

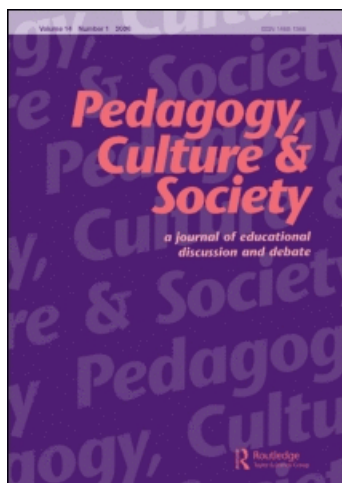
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Effective curriculum policy and cross-curricularity: analysis of the new curriculum design of the Hellenic Pedagogical Institute

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In this paper we perform text analysis on the new Cross Thematic Curriculum Framework Syllabus Design for compulsory education, which was constructed by the Hellenic Pedagogical Institute and is soon going to be applied in Greek schools. This curriculum text is treated as a policy text which introduces important changes in Greek school practice, mainly through the adoption of a specifically defined cross-curricular approach to syllabus design. The core argument of the policy actors involved in this reform is that this particular innovation is a good curricular practice that will contribute to the further modernization of compulsory schooling in Greece. It is also claimed that this intervention is based on the Greek educational context as well as European educational policy. We investigate this argument by examining the way the idea of cross-curricularity (or unifying school knowledge and teaching and learning across the curriculum) is introduced in the text as well as at the level of educational practice. In doing so the interrelationships of the various stages of implementation are investigated. The issues identified in the analysis that relate to the educational and policy basis of this change are finally presented in a comparative way.

Keywords: *Curriculum policy; Cross-thematic curriculum; Flexible curricula; Creative school; Greece*

Introduction and definition of core concepts

Effective learning is undoubtedly an important factor in the improvement of the quality of education of all children. We can clearly see in the relevant literature that micro-level learning policies are continuously being given a special interest by researchers, as well as by politicians (World Bank, 1996; European Commission, 1996; UNESCO,

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1998; Lawton *et al.*, 2000). Among the most effective approaches to such policies are curriculum design and the consequent syllabus development. This is so because curriculum has always been considered as a vehicle towards the materialization of the expectations that societies hold for their educational systems (Apple, 1990; Le Metais, 1999). In this respect, references regarding the development of the skills for self-regulating and lifelong learning as well as for effective democratic citizenship have been given special attention (European Commission, 2001; Council of Europe, 2003). Moreover, contemporary society is considered to be characterized by a great social fluidity due, among other things, to the explosion of knowledge in the fields of science and technology; it is also found to be affected by the gradual application of globalization forces to the economy, society and education. It is, therefore, of relevance that governments plan the development of new and proper curricula, in which they express their vision of a better future (Champ *et al.*, 2001; Council of Europe, 2003).

It has to be emphasized that in texts that refer to curriculum, issues, concepts and discourses regarding the importance of the unity of knowledge, the elimination of outdated notions and introduction of new, valuable knowledge can easily be identified. Thus, a basic issue in the debate concerning good curriculum practice is that of finding ways to combine curriculum content, pedagogy, assessment methodology and organizational context in order to meet specific learning and educational goals and objectives. Curriculum texts mainly focus on school policy, ideology and practice, but they also project, one way or another, the general goals of educational systems (Bourdieu, 1999; Lawton *et al.*, 2000; Jupp *et al.*, 2001; European Commission, 2001; Council of Europe, 2003). It is also of relevance to this paper to note that specialists in the field of education policy analysis (e.g. Gale, 1999, p. 405) claim that policies are represented by texts and discourses; they are informed by particular ideologies and produced discursively within particular contexts whose parameters and particulars 'have been temporarily (and strategically) settled by discourse(s) in dominance' (Dale, 2003).

In the field of curriculum development a number of paradigms that have appeared in various countries at different times are recognized (Kelly, 2001; Standaert, 2001). Moreover it is considered (Le Metais, 1999) that both the way the curriculum is constructed as well as its content reflect the ideologies that dominate the particular society which produced it. These ideologies are expressed in a variety of ways in the curricula and refer to all the stages of production and implementation (Apple, 1990; Erickson, 1998; Kelly, 2001).

Curricula are categorized according to the axioms around which they are organized and therefore oriented, these being the content, the process and the goals or standards (Erickson, 1998; Lawton *et al.*, 2000). On the basis of the procedures by which curricula are developed, there exist two extreme categories or versions: the open curriculum (in the formation of which all interested actors take place) and the closed curriculum (which is centrally formed, usually by curriculum specialists; e.g. Koutselini, 1997; Kelly, 2001). The way curricula are developed is influenced by, and also influences, the level of centralization that exists in an educational system; consequently, the curriculum as a final product of any process is thought to influence, among other things, the

degrees of freedom that individual teachers have (Flouris, 1992; Hadjigeorgiou, 2004). In practice applications of curricula that express a number of combinations of the two extreme versions are recognized, since they represent variations in the degree of involvement of the various actors (European Commission, 2001; Council of Europe, 2003).

Certain curricular categories are also identified on the basis of the knowledge content they include, as well as on the basis of the ways that the knowledge content is organized. Traditionally, the content of the school curriculum was organized according to the major discipline areas (Bernstein, 1999; Kelly, 2001). Relevant research in the fields of cognitive psychology and brain research (Albot & Ryan, 1999; Achy Cutts, 2002), especially research regarding the acquisition of knowledge, has led experts to gradually move away from the curricular paradigm that presupposes that the organization of school knowledge should be based on a complete differentiation among subjects. In the literature we identified various efforts to develop ways towards the linking or the unification of knowledge so that the holistic approach to learning and effective learning are promoted (Erickson, 1998; European Commission, 2001; Kelly, 2001). The arguments in favour of practices leading towards the unification of knowledge are reinforced by the fact that educationalists and curriculum specialists have noted the existence of knowledge which cannot be included clearly and specifically in only one discipline area, possibly leading to its introduction as a 'new or hybrid' school subject, especially in primary education (Flouris, 1992; CIDREE, 1999). The views in favour of a new way of organizing the content of school knowledge are also strengthened by the idea that certain types of knowledge that are not clearly discipline-based might be used towards the cultivation of attitudes and values useful to individuals and contemporary societies (European Commission, 1996, 2001; Council of Europe, 2003). Examples might be environmental studies, health education and citizenship education.

Our investigation of the concepts, ideas, issues and discourses in the field of effective curriculum design in the international, and especially the European, arena reveals that a pedagogic as well as a policy discourse are being constructed, focusing on the multiple areas of importance of curricula (individual, social, and so on). References suggest that pupils today need to reflect on the current state of their knowledge and improve it; in addition, a new culture is arising which relates curriculum policy to the cultivation of new basic skills and key competencies (European Commission, 1996; Terwell, 1999; Cowen, 2002; Council of Europe, 2003). Thus, pupils should be able to display qualities of adaptive expertise, develop their self-perception and personal values and live creatively in contemporary society (Champ *et al.*, 2001; Alahiotis, 2001, 2004). These considerations are parallel to the assumption that the development of separate disciplinary fields, especially at the level of compulsory education, may lead to the structured loss of the effectiveness of educational systems (Bernstein, 1971; Broadfoot, 2000; Lawton *et al.*, 2000).

It could, generally, be stated that in the debate on curriculum there are references to 'the transformative nature of the change that is taking place of today', such that even the most traditional and conventional planning activities ought to take it into consideration (Anderson, 1998, p. 27). Thus, the debate is dominated by the idea of

the formation of an 'alternative curriculum' (Standaert, 2001). Such a curriculum would include cross-curricular objectives and be grounded on powerful learning environments. It should contribute to 'lifelong learning', to the betterment of the educational process-praxis and to its effective link with contemporary society (Flouris, 1992; Moon & Murphy, 1999; Craft, 2001; European Commission, 2001). Especially at the European level, a debate is growing on the formation of a common European curriculum (Flouris, 1992; European Commission, 2001). All the aforementioned issues make up the framework for the major concepts and ideas that form the dominant discourse on curriculum design nowadays. The discussion that describes their interrelationships usually relates to the need for quality education, which is based on the individual and public good.

School curricula in Greece

The Greek educational system is characterized by centralization and bureaucratic administration, which is reflected in the curricula as well as in many other parameters of schooling (OECD, 1994; Georgiadis, 2005). The first national curriculum was established in Greece early in the 20th century after the Greek nation was formed and public schooling started. After that, education began to be used towards the 'overcoming of every crisis' that Greek society faced (Glinos, 1925; Kazamias *et al.*, 2001; Mattheou, 2002).

The first school curricula in Greece were developed in 1913. In 1964, a major reform attempt took place to influence school curricula. Unfortunately, this was stopped by the Dictatorship in 1967. Among efforts to use education for the advancement of the Greek national good, we can place the demands of the opposition parties and the teachers' unions in 1976 for a general democratization of the education system and the modernization of the curricula. With the educational reform of early 1980, there appears a first systematic effort to modernize primary education curricula. The relevant literature considers this change a continuation of the 1964 reform (Mattheou, 2002). Most of the reform measures in the decades that followed focused on upper secondary education. Their main concern was finding ways to manage the problems of the strong demand for tertiary education, including those created by the dual education system (technical/vocational and general) (for a review see Kazamias *et al.*, 2001; Georgiadis, 2005).

The chronic systemic pathologies, weaknesses and inefficiencies identified by researchers in the field (e.g. Kazamias *et al.*, 2001) stubbornly persisted into the 1980s. These have been summarized, including descriptions of schooling that is characterized by formalism, authoritarian pedagogy, and anachronistic educational knowledge. Additionally, researchers note the non-reform of the system of governance. In this latter respect, the replacement of the school inspectors by 'school counselors' did not substantially alter the traditional system of central direction and control. And, although in recent years there has been much talk about 'decentralization' or 'deconcentration', the system of governance, control and policy-making has remained highly centralized and highly bureaucratized. This pattern of governance,

according to an OECD examiners' report, 'makes of education a closed system, not easily amenable to change and innovation' (OECD, 1994, pp. 191–192).

During the 1980s the discourse on educational change in Greece was mainly based on the concepts of egalitarianism, democratization and the expansion of the educational enterprise. The major reforms put forward focused on the curricula and pedagogic renewal, and on democratic management as well as on the loosening of evaluation and assessment mechanisms. The education policies of that period reflect the wider socio-economic and political changes which took place. In 1981, however, Greece became a full member of the European Union (EU) and the long process of European convergence started exercising a strong influence on the Greek economy and society. This transition became more visible from 1985 onwards and is clearly apparent in the shift of the political discourses adopted during the 1990s.

The governments of the 1990s (those of the earlier neo-conservative party, New Democracy or ND, and of the Panhellenic Socialist Party or PASOK) considered the existing state of affairs in education quite inadequate, especially in view of Greece's commitment to the new European idea and what that idea entails in terms of Greece's active participation in the imagined integrated Europe of late modernity. Immediately after the elections of 1996, when PASOK was returned to power with Costas Simitis as Prime Minister, the reform movement in education and in other spheres picked up considerable momentum. Simitis and his group in the government and in the party in power became known as the 'modernizers', which, among other things, implied being also 'neo-Europeanists'. The reform package was published under the telling title of 'Education 2000: Towards an Education (*paideia*) of Open Horizons' (Panhellenic Socialist Party, 1995).

The 1997 reform measures, as embodied in key texts such as Law 2525/1997, have been presented by the government as encompassing the whole spectrum of the educational system and generally of Greek *paideia*. In the crisis discourse that preceded and accompanied the legislative enactments and ministerial decrees, it was contended that the upper level of secondary schooling (the *Lykeion*) had lost its educational autonomy, serving mainly as a portal to tertiary education. At the same time, it had proved to be inadequate in preparing students for the general entrance examinations into higher education institutions. As a result, Greek families were forced to turn to private preparatory courses—the notorious *frontisteria*—a recourse that, among other things, imposed heavy financial burdens and undermined the democratic principles of 'free education for all'. In fact, students paid more attention to the 'fragmented' knowledge offered by the *frontisteria* and less to what was offered in the schools. It was believed that because of this state of affairs the goal of 'general education' had been seriously compromised. It was also argued that the existing type of *Lykeion* did not equip its graduates with the skills needed for their integration into the labour market.

As with all major legislation, a prefatory statement/report (*Eisigitiiki Ekthesi*) to Law 2525 expounded on the government's rationale for this important act. At this point it must be underlined that the rationale of this reform seems to be applied with a 'top-down' mechanism. As it is stated in the literature (Kazamias *et al.*, 2001; Georgiadis,

2005), a 'new' education policy was applied after 1997 that moved in the direction of the total reform of the Greek educational system. However, it is of interest for our analysis to note that no participatory or widely based approach to policy-making has been identified, either in the preparation stage of this reform or in its implementation context. The rationale of this reform, especially with reference to our investigation, could be described as follows: the new Unified Lyceum (*Eniaio Lykeio*) would provide 'high-level general education' which would develop creativity, critical thinking and new skills. It would offer not only a broader curriculum but also the possibility of choice among different subject areas. Furthermore, the new Lyceum would provide the knowledge needed for entry into higher education institutions. At the same time, it would develop the necessary skills for further training and for a smooth transition from school to work.

The political debate on the 1997 educational reform included no clear references to a need for a change in the primary education curricula, although an important provision was made for all-day kindergartens and primary schools. In practice, the whole situation proved to be far from the vision that was put forward in favour of this reform (Alahiotis, 2004; Georgiadis, 2005). One of the arguments put forward in the political and general educational analysis of the 1997 educational reform was that no real modernization of the curricula and school pedagogy took place, since:

- Greek curricula at all levels remained content-oriented and this content was strictly organized in separate subjects, most of which related to discipline areas (e.g. Koutselini, 1997; Hadjigeorgiou, 2004);
- no significant change took place in the curricula of early school years, which are the basis for any future individual and social development (Karatzia-Stavlioti, 2002; KEE, 2004);
- curriculum researchers pointed out the fact that the goals of education (as they appeared in the legislative documents) were not always in harmony with the aims of the various curricula, the content of the textbooks and the teaching methodologies (Hadjigeorgiou, 2004).

It must be stressed that in Greece, textbooks—one book for every subject in each class—are centrally produced by or under the supervision of the Hellenic Pedagogical Institute (HPI); the HPI is an advisory body to the Greek Ministry of Education and Religion, and its staff consists of educationalists and curriculum specialists from a variety of discipline areas. These textbooks are distributed free to all pupils by the Ministry of Education and Religion through the Organization of School Book Editions. Teachers in Greece are trained to apply various teaching methodologies. However, project and investigative methodologies have not been given the necessary attention, as they have not been introduced 'formally'.

It must also be emphasized at this point that, so far, no systematic effort towards the development of a 'united and linked' curriculum for all classes and all subjects of compulsory and non-compulsory schooling in Greece has been made; the changes that took place in the Lyceum system (even the large-scale one in 1997) were not followed by similar, supportive measures for the nine years of compulsory education

in Greece (primary and lower secondary education and gymnasium). Additionally, the pedagogic curriculum measures that were applied have been considered non-systematic and ineffective for the reality of contemporary Greek education (Karatzia, 2002; Hadjigeorgiou, 2004).

This might be a reason why education policy researchers of the Greek reality refer to the necessity for the application of a combination of policies to be practiced at all educational levels and including micro-level educational reform measures, such as curriculum content and teaching methodologies (Flouris, 1992; Kazamias *et al.*, 2001; Mattheou, 2002). It is also mentioned that there is a need to increase teachers' freedom in order to make them able to adjust to the 'locality of the class'. In this way teachers would be flexible enough to practice a variety of effective methodologies. The necessity for the cultivation of 'lifelong learning skills' and 'democratic citizenship' attributes in the pupil population is mainly obvious in a more policy-oriented discourse. Within this framework the political party discourse, both socialist and neo-liberal, points out the significance of 'opening and linking schools to society (including the world of production)'. Despite the similarities that these various education policy texts may have, the strength they give to the different ways of linking education to society is related to the ideologies of their producers. For example, in the text 'Education 2000: Towards an Education of Open Horizons', produced by the Socialist Party, which was in government until March 2004 (the 'modernizers'), there exist references to the European Commission White Paper (1996, p. 25) in terms of the need for 'a broad knowledge base' in the effective adaptation of contemporary Greek society to the 'knowledge society'. Education policy researchers in Greece who have investigated all the policy measures that were applied by the Socialist government support the view that the policies adopted form an alternative solution to social democracy and neo-liberalism. This 'state-led' model is described (Kazamias *et al.*, 2001; Georgiadis, 2005) as the Greek version of the 'Third Way'.

As already mentioned, this specific policy was the framework of the education reform in 1997. It was then that the basic demands of the welfare state for equity, social justice and free access to education seemed to be gradually replaced by demands for a high-quality education that would satisfy the needs of a competitive Greek economy. All these were put in the framework of 'keeping up with the directives of the European Union' (KEE, 2004). The text on education produced by New Democracy (ND), the conservative, neo-liberal party now in government since 2004, is focused on various ways of strengthening assessment and accountability at all educational levels. To accomplish this aim, the producers of this text suggest the adoption of market-led policies that would allow the education sector to be more competitive (Psacharopoulos, 1999; New Democracy, 2003).

However, the curriculum reform which is currently taking place in Greece is based on an education paper published by the PASOK government, consisting of a compulsory education curriculum proposal (HPI, 2003a). This paper represents the first version of the Greek Cross Thematic Curriculum Framework Syllabus Design (CTC) for compulsory education (we explain the way the idea of Cross Thematic Curricula is treated in this curriculum change later in this paper). It mainly refers to

the organization in the curriculum of separate subjects in such a way that knowledge is not 'fragmented' when it ought to be approached in a holistic way. This CTC idea is extended to the application of 'pedagogically sensitive' learning and assessment methodologies.

The specific curriculum text serves as the basis for schoolbook structure as well as for the production of rich supporting and supplementary educational material, a procedure which was adopted by the newly elected ND government. The CTC text also offers the framework for the application of the related teaching and learning methodologies and, as such, is expected to affect the school practice. The texts that accompany the Greek CTC support the idea that this curriculum should be based on a holistic, systematic and innovative effort to treat some of the symptoms and anachronistic issues in the Greek educational system. It is also claimed that the application of this curriculum in compulsory schooling will contribute to its improvement and modernization, issues that are promoted by the European Union (CTC Introductory Note in HPI, 2003a ; Alahiotis, 2004). Our research interest in the investigation of this curriculum is high and ongoing, not only because it might be 'a curriculum policy in practice', but also because of its various policy contexts (e.g. the change of the political parties in government), which are still evolving.

Thus, accepting that CTC is a public policy text (Bowe *et al.*, 1992, p. 20), we performed a relative analysis in order to:

1. illuminate the major issues of the CTC policy construction and implementation, taking into consideration idiosyncratic local circumstances as well as European perspectives on relevant educational issues in Greece;
2. verify the major dominant themes, ideas, concepts and discourses;
3. investigate the way the CTC is constructed, with special focus on the dominant discourse, the cross-thematic approach;
4. evaluate the success of the HPI's efforts to treat the text as a whole, through the study of all the contexts identified. These contexts are described later and are based on the ones found in the relevant literature (Ball, 1994; Gale, 1999, 2000; Dale, 2003).

With this aim in mind, we first describe the methodology applied in this analysis as well as its rationale. We then present the major findings of our analysis, organized in a way that reflects the major issues identified. In presenting the results of our analysis, we identify and explain the various new issues and describe any discontinuities in the field of curriculum development in Greece. Finally, we proceed to a discussion of both the design and the results of the investigation. This discussion is projected to the future Greek implementation of CTC. Issues relating to further analysis arise, which are linked to the effectiveness of the various related policy actions and contexts.

Methodological considerations

This paper uses policy text analysis with some issues of discourse analysis. A major methodological consideration was the concern of dealing with discourses as ways 'of

talking about and conceptualizing policy' (Ball, 1994, p. 109; Karadjia-Stavlioti, 1997). It could be argued that in the case of text analysis of a curriculum document, the dominant discourses might be influenced by the main concepts in the field of effective learning and effective curriculum design. In addition, it might also be said that the main discourses in a curriculum document could be linked to concepts and issues revealed in policy documents concerning educational and social policies at local and—in the case of Greece—European levels. Thus, the first research task undertaken was the investigation of the major concepts, ideas and discourses in the relevant fields: that is, the field of existing learning theories (Craft, 2001), the field of neuroscience (Albot & Ryan, 1999; Bransford *et al.*, 2001), as well as the field of curriculum policy (European Commission, 2001; Council of Europe, 2003). The outcomes of this study are described in the introductory section of our paper and inform all the steps of the text analysis. It must be noted that an exploration of the field of policy analysis shows that the application of text analysis to educational policy documents has been adopted quite successfully by educational researchers during past decades (e.g. Jarvis, 2000).

Karatzia-Stavlioti's description (1997) of discourse analysis is also taken into consideration in this analysis. That is, when discourse analysis is applied to a text, it is essentially considered a series of attempts to extend the techniques of successful linguistics beyond the unit of a sentence. When coming to the point of distinguishing true statements, what Foucault (1987) wrote about the regimes of truth and power is also an issue worth considering. Foucault believes that true statements have their own 'general policy of truth'. The mechanisms and the conditions that make someone able to recognize true statements, the means by which these statements are legitimized, the techniques and the procedures that make them valid and the status of those responsible as major actors to tell what is true are also thought to be important in the investigation carried out in this paper. The issues referring to regimes of truth and discourses are treated as practices that form systemically the objects they speak about (Foucault, 1987, p. 77).

Thus, through the performed analysis, we investigate the formation of the public debate (and mainly the discontinuities and the interrelationships that appear) about what type of curriculum is effective. Using the aforementioned analysis and considering the construction of CTC as an effort towards an effective curriculum policy, we formatted the categories and constructed the proposed analyses. On this basis we refer to the criteria of identification and specialization concerning the whole process of CTC production. This process is located in the various contexts as they are described in the literature (Ball, 1994; Gale, 1999, 2000; Dale, 2003).

The analytical tools used in the performed analysis were based on the work of S. Ball (1994) on policy. He considers that policy can be treated as text and discourse. To this consideration another view is added, according to which policy can be treated as ideology (Gale, 1999, 2000). The findings of the text analysis are illuminated by information collected during participatory observation of all the stages of the process. We also use quantitative data that were collected during a period of participatory investigation by the researchers. The CTC analysis is also strengthened by being extended to texts that are connected and are considered supplementary to the CTC

text. Such texts include guidelines for textbook producers and class teachers, memos of the HPI coordinating body, memos of the departments of primary and secondary education of the HPI, and so on. Additionally, the analysis is informed by comparative methodologies (Kazamias *et al.*, 2001), especially when the effect of this curriculum policy in the Greek local setting is investigated.

Analysis of the Hellenic Pedagogical Institute text regarding the Cross Thematic Curriculum

The results of our analysis are organized under headings that represent the major contexts of the construction of the Greek CTC. For methodological reasons the contexts used are similar to those found in the literature related to policy text analysis. More specifically, the contexts used are those of *influence*, *production*, *practice*, *outcomes* and *strategy*. It must be always noted that the contexts are loosely coupled and there is no single simple direction of flow of information between them (Ball, 1994).

Context of CTC influence

The investigation undertaken under this heading refers to the identification of the timing of, and the actors in, this curriculum reform, which are used to isolate the parameters that might have influenced the construction of the CTC. In doing so the particulars of the process of production are first examined. Then, they are put together with the related descriptions that are found in the CTC text.

The idea and decision about the development of the Greek CTC began in the HPI in November 2000. The CTC construction starting point coincided with the appointment of a new president of the HPI by the newly assigned Minister of Education (Alahiotis, 2004). The CTC development process included the participation of many subject and curricular specialists, who might have held different perceptions regarding the way that a curriculum should be constructed. We identify two versions of the CTC. The first version of the CTC finished in 2001. It was then put up for public debate (dialogue) with representatives of the educational community (more than 6000 participants), the first time such a consultation had taken place in Greece. This version was finalized, taking into consideration the results of the public debate in 2003. The general introduction to this later CTC text sets the context of its production. It also illuminates the relevant context of influence, which is identified as, first, the historical roots of the Greek education system, and secondly, European perspectives (HPI, 2003b; Alahiotis, 2004).

In applying analysis to the context of influence, the issues that relate to the existing situation in the Greek educational praxis—mostly with reference to school curricula as described in a previous section—were taken into consideration. Studying the CTC text, we tried to identify references to a pedagogic discourse that included principles such as ‘general education’, ‘strong pedagogic climate’, ‘investigative methodologies’, ‘critical thinking’, ‘learning skills’, ‘democratic citizenship’, ‘lifelong learning’ and ‘sustainable development’. Care was also taken to see if the aforementioned references

were connected to the local legal or institutional situation in Greece (the Greek Constitution and related educational legal documents), and if they were projected to the European Union discourse (European Commission, 1996, 2001; HPI, 2003b;).

We found that a cross-thematic approach (CTA) to learning was chosen to substantiate the aforementioned pedagogic discourse, since it was dominant in the whole Greek CTC text. Our analysis revealed that the CTA (as presented in the CTC text) actually focuses on all the parameters that form a curriculum: the content choice and its organization, as well as the teaching/learning and assessment methodologies adopted. It must be explained at this point that the Greek-language origin of the phrase 'cross-thematic' (*diathematikotita* in Greek) comes from the word *thema* (theme), which is used in the CTC text to express the originality of this proposal. The general description of this type of cross-thematic approach is as follows:

It refers to the possible horizontal links that can be achieved in CTC amongst the curricula of all subjects. For this to be achieved a suitable organization of the teaching matter of each subject is necessary in a way that the different themes are treated from diverse angles, are given light in a multi-prismatic way and related to everyday life situations. Within this framework a search for the extensions and connections that the themes under investigation could have in the fields of science, art and technology as well as in developing skills, attitudes, behaviors and values. These connections are materialized mainly on the basis of the fundamental cross-thematic concepts as well as through the use of investigative project methodologies. In this way themes are treated in a way that is close to the natural way of learning, in a 'holistic' way. The whole effort relates knowledge to everyday life/reality. In this sense, cross-thematic approach includes and goes beyond the interdisciplinary approach. (Ministry of Education and Religion, 2003)

The issues of interest to our major research question that relate to the context of influence can be described as follows:

1. The discourse used to support the specific curriculum change is connected to the local legal or institutional situation in Greece and projected to the European Union discourse.
2. The literature that relates meta-learning to the CTA and to the cultivation of the skills that are appropriate in contemporary society is used in the CTC text to support the view that this curriculum will substantiate any effort towards the preparation of pupils for lifelong learning, with the joy of learning being a primary objective (Albot & Ryan, 1999; Standaert, 2001).
3. The European initiatives on cross-curricular themes (CCTs) (European Commission, 2001) are discursively found in the CTC text. This latter observation could be based on the fact that the EU officially put forward the CCT initiative after the initiation of the CTC's construction.
4. The Greek education community, which had in general a very positive attitude towards this curriculum change, especially in relation to the special attention it gave to compulsory education, for the first time participated in the curriculum's construction procedure (results of the public debate/dialogue with 6,000 teachers). Schooling at this level is considered in the CTC text the basis of any 'good social policy' (promoting democratization, modernization and creativity).

5. The empirical evidence derived from the analysis of the questionnaires distributed during the public debate is used in the texts that accompany the CTC text (HPI, 2001b) to support the view that the CTA is a major curriculum parameter that 'could make the difference' in Greek educational praxis and modernize schooling. Very high percentages of respondents (more than 80%) thought that this innovative approach offered them more freedom in class, an issue that the teachers' unions always put forward in their demands (Kazamias *et al.*, 2001).
6. The view that school must take into account its place in relation to the other players in formal and non-formal learning, and start to play its pedagogic role in a more effective way (European Commission, 1996; Standaert, 2001; KEE, 2004), holds a very strong position across the CTC text. This point, which relates to the idea of 'opening school to society', appears very often and in diverse ways in EU and other education policy documents.

The study of the CTC text in relation to the other accompanying texts led us to identify a consensus between the educational community and the HPI towards this curriculum change. A common concern was expressed regarding the need for the provision of in-service training to all teachers in order to ensure the effective application of the CTC. The HPI's main strategy is seen to be to support and assist teachers and producers of educational material, to benefit pupils (to allow them to live happily and creatively in contemporary society). As will be described in the sections that follow, this strategy has been the dominant discourse that serves as a catalyst of influence in the whole procedure of development of the final CTC text.

Context of CTC production

The analysis concerning the CTC's production uses specific organizing principles that relate to the main parameters of curriculum design, as described earlier (knowledge content, organization of content and learning/teaching methodologies). In doing so, the interrelationships among the various parameters are investigated and linked to the debate on effective curriculum as well as to Greek educational priorities and EU educational initiatives.

As regards content, the idea of offering more freedom and flexibility to the class teacher in matters of syllabus design and methodology is clearly identified in the texts studied. It is worth noting that this idea is linked to good curriculum practice (HPI, 2001a). We found that the way the idea of promoting teacher initiative is presented in the Greek CTC seems to be transformed to implementation in a number of ways. Thinking in a comparative way, each of these 'transformations' may be considered as a 'remedy to the Greek education system pathologies' (Kazamias *et al.*, 2001). More specifically we noted that the Greek CTC text suggests the following specific practices towards the fulfilment of the aforementioned idea:

1. The reduction of the volume of teaching matter in every subject by almost 30%.
2. The removal of overlaps in the content of various subjects.

3. The renewal of the knowledge content, leaving time for teachers and pupils 'to discuss, reflect and create, using effectively the supplementary educational material' (HPI, 2001a).
4. About 10% of the total time devoted to every school subject should be used for cross-thematic activities in a way teachers choose, assisting students to apply school knowledge to everyday situations.

As far as the organization of the curriculum content is concerned, what is clear in the CTC text analysis is that the main ideology promoted through the content organization in the specific curricula is the so-called 'benefit of the pupils'. More specifically, our investigation showed that:

1. 'The pupil benefit' is clarified as being substantiated when the pupils are assisted to develop their own 'cosmo-theory' or 'cosmo-idol' (these are concepts used in the CTC text).
2. It is stated in the CTC text that in this way pupils will be able to live happily and creatively in contemporary Greek society, which is part of European society.
3. As is clearly seen in the texts, the results of the application of CTC should relate to the public good through the promotion of individual pupils' good. This specific view of the public good is mainly based on references to the Greek constitution and other legal documents.
4. There are many references to the need for school knowledge to be organized in a way that would project the values of freedom, democracy, equity, etc. These values are considered closely linked to Greek as well as to European culture. We clearly see in the CTC text the effort to link these values to the priorities set by European education policy (HPI, 2003b).

The relative analysis regarding teaching/learning and assessment methodologies has shown that CTC introduces formally and systematically into Greek compulsory education project methodologies and activities of investigative, holistic and participatory learning. It also systematically promotes the development of critical thought and the creativity of pupils. Our analysis of the methodologies promoted in the CTC text showed that:

1. All the aforementioned initiatives on teaching/learning methodologies are related in the text to the dominant idea of the CTA. More specifically, the discourse constructed in the CTC text around methodology refers to the pedagogic necessity for horizontal links among the various subjects, through the application of the abovementioned 'correct methodologies'.
2. The idea promoted in the text is that these horizontal links must also be based on textual references in the textbooks.
3. This idea is taken further to the level of implementation, and there exist specific instructions for textbook writers to use several fundamental cross-thematic (scientific) concepts (explained below).
4. The suggestions that are found in the text around the implementation procedure are supplemented by ideas for class activities.

5. In the CTC text there are also references to the application of new methodologies for pupil assessment. The idea of 'assessment to promote learning' (Gipps, 1994; Erickson, 1998; Broadfoot, 1999) is one that links the assessment methodologies to the CTA. Both of them are projected to the major discourse of the 'benefit of the pupils' (as described in the previous section).

Context of practice

In analysing the context of practice we investigated the way that the CTC text was implemented and isolated the 'new' practices applied and the so-called 'discontinuities'. The findings were mainly projected to Greek educational practice, as well as to related European policy. As is stated in all the texts that accompany the CTC text, the effort to produce the CTC will become meaningful when the textbooks and supporting/supplementary educational material (software, etc.) are constructed and applied in a pedagogic and effective way. This will be accomplished in the 2006–2007 school year. We note that a number of texts have been prepared to accompany the CTC, especially for this level of practice. We identified the following issues in these texts, which are related to our further investigation:

- There are detailed descriptions of the specifications for 126 pupil reference textbooks, which are expected to be small, attractive and useful to the pupils.
- There are similar specifications for more than 60 software packages, which are expected to be interactive, creative, cross-thematic and of assistance to pupils.
- There are similar specifications for instructional visual aids (maps, posters, etc.), again aiming to benefit the pupils.

The results of the further analysis of the texts, which mainly concern the context of practice, can be organized according to the major dominant idea in every step, as follows:

1. The first step relates to the preparation of texts that would assist the 'transformation of the curricula to practice'.
2. The second step refers to the times that the competition for the assignment of the production of educational material took place; the major idea put forward then was 'transparency and quality'.
3. The third step concerns the evaluation of the demonstration samples that were presented to the HPI, and the assignment of production of educational materials. At this stage the major ideas of the previous steps were taken further and related to the idea of 'the benefit of the pupils in accordance with the public good'.

We present an analysis of the aforementioned steps, pointing out the issues that throw light on our investigation.

Transformation of the curriculum into practice. As regards the issues that concern the first step of making curriculum into practice, the cross-thematic approach, the instructional time (teaching hours) and the knowledge content (teaching matter), we found that:

1. The CTC is presented in a way that is 'locally' specific, as it keeps some historical elements of the previous local Greek curricula. Such elements are, for example, the organization and presentation of the knowledge content for every subject taught in every class.
2. The CTC goes much further when it describes the knowledge content in a more detailed way, combining it with the goals to be achieved at each level of instruction.
3. The CTC introduces completely new parameters regarding these descriptions. The most important parameters are, as already mentioned, the fundamental cross-thematic concepts, as well as cross-thematic projects and the new assessment methodologies.
4. The time devoted to teaching and learning was treated as an organizing principle in a rather loose and discursive way. This is a 'very Greek' issue, which, as we saw in the texts, aims to assist the teachers and the producers of educational material. In the final version of the CTC (HPI, 2003b), the specialized curriculum for every subject included a column that suggested the teaching hours that might be spent in the teaching praxis for every teaching unit (the sum of these hours was always less than 80% of the total hours).
5. A column including suggestions for class activities either connected to the specific subject or suitable to promote holistic learning and understanding beyond the facts through cross-thematic activities has been added.
6. A note in the texts analysed, that all these issues should be dealt in a way that would 'promote the benefit of the pupil', emphasizes this curriculum practice.

In Table 1 we present an indicative part of a individual subject curriculum, in which the themes are underlined that are relevant to promoting the 'benefit of the pupil'.

We also studied a text produced by the HPI that includes a description of the cross-thematic concepts. In this text there are epistemological descriptions underlying the

Table 1. Curriculum for the 6th grade of social and civic education. Note that 'system' and 'communication' are two fundamental cross-thematic concepts that are used (see Table 2).

Teaching units: themes	Aims	Suggestions for activities
'Greek <u>democracy</u> ' (2 teaching hours)	<i>Pupils should be able:</i> to understand the idea of the <u>political system of democracy</u> to know about rules and <u>organization</u> to practice various styles of <u>communication</u> to recognize the importance of <u>systematic</u> work	<u>Class elections</u> During this activity the pupils work <u>systematically</u> to plan and carry out the elections for a student Board. The <i>concept of 'system'</i> may be used for cross-curricular links i.e. the decimal system of numbers may be used in counting the votes, different types of <i>communication</i> could be applied (language, written or oral, music etc.) (<u>History, Literature, Mathematics, Language and Arts</u>).

fact that every discipline is based on a system of fundamental concepts and ideas (notions) on which its content is constructed. Our investigation found that:

1. Scientific references that address the way the human brain learns (Bransford *et al.*, 2001) are used to support the application of cross-thematic concepts to promote learning.
2. The idea that learning should be done in a way so that various disciplines retain their autonomy as much as necessary constructs an argument in favour of the application of CTA.
3. A systematized argument is used in the CTC text concerning the use of cross-thematic concepts. An idea is promoted according to which the content of some of these cross-thematic concepts is both wide and simultaneously basic enough to make it possible for teachers to use them towards the application of the CTA without putting at risk the conceptual unity of discipline-based subjects.

Thus, during this step of practice the HPI suggested keeping the traditional framing of the discipline-based subjects and simultaneously contextualizing school knowledge through applying conceptual links among the various fields applicable to everyday situations (HPI, 2003b). The way that this text is constructed shows that its producers consider the CTA a necessity for Greek compulsory education. Our investigation revealed that:

1. The likelihood that CTA is used is informed by the pragmatic circumstances that exist in Greek schools.
2. There is a will to help Greek schools change and adjust to the 'new' social demands.
3. Within this framework Greek teachers must be helped to adapt to this new era: to 'learn' to apply the CTA and adopt investigative and project methodologies (Karatzia-Stavlioti, 2002; Alahiotis, 2001, 2004). This situation may be used to explain why the discourse 'to support and assist the teacher' dominates this context of practice.
4. The fact that the whole planning procedure that concerns the application of cross-thematic concepts is so clearly described in the relevant texts can be considered a very effective way for the promotion of the CTA.
5. It is of interest to note a recommendation found in the text, according to which authors and teachers can use additional concepts towards effective learning. This suggestion may be related to the 'degrees of freedom given to the class teacher' that are put forward through the CTC implementation.

We ought to mention a finding that relates the process of CTC development to the context of practice. A procedure of reflection and internal evaluation in the HPI was identified during the process of the identification of cross-thematic concepts. More specifically, it is worth noting that the list of several fundamental cross-thematic concepts used by the HPI was given back to the various curriculum development groups (designers) for verification and further refinement in a way that would make

them more useful to textbook producers and individual teachers. These concepts are as follows:

- Change
- Communication
- Civilization
- Dimension (time–space)
- Interaction
- System
- Similarity–difference
- Unit (atom–element)
- Whole (group, set).

An example regarding the appearance of these basic concepts in the curriculum content of specific subjects, produced by the HPI, is shown in Table 2. This table is presented in order to strengthen our point that the dominant discourse of the cross-thematic approach (CTA) is used together with the ideas of ‘supporting the teacher’ and ‘benefiting the pupil’. The unit ‘The school’ is underlined to highlight the cross-thematic concepts that may be used to construct the specific lesson unit. In this unit the concepts ‘system’ and ‘similarity–difference’ are dominant. As such, they are

Table 2. Cross-thematic concepts in teaching units: an example from the curriculum of the 6th grade of primary education.

Cross-thematic concepts	Social and civic education Unit: theme
Interaction	Organized groups and unions Informing the citizen European citizens International organizations
Individual (unit); set (group)	Family in Greece Local authorities and communities in Greece
Communication	International organizations
Change (alteration)	Greece in the European Union
Similarity–difference	<u>The school</u> —the educational system The system of democracy Human rights
Civilization (culture)	European citizens
System	Family in Greece <u>The school</u> —the educational system The Church Local authorities and communities in Greece The organization and operation of the state The system of democracy The state and the citizen Greece in the European Union
Dimension (time–space)	The individual and United Europe

basic to the theoretical links and the practical applications that must be used in class in order to promote the general as well as the specific goals of Greek education.

We also found that further work was done by the HPI in order to clarify the way that the cross-thematic approach could be promoted by the application of the cross-thematic concepts. The formation of a ‘map’ that denoted the frequency of appearance of the cross-thematic concepts in the curriculum of every subject in each class was carried out by the HPI. Table 3 is a subset of this map, showing the frequency of appearance of the cross-thematic concepts in all the subjects of every primary school class; analogous work was carried out for gymnasium-level classes.

Within the framework of the subject content the dominant concept (shown as +++) is linked with other concepts to construct the ideas included in the knowledge content. The text analysis of the documents produced denotes that this synthesis serves to create the dominant discourse around the CTA. It is made obvious in the text that accompanies this map that, through the CTA, the materialization of the specific subject aims would be combined with the achievement of the general goals of education. It is claimed that the frequencies shown are not absolute or restrictive. A different emphasis might have been given by the different individual curriculum designers, and can be given by subject teachers in class. However, the whole situation regarding the contribution of the cross-thematic concepts to learning is always related to the benefit of the pupil. In this case the benefit of the pupil is linked to learning through the application of a variety of teaching methodologies as well as through the promotion of the teacher’s initiative and cooperation.

Some of the comments in the text produced by the HPI, referring to the appearance and effective use of the concept of ‘system’ in the first classes of primary school, are shown in the following extract:

The concept *System* is evenly used in all the subjects of these two classes but mainly in Language and Mathematics. The pupils at this age should start to organize and gradually systematize their knowledge on numbers and on the use of vocabulary. When it is used

Table 3. Frequency of appearance of cross-thematic concepts in all the subjects of every primary school class. + means a frequency of appearance of $\leq 20\%$, ++ means 21–40%, and +++ means $>40\%$.

Cross-curricular concepts	Mathematics (classes)						Study of the environment (classes)			
	A	B	Γ	Δ	E	ΣΤ	A	B	Γ	Δ
Interaction	++	++	++	++	+++	+++	++	+++	+++	+++
Individual (unit); set (group)	+	+	+	+	+	+	+	+	+	+
Communication	+++	++	++	++	+	++	++	++	++	++
Change (alteration)	+	+	++	++	++	++	+	++	+	+
Similarity–difference	++	++	++	++	++	++	++	++	++	++
Civilization (culture)	+	+	+	+	+	+	+	+	+	+
System	++	++	++	++	+++	++	+	+	+	++
Dimension (time–space)	+	+	+	+	+	+	+++	++	++	++

with the concept *similarity–difference* the pupils generally begin to ‘recognize’ various systems that they ‘meet’ in learning i.e. groups of plants and animals of their environment, the decimal system of counting, groups of words with the same meaning, etc.

When the concept of *system* is linked with that of *communication* and/or *civilization/culture* the context it comes with may be used as the basis for the promotion of the sensitization of the pupils towards all people and mostly those with special needs as well as towards the protection of the natural or human-made environment.

It is easily seen that the discourse regarding the benefit of the pupil as well as the public good is connected to the cross-thematic approach, i.e. in the underlined sections of the extract, a situation which verifies once again that the main aim of the Greek CTC is obvious.

A specific consideration for the application of an extreme cross-thematic approach is also included in the CTC text investigated. In this case no single subjects are taught. Teaching is based on the thematic approach in the so-called ‘Flexible Zone’. This programme consists of two to four teaching hours per week and is used for carrying out projects and activities chosen by the individual classes. The themes of these projects may not belong to a specific subject, but they should be of interest to the pupils. The Flexible Zone programme is considered in the text as a suitable way to sensitize the educational community and promote a cross-thematic and holistic approach to learning (HPI, 2001b). This Flexible Zone programme has been already experimentally applied for three years with great success in many schools (more than 3,000). Specifically, it might be relevant to this analysis to mention that:

- Between 60 and 68% of the participating teachers believed that, apart from the fact that the project-based methodology promoted investigative learning and teaching, better relations among the various interested groups in school (teachers, pupils, parents, etc.) were cultivated.
- The Flexible Zone was found to contribute to the development of a creative and cooperative schooling climate (see HPI, 2001b).

Competition for production of textbooks and educational materials. The references to competitive participation in educational material and textbook production, that is, the second step, include an analysis of the texts produced in the period during which the educational material producers were called to participate in the competition for the several educational packages. They also include the results of the analysis of the texts that set the frame of the process during the evaluation of the demonstration samples (an indicative part of the educational package) submitted to the competition by the candidates. The whole procedure as well as the response of the educational and academic community to this competition was impressive, since:

1. More than 2,000 people participated as candidate educational material producers or evaluators (HPI, 2001b). There were on average two to three candidates for each of the more than 150 packages.

2. Both groups, the producers and the evaluators, participated in HPI workshops that informed them of the criteria, guidelines and demands of the production of educational material. Great attention was also given to the new idea of CTA and the ways that textbook chapters should be organized to promote it. This was the first time this kind of training had been undertaken in Greece.
3. The fact that, for the first time ever, people working at the HPI were not allowed to participate as writers or evaluators in the production of educational material is considered a 'discontinuity' and is of interest to our investigation. As is noted in the relevant text of the coordinating body of the HPI, this decision was made mainly for reasons of approved transparency (see chapter on corruption, Council of Europe, 2003). It is also stated in this text that this was done for the sake of effectiveness, which is a priority at a European level also (European Commission, 1996). The argument put forward is that as the staff of the HPI is coordinating and supervising the whole procedure, it would be ineffective if they participated in the construction process (see HPI, 2003b). We have to mention that it was obvious to us that the references to transparency and effectiveness were both related to the public good and more specifically to the benefit of Greek society, which has to have these characteristics as a part of European society.

External evaluation of the demonstration samples of educational material. This, the third step, refers to the implementation of the external evaluation procedure. This process was intended to select the best demonstration sample and consequently lead to the assignment of the appropriate writer or group of writers. The investigation of this step is based on an analysis of the texts (memos) referring to discussions of the primary and secondary education departments of the HPI. The assignment procedure was undertaken in these departments and was open to the public. The outcome of the discussion was based on the average grade that the three external evaluators gave, according to the graded criteria produced and published by the HPI. Our findings reveal:

1. A clear identification of discourses that relate to the pedagogically best, the scientifically correct and the benefit of the pupils. These discourses are found to be very strong.
2. An innovative practice that is important for the Greek context. When all these texts are brought together it is revealed that, after the assignment, a consensus was achieved towards cooperation among the writers, the evaluators and the specialists of the HPI for the best output.

Our investigation of the context of practice included the analysis of a limited number of texts that were produced as a response to some critical views expressed during the various steps. It must be noted that (as is found in the memos of the HPI coordinating body) the general policy of the HPI was to respond to all criticisms within a framework of informing the public about the CTC and its implementation. These texts can be grouped according to the characteristics of the individuals or groups that expressed

the criticisms: educationalists or editors. In criticisms from educationalists, most of them expressed their worries about the success of the implementation procedure, and some wished to have better clarification of the CTA through the planning of more in-service training. Editors expressing criticism mentioned their dissatisfaction with the limited funds that were given towards the production of educational material, as well as with the very tight timetable. The analysis of these texts showed that:

1. The criticisms were not systematized.
2. No organized groups (teachers' unions, parent unions or political parties) opposed the changes that the CTC put forward.
3. It is obvious that any reactions that appeared were dealt with in an effective way, mainly through written responses. This finding of the text analysis is supported by the analysis of the context of strategy (below), where it is pointed out that the new ND government continued the implementation process and often made supportive comments (e.g. Georgiadis, 2005).

Context of outcomes

Under this heading we present the findings that describe the final steps of CTC implementation. The outcomes of CTC production were the construction of the educational material and its implementation in class by well-informed teachers. In the relevant texts produced by the HPI there is a detailed planning of the various stages of implementation until the introduction of the books and all educational material to schools is completed. The analysis of these texts showed that:

1. All stages are clearly defined and chronologically planned until the school years 2005–2006 and 2006–2007, when all the stages will have been completed.
2. It is stressed that with the accomplishment of the CTC implementation, it will be the first time in Greece that all classes of compulsory education will be using books and supplementary educational material written simultaneously under a unified curriculum design.
3. The idea promoted in the CTC text as well as in all the accompanying texts is that a new pedagogic system for compulsory education is being constructed through a collective and participatory effort.

The way that materialization of this idea is taking place in the CTC was identified through the analysis; it was obvious that the dominant discourse at all stages of construction and implementation was linked to that of the cross-thematic approach to curriculum in relation to effective learning methodologies (HPI, 2003a; Alahiotis, 2004; Georgiadis, 2005).

Context of strategy

Connections among the diverse frameworks at both the level of practice and that of ideology have also been revealed in the Greek CTC analysis and relate to the

context of strategy. As already noted, the discourse blended into all the contexts is the dominant idea of the cross-thematic approach. At a more specific level we present the following findings:

1. Most of the novelties and/or discontinuities identified in our analysis were based on the idea of the CTA.
2. This idea was also found to be discursively related to the idea of the 'benefit of the pupils'.
3. This relationship appeared rather complex and was found to have several 'transformations or adjustments' in the CTC text.
4. It was identified as referring to the benefit of the pupils with special educational needs, or to the benefit of pupils of diverse cultural and linguistic background, or to the benefit of any individual pupil.
5. All the aforementioned ideas could be placed within a framework, according to which school should strengthen its pedagogical role for all pupils called to live in contemporary society (the public good) (HPI, 2003a).

Discussion

What is to be taught in schools is undoubtedly important, and is still a matter of debate. Therefore, education should be seen as an area where at least the memory of a common inspiration for the various fields of life is taken into account, on the basis of continuous adaptation to the contemporary world (Standaert, 2001). As Kelly points out (Kelly, 2001), the three major ideas that appeared in the 20th century—realism (individualism), pragmatism (that truth is what works in practice) and late modernism (dispute of power and of any effort for generalization)—have influenced the development of curricula in the last two decades. It seems that a synthesis of the aforementioned ideas lies in the issues that relate to the nature of knowledge and the ways that it should be transformed to school knowledge, in other words the school curriculum. In this sense, curriculum is considered as policy that can be treated as texts, discourses and ideology. Within this frame we performed the analysis of the Greek Cross Thematic Curriculum, with our effort being focused on whether or not this specific curriculum 'text' could be considered as an 'effective curriculum practice'.

The relative analysis aimed first at illuminating the major issues of this Greek curriculum's construction and implementation. The producers of the CTC took into consideration Greek reality as regards the necessity for a change in Greek educational practice, mostly in compulsory education. They also referred to the 'new role' of Greece in the European Union and the subsequent educational policies, mostly in connection to the quality of education. This was mainly done when they stated that the Greek educational system of compulsory education had to be adapted to the new era, which is related to the European context. Moreover, our investigation took into consideration the general idea regarding the specificity of all educational changes extended to the field curriculum policy (White, 1997; Erickson, 1998; Moon & Murphy, 1999; Lawton *et al.*, 2000) and showed that this idea was substantiated in the Greek CTC.

As described in the relevant section, the necessity for an educational change in Greece mainly focused on having a curriculum design that would be of more application and more reality-oriented, making links that correspond more closely to daily life and applications in practice. The way that the CTC was constructed and the implementation procedure took place, through the use of cross-thematic concepts, is mostly based on what Paul Hirst (1974) noted: that the basic knowledge of the various discipline areas is constructed by their basic concepts, which are more or less stable; new knowledge is rather based on the restructuring and reinterpreting of old knowledge, so that new information may be included and understood.

Relating knowledge to meta-learning and to everyday situations is promoted in the CTC's construction and implementation mainly through the cross-thematic activities suggested for all subjects and the projects carried out in the Flexible Zone programme. All these are based on a process of interaction with the information, as well as of involvement of the students in the process of learning. The arguments used to support this curriculum intervention in the texts that accompany the CTC may be grouped as follows:

1. School practice should take into consideration the findings of the various discipline areas, especially those of brain research, which relate to the way that the brain learns (Cohen, 2002). In these, the links among the various discipline areas and the projection of the themes to daily life (found in CTC) can be considered effective in supporting learning.
2. The pedagogic necessity for the promotion of the various literacies (as they are described in international tests, such as the Programme of International Student Achievement [PISA]), namely linguistic, mathematical, scientific and technological literacy, is said to be substantiated in the CTC (OECD, 2001).
3. The view that the school must take into account its position in relation to other players in formal and non-formal learning (Standaert, 2001; OECD, 2001) is strongly supported in the CTC as well as in most accompanying texts. In the CTC, schools are called on to strengthen their pedagogic and social role and start to use it in a more effective way (Lawton *et al.*, 2000). It is also suggested in the CTC that teachers should use their initiative to develop their own syllabus and apply it during 30% of their teaching time.
4. Within the above idea lies the argument that schools should be open to society. This argument was a major element of EU policy in 2001–2002, when a major conference was organized in Brussels on 'Open schools and school participation'. The view to open Greek schools to society was put forward during the CTC's production, when the first version of the text was put to open debate. It is also seen in the context of implementation, where teachers are called to participate (along with their pupils) in projects that promote links to local society and to daily life in general.
5. The relevant literature that relates meta-learning to the cross-thematic approach (Albot & Ryan, 1999; Erickson, 1998; Standaert, 2001a) is used to support the

view that through the CTC's implementation, the cultivation of skills for lifelong learning will take place in a suitable learning environment.

The investigation of the effectiveness of the specific curriculum practice also aimed at verifying the major dominant themes, ideas, concepts and discourses in the various contexts. As already referred to in the section on methodology, our analysis took into consideration the view that the final policy framework is constructed from the interaction of various contexts (Ball, 1994; Gale, 2000). These contexts (of influence, production, practice, outcomes and strategy) have been analysed and show that the linking element in the construction of the final policy framework is the idea of the cross-thematic approach, to which all the issues of these innovative curricula are related. The most important of these issues are presented and commented upon below in a way that verifies their connection to the general principles that set the framework of the CTC (HPI, 2001a), and shows the connections that exist between the issues found in CTC and the major findings in the field of effective curriculum design, whether these are called characteristics of the 21st-century curricula (Kelly, 2001), principles in curriculum development (Boudieu, 1999) or trends in the international arena of curriculum construction (Standaert, 2001). A major characteristic of the Greek CTC is the promotion of general education. The definition of general education has been an issue of debate for years (Kazamias *et al.*, 2001). It is made clear in the CTC text that all subjects should be given the attention necessary for the advancement of the cosmo-theory or the so-called 'cosmo-idle' (cosmic theory) of the pupils (Alahiotis, 2004) in a way that will make them able to participate creatively in contemporary society. (The term 'cosmo-idle' comes from the Greek words *cosmo* [world] and *idle* [ideal] and represents the cosmic theory that students develop through schooling.) The issues that relate to general education are exemplified to promote democratic citizenship, ecology and multiculturalism through the links and the activities that the CTA is based upon.

Moreover, an important principle that is put forward through the CTC's implementation is the increase of teachers' and students' freedom and choice (this principle is commented on by Boudieu, 1999). As presented in the relevant section, the freedom of teachers is increased in terms of the flexibility they acquire in the amount and the management of teaching time, as well as in the choice of the themes that they may investigate. The necessity to use new technologies in teaching and learning is stated in all texts that refer to curriculum development, either political (Council of Europe, 2003) or scientific (Boudieu, 1999; Kelly, 2001). The Greek CTC considers the application of new technologies as well as the use of electronic learning methodologies necessary in all contexts, especially in the contexts of implementation and practice is this obvious: the construction of textbooks is extended to the construction of software that should be interactive, creative and cross-thematic.

The CTC text analysis was extended to the investigation of the dominant discourse and the identification of the way it is related to the construction of the CTC. The dominant discourse of is that of using the cross-thematic approach for the 'benefit of the pupil', to lead to the 'public good'. As has been identified in the analysis of the

various contexts, this discourse verifies the policy towards a major pedagogic change through the creation of a strong pedagogic learning environment in Greek schools at all levels (primary, secondary and post-secondary). A significant influence is expected to take place at Lyceum level and in this way there will be an effective response to the argument made by researchers in the field (Koutselini, 1997; Kazamias *et al.*, 2001; Alahiotis, 2004; Georgiadis, 2005) that post-compulsory education need not be seen as a 'preparatory stage' for the university entrance exams.

Considering CTC as a public policy text, we tried to evaluate the success of the HPI's effort in treating the text as a whole. The answer to the basic question 'what is to be done?', which relates to the criteria of specialization of the various issues, is mainly located in the introduction of the CTC text. In that section of the text the importance of developing a modern pedagogic system as well as preparing rich educational material for compulsory education is underlined, these being connected to the effectiveness of the practice expressed in the relevant CTC discourse. Moreover, the importance of the effort is always related to a basic social aim: that is, the aforementioned benefit of the pupil and the public good. Complementary to the above is the effort to assist teachers. In the HPI texts there exists detailed planning for in-service training for all compulsory education teachers (more than 120,000). This training was planned to be based on animation of instruction (where participants play the role of the students in workshops), using the CTA in 'model' lesson plans.

The relative study of all CTC stages revealed the significance of this pedagogical change, which is not only based on strong theoretical and empirical evidence but also reflects Greek educational reality (Flouris, 1992; Koutselini, 1997; Kazamias *et al.*, 2001); It must be noted that part of the CTC educational change analysed is already implemented through the participants in the various procedures, these being academics and educationalists who have taken part as writers, evaluators and teacher trainers or as participants in the debate. Additionally, teachers experimenting with the 'Flexible Zone' programme, which is a basic introductory part of the CTC, have contributed substantially to the above practice (Alahiotis, 2004).

It has also to be mentioned that the CTC has influenced the reconstruction of the discourse of Greek compulsory education in a transformative way; a number of local educational conferences had the cross-thematic approach as their major theme, and relevant research has been initiated in Greek universities. Such practices minimized some non-systematic and disorganized criticisms of the Greek CTC. In this sense, the general context of practice and strategy is transforming itself, and it remains to be examined whether all the identified parameters of this 'effective curriculum policy' would contribute to the effectiveness of the 'pedagogic device', being used as its antidote to all the problems (Bernstein, 1999).

The assumption regarding the effectiveness of this curriculum policy and practice might be strengthened by the fact that the CTC text has been legitimized through its publication as a government paper. In such a case the legitimization is expected to influence the context of strategy (as described in the relevant section) in an effective way. Successive practice of this new educational change requires more efforts related to some political negotiations and to its better understanding and acceptance by all

educators, as well as related in-service training (Alahiotis, 2003; Georgiadis, 2005). In any case the analysis has shown that the discourse blended into the Greek CTC speaks the language or uses the codes (Bernstein, 1999) identified in educational research (Sheerens, 1992; Hargraves, 1994; Walker, 2001). It is also related to the discourse used in the political documents of the international education agencies and especially the EU (OECD, 1994; European Commission, 1996, 2001; UNESCO, 1998), as well as to the fact that pupils are individuals living in contemporary Greek society, which is part of European society.

Conclusion

The contexts of the production and implementation of the Greek CTC have been politically, scientifically and pedagogically informed. The CTC has been influenced by the local educational context, as well as by European educational policy initiatives. In this framework it is expected that some issues of the Greek CTC will be further strengthened through successful application and performance. The systematized planning of the implementation procedure analysed, as well as the multi-participatory nature of the process, offer a sound basis for the success of the whole effort. In the Greek CTC, the benefit of the pupil is viewed to be linked to the public good, which is extended to the 'European dimension' of contemporary Greek society. In this sense, it is of interest to further investigate the power of influence of the new pedagogic system—the CTC—on the fulfilment of the vision of its designers after the year 2007, when it will have been introduced to schools. The way this vision is described in the texts analysed focuses on the organization and operation of an open and creative school, which is closely related to the development of a creative country in Europe.

Consequently, it is of great significance to underline that a further investigation of the CTC's implementation is necessary. This investigation should focus on the application of this textual intervention in practice. It will be of interest to us to continue to observe the application of this curriculum change until its full implementation, especially at a time when the main political actors (the party in government) have changed (since March 2004 the neo-conservative, neo-liberal ND party has come into power). Furthermore, it would also be important to extend our analysis to similar textual interventions in education policy in other fields or in other countries. Such studies might contribute to the exemplification of the discourses referring to the benefit of the pupil, and consequently to the benefit of contemporary society, within the basic pedagogic concept of the continuous adaptation of an educational system.

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