computers were used overwhelmingly for metalinguistic activity, i.e. for the teaching of grammar and spelling.
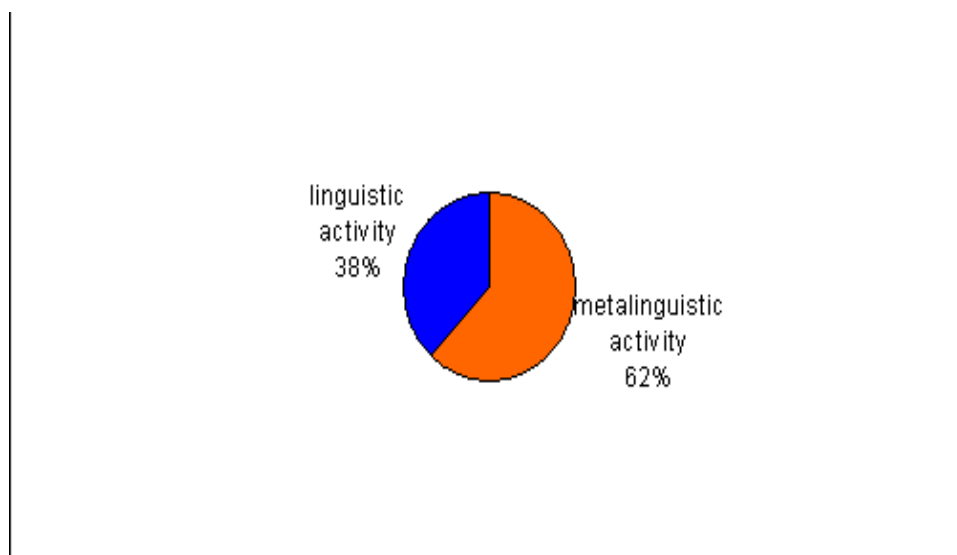
Graph 4: Computer use for metalinguistic activity.

The two diagrams make it clear that the new technology was used overwhelmingly for the teaching of spelling and grammar, and more generally for metalinguistic activity.

It is worth making two further observations before leaving this section: both pupils and teachers[1] declare themselves enthusiastically in favour of the new medium. Indeed, in a considerable number of cases the teachers propose that the experimental application of the programme be extended, feeling that they are participating in an endeavour which will transform for the better the teaching of Modern Greek.

4. CONCLUSIONS

International experience has taught us that the first attempt to use technology in language teaching usually encounters a fair number of problems (Cochran-Smith et al. 1991, 93-95; Bruce & Robin 1993; Snyder 1999), thus the mere fact that so many teachers attempted to make pedagogical use of the new technology can be regarded as a success. However, the purpose of this paper is neither to praise nor to censure the endeavour in question, for no purpose could be served in doing so. Our objective is, as we stated earlier, to show how and to what extent the particular features of the Greek educational system affect the pedagogical use of computers in the teaching of Greek, and in doing so to test some of the 'truths' so glibly proclaimed in recent years. Our findings may be summarized in two observations, which may well serve as useful feedback for the design of future programmes.

4.1. FIRST OBSERVATION:

It is evident that a number of the teachers transfer or attempt to transfer to the electronic environment teaching practises current in the conventional classroom. For example:
- The word processing facility was not used for experimentation, since experimentation in writing and the teaching of writing is virtually unheard of in our educational system;
- All the teachers continued to respect the existing allocation of school time. Every single lesson was designed to fit into one class hour;
- There was a conspicuous attempt to endow the Internet with the role and function of the school textbook. Thus the information to be sought from the net was isolated into specific areas of information and used in the role of the introductory text found in each chapter of the school

textbook; the creation of communication situations, in the one instance where such an attempt was made, was makeshift and superficial; there was all too evident reference to and connection with specific chapters and units of the textbooks.

These conclusions accord with some of the international research, which tends to indicate that despite the keen enthusiasm of both teachers and pupils, what happens in practise is merely the reproduction of prevalent pedagogical perceptions (Cochran-Smith et al. 1991; Klem & Moran 1992; Miller & Olson 1994).

4.2. SECOND OBSERVATION:

The majority of the experimental lessons, however, attempted to break away from the framework described above. To be more specific:
-        In quantitative terms: the current curriculum does not devote a proportionally equivalent amount of time to the spelling problems which the instructors chose to teach by use of computer.
-        In terms of freedom: in concentrating on matters of spelling and grammar the teachers display a remarkable independence of the textbook. In none of these lessons was there any attempt to connect the lesson with the specific material taught in a particular class - not the case, as we saw, when the teachers try to explore more contemporary methods and materials.

The literature frequently observes, for example, that the emphasis on low-grade teaching priorities, from the language teaching point of view, is mainly encountered in poor schools, with limited facilities in terms of infrastructure and teacher training (Sutton 1991). We have seen that this is not the case here: these schools had contemporary technological equipment and careful planning to make the best pedagogical use of that equipment. As far, at least, as I am aware, the international literature and research are of little assistance in showing the ways the social and educational conditions affect the pedagogical use of computers. To demonstrate this I cite the following works: Bruce & Robin (1993) and Bruce & Peyton (1999).

Of course, the phenomenon of the pedagogical use of computers for teaching objectives of low priority is not unknown internationally (Selfe 1997, xii; OTA 1995). In the following table Pelgrum & Plomp (1993) have collated data on the teaching priorities for which the teachers of five countries make use of computers in the first language lesson.

Secondary education (Gymnasium)	%
Written Composition	78
Writing Skills	53
Linguistics/grammar	41
Reading Skills	38
Literature	21
Oral Communication	5

(Source: Pelgrum & Plomp 1993, 89)

Here too we see a heavy emphasis on the teaching of grammar, although significantly less pronounced than in our own study. At the same time, however, we see computers being used in other areas, in the teaching of writing for example, where almost no use of computers was made by our own teachers.

Although our data are far from complete, both quantitatively and qualitatively, we shall hazard a first interpretation of our findings. On entering the computer lab our teachers found themselves for the first time deprived of the familiar compass of the school textbook. Since none of the software they had at their disposal was closely linked to the specific material to be taught to their classes as part of the curriculum - quite rightly so, in my opinion - they were forced to choose one of the following two options:

First: to adopt open software - an extremely difficult option, demanding teaching ideas and practises quite different from those the teachers are familiar with in the classroom. And made even more difficult by the fact that it had to be carried out in a new and relatively unfamiliar technological environment. It is no coincidence that in the few cases where teachers chose this option, they resorted to the textbook to provide the material and structure for the lesson.

The second option was to adopt closed software with an emphasis on the solving of mechanical exercises with a metalinguistic content. The teachers found this by far the easier of the two options.

The explanation is obvious: use of the computer brings to the surface deep-rooted traditional perceptions of the nature of language teaching, perceptions which were free to emerge as soon as the teachers were released from the compulsion to follow the material and methods so rigorously imposed by the textbook. I believe we can attribute the formation of these perceptions to the following factors:
-	The language teaching models used in the teaching of the katharevousa form of Greek, on which most of the teachers were raised. It is well known that great emphasis was laid on prescriptive grammar and, especially, on spelling (Petrounias 1976, 203).
-	The continuing advocacy of the use of these models in the debate on the dangers faced by the Greek language, the 'linguistic poverty' of the younger generation and the adulteration of Greek by the introduction of foreign vocabulary. Some of those participating in this debate argue that frequent linguistic errors threaten the integrity of the language and have recommended, by way of remedy, the teaching of grammar and the reintroduction to the Gymnasia of ancient Greek lessons using texts in the original (Christidis 1996).
-	The influences exerted by the long-standing methods of teaching ancient Greek, in which much of the time is spent on grammar and syntax, with heavy emphasis on spelling. We should not forget that both lessons, modern and ancient Greek, are taught by the same teachers.
-	The fact that the teachers are apparently impervious to the questions and issues which have arisen in Greece in the course of academic debate on teaching methods and theory over the last fifteen years at least.

For good or ill, current developments have brought the new information and communication technology into the language classroom. This is something we cannot and should not ignore. We cannot sit back and passively await further developments, but must play our part as active participants.

If there is one thing I should like to emphasize, as I conclude my paper, it is that the use of the new technologies in language teaching is by no means as straightforward and self-evidently positive a development, as is usually claimed. It is a process which cannot be viewed in

isolation from the special features of the Greek setting, from the historical background of education in Greece. When we are tempted to believe that we can shake off the constraints of that history simply by introducing a new piece of technology -however state-of-the-art it may be- our history may respond with no more than an ironic smile, or, as in the cases we have examined, may rise up to take its revenge.

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[1]This observation confirms the research of K. Bikos (1995) into the positive attitude of Greek teachers to the introduction of computers into schools.