

Incongruences in the scheduling of Physical Education classes

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Abstract:

Rational management of educational resources is an essential factor to make schools more efficient and organized. A structured planning of teaching activities and an orderly use of school sports facilities can contribute to better results in the fulfilment of the Physical Education curriculum. The objective of this study was to analyse the criteria that influence the planning and organization of school schedules regarding Physical Education (PE) and sport activities in public schools. An analysis of the teaching schedule documentation and a structured interview were carried out with six teachers responsible for the teaching schedule teams from six public schools. The criteria indicated by the teachers that influence the organization of teaching schedules were: placing the schedules of Physical Education classes in a shift that is contrary to the regular schedule; personal requests and preferences of teachers for teaching schedules and classes, especially from older teachers; the non-placement of class time during the students' lunch break, although some schools fail to respect this criterion; and insufficient sports facilities for PE classes. Contrary to what some teachers claim, the results highlighted a positive ratio between the available sports facilities and the needs of PE classes, opposing the idea that public schools do not have enough sports facilities for their PE classes. In this study, inconsistencies and conflicts of interest were identified to explain the analysed criteria. The results of this study suggest the introduction of more rational and good governance practices in the administration and decision-making regarding the criteria and adequacy of the planning of PE schedules and of school sports activities.

Key Words: Planning, Class schedule, Physical Education, Organisation, Governance, Rational

Introduction

Since the beginning of the new millennium, the Portuguese public school, within the framework of its organisational and pedagogical autonomy, has been encouraged and pressured to develop internal and external evaluation activities in a rational way. The purpose of the evaluation process is to encourage schools to improve the management and organisation of educational resources. Pedagogical and organisational autonomy is assumed and built in the context of democratic school action as an instrument of good governance and affirmation of school identity (Barroso, 2011). Thus, autonomy represents the responsibility assumed and shared among the actors who have competences in defining and improving the organisation of educational resources.

The accountability and the commitment of specific actors to improving educational management instruments to obtain the best educational results are the central objectives of internal and external evaluation (Afonso, 2011; Nogueira, Gonçalves, & Costa, 2019) and are referenced and recommended in educational reports produced by a national (Pacheco, 2015) and international entity (Santiago, et al. 2012).

The accountability processes, specifically, internal and external evaluations of schools, are essential to increase the degree of transparency and contribute to greater equity and participation by stakeholders, including students' parents. The schools that are more subjected to evaluation and accountability are more concerned with improving their management processes and responding to the interests of stakeholders (Altrichter & Kemethofer, 2015), but contradictory studies show that the increase in inspection of schools causes unwanted and collateral effects because it makes schools more resistant to the transformation of processes and an increase in bureaucratization and formalization procedures (Jones et al., 2017; Wilkins, 2015). The specific factors of the school and its organisational context require a greater degree of responsibility by the actors in order to solve problems and improve the administrative and pedagogical processes (de Oliveira et al., 2011). The case for Physical Education (PE) is paradigmatic because students' sporting and cultural diversity and the typology of school sports facilities require adequate responses in the context of the autonomy of each school (Almeida, 2019; Kirk, 2018; Rodrigues et al., 2017). A positive relationship between school sports activities and the PE community centre is important to improve the quality and organization training process and the commitment of teachers (Ostrowska, 2021; Ward et al., 2021)

Portuguese public schools are not equal in terms of offering sports facilities, and this will affect curriculum learning and satisfaction of student needs in terms of organisation of extracurricular activities. The

preparation and management of school activity schedules involves complex procedures and factors that affect the life of the educational community, including the free time of parents and students. When the school has physical limitations regarding their sport facilities and specific sociodemographic factors, this process increases in complexity, which requires a rational analysis and is adjusted to the available and possible conditions, namely in the management of sports facilities for curricular classes. The need to regulate and protect the interest of students can be consulted in the national regulatory order N.º 7-B / 2015 (MEC, Portugal) and regional regulatory n.º N.º. 265/2016 and N.º 471/2019 (SRE, 2019), where it is explicit that PE classes should not take place at lunchtime or up to one hour after the end of the lunch period. The same rule gives the school board the responsibility and autonomy in defining specific rules and criteria for preparing classes and schedules. On the one hand, the Portuguese public school has autonomy regarding elaboration of its own rules for class schedules, the constitution of classes of students and the occupation of spaces (PNEF, 2001; Decreto-Lei n.º 75/2008). However, it is necessary to consider the diversity and specificity of the contextual factors that provide more efficient management to achieve the objectives of the educational project (Ramos & Perdigão, 2016). The rational and strategic perspective of the resource organization is also supported by the evolution of research studies applied to sports management (Ferkins & Shilbury, 2014; Lis, 2020) and school administration (Rodrigues et al., 2017). In this process, it is important to consider the specificity and physical demands of PE subjects because practical classes are held in specific sports facilities and require a unique physical–motor and socio–affective dimension. In addition, students need time to get ready and spend time moving when attending PE classes (Rodrigues et al., 2017). It is in this context that we analysed the process of organising schedules of PE and school sports activities. In particular, the objectives of this study were:

1. To identify and analyse the criteria for a set of school PE schedules regarding, including: i) the participation of a member representing the group of PE teachers in the timetable team, ii) to assess whether the school grants priority status to subjects that have their own facilities for classes, and iii) to identify specific rules for the planning of PE schedules;
2. To analyse the distribution of the schedules for the organisation of PE classes in the 3rd cycle at the basic education level, according to the official school timetable and the sports facilities available at the school;
3. To identify the relationship that exists between PE class schedules and the school sport training schedules to verify the complementarity and curriculum enrichment of the school sport activities (Law n.º 46/86); and
4. To identify and understand the main difficulties in preparing school schedules and what solutions are found to overcome them.

Materials & methods

This study is based on the methodology of qualitative analysis to understand the main criteria and factors that are part of the organisation schedules of PE classes in public schools. In this study, the following instruments and procedures were used for data collection: an analysis of the document that defines the rules and criteria for setting timetables and a semi-structured interview conducted with the teacher responsible for the school timetable team.

Participants

To choose the schools to participate in this study, the following procedures were followed. A search was performed on the website of the Regional Secretariat for Education, through which seven public schools in basic education (12 to 15 years old) were identified in Funchal City (Madeira, Portugal). Then, invitations were made to the schools' directors through which the objectives of the study were explained, and we requested authorization to arrange a meeting with the teacher responsible for the timetable team. Six schools participated voluntarily in the study, representing a total of 127 classes from the 3rd cycle of basic education: 43 classes from the 7th year, 43 classes from the 8th year and 41 classes from the 9th year.

The condition of anonymity of the school and the interviewee was guaranteed, and the study was conducted in accordance with the guidelines of the Ethics Council of the University of Madeira regarding the use of data for scientific purposes and the rules of ethical conduct of investigation. According to the analysis carried out on the school's website and analysis of the documentation from management sports facilities for PE classes, the number of classes for each of the schools was determined as shown in Table 1.

Table 1 – Characterization of sports facilities for PE classes

School	Total classes	Sports facilities	Number of sport facilities available for PE classes
A	64	<ul style="list-style-type: none"> ▪ Sports pavilion ▪ 2 outdoors sports fields (handball/soccer) ▪ 1 sport facility (indoor) for basketball, dance and fitness 	7
B	64	<ul style="list-style-type: none"> ▪ Sports pavilion ▪ 2 outdoors sports fields (not covered) ▪ 2 outdoors sports fields (covered) ▪ Gym (gym classes) 	6

C	14	<ul style="list-style-type: none"> ▪ A multi-sports field (outdoor) ▪ Gym ▪ Swimming pool (25 meters) 	4
D	23	<ul style="list-style-type: none"> ▪ Gym ▪ Outdoor sports field ▪ Table tennis room 	3
E	30	<ul style="list-style-type: none"> ▪ 2 outdoors sport fields (not covered) ▪ Gym 	3
F	30	<ul style="list-style-type: none"> ▪ Sports pavilion ▪ A small outdoor sports field ▪ A big sports field (divided in 4) 	8

Instruments and procedures

In accordance with the documentation provided by the directors of each school, an analysis was made on the schedules of the teaching hours for the PE subject in the morning shift (M1, M2, ... M6) and afternoon shift (T1, T1....T6). Of note, classes have their school hours organized predominantly in the morning shift (morning classes), and the afternoon shift (afternoon classes) had slightly different start and end times (for example, M6 = 12:15–13:00 versus 12:25–13:10).

To determine the calculation of class distribution by the sports facilities available for PE classes and weekly activity, we applied the relationship between the times used for PE classes (PE teaching times) and the possible times / sports facilities that are made available for PE to work, as expressed by the following formula:

Occupation of sport facilities = Times used by PE classes / Possible school times for classes x 100%

To facilitate the process of analysing and comparing school data, an attempt was made to determine the class / sports facility ratio that could be held in a PE class session. To obtain the ratio for the schools, the number of existing classes in the entire school was divided by the number of spaces available for practice. Accordingly, we analysed the distribution plan for sports facilities. In cases where there were doubts, we contacted the professor in charge of the sport facilities to understand the division of the facilities by class times. To achieve the objectives of the study, data were collected through the following consultation sources:

- a) Searching for information on school timetable guidelines and regulations, in particular those that have implications for the organisation and functioning of PE;
- b) Information analyses that are available on school websites about class schedules and school sports, complemented by the so-called “sports facilities distribution plan”;
- c) Interview with the teacher responsible for the timetable team. From the interview guide, we highlighted the following questions. c1) What are the criteria used in the preparation of PE schedules? Is there a different procedure for curricular units that have their own or specific facilities? c2) What are the criteria for choosing the elements that are part of the team? Is there a PE teacher who represents PE subjects? c3) When the PE class schedules are drawn up, is there any connection or relationship with school sport schedules? If so, what is this relationship? For example, on Wednesdays in the afternoon shift, are there any sports facilities available for students to practice school sports activities or training? c4) In planning schedules, what are the main difficulties that you face? Consequently, what are the solutions adopted?

Data processing

The data from the interviews and documentation analyses were treated through content analysis based on the responses. The closed questions were grouped into categories with indicators of a quantitative or nominal nature, for example, the hourly times and the inclusion or not of the PE teacher in the team that has responsibilities in preparing school schedules. For open-ended questions, such as those that refer to the criteria for the elaboration of timetables and the articulation between PE and school sports, the categories were constructed via interpretation of the contents of the text from the responses.

Results

Norms and criteria for the analysis of school schedules regarding PE

Upon identifying and characterising the norms and the main criteria for planning schedules and classes, it was found that all schools were concerned with “not scheduling PE classes during the specific period of lunchtime” (between 1 pm and 2 pm). Schools C and D stated that one of the criteria for preparing schedules is related to legislative issues and that these guide the work of the timetable preparation team.

However, one of the criteria used to prepare schedules was various personal requests from teachers according to their needs in the context of family, as well as the “concern to avoid interruptions in the schedules of teachers and students”, and the “no calendar of two classes on consecutive days”(see Table 2).

Table 2 – Rules and criteria used in the making of PE schedules

School	Rules and criteria
A	<ul style="list-style-type: none"> To respect two hours rest after lunch Classes must not be on consecutive days Teachers' requests
B	<ul style="list-style-type: none"> Do not put the class at lunch time Put the class on the opposite shift Classes must not be on consecutive days
C	<ul style="list-style-type: none"> Current legislation Teachers' requests (limitations) To respect what the pedagogical council indicates (be in the last times, first or in the opposite shift)
D	<ul style="list-style-type: none"> Teacher preferences Do not put the class at lunch time Legislation
E	<ul style="list-style-type: none"> Concern for the specificity of PE Put the class on the opposite shift Place the 45-min PE class on the second schedule (to take advantage of the longer break) Do not put the class at lunch time To avoid interruptions in the sequence of two or more classes
F	<ul style="list-style-type: none"> Put the class on the opposite shift To avoid interruptions in the sequence of two or more classes for teachers and students Classes must not be on consecutive days Do not put the class at lunch time Try to respect teachers' preferences

Regarding the presence, or not, of a PE teacher in the timetable team, we found that no school surveyed had the direct participation of a PE teacher. In schools A, C and E, there was a recognition that the group of PE teachers should make recommendations and express their needs, and through this request, there may be some consideration in the process of planning schedules. However, at school D, the PE group provides its recommendations to the school board, and after analysing and decision-making, the board sends the recommendations to the timetable team.

Another issue that was analysed in the elaboration of schedules was the priority that was given to PE because this subject uses specific curricular facilities, such as sports facilities. Regarding this, the results show that no school gives priority to the PE subject in the planning of the timetable. School C shows that it does not place as more or less of a priority; it only places a set of premises in the timetable management software that help the distribution of classes during school hours. The only criteria that can be considered a priority is associated with the PE classes of the trainee teachers so that there is no conflict of schedules and allows cooperative and supervised work by the trainee and supervisor. Finally, School F states that its decision to develop timetables for the PE subject “does not have a strict rule established” but recognizes that PE classes should be placed on the opposite shift. This school also emphasizes that it considers the preferences and ages of PE teachers because, more experienced teachers have more priority in choosing schedules.

Time distribution of PE class schedules

An analysis was made on the distribution of the specific PE class schedules, according to the class schedules and the schools' available sports facilities. In general, the results showed that the schools had a positive ratio regarding that available sports facilities are above the needs of class schedules (see Table 3). The schools with the best ratios for the use of sports facilities were C and F with 23% and 28%, respectively. However, it was found that school F has 8 sports facilities, while C only has 4. Its ratios are close due to the number of classes that each school has.

Table 3 - Relationship between the number of classes, sports facilities and possible times for PE classes

School	A = N classes × weekly PE times required	B = Number of sport facilities available for PE classes	C = Total possible hourly times for PE per week *	Ratio A-C (possible occupation)
A	$64 \times 3 = 192$	7	$10 \times 5 = 50$	$A/B \times C = 0.548$ (55%)
B	$64 \times 3 = 192$	6	$10 \times 5 = 50$	$A/B \times C = 0.640$ (64%)
C	$14 \times 3 = 42$	4	$10 \times 4 = 40 + 6 = 46$	$A/B \times C = 0.228$ (23%)
D	$23 \times 3 = 69$	3	$10 \times 5 = 50$	$A/B \times C = 0.460$ (46%)
E	$30 \times 3 = 165$	3	$11 \times 5 = 55$	$A/B \times C = 0.545$ (55%)
F	$23 \times 3 = 69$; $13 \times 4 = 52$ ($52 + 69 = 121$)	8	$11 \times 5 = 55$	$A/B \times C = 0.275$ (28%)

* Calculated according to the timetable model defined by the school regarding class schedules and general educational administration rules for the preparation of timetables, for example, the hours from 1:00 PM to 3:00 PM are excluded because it is reserved for lunch. 45 to 60 min = 1 class time; 90 min = 2 class times were considered.

Table 3 also shows that schools with a ratio above 0.5 (occupation above 50%) have a higher number of PE classes, although two schools (A and B) have 7 and 6 sports facilities, respectively. Subsequently, the distribution of classes that had PE classes was analysed by the hourly times in the morning and afternoon shifts to verify if there was a concentration or rational distribution during the shift and the week. The results showed that most PE classes were concentrated in the morning shift with emphasis on Schools A and F, where these differences were more pronounced (Table 4). In schools B and E, the results were the opposite (Table 4).

Table 4 - Distribution of the number of PE classes by morning and afternoon shifts by school

Schools	Monday		Tuesday		Wednesday		Thursday		Friday	
	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
A	28 (85%)	5 (15%)	16 (84%)	3 (16%)	27 (84%)	5 (16%)	16 (94%)	1 (6%)	23 (100%)	0 (%)
B	19 (46%)	22 (54%)	19 (45%)	23 (55%)	19 (56%)	15 (44%)	15 (38%)	24 (62%)	14 (40%)	21 (60%)
C	2 (33%)	4 (67%)	4 (44%)	5 (56%)	1 (100%)	0 (0%)	4 (36%)	7 (64%)	3 (100%)	0 (0%)
D	8 (73%)	3 (27%)	9 (82%)	2 (18%)	7 (54%)	6 (46%)	4 (40%)	6 (60%)	3 (27%)	8 (73%)
E	8 (40%)	12 (60%)	7 (33%)	14 (66%)	7 (33%)	11 (66%)	2 (15%)	11 (85%)	7 (32%)	15 (68%)
F	20 (80%)	5 (20%)	20 (80%)	5 (20%)	18 (95%)	1 (5%)	4 (57%)	3 (43%)	22 (67%)	11 (33%)

In general, the schools did not adopt a rational model for the distribution of PE class times between morning and afternoon shifts. The school that had the more equitable distribution between shifts and weekdays was school B, which was the school that had 6 sports facilities and the highest possible occupancy ratio of 66.

Regarding the relationship between the schedules of PE classes and the schedules for training and school sports activities, it was found that the schedules for school sports training are defined by the teachers responsible for them but after the schedules of PE classes have been approved. The criterion used to explain this definition is the students' hourly availability. However, the data obtained show that the most preferred and used school sport schedules were at lunchtime (Table 5). The justification for this result is an intention to have enough student participants because the sport activity can receive students from the morning and afternoon shifts. In contrast, School C highlighted that some groups of school sports students have their training at the late afternoon because this schedule is more advantageous for sport activities and because their students are more available. Similarly, School E prefers to organize school sport schedules at the end of the morning shift and during the Wednesday afternoon shift (see Table 5).

Table 5 - Definition of the schedules of school sports activities

Schools	Answers
A	School sports (teachers and students) are free to define the hours they want. The school sports schedule is at lunchtime (1:00 – 3:00 PM) to cover more students.
B	School sports are at lunchtime (12:15 - 2.00 PM) to include the afternoon and morning classes (punctually in the middle of the afternoon).
C	Teachers are the ones who define the school sports schedule, according to the number of students and the sports facilities available. They usually are held after lunch or at the end of the day/afternoon, according to the sport, the age of the students and their availability.
D	The school sports schedule is defined after the PE class schedules are approved and depends on the decisions of teachers who have school sports service.
E	Our school does not put PE classes at the end of the morning shift if possible so that students on the afternoon shift can come to school early and train. Wednesday afternoons must be free for school sports activities.
F	School sports schedules are defined after PE class schedules by school sports teachers and are usually set at students' lunch times.

The teachers responsible for school hours mentioned the reduced number of sports facilities for attending PE classes and the need to satisfy teachers' requests as the main difficulties identified in the preparation of PE class schedules.

Teachers with more experience prefer to have single shift work schedules (only morning or afternoon) without interruptions and with the possibility of entering later or leaving school service earlier for family need reasons. The school C that receives trainee teachers from the institution of higher education has shown concern in meeting the requirements regarding the specific schedules of the trainee teachers. However, those responsible for school E expressed difficulties in preventing interruptions of students' classes. In addition, that school E has difficulty putting PE classes in the opposite shift, and often, it cannot prevent PE classes from occurring in the middle of one shift. Finally, the same school tries not to put PE classes in isolation in one shift to prevent students' from having to attend school just to have PE classes.

Another difficulty identified, but not recognized by those responsible for school schedules, was the fact that students have PE classes on consecutive days, particularly in schools C, D, E and F. We attempted to determine the reason for this. In response to this question, School C justified its decision based on the interests of the teachers by stating that this was done to “avoid interruptions in the teaching hours of the professors”. In the same perspective, school D justified their decision due to requests from teachers, for example, to provide them with days off. On the other hand, schools E and F mentioned the lack of sports facilities as the main reason for organizing PE classes on consecutive days.

Discussion

The results obtained in this study showed that in the process of preparing class schedules, schools do not give priority to the PE subject. The criteria that are assumed to be relevant in the process of preparing class schedules and PE classes are the definition of this curricular subject in the opposite shift and avoiding classes on consecutive days. However, in this case, schools recognize that it is not always possible to guarantee this.

According to a global analysis, schools try not to include PE class schedules during students' lunch hours, but when we made a more detailed assessment, at all schools studied, there are classes (2 ± 6) taking PE lessons between 2:00 and 3:00 PM, even though there are other days and times with sport facilities available to accommodate more PE classes. From our analysis of the normative order No. 7-B (MCE, 2015, Portugal) and regional regulatory (SRE, 2019) order, it is clear that PE classes should not take place during lunchtime or until one hour after the end of that time. In fact, in addition to this rule being disregarded, teachers take advantage of the lunchtime schedule and the fact that sports facilities are available to develop school sports activities. The results found in terms of the organisation of sports training schedules, preferably during lunch hours, indicate that the preference and influence of teachers in this process is crucial. School sport schedules are built from PE class schedules at a later stage, and pedagogical and organisational criteria are not respected. The criteria of "convenience of schedule" and "possibility of welcoming more students by joining the two shifts" (students finish and stay to train or come early and train early in the afternoon) are two important factors for making the decision to schedule school sports activities. These data are incongruous because if the break period between 1:00 and 3:00 PM or between 12:00 and 2:00 PM should be used for the students' lunch break, then it should not be used for the organisation of training and other activities school sports. Of note, according to the same rules mentioned above, in the process of constituting students' classes and class schedules, the pedagogical criteria defined in the school's educational project must prevail, and the school board must apply them for effective management of the existing human and material resources.

Although the teams responsible for preparing the schedules did not include PE teachers, it was found that this group and teachers in general had a crucial influence on the schedules. It has been confirmed that teachers' preferences are respected, as schools recognize requests for the definition of teachers' working hours and seek to satisfy this interest. However, it remains to be seen to what extent the satisfaction of teachers' requests interferes with equity and rationality in the process of planning PE schedules and classes of students in general. This is a sensitive point that deserves greater attention in future studies regarding the governance and direction of the pedagogical-administrative processes of public schools. The results showed a positive ratio between the available sports facilities and the needs for PE classes, opposing the idea that public schools do not have enough sports facilities for their PE classes. Of note, three schools pointed out in their difficulties regarding insufficiency of sports facilities. From the systemic analysis of the collected data, the problem does not seem to lie in the insufficiency of sports facilities. Rather, the issue seems to be in the model of organizing class schedules. A more rational and balanced model, with good governance, is needed regarding the placement of school times for the two shifts used by schools and for the equitable management of sports facilities (Ferkins & Shilbury, 2014). This model has not been verified. Schools organize PE teaching hours predominantly in the morning shift (main shift), although physical-motor activities that characterize the PE curricular unit are preferred and recommended for the afternoon shift (Rodrigues et al., 2017). If PE classes were on the opposite shift, it would allow greater flexibility and opportunity for time management before and after class time, for example, allowing more time for students to move to a sports facility attached to the school.

This study highlights the need for greater transparency and rationality in the process of preparing schedules as well as effective control of the results of this process. This investigation shows that the introduction of greater rationality, intentionality, and transparency in administrative and pedagogical processes in schools must be accompanied by the autonomy and decision-making capacity of organisational actors (Chapman et al., 2010; Pacheco, 2015). Schools that have stronger and clearer leadership in defining their objectives, who are committed to the involvement and commitment of their actors and a stronger connection to the educational community (Ward et al., 2021), lead to an improvement in learning outcomes and a transformation in commitment to the task and organisational goals (Hopkins, 2019; Hopkins & Craig, 2016; Leite, 2015).

In the internal and external evaluation process of public schools, school directors tend to give greater importance to the role of inspection by external experts regarding aspects aimed at identifying strengths and priority areas for improving the educational mission. On the other hand, there is less importance regarding the role of the board and school autonomy in the context of pedagogical and organisational issues (Nogueira, Gonçalves, & Costa, 2019). It is up to the entities that regulate the processes of organizing educational resources,

particularly parents and students, to evaluate and request responsibility from school management boards. A school that teaches and cultivates the responsibility and autonomy of its stakeholders, which is sensitive to the demands and efficiency of the processes of organising schedules, classes and facilities, is a school that is concerned with learning and educational success. This study puts the “finger on the wound” because it exposes the points related to the careful management of physical and temporal resources in the context of school autonomy. Therefore, this is not a single problem, and it deserves other attention by the entities that have responsibility for internal and external evaluation of the administration of public school.

Conclusions

In this study, we analysed the criteria that are considered in the making of schedules for the PE subject. First, the specificity of this subject does not seem to be a valid factor for justifying the assumption of priority in the process of preparing students' class schedules. The criteria that explain the definition of PE class schedules are linked to the fact that classes are taught on the opposite shift and are scheduled on non-consecutive days. However, the main conclusion of this study was that the specific requests of teachers are one of the main criteria that are considered, when defining the schedules of curricular classes. In the same context, it is concluded that PE teachers, despite not being part of the timetable teams, have a decisive influence on the definition of school sports activities schedules, and they prefer to place training schedules in the students' lunch breaks. The reasons for this conclusion seem to be linked to the availability of sports facilities and a greater possibility to receive students from the morning and afternoon shifts. A non-rational management model and the questionable governance of the timetable development process is another main conclusion of this study. Schools schedule a non-proportional distribution of school hours for the week and for the 10 possible times per day, leading to the morning shift receiving a higher percentage of PE classes. Thus, in some situations, students' lunch hours are used by teachers to host PE classes and especially school sports activities.

The absence or insufficiency of sports facilities for PE classes, although pointed out as one of the main constraints for the organisation of PE schedules, seem to be a false problem because the ratio of sports facilities to the number of classes was identified as positive and more than sufficient. Further studies are needed to deepen knowledge of the specific schedules for training and internal activities of school sports and their relationship with PE. If many of the school's sports activities take place during the students' lunch break, which take advantage of the availability of the sports facilities, then it will be necessary to assess the agreement and responsibility of parents and students in this process. Studying the positive and negative impacts that these activities have on students can also be important as we analyse the safety and physical integrity of students, especially when it comes to using public resources. Finally, we suggest analysing the management role of the school director in the process of planning and managing school schedules in the context of school autonomy. It is not enough to have a team to prepare schedules; it is necessary to have organisational responsibility, process regulation and internal and external evaluation by the stakeholders. Further studies are needed to highlight more rational and pedagogical governance to contribute to a quality educational service via public school.

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References

- Afonso, A. (2011). 9 perguntas sobre a autoavaliação da escola. *Nova Ágora Revista*, 2, 43-46.
- Almeida, F. (2019). Entre o passado e o futuro: uma descrição da pedagogia crítica da Educação Física na literatura anglófona. *Movimento*, 25, e25078, <https://doi.org/10.22456/1982-8918.91416>
- Altrichter, H. & Kemethofer, D. (2015). Does accountability pressure through school inspections promote school improvement?, *School Effectiveness and School Improvement: An International Journal of Research, Policy and Practice*, 26 (1), 32-56, doi:10.1080/09243453.2014.927369.
- Barroso, J. (2011). A autoavaliação das escolas. *Nova Ágora Revista*, 2, Set. 47-49. Available at: https://www.cnedu.pt/content/edicoes/seminarios_e_coloquios/LIVROCNE_AVALIAÇÃO_EXTERNA_DAS_ESCOLAS.pdf. Acesso em: 8 fev. 2020.
- Chapman, C., Lindsay, G., Muijs, D., Harris, A., Arweck, E. & Goodall, J. (2010). Governance, leadership, and management in federations of schools. *School Effectiveness and School Improvement*, 21 (1), 53-74, doi: 10.1080/09243450903569734
- de Oliveira, A., Anversa, A., Teixeira, F. & Braz, N. (2011). Projeto político pedagógico: elaboração e aplicação nas escolas públicas do Maringá. *Movimento*, 17 (1), jan-mar, doi: <https://doi.org/10.22456/1982-8918.16524>
- Decreto-Lei n.º 75/2008. Regime de autonomia, administração e gestão dos estabelecimentos públicos da educação pré-escolar e dos ensinos básico e secundário. Ministério da Educação, Diário da República Portuguesa. n.º 79/2008, Série I de 2008-04-22. Available at: <https://dre.pt/pesquisa/-/search/249866/details/maximized>. Access on 5 Sept. 2019
- Ferkins, L. & Shilbury, D. (2014). Board strategic balance: An emerging sport governance theory. *Sport Management Review*. V. 18. Doi: 10.1016/j.smr.2014.12.002

- Hopkins, D. & Craig, W. (2016). *Leadership for powerful learning*. Melbourne: McREL International, Cambridge: Pearson Publishing.
- Hopkins, D., (2019). Mejora escolar, liderazo y reforma sistémica: una retrospectiva. *Revista Eletrônica de Educação*, 13 (1), 26-57, doi: <http://dx.doi.org/10.14244/198271993075>
- Jones, K., Tymms, P., Kemethofer, D., O'Hara, G., Huber, S., Myrberg, E., Skedsmo, G. & Gregor, D. (2017). The unintended consequences of school inspection: the prevalence of inspection side-effects in Austria, the Czech Republic, England, Ireland, the Netherlands, Sweden, and Switzerland. *Oxford Review of Education*, 43 (6), 805-822, doi: [10.1080/03054985.2017.1352499](https://doi.org/10.1080/03054985.2017.1352499)
- Kirk, D. (2018). A new critical pedagogy for Physical Education in turbulent times: what are the possibilities? (1-25) In: Pringle, R., Larsson, L. & Gerdin, G. *Critical research in sport, health and Physical Education: how to make a difference*. Milton Park, Abingdon: Oxon,
- Lei n.º 46/86. Lei de Bases do Sistema Educativo. Artigo 48º - Ocupação de Tempos Livres e Desporto Escolar. Diário da República Portuguesa, n.º 237/1986, Série I de 1986-10-14. Available at: https://dre.pt/web/guest/pesquisa/-/search/222418/details/normal?p_p_auth=D688OvBC, Access on 13 Nov.2019
- Leite, C. (2015). Estudo de Caso. In *Avaliação Externa das Escolas*, Textos do Seminário realizado em Coimbra, 13 de Março 2015 (52-60). Organização e Edição: Ercília Garcia e Rute Perdigão. Conselho Nacional da Educação, Lisboa. Available at: https://www.cnedu.pt/content/edicoes/seminarios_e_coloquios/LIVROCNE_AVALIAÇÃO_EXTERNA_DAS_ESCOLAS.pdf. Access on: 16 Feb. 2020.
- Lis, A. (2020). Sport management: Bibliometric study of key source titles in the research field. *Journal of Physical Education and Sport*, V. 20, 4, 2423 – 2430, DOI:10.7752/jpes.2020.s4331
- MCE (2015). Despacho Normativo n.º 7-B/2015, Ministério da Educação e Ciência, Gabinetes dos Secretários de Estado do Ensino e da Administração Escolar e do Ensino básico e Secundário. Portugal. Artigo n.º 23º, números 4 e 5. Available at: https://dre.pt/pesquisa/-/search/67175402/details/normal.artigo_23 Access on:30 Dec. 2019
- Nogueira, A., Gonçalves, M. & Costa, J. A. (2019). A Intervenção da Inspeção na Avaliação Externa das Escolas: um estudo com base nas perceções de diretores de escolas, *Revista Portuguesa de Educação*, 2 (2), 171-187. doi: 10.21814/rpe.14812
- Ostrowska, M. (2019). Effect of the quality of sport education based on the example of selected physical activities class at a school community center. *Journal of Physical Education and Sport*. Suppl. 2), 14, 1172 – 1178. DOI:10.7752/jpes.2021.s2148
- Pacheco, J. (2015). Relatório do Projeto AEENS: impacto e efeitos da avaliação externa (33-50). In *Avaliação Externa das Escolas*, Textos do Seminário realizado em Coimbra, Organização e Edição: Ercília Garcia e Rute Perdigão. Conselho Nacional da Educação, Lisboa. Available at: https://www.cnedu.pt/content/edicoes/seminarios_e_coloquios/LIVROCNE_AVALIAÇÃO_EXTERNA_DAS_ESCOLAS.pdf. Access on 29 Feb.2020.
- PNEF (2001). Programa Nacional de Educação Física. Ministério da Educação. Governo da República Portuguesa. 2001. Available at: https://www.dge.mec.pt/sites/default/files/ficheiros/eb_ef_programa_3c.pdf. Access on 19 de Nov. 2019.
- Ramos, F. & Félix, P. (2016). *Estudos. Organização escolar: as turmas*. Conselho Nacional de Educação. Abril 2016. Available at: <https://www.cnedu.pt/pt/publicacoes/estudos-e-relatorios/outros/1141-organizacao-escolar-as-turmas>. Access on 3 Nov. 2019.
- Rodrigues, A., Ramos, F., Rodrigues, I., Gregório, M., Félix, P., Perdigão, R., Ferreira, S. & Almeida, S. (2017). Estudos. Organização Escolar: o tempo. Conselho Nacional de Educação. Available at: <https://www.cnedu.pt/pt/publicacoes/estudos-e-relatorios/outros/1207-organizacao-escolar-o-tempo>. Access on 13 Oct. 2019
- Santiago, P., Dinaldson, G., Looney, A. & Nusche, D. (2012). *OECD reviews of evaluation and assessment in education: Portugal 2012*. OECD Publishing. Disponível em: https://www.oecd-ilibrary.org/education/oSabelisecd-reviews-of-evaluation-and-assessment-in-education-portugal-2011_9789264117020-en;jsessionid=JixAFwTUPkV5DEZJIOe5imY.ip-10-240-5-81, Access on 20 Jan. 2020.
- SRE (2019). Portaria n.º 265/2016, 13 julho. Secretaria Regional da Educação. Governo Regional da Madeira. alterado pela Portaria n.º 471/2019., Jornal Oficial, Série I, N.º 121, Available at: https://www.madeira.gov.pt/Portals/16/Users/087/43/343/Portaria%20n.º20265_2016_13_07.pdf, Access on 14 Nov. 2019
- Ward, P, van der Mars, H., Mitchell, M., H., Lawson, H. (2021).School Physical Education: Conditions, Lessons Learned, and Future Directions. *Journal of Teaching in Physical Education*. 1-9, <https://doi.org/10.1123/jtpe.2020-0241>
- Wilkins, A. (2015). Professionalizing school governance: the disciplinary effects of school autonomy and inspection on the changing role of school governors, *Journal of Education Policy*, 30 (2), 182-200, doi: [10.1080/02680939.2014.941414](https://doi.org/10.1080/02680939.2014.941414)