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**The communication system in the school operation and development: The case of the Greek educational legislation**

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**Abstract**

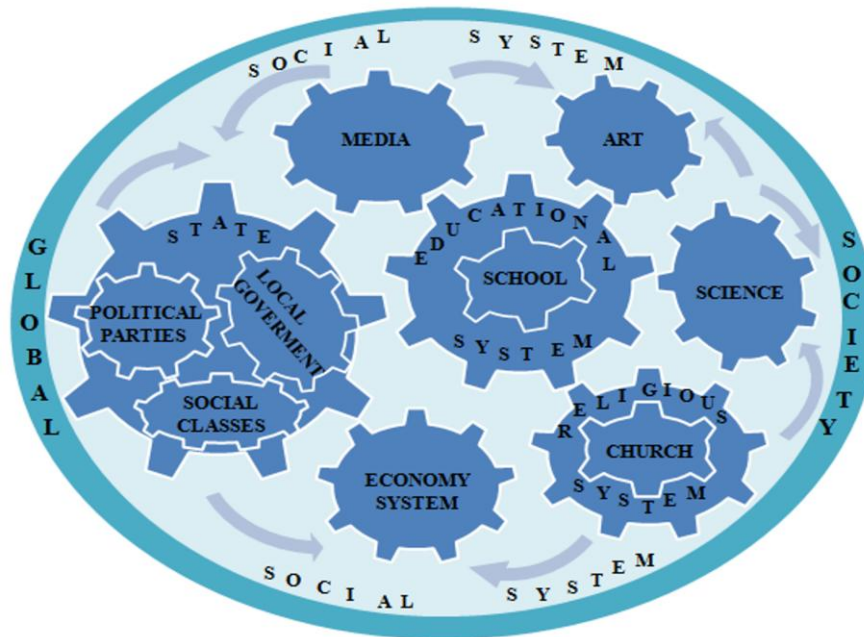
According to the theory of social systems of Niklas Luhmann, communication is regarded as an open process and the only authentic social function which allows the interface of mental as well social systems, with a view to autopoiesis, that is the reproduction of communication itself. Therefore, only communication can affect communication, just because whatever is not communicated cannot contribute to communication and the function of society. The operation of an organization - as it is the school for example - as well as the interaction of all its members cannot be achieved without the communication system, the level of its systemic maturity which indicates correspondingly the level of the organizational maturity of the organization. Therefore, the educational system, because of its complexity, is a self-rational organization of communication energetics. This paper, based on the systemic approach, aims to study the role of communication in the organization, operation and school development using as a research tool a prototype categorical system of content analysis of two of the five dimensions of complexity; the social and cognitive dimension of complexity in order to make a systematic study of the written texts of the legal framework of primary education in the post-dictatorship Greece. Through the communication indicators of the two dimensions mentioned above we will emphasize the degree and the kind of communication relations developed by the school, both internally and with the important environmental systems. Moreover, we will find out whether the "communications" of the school allow it to become a learning organization.

**Keywords:**

**Systemic approach, Communication, Dimensions of complexity, School development, Greek legal framework for primary education**

## 1. Introduction

Modern society, according to the theory of social systems of Niklas Luhmann, is regarded as a global society, the main function of which is to develop a type of contingency, in which it is feasible to associate an individual with plenty of opportunities and their exploitation. This society is diversified into multiple operating systems (Luhmann, 2001), ie in single data sets that have interdependent and interactive interfaces, which, however, are distinguished by their environment through recognized partitions, ie through borders (Gavalas, 2011). Such systems are, for example, politics, economy, science, law, art.



**The global system according to Luhmann's theory.**

For the German sociologist and main representative of the systemic-konstruktivist example N. Luhmann (2001: 10) a social system "is constituted in the development of an autopoietic communication frame", which is defined towards its environment by selecting suitable communications (Magklaras, 2013). This means that social systems as self-referential and autopoietic systems, ie systems in which their organization is based on a binary code (eg. fair / unfair) -through which, they indeed, include or exclude information- whereas their function depends exclusively on themselves (Luhmann, 2001), are based on communication. The process of communication is connected to the observation that no longer constitutes a characteristic of mental / consciousness systems, but becomes an abstract process whereby the systems observe each other and allow communication to continuously consider options and take decisions (Maurer, 2010). In other words, communication in social systems is not accomplished through deterministic links but through a loose structural coupling, which is based on the choice ability (Blaschke, 2007). As a result, all data, functions and communicative relationships are studied within the social system and not the individual

framework, since communication in the theory of the German sociologist is analyzed based on the systemic approach, turning its interest not to individuals, but to the relationships developed in them. Therefore, for N. Luhmann (n.d., as ref. in Kodakos, 2014: 42) “communications communicate, not people”.

Communication is the most important factor of the system evolution, which -as an autopoietic procedure- reproduces social systems and, therefore, any change in it, its potentials and the means that make it possible, brings about social change. According to N. Luhmann (2001), communication is a selection process with three different versions: information, announcement and understanding. All these three concepts mark a difference. The system producing a piece of information should make a distinction. It should choose the information which will transmit and then should choose the way that will transmit it. This means that the information generated has been converted into understandable information, which in no way should be perceived as an identification of the initial and final information. Therefore, communication is realized to the extent that its recipient understands the announcement so that he can then proceed to further communication. Thus, communication is not regarded as a means of conversation among subjects. On the contrary, it is taken as an open process and the only genuine social function (Luhmann, 1995), which requires, after selection, the transmission of information within a structure, which in turn allows the interconnection of both mental (since it is structurally linked with consciousness) and social systems, aiming at its autopoiesis, ie the reproduction of communication itself (Kodakos, 2014).

Communication is the one that establishes the rules of interaction and provides all the necessary structures (code-conduct-roles- procedures) as a context of social maturation, education and participation for all the parties involved. The operation of an organization - as it is the school for example- as well as the interaction of all its members cannot be achieved without the communication system, the level of its systemic maturity which indicates correspondingly the level of the organizational maturity of the organization (e.g. school) (Kodakos & Angelakou, 2016). Therefore, the educational system, because of its complexity, is a self-rational organization of communication energetic (Angelakou, 2018).

## **2. The “complexity” of social systems**

Systemic methodology is one of the most efficient new ways of approaching and interpreting the complexity of the world, since the last concept can be traced only to the set of interactions of all the elements of a system. This means that the approach of complex systems can be understood in terms of the whole and interactions rather than the detailed thinking and isolation of the parties (Ramage & Shipp, 2009).

The concept of system complexity refers to the system-environment relationship (Willke, 1996) and reflects that kind of property, which makes it able to be in many situations or to show unlimited behaviours (Kodakos, 2011). In other words, a system, which consists of several parts, is characterised complex, so there is diversity, where, however, the behavior of the system (variousness) as a whole cannot be simply interpreted and described. The more

complex a system is, the more information it contains (Flake, 1998 in Kodakos & Angelakou, 2017: 88).

Through the complexity of the system, N. Luhmann attempted to answer the question about the function of systems (Kodakos, 2013) and describe the social reality (Tasis, 2012). The degree of complexity of a social system depends not only on the number of components / units / subsystems that make it up, but also on the number of relationships among them (Maglaras, 2013), that is, their interactions.

N. Luhmann believes that the systems with a bigger degree of complexity are more capable of attempting more and different kinds of interactions with their environment and, consequently, respond to it with greater complexity. Indeed, for him the systems with increased internal complexity, in addition to having more information, are also more capable of self-observation (Angelakou, 2018).

### **2.1 The dimensions of complexity**

The complexity of a system, according to H. Willke (1996), consists of five dimensions; objective, social, temporal, operational and cognitive, which “convey a meaning, that is, the fulfillment of the distinct and clearly defined expectation of 'what?'” (Kodakos, 2018: 133).

The objective dimension of complexity is related to the resources (that is members, equipment, building infrastructure), as well as the competitiveness and the pressure exerted by the expected forms of acquisition and allocation of resources. Social dimension refers to the division of labor within the system and the diversification of its members' roles. Both the division of labor and the internal differentiation cause mutual (inter)dependencies, since the problems within the system concern not all members but only specific actors so that one's work is based on the work or complementary work of the other's. Therefore, functional interdependencies and the internal differentiation of roles lead the system to an ever increasing complexity resulting in a greater need for coordination (Durkheim, 1977 in Willke, 1996).

According to the temporal dimension of complexity, targets are not set as something to be attained in a simple future, but, instead, a particular future moment is selected. The impairment of this dimension is achieved when the system is capable of being synchronized to a time-bound system, a key condition for which is to limit functionally differentiated roles, requiring specific structured types of handling and coordinated processes. The operational dimension refers to the independent adoption or change of purpose and objectives from the system itself. For the impairment of the operational dimension, the development of reflection is proposed: that is, the ability of social systems to shape their identity (themselves), self-reflect and perceive themselves as the environment of other systems (Luhmann, 1987).

Finally, the cognitive dimension is associated with the self-steering ability and self-control of the system through knowledge. This dimension focuses on information processing, communication processes aiming at system integration, social creativity and learning ability, with a view to solving social problems. The development of the cognitive dimension of complexity is promoted through the ability of self-actualization and self-limitation in the context of reflection.

### **3. The “communication complexity” of school**

The school -as a social entity of interacting elements, formed in a system with a particular composition and structure- cannot be regarded but as a "communication complexity". This is confirmed in that both school development and its function are achieved through the auto-steering of its communications as well as its structural coupling with the important environments (Angelakou, 2018). Moreover, for N. Luhmann the main function of the school is not to transmit knowledge and discipline, but to minimize the improbability of social communication (Bunyard, 2010). In essence, the main purpose of education is general cultivation (*bildung*), which is a type of contingency. Of course, this "change" is achieved through communication, since “communication is constantly meaningful, thus, pedagogical, and education is almost identical to the process, since society has no other opportunity to negotiate meaning beyond communication” (Kodakos, 2014: 26).

In fact, N. Luhmann rejects any simplistic theory of learning and identifies the process of learning with the structural coupling between the communication system (teaching) and the mental system (student). In this way, he underlines the role of teaching, where some teach, that is, communicate, while others connect themselves through the structural coupling with the process of communication. Thus, they learn, that is, respond to didactic communication. As part of this communication, each student tries to observe himself/herself, while teachers learn to observe them on the knowledge they obtain with the awareness, of course, that they know they are observed (Qvortrup, 2005: 10). Therefore, education itself is a communicative activity, the main function of which is achieved by converting students from individuals, that is, beings, into persons. The 'person', the property or otherwise the personal identity emerges through the communicative process of each educational function, which is a product of it, but also its condition. Once the primary educational function is realized, that is, once the person is formed, the mental system can be structurally coupled to the social system, which will enable it to exploit the achievements of the other functions of the educational system. In this way, the person (*homme*), the citizen (*citoyen*) and the worker (*bourgeois*) are gradually emerging through the communication systems, which constitute the three fundamental categories for the individual's integration into society (Qvortrup, 2005: 13). Therefore, the primary objective of the school is not to transmit knowledge to the student, but to teach him/her to "handle non-knowledge", that is, to become capable of making decisions by utilizing communication. Besides, this is the reason why N. Luhmann has repeatedly paid attention to education and, in particular, to the structural features of the educational system and the pedagogical reflection on the particularities and problems of communication, of this special social structure (Luhmann & Schorr, 1988).

### **4. The purpose of the research**

This paper, based on the theory of social systems of N. Luhmann, aims to highlight the importance of communication in the school function. The study of the dominant perception of the role of communication was set as a target as a system through a systemic conceptualization through the greek legislation of primary education.

Taking for granted that the function and interaction of the school members and its structures cannot be achieved without the communication development (this is the hypothesis), the present study aims to investigate whether the legislator emphasizes: (a) the communication system and (b) the kind of communication relationships that the school members develop internally and with the important surrounding systems.

### **5. The methodology of the research**

In this work the analysis of the research data was based on the principles, criteria and procedures of qualitative methodological design. Specifically, this research attempted to analyze the content of primary education legislation, which is a qualitative method, since the legislative framework, in addition to being a primary source of data (Cohen et al., 2008: 276), constitutes, at the same time, an important source for examining various aspects of social life (Babbie, 2011). To conduct the research, the research tool of categorical content analysis was used, for the systematic study of the written texts of the legislative framework of the Greek primary school (laws, presidential decrees, circulars and ministerial decisions). Utilizing the approach of H. Willke (1996) about complexity, the categories and subcategories of the categorical system consisted of the five dimensions of complexity, which, in essence, constitute the levels of "complexity maturation" and operate as quality indicators of systems and organisations. The interest to conduct the research of this study focused exclusively on the subsets for the communication of two dimensions of complexity: social and cognitive dimension. The reason for this "restriction" in the categorical analysis system is justified by the fact that in these two dimensions communication plays the most crucial role in the operation and the achievement of school purpose, since the social dimension refers to the functional interdependence that must be pursued inside the school for cooperation and communication among its members in order to provide information, instructions and guidelines based on their roles/properties, while the cognitive dimension refers to the kind of communication processes developed by the school, both internally and with other influential surrounding systems.

### **6. Results**

In total, 2.143 references were studied, 355 of which referred to the communication system. More specifically, 160 of these references were related to the social dimension of complexity and the 195 references were related to the cognitive dimension of complexity.

It was observed that the legislative framework about the social dimension of complexity refers to functional interactions among school members about: firstly, school operational issues and secondly, students who face severe learning disabilities and behavioral problems.

According to the cognitive dimension, it was observed that this dimension refers to communication processes and relationships both inside and outside school. More specifically, the internal communication processes aim to create a good school climate for the cooperation among members. The external communication procedures refer to the communication of

school with the competent authorities (ie. local government, school education committee etc.) to solve potential problems.

From the legal framework of the Greek primary school, it has been found that the political-partisan element has always played an important role in any reformative effort of the Greek primary school. As for the school communication system, it is observed that every time the legislator refers either to the cooperation-interaction among the school members or the functional interdependence of their roles. Furthermore, through communication, the division of the members' work who are involved in the educational process "is promoted", having different tasks for the processing of which mutual functional dependencies are provided. In fact, in the legislative framework the importance of communication from 2000 onwards is highlighted through the interaction of resources, aiming, usually, to ensure the proper function of the school and the achievement of the educational targets and objectives.

### 7. Discussion

The study of the legislative framework of primary education in Greece leads to the conclusion that through communication the division of labour of the members –who are involved in the educational process, having different tasks for which mutual operational interdependencies are provided- is promoted. Indeed, both complementary roles and the interaction of the resources appear to be necessary prerequisites for the function of the school organization. In general, it is observed that the educational system is bureaucratic and dynamically conservative, which makes it extremely difficult for a teacher to transcend the role of "technician" and become a "thoughtful professional", since

the "reflection-in-action" can be a threat to this system. That is why greek educational reforms in primary education are attempted in a systematically-organizationally inconsistent and unorthodox way. As a result, the complexity of the school communication is not presented in its full dimension.

### 8. Conclusions

For the systemic theory -which focuses on communication from the person to the system- the development of the school communication should not simply be considered that it surrounds and affects the learning function and cognitive development of each subject, but all the collectives to which it refers, since it constitutes an autopoietic structure that is meaningful for the whole society. When the development of the collective processes of the system is achieved, automatically its complexity is increasing, which means that interactions are increasing too, thus, communication. Complexity in the operation of a school organization means that work-service is produced and of course communication, which in turn stimulates the further operation at a higher organisational level each time, resulting thereby in school development. And because in the systemic methodology everything is related to communication energetics, that is communication, the education system should be structurally coupled to the communication system in order to serve its own autosemantic rationality. The legislator, to achieve this, could focus on different "parameters" for the organization of

communication and not connect communication exclusively with the interaction and interdependence of the school members. Essentially, the legislator should not shape the school communicative context, but allow it to run and develop by its members.

## **9. Acknowledgements**

The systemic approach brings significant impact on communication. It is a common language for the understanding, analysis and synthesis of complex phenomena. Systemic thinking focuses on the whole, despite the parties, going beyond the facts in the underlying structures and the causes that produce them. It leads to knowledge of how to connect and underlie relations among things. In this way, we move from analytical thinking to systemic thinking.

Covering a period of crisis (not only economic but also social), greek rapid changes occur in the field of the educational system, namely that of the functional subsystem of society, designed: (a) to provide young people with training services and (b) integration in the cultural system. Of course, because of their self-rationality as systems, the role of communication is crucial with regard to these changes. This paper aims to highlight the importance of the media from a different perspective, that of the systemic approach.

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