REFLECTIVE PRACTICE
The implementation of the balanced scorecard in a school district

Lessons learned from an action research study

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Abstract

Purpose – The purpose of this paper is to investigate the benefits, obstacles and challenges in implementing the balanced scorecard (BSC) in non-higher education public schools, more specifically, in a Portuguese school district.

Design/methodology/approach – An action research approach was used to develop a BSC, help to implement changes and reflect about the outcomes.

Findings – The paper presents the BSC for the school district and discusses five benefits, two obstacles and three challenges that emerged from the study. While some findings are in line with those found in other levels of education, others seem to be context-specific.

Research limitations/implications – The results refer to a single intervention in Portugal and the methodology used precludes any generalization attempts.

Practical implications – The findings are particularly relevant to the Portuguese context, providing evidence that the BSC can overcome some weaknesses of schools in the area of strategic management, as identified by the literature. They also raise implications for the wider field of the BSC's use in non-higher education public schools, suggesting reasons why things may go wrong. The results may be of value to practitioners wishing to make the implementation of the BSC more effective.

Originality/value – This paper contributes to the scarce body of literature on the application of the BSC to non-profit organizations by providing an understanding of its possible benefits, obstacles and challenges in non-higher education public schools. It shows how the BSC methodology can be adapted to fit the specific requirements of a school district. This is one of the first papers to discuss an application of the BSC to non-higher education public schools.

Keywords Portugal, Schools, Balanced scorecard, Strategic management,
Performance measurement, Public schools

Paper type Research paper

1. Introduction

Non-higher education public schools in Portugal nowadays face enormous management challenges. For example, the reorganization of the school network has led to the concentration of schools with different educational levels, in larger units, with a consequent increase in management complexity (Ferreira, 2009). The central administration has also been making increasing demands of accountability to schools, either through the participation of the external community in school governing bodies or through internal and external evaluation activities, so as to increase the quality of educational services and the much desired autonomy (Coelho *et al.*, 2008). Other mutations in the general environment, including budget constraints, technological

developments, the knowledge society, have been exerting increasing pressure for governments to make school management more professional.

The balanced scorecard (BSC), one of the management tools most commonly used by the business sector (Rigby and Bilodeau, 2007), has been proposed to assist school governing bodies in focusing on what is strategically most relevant to their activity (Beard, 2009; Dorweiler and Yakhou, 2005; Karathanos and Karathanos, 2005). However, its application to public education institutions has been the subject of few studies. Moreover, most existing studies refer to the application of BSC to higher education institutions, either through case studies (Chen *et al.*, 2006; Lawrence and Sharma, 2002; McDevitt *et al.*, 2008; Papenhausen and Einstein, 2006; Philbin, 2011; Tapinos *et al.*, 2005; Umashankar and Dutta, 2007) or proposals of adapted methodologies (Asan and Tanyas, 2007; Franceschine and Turina, in press; Juhl and Christensen, 2008; Zangoueinezhad and Moshabaki, 2011). Exceptions to this include the conceptual study of Storey (2002) and, in Portugal, the work of Rodrigues (2005). The lack of studies in Portugal is even more surprising when empirical evidence collected by the General Inspectorate of Education (IGE, 2009, 2011a, b) clearly indicates that non-higher education public schools suffer from several weaknesses at the strategic management level.

This paper describes an action-research to understand the benefits, obstacles and challenges in implementing the BSC in a non-higher education public school district. It is hoped that this study can contribute to enrich a scarce body of literature, as well as to develop strategies aimed at a more effective implementation of the BSC. The next section presents the theoretical background on strategic management and on the BSC in public education institutions. Section 3 discusses the methodological options of the research and provides a brief background of the school district that formed the basis of this study. Section 4 describes how the BSC was implemented in the school district, and the benefits, obstacles and challenges that emerged from the study. The final section discusses the results and suggests possible avenues for future research.

2. Theoretical background
2.1 Strategic management in education
Despite being new in the 1980s of last century, strategic management is now a conventional practice in public administration (Poister *et al.*, 2010). Strategic management can be defined as the appropriate and reasonable integration of strategic planning and implementation across the organization in an on-going way to enhance the fulfilment of its mission, meeting of mandates, continuous learning and sustained creation of public value (Bryson, 2011). Thus, strategic management involves planning, organizing, leading and controlling a set of decisions and actions related to the long-term direction of the organization.

In the literature of educational administration, the concept of strategic management arises approximately at the same time (Fidler, 2002), although its evolution has faced a bumpy road. On the one hand, critics (e.g. Birnbaum, 2000; Kelly, 2005) advocate that educational institutions should be concerned with issues of teaching and learning rather than management models imported from the business sector. On the other hand, are authors (e.g. Davies, 2004; Rowley and Sherman, 2001) who consider that this is a simplistic and biased perspective, arguing that although the management of teaching and learning is critical, strategic management is what enables the convergence of actions in educational organizations with a view to achieving common goals. Meyer (2002) and Eacott (2008) note, however, that the educational

administration literature has been experiencing a growing paradigm shift in favour of strategic management.

However, the application of concepts from the business sector in educational organizations, as is the case of strategic management, should not be taken lightly. In this respect, Keller (1997) and Estêvão (1998) argue that strategic management should take into account the specificities of educational institutions, as they are organizations: that deal with diverse interests and values, determined by educational policies; where there are power plays and where strategy is the result of compromises negotiated between educational actors; in which strategic choices are constrained by the bureaucratic burden of a centralized administration; in which the objectives are sometimes subject to ambiguous formulations and, therefore, that cannot be quantified and controlled numerically.

In addition to these specificities, non-higher education public schools in Portugal suffer from a lack of autonomy. Indeed, school management has been constrained by a tight control from the central administration which schedules in detail all administrative, pedagogical and financial acts, leaving little room for initiative by school leaders. In most cases, school directors are limited to execute locally instructions emanated from the central administration, behaving as administrators in the service of the Ministry of Education (Barroso, 2004). The entry into force of Decree No. 75/2008 brought some progress, albeit limited, in this area. This legal device conditions the achievement of greater autonomy to greater accountability responsibilities by schools, including the need for the external community to participate in school management boards (General Council) and in the selection of the school director, and the need to develop a self-evaluation system and external evaluation.

From the several documents of accountability that non-higher education public schools in Portugal should prepare, by force of the decree above, the following stand out for its centrality in strategic management: the educative project, which is the document that establishes the educative orientation, explaining the principles, values, goals and proposed strategies; the annual plan of activities, which is the document that defines, based on the educative project, the objectives, organization and scheduling of activities, and that identifies the resources need to implementation. It should be noted, though, there are few studies that analyse the extent to which these documents adequately meet the purposes for which they are intended, which is somewhat surprising given their fundamental role in the guidance of school life. Relevant exceptions to this are the seminal study of Estêvão *et al.* (1996) and the work of Costa (2004) on educative projects. The IGE, as part of its external evaluation activities, has been preparing several reports which portray the weaknesses of the contents of these strategic documents and that empirically corroborate the conclusions of the works above. For example, findings include the following:

- absence of a vision for the school district, affecting the definition of key strategic options for its development (IGE, 2009, 2011a, p. 38; 2011b, p. 34);

- inexistence of indicators and targets, hindering the definition of action plans, as well as the evaluation of the effectiveness of the measures taken (IGE, 2009, p. 40; 2011a, p. 38);

- poor coordination between the annual plan of activities and the educative project, which does not promote an integrated view of the organization (IGE, 2009, p. 38; 2011a, p. 35; 2011b, p. 31);

- inexistence of a comprehensive system that enables an in-depth knowledge of school performance, which affects the definition of improvement plans and the sustainability of progress (IGE, 2009, p. 42; 2011b, p. 35); and

- lack of participation from the educational community in the elaboration of documents that guide the action of the school district and lack of knowledge about them (IGE, 2009, p. 38; 2011a, p. 35).

These weaknesses suggest the need on the part of schools for a structured methodology supporting the complete cycle that goes from definition, the implementation and to monitoring and control of strategy. The BSC is increasingly the strategic management methodology of choice in the public sector to fulfil these needs, and is now starting to take its first steps in the public sector of education.

2.2 Strategic management based on the BSC

The BSC, authored by Kaplan and Norton (1992, 1996), originally appeared in the business sector as an alternative to traditional performance measurement, which was based primarily on the use of financial indicators while ignoring intangible assets. In doing so, the authors propose a model that seeks to evaluate organizational performance in a more holistic way, according to four perspectives, in a cause-effect relationship:

(1) the financial perspective: considers what an organization must do from a financial standpoint so as to achieve the strategic vision;

(2) the customer perspective: considers what an organization must provide to its customers to achieve financial success;

(3) the internal processes perspective: this is related to the processes in which the organization must excel in order to satisfy customers; and

(4) the learning and growth perspective: refers to improvements to be made at the human resources level, technologies and systems so as to support internal processes.

A fundamental premise of the BSC is that the definition of the indicators for each perspective should be aligned with the vision and strategic objectives of the organization, putting the focus on strategy rather than on control (Kaplan and Norton, 1992). For each indicator, targets should be set, as well as initiatives to be put into place in order to achieve those targets. Thus, the BSC allows to, on the one hand, align the efforts of different people towards the achievement of strategic objectives and, on the other hand, monitor whether they are being met and make continuous adjustments in the implementation of strategies. It is then possible to establish a link between strategic objectives and performance measures (Otley, 1999).

In subsequent publications the authors developed their initial proposals (Kaplan and Norton, 2000, 2001, 2006, 2008), and the BSC is currently recognized as a strategic management methodology that helps to formulate, communicate, operationalize, monitor and adjust the implementation of strategy. Of these developments, particular attention should be given to the strategy maps tool (Kaplan and Norton, 2000), which is used for communicating strategy, representing diagrammatically how the strategic objectives belonging to the four perspectives are linked together in a cause-effect relationship.

2.2.1 The BSC in the public sector of education. Although the origins of the BSC are associated with the business sector, this methodology has also been used by the non-profit/public sector (e.g. Chan, 2004; Gurd and Gao, 2008; Kong, 2008; Niven, 2008). In the latter case, Kaplan (2001) and Kaplan and Norton (2001) suggest changes to the original model, putting the mission at the top, followed by the financial and customer perspectives on the same level, then the internal processes perspective and finally the learning and growth perspective. These adjustments are due to the fact that in non-profit/public organizations the mission, and not the financial objectives, is the main driver of strategy. However, the authors acknowledge that this version of the model is not always adopted, noting that the BSC can be tailored to organizational needs. Niven (2008) recommends that after obtaining top management support and training the BSC team, the BSC should be implemented through ten steps.

Despite its relevance in the non-profit sector, there are few documented applications of the BSC, particularly in the public sector of education. Moreover, most of the existing studies refer to the application of BSC in higher education institutions, either through case studies (Chen *et al.*, 2006; Lawrence and Sharma, 2002; McDevitt *et al.*, 2008; Papenhausen and Einstein, 2006; Philbin, 2011; Tapinos *et al.*, 2005; Umashankar and Dutta, 2007) or through proposals of custom methodologies (Asan and Tanyas, 2007; Franceschine and Turina, in press; Juhl and Christensen, 2008; Zangoueinezhad and Moshabaki, 2011). Taken together, these studies conclude that the BSC is appropriate to the context of higher education, providing the following benefits:

(1) it is a means of communicating the strategic direction of the organization (e.g. McDevitt *et al.*, 2008; Tapinos *et al.*, 2005);

(2) it allows a shared understanding of objectives and targets (e.g. McDevitt *et al.*, 2008; Umashankar and Dutta, 2007);

(3) it allows a greater involvement from people (e.g. McDevitt *et al.*, 2008; Umashankar and Dutta, 2007);

(4) it is a methodology that allows the integration of strategic planning, implementation and monitoring of the success of strategic initiatives (e.g. McDevitt *et al.*, 2008; Philbin, 2011); and

(5) it allows a better understanding of the strengths and weaknesses of the organization (Tapinos *et al.*, 2005; Umashankar and Dutta, 2007).

McDevitt *et al.* (2008) emphasizes challenges like maintaining the momentum of the programme, achieving consensus within and between groups, developing effective communication between working groups and developing qualitative indicators for long-term objectives.

In the context of non-higher public education, the lack of studies is even more evident, the literature review yielding only three relevant studies. Storey (2002) discusses from a conceptual perspective the obstacles and potential value of applying the BSC in the UK school context. Referring to obstacles, the author discusses the potential threat to the autonomy and creativity of teachers, the association of performance assessment with payment schemes based on performance, the difficulty or even impossibility of systematizing many tacit skills that teaching involves, the perceived excess of change programmes from central administration and the lack of time and resources in schools. Despite these obstacles, the author highlights several positive aspects of the BSC, including the translation of long-term strategy into

short-term actions, improved communication, the involvement of teachers and other staff in strategic management, the promotion of organizational learning and change, and teachers' professional development. Karathanos and Karathanos (2005) present the BSC indicators of two North-American school districts that earned for the first time in the education area the Malcolm Baldrige National Quality Award. As part of a master dissertation, Rodrigues (2005) conducts a case study with the aim to understand how the BSC can contribute to strategic management of Portuguese public schools. She describes benefits like the possibility of schools to reflect on its objectives, achieving clarity and consensus on the strategy to be followed and the learning of all people involved on strategic management. The author concludes that "regardless of the autonomy level granted to the school, the use of the BSC enables to manage creatively the decision making in order to solve its specific problems" (p. 106).

The analysis of all studies mentioned above suggests that the conclusions on the implementation of the BSC in public education institutions are not entirely consistent. While some studies put forward certain benefits, obstacles and challenges, other studies only partially confirm them or suggest different aspects. There is a need for empirical studies, especially at the level of non-higher education public schools, given their specific nature.

3. Methodology
This study uses a qualitative approach because it aims an understanding of reality resulting from the implementation of a strategic management methodology, viewed from the perspective of its protagonists. This choice resulted also from the lack of studies in this area and, consequently, of knowledge on strategic management models in the majority of non-higher education public schools in Portugal. It is, thus, a study of descriptive and exploratory nature (Bogdan and Biklen, 2006).

To meet the research objectives, an action research strategy was chosen since this study seeks to reform practices, improve quality and understand reality (Easterby-Smith et al., 2008), and, because it intends "the resolution of important social or organizational issues together with those who experience these issues directly" (Coughlan and Coghlan, 2002, pp. 222-3).

This study unfolded according to the process described by Checkland and Holwell (1998) (see Figure 1). A literature review was conducted and the research objectives
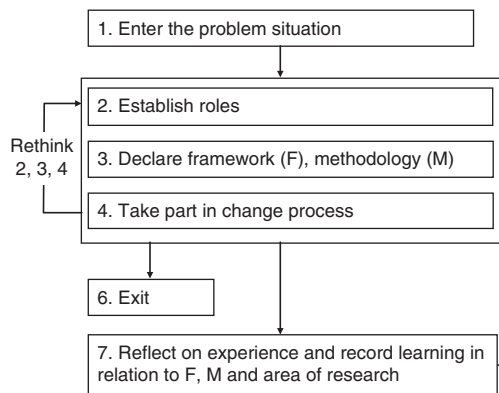

Figure 1.
Action research process

Source: Adapted from Checkland and Holwell (1998)

were defined as: first, once access was granted and once commitment from top management was obtained, a BSC team was formed which would be responsible for formulating, implementing and monitoring the strategic plan through the BSC methodology; second, the strategic plan was developed in a participative manner and is composed of two documents, according to Article 9 of Decree No. 75/2008: the educative project and the annual plan of activities. Following the advice of Niven (2008), the director of the school district joined the BSC team, committing himself, and adding credibility to the work. Next, the framework of ideas (F) and the methodology (M) to be used were defined, which were, respectively, strategic management and the BSC, the latter incorporating ideas of the first; third, once F and M were declared, the first author took part the change process as researcher and member of the BSC team; fourth, a reflective analysis of the action led to adjustments in the composition of the BSC team and in the BSC methodology; fifth, for example, the middle-level leaders, who were not part of the initial team, were requested to take a more active participation in the development of the plan of activities. Changes were also made to the original action plan as a result of constraints encountered during implementation. Sixth, the final steps of the research were to exit the problem situation, and finally, to reflect and record the learning in relation to strategic management, the BSC and the area of research.

Data were collected through the techniques of semi-structured interviews, participant observation, document analysis and checklists. The interviews followed a protocol, which was previously tested, involving 18 members of the educational community (15 teachers, some of which had top and middle-level leadership responsibilities; two parents and one staff member). The interviews were recorded with the prior permission of the interviewee and later transcribed. The first author participated in the work developed by the BSC team and made direct observations of the dialogues, relationships and behaviours of the members of the educational community, noting them in field notes. Checklists were prepared so as to verify facts in internal documents, such as files of the different structures, the strategic plan itself and previous educative projects and plan of activities. Document analysis focused on the minutes produced by the different structures.

After collection, data was analysed using the content analysis technique as suggested by Krippendorff (2004). The first stage consisted of an initial reading of data with the aim of identifying categories and subcategories, guided by the research objectives, in the form of phrases/words. The data were then distributed across categories and subcategories. Repeated readings were carried out, continuously improving the categorization system, until a final set of categories and subcategories was obtained. This was followed by calculation of frequencies per categories and subcategories and, finally, a triangulation between data collection techniques through double entry tables.

3.1 The AEX School District

The AEX School District has distinctive features that should be taken into consideration for an understanding of the results and their interpretation. This school district stemmed from a reorganization of the school network that took place in the school year prior to the completion of this study, i.e. it resulted from an aggregation with another school district, integrating schools from urban and rural areas.

Meanwhile, during the school year in which this study was developed, a process to elect the director took place, not knowing the Ministry's intention to reorganize the

school network once again. The elected director took office at the end of the school year and resigned about 40 days later. The General Directorate of Education named this director as President of the Provisional Administrative Council (CAP) of the school district just created (AEQ) for one school year. All this instability was reflected in the management model of these schools that either belonged to one or to another school district, as well as in the implementation of the BSC in the initial school district.

The management board members of the AEX School District do not have specific training in school management beyond occasional training provided by the Ministry of Education. The experienced difficulties have more to do with administrative management since the experience gained from many years of teaching and some training in educational guidance allows them to manage the pedagogical component without difficulties.

The management team of the initial AEX School District began their first term still under the force of Decree No. 155-A/1998. Apart from issues related to the operation of the school district and the structural organization already foreseen in that law, nothing more was required for the normal functioning of the educational unit.

The educational community accepted an educative project which was nothing more than a document describing the resources available, the good pedagogical intentions, with very vague objectives and without the establishment of indicators and targets. The annual plan of activities was a repository of activities to be developed by the different structures, without any coordination between them, occasionally related to the objectives of the educative project and usually originated from the volunteer work of teachers. Financial management did not follow any previous planning of the resources provided by the central administration or generated in the organization so as to meet the needs of everyday management or to carry out activities. The reports presented to the management board were mere descriptions of activities carried out by the different structures. The educative project was evaluated at the end of its validity period based on the subjective perceptions of the evaluators since no sufficiently credible data were available.

Meanwhile, the performance evaluation system of teachers and staff has become more demanding, especially in terms of goal setting, its articulation with the school district's objectives and calculation of performance results. In addition, this school district decided to encourage new ways in exercising autonomy, valuing the strategic nature of its educational project and assigning it a unifying role of all life in the school district.

The management board of the AEX School District (the CAP appointed to prepare the new grouping and enforce the Decree No. 75/2008) argued that, like any organization, the school district should have an educative project stating a reason and an ambition for its existence, a set of values that characterize its culture and a list of objectives to be achieved, indicating the way to go, according to its reason for existence and ambition, having accepted the present study.

It was possible to feel, though, a climate of conflict resulting from constant changes of the school network, the Statute of Teaching Career and the teacher evaluation system. The CAP considered the introduction of the BSC as a methodology that while promoting the participation of the educational community in the elaboration of its autonomy instruments, could also improve this climate that for the above mentioned reasons was installed.

4. The action research in the AEX School District

4.1 The implementation of the BSC

The process began with a presentation of the BSC in an informal meeting attended by the presidents of the executive boards of the school districts which were to merge and originate the AEX School District, as well as their respective presidents of the Transient General Councils. At this meeting, a member of the executive board of each school district that would be part of the AEX School District's CAP was also present. They were asked authorization to carry out this investigation, which was approved.

At the beginning of the school year, in a general meeting of teachers, the CAP declares support to this investigation, announcing the use of the BSC to assist the management of the AEX School District, making a brief characterization of it.

At the first meeting of the school year with the structures, the CAP asked their respective coordinators to select representatives to the BSC team. At least one element of each structure volunteered; the Association of Parents and Guardians was not represented nor the non-teaching staff. The BSC team had 17 members in total, including the first author and the CAP's president. In the first meeting of this team, the CAP's president announced the appointment of the first author to provide training and guidance throughout the process. The researcher developed materials with information about the BSC and in this meeting she presented its fundamental concepts. Although expressing some concern about the lack of knowledge of the methodology, all members accepted the challenge.

The educative project and the annual plan of activities were developed through a process tailored to the specific needs of the AEX School District, having as its starting point the recommendations of Estêvão (1998) and Niven (2008). Figure 2 shows the flowchart of the process used, which involved the following general steps: mission; vision; values; SWOT (strengths, weaknesses, opportunities and threats) analysis; strategic vectors and objectives; strategy map; indicators, targets and activities; implementation; monitoring and control of the educative project and the annual plan of activities. The meetings of the structures would be preceded and succeeded by BSC team meetings. Those meetings that proceeded would prepare materials, homogenize concepts and devise strategies to promote the participation of colleagues. The BSC team meetings that succeeded the meetings of the structures would analyse the different proposals and merge them into a single one. This proposal was then brought to top management for approval.

The educative project was developed in six months and consisted of the mission, vision, values, SWOT analysis, strategic vectors and objectives, strategy map, and, finally, indicators and targets. The degree of difficulty in defining the mission, vision and values was low and resulted in a consensual way. Given the novelty and the managerial terms used, the actors found difficulties in the SWOT analysis, strategy map, and indicators and targets, for which the researcher was requested to submit a proposal for analysis.

The SWOT analysis took into account the self-assessment reports of each school integrated in the AEX School District. The difficulties experienced in the strategy map and the indicators and targets (see Table I for indicators and targets of the customer perspective) were essentially at the level of concepts. In fact, there was some debate on this matter, which culminated in changing the order of the perspectives in relation to the original model. This change is due to the specificities of the school district, namely the lack of financial autonomy. In this way, the customer perspective is placed at the top and the financial perspective at the bottom, while the internal processes and
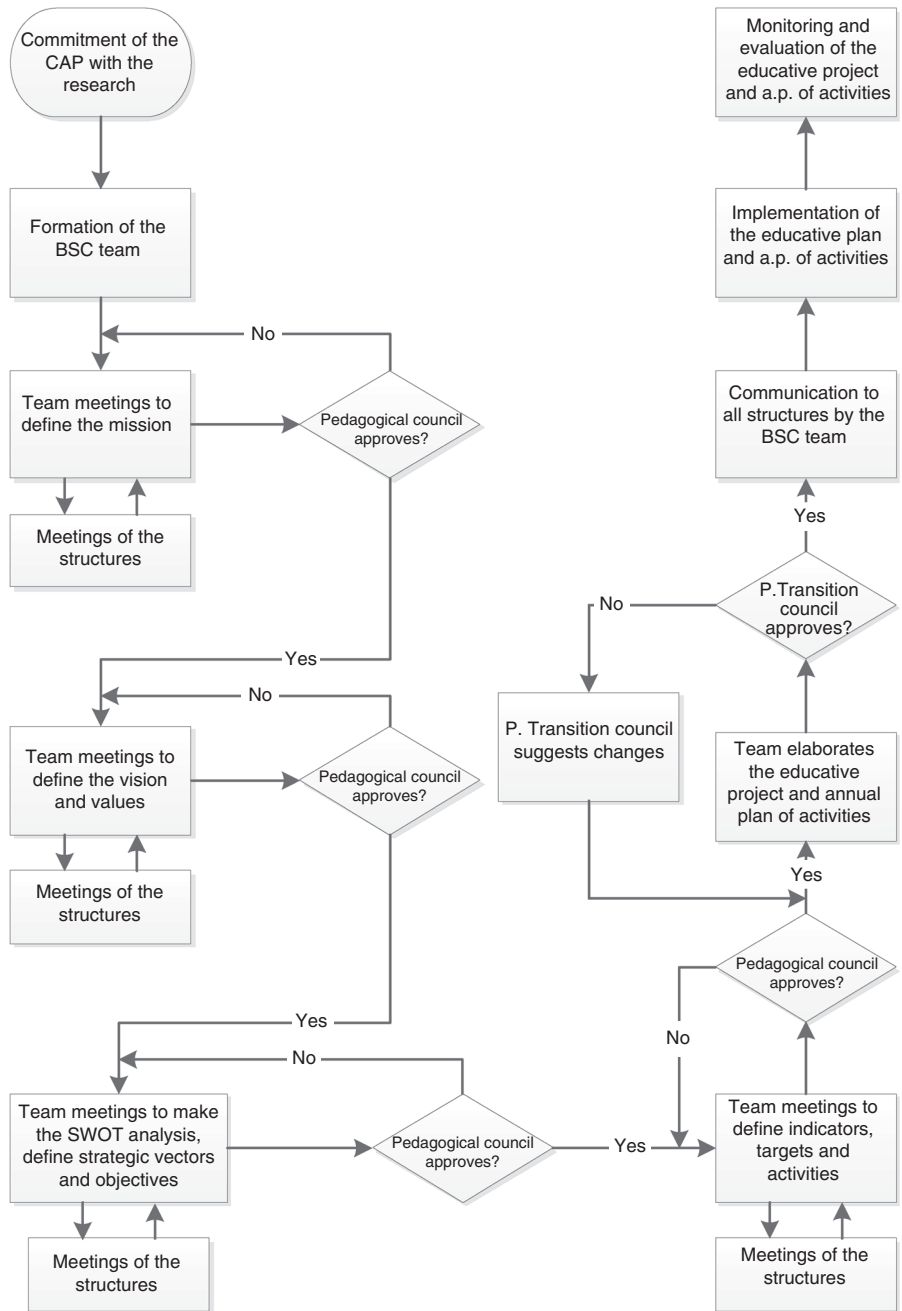
Commitment of the CAP with the research

Formation of the BSC team

Team meetings to define the mission

Meetings of the structures

Pedagogical council approves?

No

Yes

Team meetings to define the vision and values

Meetings of the structures

Pedagogical council approves?

No

Yes

Team meetings to make the SWOT analysis, define strategic vectors and objectives

Meetings of the structures

Pedagogical council approves?

No

Yes

Team meetings to define indicators, targets and activities

Meetings of the structures

Pedagogical council approves?

No

Yes

Team elaborates the educative project and annual plan of activities

P. Transition council suggests changes

P. Transition council approves?

No

Yes

Communication to all structures by the BSC team

Implementation of the educative plan and a.p. of activities

Monitoring and evaluation of the educative project and a.p. of activities

Figure 2.
Fluxogram of the strategic management process in the AEX School District

Perspective	Strategic objectives	Indicators	Targets
Customer	Contribute to the complete formation of students	Percentage of successful students	90
		Percentage of students with final grades ≥80%	60
		Percentage of students sanctioned disciplinarily	5
	Increase the involvement of the educational community in the school district's activities	Percentage of students involved in activities	70
		Percentage of parents/guardians involved in activities	70
Learning and growth	Promote/update the training of teachers and staff	Average number of training hours per teacher or staff	30
	Improve the use of ICT	Percentage of teachers using Moodle and other digital platforms	70
		No. of processes to digitize	4
	Use methodologies of pedagogical differentiation	No. of classes involved	15
	Develop the potentialities of the school district as a cultural reference in the region	No. of courses with local and regional contents in each level	2
		No. of activities with cultural impact in the region	3
Internal processes	Improve the internal organization of the structures	No. of coordination meetings per structure	12
		No. of processes mapped and assessed per structure	3
	Ensure equal opportunities to all students	Percentage of achievement of the objectives of the student's recovery plan	70
		Percentage of students receiving financial support in proportion to total requests	90
		Percentage of successful teacher replacements due to impediments	80
Financial	A more rational use of resources	Percentage of cost reduction in external supplies and services	15
	Manage financial resources in accordance with student's needs	Percentage of educational programmes funded in proportion to total funding requests	70
		Percentage of own funds to support students	1
	Increase the generation of funds	Percentage of own revenues generated from the community	3
		Percentage of increase in own funds	5

Table I.
Objectives, indicators and
targets of the customer
perspective

learning perspectives are placed at the same intermediate level since there is a close link between learning and process improvement.

The annual plan of activities was completed in two months, integrating the activities developed since the beginning of the school year as they fit the defined objectives. To assist the evaluation of strategic planning, forms, charts and graphs were developed in Microsoft Excel that show the extent to which each target was achieved.

Given the instability installed in the AEX School District, the intermediate assessment was not performed in June as expected.

4.2 Analysis and discussion of results

This section presents the research results in three parts, corresponding to each of the objectives mentioned in the "Methodology" section.

4.2.1 Benefits. Figure 3 shows the number of records, distributed by data sources, for each benefit of the implementation of the BSC in the AEX School District, emerging from the analysis of results.

A significant change introduced by the BSC was the participation of stakeholders in the construction of the educative project and the annual plan of activities (A). In previous years, these documents were elaborated by a restrict group of teachers, sometimes with the help of a parent. The adoption of the BSC led to a broad and organized participation of teachers so that these documents could reflect their own will. According to Interviewee 3, "the participation of the community was very interesting, indeed. This is the way it should be done. Not an exclusive group, but everyone can discuss". This involvement and participation resulted in an increased understanding and ownership of the educative project and the annual plan of activities from the members of the educational community, as the following interviewees stress: "the BSC enabled the educative project to express the strategy that the educational community chose and of which had knowledge because participated in its definition" (Interviewee 12); "allowed that the mission, vision and values were something felt internally, because what happened before was the definition of a mission, but it was a generic mission, for this school and maybe for all the other schools in the country [...] when we think about things, obviously we feel them as ours" (Interviewee 15). Overall, this
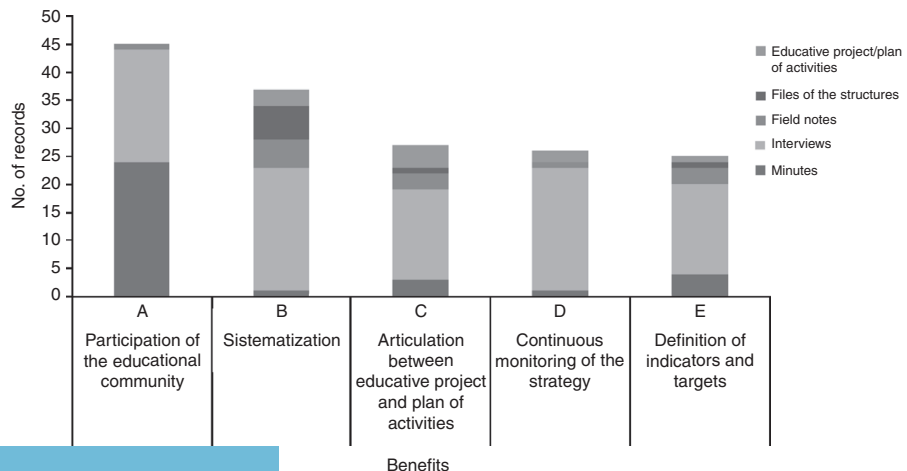

Figure 3.
Benefits of the BSC implementation in the AEX School District

benefit is consistent with previous studies (McDevitt *et al.*, 2008; Storey, 2002; Umashankar and Dutta, 2007).

The interview data, corroborated by the analysis of the educative project, the annual plan of activities, the files of the structures and the minutes, support the perspective that the BSC helps to systematize the strategic management process (B). In this regard, Interviewee 15 mentions that "management is improved because there's a very concrete understanding of reality and what should be improved. It structures much more". Similarly, two interviewees, while referring to the BSC, state: "we see things clearer, more structured, with a different organization, more concrete" (Interviewee 4); "it seems to me more operational, exerts a more structuring effect" (Interviewee 17). Another interviewee emphasized the usefulness of categorizing objectives into perspectives and the establishment of cause-effect relationships between them: "the fact that they are categorized helps to better systematize these objectives, to understand […] how they fit together and their connection" (Interviewee 1). The benefit of systematization is not mentioned in the literature, which may suggest that it is context dependent. Indeed, the analysis of the previous educative projects and annual plans of activities indicates that the AEX School District has not been using a specific methodology for their elaboration, which may explain this finding.

The data collected also support the benefit of the BSC in establishing a link between the activities organized by the different structures and the strategic objectives of the educative project (C). The educational community seems to recognize the usefulness and centrality of this articulation to the life of the school district. As Interviewee 2 states, "each of the activities that are proposed or each of the activities that are executed always relate to the mission, vision and objectives of the educative project. You can't take any step without the presence of this essential idea". This finding is similar to the benefit described by Kaplan and Norton (2001) and Storey (2002), in that the BSC enables to translate strategy (i.e. educative project) into short-term actions (i.e. annual plan of activities).

Another advantage with the BSC is the possibility of making a continuous monitoring of the educative project and the annual plan of activities (D). The actors understood that evaluating the activities and objectives only at the end of the process may be too late. The possibility of obtaining information at intermediate points in time allows making adjustments to accommodate changes, as stressed by Interviewee 1: "This management tool enables the direct and constant monitoring of the educative project and a key asset has to do with the redefinition of strategies for achieving the objectives and define new activities so that these objectives are met. As it was evaluated in previous educative projects, this was not possible". This result is in agreement with the advantage mentioned by Kaplan and Norton (2001) that the BSC allows to make strategy a continuous process. This is, schools with the BSC can not only plan and execute, but also assess the activities executed and adjust the course of action as necessary.

It was also found that with the BSC the educational community could better understand the need to define indicators and targets for each of the strategic objectives listed in the educative project (E). For example, Interviewee 12 explained that "in the previous educative project, the objectives were already quantified. Now, thanks to the knowledge acquired by the BSC approach, the indicators and targets are defined in greater rigor". Interviewee 13 added that "while in previous educative projects we confused targets with the objectives to be achieved since there were no indicators, now this is more concrete, more objective. […] The indicators are more accurate and allow a

clearer view of what has been achieved". McDevitt *et al.* (2008) stated that the definition of indicators in the education sector can be an enormous challenge. In contrast, the study of the AEX School District found no evidence supporting that this is a challenge; on the contrary, the results suggest that the BSC facilitated the definition of indicators and more precise targets, enabling to understand more clearly what needs to be achieved.

4.2.2 Obstacles. Figure 4 shows the obstacles to the implementation of the BSC in the AEX School District and respective frequencies.

One obstacle is the fact that the implementation of the BSC requires from the actors previous knowledge about strategic management and the methodology itself, which they do not have in normal conditions (F). As Interviewee 5 stated, "you need to have a very specific knowledge, particularly in terms of a management tool like this, in order to build and apply it correctly. So, this is a limitation. As teachers, not all have such training". Of course, this limitation can be overcome with training, but even here there are obstacles that must not be overlooked. Indeed, the regulations of the non-teaching component of teachers' work hinder school management to assign them training hours in topics that matter to the school's priorities. Similarly, the regulations of teacher training state that it is the Ministry, and not school management, that decides on the areas whose training should be credited so as to be considered in teacher evaluation and career development. Interestingly, this obstacle is not explicitly mentioned in previous studies.

The implementation of the BSC, in its full potential, requires the educational community members to invest many hours of work. Since these members have to perform other functions, namely the teaching component of teachers' work, and given that schools have no autonomy to distribute the workload of teachers according to their real needs, there are few available hours to perform other activities. The lack of autonomy of schools is also found in the allocation of management positions or teaching compensations and incentives. In this regard, Interviewee 14 asserts: "not much depends on the local organizational structure; it depends on the Ministry's
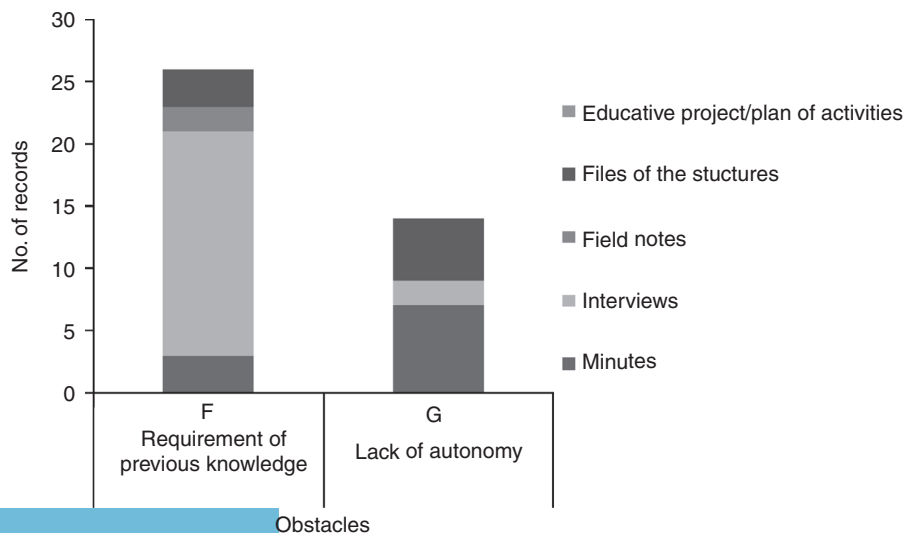

Figure 4.
Obstacles to the implementation of the BSC in AEX School District

structure, the city council. We are talking about human resources. Possibly, we don't have many gains here because we don't have that autonomy that maybe we should have". From the above, it appears that school management boards have a diminished capacity to implement the BSC as they cannot decide autonomously about these areas (G). This finding empirically supports the conclusions of Storey (2002) stating that the lack of time and resources can be an obstacle. However, the issue of lack of autonomy seems to be an additional constraint in the Portuguese educational context.

4.2.3 Challenges. Figure 5 displays the results regarding the challenges of implementing the BSC in the AEX School District.

The frequent change and introduction of new legislation governing the school life, aggravated by the recent reforms in the school network (with the consequent change in the composition of the educational community, the school boards and the instruments of autonomy), creates an enormous uncertainty in teachers about the choices to make in each school year, deciding always in a way that does not damage their career and having in mind their performance assessment, as can be seen from the following quotations: "the performance assessment model […] introduced a degree of mistrust amongst teachers that led to the cessation of many incipient collaborative practices. From the moment that this counts for my assessment, people suddenly […] this was an additional difficulty" (Interviewee 10); "with these changes that are occurring around us and that interfere with our lives … nobody is predisposed to large formal experiences unless it is valued" (Interviewee 14). This insecurity, in turn, poses significant challenges for school administrators to motivate intermediate leaders and teachers to engage in activities associated with the BSC (H). Storey (2002) mentions the "initiative fatigue" syndrome as a potential obstacle. One consequence of this syndrome is the challenge of motivating people. However, in the Portuguese case this challenge seems to be amplified by the fact that the performance evaluation system of teachers is misaligned with the priorities of schools, which leads again to the issues of autonomy. In Pidd's (2005) vein of thought, this misalignment seems to be responsible for perverse effects in the beneficial functioning of schools.

A second challenge relates to the fact that the use of the BSC is far from being a politically neutral option (I). In making the decision to use this methodology, the school
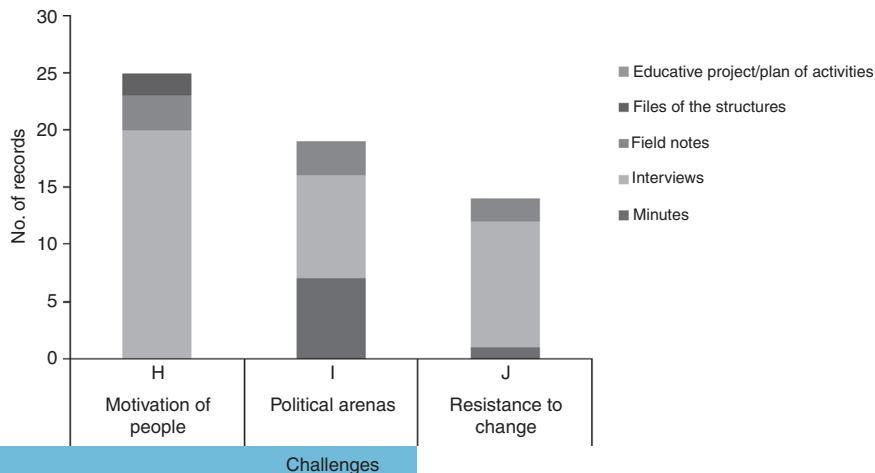

Figure 5.
Challenges to the implementation of the BSC in the AEX School District

board made clear that it values principles such as: the definition of a mission, vision and values; the definition of objectives with quantified targets taking into account their perspective and how they can be articulated; the participation of the educational community in plan definition and in the execution of activities; the regular assessment of the degree to which objectives have been met and the implementation of corrective actions as necessary; the articulation between the school's objectives and the individual performance objectives. Obviously, not all members of the educational community value these principles due to differences in orientation and motivation. For example, Interviewee 9 notes that the debate of different perspectives and interests leads sometimes to heated confrontations, stating: "I think that many people here have fallen into exaggerations which then resulted in bickering, which still exists, and it is not easy for people to switch off from them".

Finally, resistance to change is also a challenge (J). The implementation of the BSC involves changes such as the aforementioned need to invest time and the shift to a culture of accountability and responsibility, which are not welcomed by all members of the educational community. Some interviewees allude to this issue as follows: "when we are talking about a tool that is new and unknown, we can't tell exactly if it'll work or not [...] there's always some resistance" (Interviewee 5); "people are really stuck to traditional methods and therefore [...] it was difficult to motivate them, because people are entrenched to certain ways of doing things and don't want to innovate" (Interviewee 18).

Despite these challenges have not been explicitly mentioned by the existing literature on the application of the BSC to educational institutions, it seems clear that the need to deal with resistance to change, with cultural and political factors is common to many organizational change programmes.

5. Final remarks

This paper reports on the results of an action research to understand the benefits, obstacles and challenges of implementing the BSC in a School District. To complete the action research cycle (see Figure 1) it is pertinent to discuss the learning made in relation to strategic management, the BSC and the area of research.

As far as the first is concerned, the analysis of results suggests that the BSC can overcome some weaknesses of Portuguese schools, in the area of strategic management (see section 2.1.), and that were already described in the literature (e.g. Estêvão *et al.*, 1996; Costa, 2004) and the IGE (2009, 2011a, b). The evidence collected in the AEX School District corroborates the benefits of the BSC in first, promoting the articulation between the objectives included in the educative project and the activities included in the annual plan of activities; second, persuading the educational community of the need to define indicators and targets; third, providing a framework to continually assess the performance of the school district; and fourth, promoting the participation of the educational community in elaborating strategic documents of the school district, as well as a better knowledge of these documents. It should be noted that the strategic vision is the starting point in building the BSC and, therefore, schools must necessarily define their vision to be able to take advantage of this.

Regarding the BSC, it can be inferred that its implementation had mixed results. If, on the one hand, the BSC team successfully managed to mobilize the educational community for the elaboration of the strategic documents and the research was brought to a successful conclusion, on the other hand, BSC ceased to be used. After the new educative project and the annual plan of activities were approved, the BSC was not

deployed to each of the school district's structures nor was its strategy monitored, assessed and revised. In fact, some months after the annual plan of activities was approved, a new school district director was elected who decided to abandon the BSC methodology. Meanwhile, the Ministry of Education decided to reorganize the school network again, having the director taken, a few days after his election as school district director, the position of president of the CAP's new school district. New strategic documents were then developed, but only a few elements produced by the BSC team remained, namely the mission, vision, values and strategic objectives. The strategy map, the four perspectives, and the BSC were not included in the documents.

In view of the above, what factors were decisive for abandoning the use of the BSC? The successive changes experienced by the school district, triggered by external factors (in this case the Ministry of Education), appear to have been an important reason. The many restructurings that occurred throughout the history of the school district, which led to successive changes in the composition of school boards and strategic documents, may have contributed to the development of a sense of disbelief and frustration in the educational community. Indeed, the results of initiatives like the BSC are quickly outdated and the work spent on them is not valued by educational authorities. Other important reasons appear to be associated with cultural and political factors. Given the recent (and controversial) reforms in the teacher evaluation system, the evidence collected suggests that there is still in the AEX School District a significant number of teachers who see with suspicion any initiatives that assess and expose their contribution to the improvement of quality of education. The relationship of the BSC with performance assessment and accountability is obvious, which may also have led the new leadership to abandon the initiative. Finally, the difficulty expressed by the educational community in understanding the managerial terms and the technical component of the BSC, as well as the difficulties in providing further training, may also have contributed to the decision. It should be noted that in relation to this aspect, the terms "indicators" and "objectives" were confused with each other in the new version of the guiding documents, which further denotes the need for additional training.

Another lesson learned in relation to the BSC is that its implementation in the AEX School District was constrained by the limits of the current levels of autonomy granted to non-higher education public schools. More specifically, the development of the educative project and the annual plan of activities had to take into account a vast wealth of scattered legislation (sometimes with little coordination between them), the strategic priorities of the Ministry of Education, the scarce resources available, and that the motivation strategies of the educational community had to be governed by the Statute of Teaching Career and the teacher evaluation system. Although these constraints do not hinder the implementation of the BSC, they raise considerable challenges to the management of public schools. All these factors together with the change in the order of the four perspectives differentiate the implementation of the BSC in the public sector of non-higher education from other sectors.

Regarding the area of research, this study has demonstrated the paucity of empirical literature to investigate the implementation of the BSC in non-higher education public schools. This paper reports one of the first action research studies with the aim of understanding the benefits, obstacles and challenges in implementing the BSC in those schools. Overall, some results are consistent with other empirical studies in higher education institutions (e.g. McDevitt *et al.*, 2008; Umashankar and Dutta, 2007) and other conceptual studies about non-higher education schools

(e.g. Storey, 2002); other results, including the benefit of increased systematization, the obstacle of the requirement of previous knowledge, and the challenge of motivating people seem to reflect contextual specificities. Although the use of the BSC was not pursued further in the AEX School District, it is expected that this study can contribute to the discussion of the implementation of the BSC in non-higher education public schools in Portugal. The management boards of these schools can use the results of this study to inform the development of strategies aimed at making the implementation of the BSC more effective.

A limitation of this study is the impossibility of making generalizations from a single intervention. The fact that the AEX School District did not continue to use the BSC also prevented the assessment of medium- and long-term impacts. Nevertheless, it is hoped that this work will encourage other authors to continue the investigation in ways that were not possible in this study, such as extending the implementation to other school districts, researching the articulation between the BSC and teacher/ staff performance assessment systems and the analysis of the impacts of implementing the BSC.

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