School, family and the community constitute three distinct but at the same time interdependent systems. The ideas, notions and research which are related to the necessity of the functional communication of those systems have recently flourished internationally, creating a substantial “heritage” in principles, acceptances, theoretical models, application proposals, research programs as well as new orientations and perspectives. This paper proposes the model of syneducation. As syneducation (synergy + education) we define the acquisition of a common educational experience, simultaneously and in cooperation, of persons differing in age and cognitive infrastructure and often in social and cultural level. Syneducation is a new emerging research field. With its application, we aim at the change of attitudes and behaviours of the participants (parents, educators, students, policy makers and the representatives of the community) from an initial state of possible indifference-disinterest to an active and effective participation in common syneducational actions in order to face specific issues, and even further to being multipliers of the above mentioned actions. Furthermore, the application of this model creates, develops and accrues social capital. In this paper we will present certain research applications which took place according to the model of syneducation based on the methodology of collaborative action research (for example, a transdisciplinary research program, a research program in Literacy in Information Technology, a research program focusing on problem management within the family etc.) The research findings and the prospects of the syneducation model are still being discussed. This model is proposed as a realistic way of thought and action adapted to the contemporary conditions of our technological era and the foreseen needs of social computing.

Introduction

School, family and the community constitute three distinct but at the same time interdependent systems. The ideas, notions and research which are related to the necessity of the functional communication of those systems have recently flourished internationally, creating a substantial “heritage” in principles, acceptances, theoretical models, application proposals, research programs as well as new orientations and perspectives (see Mylonakou, 2007).

By the term community, which constitutes a subsystem of our society, we mean here the local community within which both the family and the school exist and act. The community may consist of individuals, associations, organizations, services, voluntary organizations, institutions etc. as well as informal groups of citizens.

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family, the mass media, the companies, the political parties etc. We are moving therefore towards the creation of a new social structure where technology makes digital communities dominant rather than institutions.

**Basic realizations**

In our times we are obliged to proceed with certain realizations so as to meet the different needs, due to the rapid evolution of science and technology, the fast development of knowledge and the significant social, cultural and economic changes. Among those realizations, the following have been recognized:

- The high perplexity of social issues and the dynamics of non-linear processes in social systems as well as lack of speculation.
- The need for a functional interaction among the family system, the school system, the community and the social system.
- The leading – guiding role of the school in the effort to create and support any interested parties’ (stakeholders’) network, which will also include the family and the community.
- The new opportunities that formal and non-formal education of both children and adults offers for considerations, practices and methods.
- The need to initially persuade interested parties to participate in the proposed process and secondly create an interest for the dissemination of all knowledge and messages that will emerge.
- The fact that the basic problem we encounter is related to the management of knowledge, which varies from individual to individual.
- The need to face, through social computing, the tendency towards the creation of digital communities that are increasingly developing in this new technological era.
- The creation and scientific documentation of a composite model, whose aim will be individuals who belong to different age groups and often have a different cognitive and social and cultural background and who co-exist and collaborate in an interactive learning environment for educational purposes at the same time and place (syneducation).
- The great difficulties concerning the organization, coordination and management of heterogeneous groups (as it concerns their age, cultural background, interests etc.) in syneducational processes.

**What is syneducation?**

There is extensive bibliography internationally which refers to issues of child education as well as adult education. However, the need has emerged today to face the issues that have arisen from the rapid developments in technology, the “educational surprise” of children and adults. The result is that sometimes children and adults are exposed to situations that demand their simultaneous training in the same fields that are new and unknown to all.

This paper proposes the model of syneducation. As syneducation (synergy + education) we define the acquisition of a common educational experience, simultaneously and in cooperation, of persons differing in age and cognitive infrastructure and often in social and cultural level (Mylonakou & Kekes, 2005).

![Figure 1: Syneducation: a new emerging scientific field](image)

**Syneducation** is a new emerging interdisciplinary (in some cases transdisciplinary) scientific / research field, (see subchapter 7 below) which leads to a new functional educational model, complementing the usual socio-pedagogic practices of children and adult education. According to this model, children and adults and generally individuals of different ages simultaneously participate in a common educational experience and a substantial collaborative action, usually in an interactive learning environment, which takes place in conditions of mutual understanding, trust, mutual support, negotiation, sense of duty and is facilitated through mutual mentoring (Kekes & Mylonakou, 2006). Within this concept, there is room for the development of various syneducational actions which could range from the simple syneducation of parents and children to the systematic participation of children and adults in research and development projects. The logic of linear transfer of knowledge from the older to the younger generation will continue to exist, but this will not always be the case in all issues.

Syneducational actions seem to be particularly appropriate for issues concerning the creative development of new ideas in an interactive learning environment, as well as the understanding and creative exploitation of technology. We also believe
that there is room for the development of syneducational actions in the cases where the resourcefulness and adaptability of children can multiply the results through the interaction and synergy with adults.

In the relevant projects we have already materialized, syneducational actions usually take place among students, parents, educators, representatives of the community and policy makers. In these syneducational projects, the starting point was the confrontation of several issues through the collaboration of school, family and the community. The syneducational program revolves each time around a thematic unit, decided among the participants according to their needs and interests [For example, programs focusing on the handling of certain problems and behaviours within the family which influence the school life and scholastic achievement of children, or programs whose objectives are presented below (see subchapter 4)]

With the application of the syneducational model we aim at the change of attitudes and behaviours of the participants (parents, educators, students, policy makers and the representatives of the community) from an initial state of possible indifference-disinterest to an active and effective participation in common syneducational actions in order to face specific issues, and even further to being multipliers (see Table 1 below) of the above mentioned actions. Syneducation favours the combination of practices and methods which belong both in the field of formal and non-formal education, aiming at the maximization of the educational result.

**Examples of syneducational research programs**

Within the limited space of this paper, we will present in brief two research applications that took place within the model of syneducation, based on the methodology of collaborative action research. The first is a research program in Literacy in Information Technology and the second is a transdisciplinary research program, focusing on knowledge management. **Example 1:** “A syneducational research program in Literacy in Information Technology”. This program focused on syneducational actions of children and adults through their training in Information Technology. The research was designed and materialised in three distinct phases, which are presented schematically below (Figure 2, see analytically, Mylonakou & Kekes, 2005). **Example 2:** “The transdisciplinary program SYNTHESIS: Syneducational transactions among students, parents, educators and policy makers:”

The main aim of the program was to create sensitization and offer incentives and education to all participants in the stakeholders’ network, so as to facilitate the development of effective proposals and specific actions which will allow a synergy among parents, educators, students and the community, within an interactive learning environment. The program was based on a transdisciplinary model whose basis was the Socratic method and knowledge management (see Kekes & Mylonakou, 2006). A schematic presentation of the model follows in Table 1.

**Evaluation**

The methodology that primarily makes full use of the syneducational model is collaborative action research (see Kekes, 2000). This is due to its participatory nature, its democratic principles and its simultaneous contribution to social sciences and social change.

The evaluation of the syneducational programs was made through qualitative methods (self-observation, diary keeping, questionnaires, interviews, evaluation from specific groups etc.) The majority of the syneducational programs were evaluated through a complex evaluation model. We will present certain evidence indicatively (for more details, see Kekes & Mylonakou, 2006). The combined evaluation model includes basic parameters – information which come from different evaluators and is based on different groups of criteria for every group of evaluators.

Within this logic, there was an evaluation:

1. **From the group of participants** in the syneducational program, which was based on: a) The criterion of “inner” satisfaction (interpersonal evaluation), b) The criterion of the change of attitude, c) The criterion of the creation of new ideas.

2. **From the local community** (parents, educators and members of the community who were not members of the team), which was based on: a) The criterion of penetration in society (social evaluation), b) The criterion of response to people’s needs, c) The criterion of influence (impact) on policy makers.

3. **From a Panel of Experts**, which was based on: a) The criterion of validity, b) The criterion of contribution to the production of new knowledge, c) The criterion of perspective.

4. **From the researchers responsible for the program**, which was based on: a) The criterion of functionality, b) The criterion of viability, c) The criterion of effectiveness.

The syneducational programs were evaluated according to the criteria previously mentioned on a seven-point Likert-type scale by each evaluation team’s participants. Furthermore, a discussion ensued among the members of each team. Following that, there were separate meetings between the researchers and every one of the teams (students, parents, educators, representatives of the local community) that participated in the syneducational programs, in order to assess their views and arrive at final judgments. Finally, all teams discussed dialectically in order to reach the final conclusions (for more details, see Kekes & Mylonakou, 2006).
Figure 2: The phases of the 1st syneducational research program

PROJECT: Syneducation of Parents and Children

Aim: The encouragement of participation of parents in the education of their children

PHASE I: Collaborative Action Research

Identification – Analysis of needs and availability of Parents-Educators – Students. Production of proposals

PHASE II: Syneducation

Send a clear message on the importance of responsible participation of the family in the educational process

Enable parents and students to participate in an organized educational activity

Draw useful conclusions from the process

Processing of conclusions in a common team

Creation of a program for the syneducation of parents and children

Implementation of the program: “Literacy in Information Technology”

PHASE III: Implications – Perspectives following the research

Further activate parents, students and educators

Active participation in the design of new (forthcoming) programs of syneducation
Table 1: Brief presentation of the phases of the SYNTHESIS program

<table>
<thead>
<tr>
<th>PHASES</th>
<th>AIMS</th>
<th>STRATEGIES</th>
<th>METHOD</th>
<th>TYPE OF STAKEHOLDERS INVOLVEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHASE I</td>
<td>Think Systemically</td>
<td>Optimism, Sensitization, Offer of incentives (Motivation), Briefing</td>
<td>Syneducation – Stage 1, Familiarization with the Socratic Method</td>
<td>Indifferent, Disinterested</td>
</tr>
<tr>
<td>PHASE II</td>
<td>Understand Dialectically</td>
<td>Facilitation, Creation of a vision, Acquisition of skills, Strengthening, Active participation in the design – planning of the theatrical performance</td>
<td>Syneducation - Stage 2, Collaborative learning, Mutual mentoring</td>
<td>Participant, Collaborator</td>
</tr>
<tr>
<td>PHASE III</td>
<td>Present your ideas creatively</td>
<td>Self-confidence, Feedback, Decision making, Development of ideas</td>
<td>Theatrical performance, Encouragement and reinforcement of creative thinking</td>
<td>Co-creator</td>
</tr>
<tr>
<td>PHASE IV</td>
<td>Make full use of the experience and knowledge you acquired</td>
<td>Self-awareness, Reflection based on the principles of knowledge management, Awareness of the need for change in practices or procedures</td>
<td>Creation and implementation of a plan, Encouragement and reinforcement of critical thinking</td>
<td>Critical analyst</td>
</tr>
<tr>
<td>PHASE V</td>
<td>Communicate and disseminate your knowledge and experience</td>
<td>Metacognitive learning, Opportunities for future utilization of the experience</td>
<td>Conscious use of strategies, Strategic planning, Leadership</td>
<td>Multiplier</td>
</tr>
</tbody>
</table>

For more results and benefits of this research program, see Kekes & Mylonakou, 2006.
Results - Benefits from Syneducational programs

Within the framework of this paper, it is impossible to present the results of every syneducational research program separately. The research results from the existing syneducational programs support the notion that syneducational actions offer a lot of opportunities and produce significant results for all the participants, offering optimistic perspectives. We will mention indicatively some of the final conclusions, which are common to almost all syneducational programs.

A) The parents (or other adult members of the family):

- Improved and enriched their relationships with their children. They acquired new common experiences in collaboration with their children, acting as "classmates". Based on this experience, parents saw the educational process from a student's perspective, modifying their views for it (greater empathy as it concerns the demands, the difficulties, the cost of time, the psychological pressure etc. of student life). The understanding of parents and their empathy towards the real needs of their children increased.
- Broadened their skills in playing their parental role more effectively, supporting their children not only in their homework but in other issues which are important for the child.
- Enriched their relationships with their children through the syneducational procedures. They realised that certain functions which took place in the syneducational programs and which may significantly influence school success as well as the emotional and social development of their children could be incorporated within the framework of family life (i.e. common activities within the family, learning experiences which could take place within the family environment etc.)

Were satisfied from this new relationship with their children’s school and became more sensitive and responsible as it concerns issues of collaboration with the school and the community for the benefit of their children.

B) The children

- Experienced a unique learning process together with their parents and other parents and understood to a certain extent the difficulties and restrictions of a parent, as well as the advantages of common "productive" activities with their parents.
- Were filled with enthusiasm when the traditional roles changed and they acted as teachers of their parents and other adults.
- Improved their perception and their attitude towards school.
- During and after the syneducational program they displayed a higher degree of interest in participating in the classroom as well as other school activities.
- Requested the continuation of this coexistence and collaboration with parents and educators.
- Suggested more experiential, creative and attractive for them processes as it concerns school life.
- Proposed the syneducation with parents on issues which promote and support not only their interests and inclinations but also the talents and possible special knowledge of their parents on an issue.

C) The educators

- Played a vital role in the development of the syneducational program.
- Enriched their knowledge significantly and acquired exploitable experience in the key issue of relationships with parents and the representatives of the community so as to achieve synergy (not just communication) among school, family and the community.
- Showed interest in the family dynamics and realised its role in the way that a child studies, learns and behaves.
- Understood better the needs of their students through a systemic approach of the family.
- Improved their teaching practices and their methodological tools through the experience of their participation in syneducational actions.
- Realised how their work can be facilitated through the organised participation of parents.
- Discovered the potential of the community, which they can exploit in order to further support the role of the school as well as the role of the family in certain cases.
D) The representatives of the community (who were responsible for issues of educational policy)
- Acquired experiences along with the other participants which were particularly useful and interesting, such as the adoption of effective cooperation methods, the making of decisions together with others, the development of skills related to a dialogue among themselves, educators, parents and students.
- Realised that certain community funds can support the initiatives of schools and effectively help the welfare of students and their parents as well as support the educational and social success of children.

E) All the participants
All the participants (parents, educators, representatives of the community, children, researchers):
- Realised the catalytic significance of the active participation and synergy of people of different ages, different social and cultural origin and different interests in common syneducational actions.
- Realised the development, at a different level for each of the participants (according to the age, interest and potential), of their personal ability for:
  - The creation and presentation as well as application of innovative ideas for the improvement and change of the existing situation
  - The acquisition of new skills and techniques that enabled them to analyze the dynamics of interpersonal and intergroup relationships more effectively.
  - The strategic planning – programming of actions which initially aim at the management and, at a later stage, the dissemination of the experience and knowledge obtained.
  - The creation of a personal development and support plan to continue their learning
  - The systemic (holistic) approach of issues
- They also noted with pleasure the creation of a particularly positive psychological atmosphere which prevailed in this unique for everyone syneducational process. The students, parents, educators and representatives of community had to assume new roles. They all enthusiastically tried to meet their new responsibilities after an initial hesitation.

Eventually, the attitude and enthusiasm of children was inculcated in the adult population, who behaved like children in a learning process (asking questions, being humorous, making observations, competing with the other groups etc.).

F) The researchers responsible for the programs
- One of the many realizations – conclusions of the researchers responsible for the programs which is worth noting is that syneducation is another field for the creation, the development and accumulation of social capital and that the participants created a special social interactive network.
- The production of social capital progressively increased during the evolution of syneducational programs. This was achieved through the mutual support of stakeholders and was based on interaction, the acceptance of values, the adoption of rules, trust, mutual understanding, cooperation, common management of knowledge, sense of duty and collaborative action.
- Another significant realization (related to social capital) which all participants arrived at during the evaluation process was the unique team spirit that was created among them. More specifically, during the syneducational programs:
  - The sense of belonging was dominant. That is, every stakeholder felt proud and satisfied because he belonged to the team.
  - The sense of participation was dominant.
  - The sense of contribution was dominant. That is, everyone individually, regardless of age, knowledge, experience and socioeconomic status, felt he was useful and productive in the team and that through the syneducational process he could help others and himself. In other words, everyone felt that his participation in the team did not invalidate his personal characteristics. On the contrary, through this collaboration and collaborative action these characteristics were pushed forward, improved and contributed to the support of the common benefit.
  - The sense of acting jointly was dominant. That is, through the active participation of everybody, the sense of duty and synergy, participants were led methodically towards
the achievement of common goals and aspirations, the setting as well as the confrontation and solution of problems that validated the operation of the syneducational team.

Syneducation as a new emerging scientific field

Today we can observe an intense “fragmentation” of the unity of scientific knowledge to such an extent that in some cases there is a communication breakdown between scientists, who seem to live in “parallel cognitive universes”, often obliged to use incompatible methodological and language codes. For example, in 1987 there were 8,530 defined cognitive fields (Crane & Small, 1992). It is easy for someone to assume what it means for some groups of scientists who belong to these fields to “communicate”, especially if one examines their basic characteristics. According to the typology of Davis (1995) there are ten basic characteristics on the basis of which we can define exactly a scientific field (see Kekes, 2007), which we will mention as follows, displaying the relevant evidence from the field of syneducation.

1. **A scientific field “constitutes” a community of people.**
   In the case of syneducation, it is groups of people who are educated together. These people have common scientific interests, as is the case with educators, policy makers, some parents and other stakeholders.

2. **A scientific field is an expression of human imagination.**
   The very nature of syneducation favours and supports the processes which go beyond ordinary intellectual schemata and push forward new relationships and considerations of reality. Generally, syneducation supports processes which are characterized by novelty, flexibility and the ability to compose, process and transform the existing experiences. In other words, syneducation makes full use of the creativity, imagination and experiences of all participants.

3. **A scientific field is clearly defined.**
   In the case of syneducation, it is the particular “space” within which the interests, needs and priorities of the participants are specified and the process of acquisition of a common educational experience and the development of collaborative actions of individuals with differentiations (in age, knowledge, experiences, interests etc) takes place, facilitated through mutual mentoring.

4. **A scientific field carries a tradition.**
   As syneducation comprises a interdisciplinary field and draws principles and considerations from various sciences such as social pedagogic, pedagogic, adult education, Systems Theory, Cybernetics, Knowledge Management, dialectics, Social Marketing etc., it exploits elements from tradition and “intellectual ancestors” from many disciplines.

5. **A scientific field constitutes a “syntactic” structure.**
   It is not, therefore, only the content of the field but a method to collect and evaluate data as well as a general concept as to how the arguments can be convincingly supported. In the case of syneducation, the methodology on the basis of which the collaborative actions develop and the data is collected and assessed is usually collaborative action research (see Kekes, 2000).

6. **A scientific field constitutes a “semantic” structure.**
   In the case of syneducation, a system of fundamental ideas, principles, realizations (see subchapter 2 above) and proposals is developed, which are organised in semantic categories.

7. **A scientific field uses a specialized language or a special system of symbols.**
   This is a total of technical terms and symbols, to which new ones are added, when required. In the case of syneducation, due to its transdisciplinary character, different terms and notions from different disciplines are used (see number 4 in this subchapter) and the vocabulary of the field is enriched with terms such as dialectics, Transdisciplinarity as well as terms such as syneducational transactions, mutual mentoring, knowledge management, social capital, complexity, social computing, collaborative action research etc.

8. **A scientific field has a “heritage – legacy” in materials and knowledge as well as the ability to provide access to them.**
   Given the transdisciplinary nature of syneducation, this “heritage – legacy” originally comes from different disciplines and, following that, from principles, realizations and methodological approaches which determine the very field of syneducation. On top of that, this “heritage” is increased and enriched by the application of the syneducational model to new research programs, application proposals, research findings as well as orientations and prospects.
   The participants in this field produce and manage this “heritage”, while facilitating at the same time other people’s access to it. This last element (facilitation of access) constitutes a basic principle of the field of syneducation, given that the ultimate goal of the syneducational model is for the participants to become multipliers (see Table 1)
9. A scientific field includes evaluation and "emotional" realizations. In the case of syneducation, it includes basic realizations (see subchapter 2 above), commitments, beliefs as well as "preferred scientific intuitions", which are related to the concept of reality, human nature (as for example the respect and the elevation of the personal characteristics of every participant, his emotional support etc) and the special issues which concern the team of participants and which are chosen by them as the objective of the program (see research examples, subchapter 4).

10. A scientific field also constitutes a "didactic" Community. Syneducation could constitute a special "didactic element" which has principles, realizations, methodological approaches, application proposals as well as orientations and new prospects and is characterized by open-endedness and adaptability. According to the above, it is obvious that syneducation, having these basic characteristics, could constitute a new transdisciplinary field with a philosophical, theoretic and methodological infrastructure.

Note

1 According to UNESCO terminology (see Delors, 1996), we can distinguish between: formal education, which is organized and offered in institutions of our official educational system and leads to recognized certificates/degrees
B. Non-formal education, which is organized and offered in specialized institutions or organizations or institutionalized or not training bodies in the form of educational programs which usually do not lead to recognized certificates/degrees.
C. Informal education, which is obtained from the family, social, cultural or work environment as well as different informal groups, the mass media, the internet etc.
2 An interactive learning environment is usually due to the presence of technology.

Epilogue

Today, in this era of perplexity with the great social, cultural and economic changes as well as the rapid development of science and technology, the combined approaches in the communication among school, family and the community and the application of composite models emerge as a necessity.

The model of syneducation constitutes a new and different synthetic approach, which complements the usual sociopedagogic practices in the education of children and adults. Syneducation constitutes a new emerging transdisciplinary research field which leads to a new operational (functional) model of education.

The encouraging results from the syneducational research programs which have already taken place push forward the model of syneducation as a realistic way of thought and action which is adapted to the modern conditions of our technological era and has a significant impact on children, parents, educators, policy makers, the representatives of the community as well as the creation and development of social capital.
References


