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THE CONTRIBUTION OF SYSTEMS SCIENCE TO PLANNING IN LOCAL EDUCATIONAL ADMINISTRATION

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Abstract:

In this paper, we describe the relationship of strategic and operational planning and the need for their implementation to local educational authorities. The relationship of decision-making to the planning process is discussed. The obtained positive results are highlighted, whenever the strategic and operational planning is applied and when the democratic method of decision-making is employed in educational organizations. The aforementioned concepts (operational, strategic planning and decision-making) are studied at the level of local Secondary Education Directorates with reference to school extracurricular activities. The contribution of Systems Science is briefly demonstrated for the management of the planning procedures, by presenting a case-study from the Greek educational system as an example of implementation.

Keywords: systemic planning, strategic planning, operational planning, decision-making, educational administration

1. Introduction

The concept of planning is related to the objectives and goals of an organization. Especially the planning of educational organizations (Bourantas, 2002; Gulick, 1937) is a

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disciplined effort of producing basic decisions and actions that shape and guide what an organization is, what it does and why it does so (Bryson, 2004). Namely, it is determined what will happen, how it will happen and by whom. So this is an essential element of the organization of educational institutions that should be implemented by all educational staff. The relationship of planning to the future of an educational organization is noted by Katsaros (2008: 56), who stresses that planning is the function that precedes all the other functions of management and has a decisive contribution to the fulfillment of the organization's objectives. In addition, Koutouzis (1999: 49) states that planning determines the course of the educational organization in the future and plays the role of a compass, defining objectives and preparing the organization to follow a certain direction.

The obtained positive results from the implementation of operational and strategic planning are remarkable. The most important are briefly identified by Katsaros (2008: 56), who points out that the orientation towards the future for ensuring:

- prompt scheduling,
- resources, materials and people because of omissions,
- avoidance of unnecessary actions or duplication and
- better coordination of activities,

aims at the adoption of standards for process-monitoring and control of the outcome.

Other positive results, arising from the implementation of planning, are:

- to identify hazards, weaknesses and opportunities that an educational organization confronts;
- to record the best possible investment in human capital with the least possible cost (Saitis, 2008);
- to minimize wastage.

2. Strategic and Operational Planning

The comparison of strategic to operational planning (Fig. 1) shows that the objectives depend on strategic planning, but also complement each other (Athanasoula-Reppa et al., 1999). In particular, the operational planning is perceived as a more feasibly adaptive process. It is short-term and implemented by the lowest levels of the administrative hierarchy. It specifies temporally, quantitatively and qualitatively the designed actions and the means for achieving short-term goals, which divide the strategic objectives in autonomous and manageable parts; essentially, action plans to be implemented with a specific budget and human resources in a predefined schedule, as correctly pointed out by Bourantas (2002). It results in decisions that are not critical and is related to the daily operation of educational institutions.

Figure 1: Comparison of strategic to operational planning.

On the other hand, strategic planning is the basic task, in other words, the mission of the educational organization. It is related directly to what the educational organization is trying to achieve, namely its vision. It focuses on the future and change (Bowman & Ambrosini, 2000) and aims to improve the efficiency of the organization. It is long-term, since the goals have a potential of usually 5-year period (Bourantas, 2002). It concerns senior educational executives (Katsaros, 2008). It involves the entire educational organization (Koutouzis, 1999: 46), since crucial decisions are made. Of course in the process of drafting, the overall strategic objectives that are determined in the existing educational system and the existing restrictions are taken into account.

3. Decision-making

The decision-making is related to the planning of educational organizations, since performed during the compilation of planning, namely, planning involves decision-making. This inseparable connection is aptly noted in most definitions of decision-making. Decision-making is the process aimed at solving problems related to the objective or objectives of an organization (Saitis & Michopoulos, 1993 in Athanasoula-Reppa, 1995: 75). It is the process of choosing a course of action among a number of alternatives for achieving a specific goal (Butler, 1991: 42 in Chatzipanagiotou, 2003). In addition, the decisions made are classified as either "strategic", if they are related to strategic planning and defining long-term policy, or "operational", when associated with the daily operations (Chatzipanagiotou, 2005: 45). Besides, the decision-making takes place in all functions and in all stages of administration and, along with planning, is one of the four basic features that are inseparably linked. The other two features of effective management are the monitoring and organizing (Fig. 2).

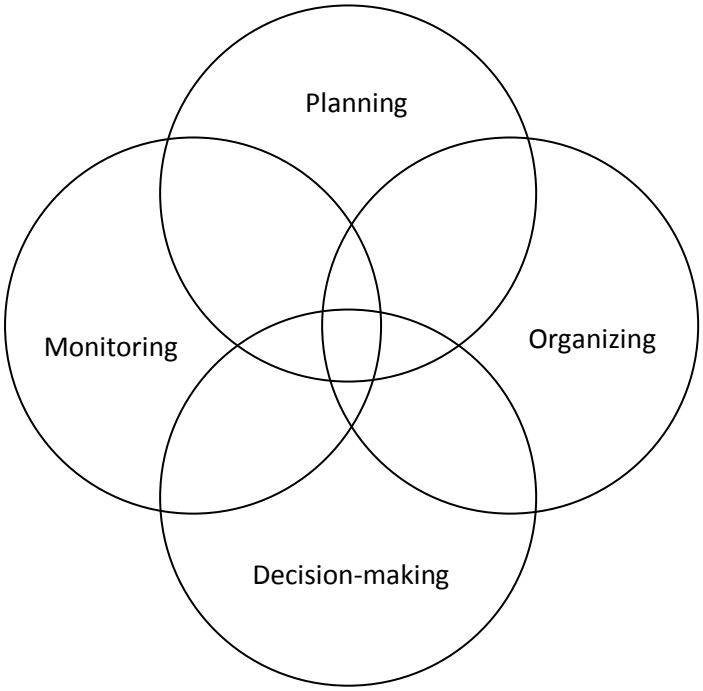

Figure 2: Key-features of effective management.

In modern international literature, multiple positive assets are identified about the active role of teachers in decision-making within educational institutions. Namely, whenever the democratic way of participating in decision-making is adopted (Andreou & Papakonstantinou, 1994: 186; Antonio, 2008; Bergman, 1992; Everard & Morris, 1999: 85; Hoy & Tarter, 1995; Terzis, 2007) along with the adoption of participatory leadership (Saitis, 2008: 14). This is successfully documented by Kastanidou & Tsikanteri (2015: 23), pointing out that teachers - as persons close to pupils - are best placed to make decisions related to teaching and learning, but also to improve curricula (Sergiovanni, 1994 in Apodaca-Tucker et al., 2001). Other advantages arising from the existence of an active role of teachers in decision-making and the disposal of other ways, which are the authoritarian and the persuasive ones (Everard & Morris, 1999), are related to the collective responsibilities and their commitment to the implementation of the decisions. It has been found that even teachers that disagree with the decisions made, provided that they have participated in the decision-making process, will make every effort so that these decisions will be implemented (Everard & Morris, 1999). Thus their participation ensures the loyalty of those who will implement the decisions and their compliance with the specific mode of action (Lainas, 2000). Moreover, the responsibility for deciding doesn't only belong to one person but is distributed to all participants. Finally, the possibilities are increased:

- for finding a solution through the use of collective experience, expertise and cooperation of many (Tzortzakis & Tzortzaki, 1992) and
- for improved productivity as well (Pasiardis, 2004: 204).

Mavrogiorgos (1999: 149) summarizes arguing that a collaborative culture, which fosters the broadest possible participation in decision-making, will lead an educational institute to become a major player in shaping and exerting "internal" education policy.

4. Systemic Planning

Strategic and operational planning at the level of local educational authorities may involve tens or even hundreds of schools, thousands of teachers and pupils. The accumulation of data and the management of diverse factors can be a tiresome process, which can include missing of important aspects, underestimation or overestimation of ruling conditions and classification difficulties. In such a context, decision-making can be very prone to errors. In order to facilitate the administrative task, the application of Systems Science can be introduced to the management of the relevant procedures.

The application of Systems Science in Education has been advocated by Banathy & Jenlink (2001) and Banathy (1991). Within the most comprehensive conceptual framework, which is Systems Inquiry, the Systems Methodology incorporates the usage of techniques and tools for the systemic analysis of the various phenomena. In this respect, Education is regarded as a social system. Such a conceptual tool is OMAS-III that has been used in a variety of small scale educational applications. This method had been initially proposed for the planning of operations, in general (Papakitsos, 2013). Then, it was introduced to:

- the extracurricular projects of career guidance (Papakitsos et al., 2015);
- the teaching and learning of writing essays (Makrygiannis & Papakitsos, 2015);
- the interrelation of vocational education to the labour-market (Papakitsos, 2016a);
- the designing of educational websites (Papakitsos et al., 2016);
- the development of curricula in tertiary education (Papakitsos, 2016b);
- the teachers' training, as a preparation part of the current process (Foulidi et al., 2016) and
- the conflict management in school-context (Papakitsos & Karakiozis, 2016).

According to OMAS-III, the management and implementation of planning is conducted by classifying the elements of a project in the seven following *aspects*: *causal*, *outcomes*, *resources*, *monitoring* (administration), *regulative*, *temporal* and *spatial*. The systemic inquiry is based on the corresponding journalist's question to each aspect (for a more detailed presentation, see: Papakitsos, 2013; Papakitsos, 2016a: 168-171; Papakitsos, 2016b: 3-4).

The operational freedom and flexibility of mid-level educational authorities is very restricted by the national educational policies (in Greece). Nevertheless, a suitable field of operational autonomy is the annual extracurricular activities (projects), which can be a tool for the application of practices that locally improve the overall educational

outcomes. The application of OMAS-III for larger-scale projects will be exemplified in the next section, through the case-study of the Western Attica's Secondary Education Directorate (WASED, Greece).

5. An Application

Indicatively, in WASED, for the last four school years, it has been accepted that the goals need to be measurable, consistent, sensible, clear and have a specific timetable. Accordingly, the target of reducing dropout to below 12% has been set for the school year 2016-17 and beyond (*causal aspect*). Although there are no exact figures for the determination of dropout, the available estimations show that in WASED it is certainly over 12%. To cope with the problem it was decided to implement one hundred and fifty (150) extracurricular projects (*outcomes aspect*) that are implemented annually (*temporal aspect*) at the forty-seven (47) secondary-education schools of the region (*spatial aspect*) in the standard topics of Health, Environmental, Cultural and Career Education. There, pupils voluntarily engage in activities according to their specific desires and needs. Alternative and supplementary goals have been formulated (*outcomes aspect*) that in a total of about 11,000 pupils include:

- the participation of at least five hundred (500) pupils of different cultural background in school;
- the creative expression of at least one thousand (1000) pupils, regardless of their social class, gender or religion and the operation of at least one workshop of music, theater, visual arts or cinema per school;
- the cooperation with the local authorities for jointly organizing at least ten activities, which result in the treatment and prevention of adolescent delinquency, thus making school more dear and open to society.

The role of those teachers who coordinate and supervise each topic of the extracurricular projects at the level of local educational administration (the educational executives of WASED) is crucial in decision-making for strategic planning (*monitoring aspect*). During the planning meetings for all educational activities, the relevant decisions were taken by majority (Saitis, 2001), which were binding on its members (*regulative aspect*). The current infrastructure and resources of WASED (mission, structure, employees, skills, budget and services) has been taken into account (*resources aspect*), along with what it is aimed to be achieved and how in all the fields of activities. Before finalizing any decision, the conditions prevailing in the region had been investigated and the conditions for achieving the objectives had been set (*regulative aspect*). These include:

- the high unemployment in the region;
- the increased population of immigrants and Romas;
- the phenomena of increased social marginalization.

Finally, to complete the strategic planning, the operating goals had been formulated (operational planning) in order to ensure the conditions for achieving the strategic objectives:

- The coordinators/supervisors were assigned the relevant tasks and activities;
- the actions to be taken and the cooperation to be developed with the teachers in every school was determined;
- the recording of the required resources and equipment necessary to ensure the smooth implementation of school activities;
- the training of teachers in the topics to be implemented (Foulidi et al., 2016);
- other practical aspects of this mission were adjusted, like the forwarding of the educational material and bibliography to schools for supporting the teachers and the briefing of the Association of Parents at each school.

Thus, the decisions of the educational executives in the strategic planning were in line with the educational policy goals set by the Ministry of Education, but application solutions were alternatively developed in order to become more suitable locally. At the end of every school year: the set goals are compared with the obtained results, any deviations are interpreted and the strategic objectives are redefined for the next school year, such as the further reducing of dropout.

6. Conclusions

From the previous presentation, the need for strategic and operational planning in educational institutions is demonstrated, as well as the inextricable link between planning and decision-making. It became clear that a democratic, participatory process on decision-making and planning leads to a more efficient operation of the educational institutions in conducting large-scale projects. In the case-study examined (WASED), the implementation of extracurricular school activities was examined and how it can be integrated into the operational and strategic planning of a local educational authority. Finally, the contribution of systemic methodology was highlighted through the usage of a relevant conceptual tool (OMAS-III).

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