

Study of Students' Disruptive Behavior in High School Education in Physical Education Classes

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Abstract

This article aims at describing and analyzing students' disruptive behaviors and comparing them in terms of their degree of intensity in the course of physical education lessons performed by student teachers. The delayed video-scopic analysis was performed using the "Disciplinary Incidents Analysis System". A total of 1900 disruptive behaviors (DB) were recorded including 1379 seen by student teachers and 521 other behaviors not seen. Results testify that the observed physical education lessons show a very high degree of disruptions with a mean reaching 67.8 DB per session, i.e. 1.2 DB per minute. Besides, a high proportion of DB with a low density (43.7%) and a moderate density (46.7%) was recorded in the classes under investigation. These results presupposed that the learning conditions that prevailed during the observed sessions were not optimal to invite us, consequently, to conduct further investigations in order to determine their reasons.

Keywords

Disruptive Behaviors, Physical Education, High School Students, Disciplinary Incidents Analysis System

1. Introduction

Teachers are confronted with the inadequate behaviors of some students in class. These students are generally known as "disruptors" because they contribute to the disruption of the class climate (Chouinard, 2003), or worse

still, because they refuse to work. [Tousignant \(1985\)](#) argues that the students' cooperative behaviors in the learning tasks assigned to them are a prerequisite to any learning of these same tasks.

Generally speaking, disruptive behaviors refer, essentially, to any behavior that disrupts school activities, particularly behaviors that disturb teachers and/or students in class. These behaviors harm, generally, the teaching/learning process.

According to [Morin & Battalio \(2004\)](#), disruptive behaviors amount to a difficulty that steers students away from what they are supposed to learn in class; they harm the teacher/students relationship and badly affect learning at school. In fact, according to [Supaporn, Dodds, & Griffin \(2003\)](#) these behaviors lead to a reduction that can be, at times, considerable in the chances of learning, which may create alternative competing vectors for the initial action program.

For [Kulinna \(2007-2008\)](#), these disruptive behaviors constitute a great threat to class functioning, which calls for a search for solutions that will cause disruptive elements to behave appropriately in class with the aim of preparing them for a future life as good citizens in society.

Besides, as clearly highlighted by [Piéron](#), "the questions pertaining to the discipline are studied systematically in the domain of physical education, even if classroom control remains a major preoccupation of future teachers or of beginners in this profession" (1993: p. 75). Disciplinary questions are particularly complex. In fact, a disciplinary measure will probably result in a series of conflicts between the student and his classmates and between the student and his teacher.

The objective of this article would be to analyze and compare the different disciplinary incidents that might crop up during the physical education courses run by Tunisian student teachers in secondary high school contexts.

2. Theoretical Inscription

Studies on the analysis of the teaching process were initially little interested in students. According to behaviorist approaches, the first pieces of research on the process-product were more interested in the teacher's behaviors ([Piéron, 1993](#)). It was not until the seventies that the need emerged for a proper understanding of the teaching-learning process to get also interested in the behaviors of students within the framework of studies relevant to "the paradigm of mediating variables" ([Doyle, 1986a](#)). This approach considers that the ways students react to the teacher's instructions, their attention, their engagement in the tasks, their motivation, and their involvement or, on the contrary, their lack of discipline, affect their performances. In physical education, the first studies were conducted in the United States, then in Quebec ([Brunelle, Tousignant, & Godbout, 1996](#)).

In the 1980s, the classroom ecology paradigm, found mainly in North-American studies, allowed for a better understanding of classroom activity in all its complexity.

This ecological paradigm, according to ethnographic approaches, aims at "studying the relations between the demands of the environment, i.e. classroom situations, and the manner qualifying individuals' responses" ([Doyle, 1986a: p. 452](#)). In terms of this model, the researcher attempts to enter more profoundly the world of the classroom with a view to construing the meaning and the significance that the agents (teacher and students) attach to it, in order to produce an in-depth description of its functioning. Based on naturalist ([Doyle, 1979](#)) and anthropological ([Doyle, 1981; Hastie & Siedentop, 1999](#)) approaches, the aim of the ecological approach is to provide a coherent description of its functioning. Methodologies aim at "a better understanding of the significance of events and the examination of aspects that are less conspicuous and little known of what is happening in class or at school" ([Piéron, 1993: p. 6](#)). The descriptions provided by ethnographic observation contribute to the explanation and interpretation of the phenomena that emerge in class. Thus, what is studied ethnographically is strictly linked to the context and specificity of the areas of teaching. This limits, however, somehow, the generalizability of the collected data, but the multiplicity of the investigations conducted in physical education has made it possible to characterize the ecology of physical education ([Placek, 1983; Siedentop, 1994](#)).

The trend of the ecology of physical education does not attempt, either, to characterize only the different behaviors of students and teachers, but is rather interested in the context of teaching and learning, by taking into consideration a multiplicity of variables making it possible to account for the "ecological" balance in class ([Siedentop, 1994](#)).

The "ecology of physical education" is a research trend that is indebted to the main concepts developed in the article on "classroom management" ([Doyle, 1986b](#)). It has been widely referred to in our discipline ([Florence,](#)

Brunelle, & Carlier, 1998; Siedentop, 1994; Musard, Loquet, & Carlier, 2010).

The ecological model was applied; for the first time, to physical education by [Tousignant & Siedentop \(1983\)](#). These researchers took up the conceptualization of [Doyle \(1979, 1986a\)](#) which defines teaching as a structured set of tasks aimed at securing and maintaining students' cooperation in the activity. Further to the thesis advocated by [Tousignant \(1982\)](#), the authors aim at the understanding and analysis of the structures of tasks as well as their realization within the context of a physical education class. In their review, [Hastie & Siedentop \(2006\)](#) stipulate that the main contribution of this paradigm consists in associating teaching and learning at the heart of the continued interactive process. In addition to the interactions related to the immediate context of practice such as the school and the class, the researchers equally take into consideration the influences coming from other contexts such as the family milieu, the community environment, and the cultural and socio-economic environments.

In the medley of research on the mediating variables and the ecology of physical education, some researchers developed studies on students' involvement as an indicator of the "learning environment" ([Martel, Brunelle, & Spallanzani, 1991](#); [Desbiens, 2008](#)). These authors, whilst reminding us that the difficulty of the tasks assigned to students plays an important role in their involvement, show that the behaviors of deviance, passivity, inconsistency, assiduity or enthusiasm have repercussions on the climate in class. This observation is reiterated by many studies, notably those foregrounding the difficult management, in class, of critical disciplinary incidents ([Florence, Brunelle, & Carlier, 1998](#)). These researchers set into relief 21 categories of disruptive behavior, divided into 3 levels of disruption, that crop up most frequently during the moments of technical learning in the session. Students' lack of discipline affects teaching, especially when teachers are at the beginning stage of their career. For example, a study has shown that student teachers in their graduating phase in physical education seem not to know disruptive behaviors or how to respond to them in a prompt manner at a time when an appropriate reaction or interaction with students was often more efficient ([Desbiens, Turcotte, Spallanzani, Tourigny, Lanoue, & Roy, 2011](#)).

A more recent thesis on the incidents and incivilities in physical education in difficult contexts ([Flavier, 2001](#)) has shown the difficulties in class management due to the genesis and the sorting of classroom conflicts ([Flavier, Bertone, Méard, & Durand, 2002](#)). What ensues from these studies is that students' attitude varies situationally, depending on the more or less important salience of the rules to which teachers are attached when teaching ([Méard & Bertone, 1998](#)). These authors identify five types of students that represent milestones in a process of internalization of rules on a continuum ranging from anomie (students structured by the absence of rules) to autonomy (the capacity to assign oneself one's own rules within a group). The transactions between teachers and students regarding the rules of life and learning in class have an operative function. Some have as prevalence the reaching of social order by means of students' educability whilst others enable the development of learning.

The descriptive studies which we refer to in this study are part of the behavior research current launched by [Piéron \(1993\)](#) and continued by the researcher himself in Belgium and Portugal. In Quebec, however, studies, using the "Disciplinary Incidents Analysis System" have been carried out. Indeed, interested in class management, a group of researchers ([Brunelle, Brunelle, Gagnon, Goyette, Martel, Marzouk, & Spallanzani, 1993](#)) set up an observation system of disciplinary incidents in physical education classes to point out students' disruptive behaviors and corresponding teachers' reactions to these behaviors. The backdrop which allowed the development of the teachers and students' behaviors' initial list was elaborated based on deviant behaviors observed by [Piéron & Emonts \(1998\)](#) during high school physical education classes.

3. Methodology

In order to analyze students' disruptive behaviors in physical education classes, we have used the works of [Brunelle et al. \(1993\)](#), the authors of the "Disciplinary Incidents Analysis System". This system helps describe the disciplinary incidents whose disruptive behaviors (DB) occur during physical education classes based on the moment of occurrence. The observation grid shows 8 categories:

1) Students' DB; 2) intensity level of DB; 3) DB's moment of occurrence; 4) number of students involved; 5) effects of the DB on the proceeding of the session; 6) student teachers' types of reactions to DB; 7) effects of the student teachers' reactions on the DB; 8) DB's accessibility or inaccessibility level for student teachers.

The "Disciplinary Incidents Analysis System" version used in this study is summed up in the following **Table 1**:

Table 1. The “Disciplinary Incidents Analysis System” borrowed from Brunelle et al. (1993).

Students' DB (1 - 2)		DB's moment of occurrence (3)	Number of students involved (4)	Effects of DB (5)			Student teachers' reaction (6)	Effects of reactions (7)			DB's accessibility (8)
				I	NI	NC		M	NM	NC	
Level 1	Level 3	Before course	1				Normative/ imposition				Accessibility
Distracted	Criticizing	Introduction	2 to 3				Dictate a behavior				Inaccessibility
Nattering	Lashing out at material	Warm up	4 to 9				Reprimand				
Late	Mugging	Explanation	10 and more				Designate a consequence				
No costume	Dangerous behavior	Transition					Libertarian/ permissive				
Leaving the classroom	Being rude	Educative					Make a reminder				
Level 2	Ridiculing	Game					Ignore				
Fooling around	Resisting instructions	Return to calm					Interactive/ affirmation				
Squabbling		Conclusion					Apply a consequence				
Bulling		After class					Give reason				
Making noise							Interactive/open				
Deforming the rules intentionally							Describe behavior				
Giving up practice							Express feelings				
							Find an arrangement				
							Encourage				

In this article, we are going to address the first two categories only so that we can draw a portrait of the disruptive behaviors during the physical education sessions and decide upon their intensity levels.

There are 19 disruptive behaviors that students might adopt. These are divided into 3 levels depending on the intensity of the behavior and its possible impact on the good proceeding of the teaching session.

Level 1 includes those DB which have little influence on class life but which can be annoying to the teacher. Level 2 is about DBs that are likely to disturb the class in the short or medium run. Level 3 encompasses all DB that actually disturb the good proceeding of the lesson as soon as they occur in class.

Our sample is made up of a total number of 650 high school students: 360 boys (55.3%) and 290 girls (44.7%), Stemming from a first year of high school and obtained by a simple random sampling method. The average number of students per class that participated in this study is 23.21. The students' age ranged from 13 to 14 representing 70.6% and 29.4% respectively. During the observation phase, those students were involved in team sport activities within their own schools. The study covered 28 schools representing 14.2% of all schools (n = 40) located in two different governorates:

- 14 schools lie in a peripheral urban area in the governorate of Manouba. This governorate has an urbanization rate that hardly reaches 74% and that is the lowest in the district of Greater Tunis.

- 14 schools lie in a favored zone in the governorate of Tunis. This governorate is the main district of Tunisia's administrative, political and economic capital city. Hence, it represents the densest urban pole (100%).

The study also involved 28 physical education male Tunisian student teachers. These student teachers represent 11.8% of our study population (n = 236) and had been informed beforehand of our study targets and of our positions in order to preserve anonymity and insure the confidentiality of the data collected.

We have used two Sony cameras model Handcam 4 K with integrated projector and a BoomTone DJ wireless microphone equipped with a transmitter receiver (VHF 10HL F4 Micro H.F) and a scope of 100 meters to be able to intercept the student teacher's verbal interventions.

The collection of data is achieved with the help of two camscopes and a wireless microphone. The two cameras are placed in such diagonally-opposed positions that they cover the different angles of the entire area where the session takes place. The data collection stretches over 3 weeks where 28 sessions of 55 minutes each have been filmed.

Given the observation technique is pre-recorded, the data analysis is carried out through a matrix that corresponds to the 8 different categories on the observation grid, which allows the research data entry. The data is later analyzed statistically. The analysis consists in counting the absolute and relative frequencies of disruptive behaviors per category according to the grid of the “Disciplinary Incidents Analysis System” borrowed from [Brunelle et al. \(1993\)](#).

The maneuver lies in a direct observation of the video recordings in order to realize our codification on the observation grid. As [Desbiens, Turcotte, Spallanzani, Tourigny, Lanoue, & Roy \(2011\)](#), recommends, for a disciplinary incident to be counted up, it should take a duration of 5 to 30 seconds.

To insure inter-coder reliability, two other researchers had been trained on the codification procedure of the “Disciplinary Incidents Analysis System” during the school year 2014. When their perceptions of the different findings on the codification of the same teaching session were confronted, it was found out that there was an 87% concordance concerning the 20 disciplinary incidents in question. According to [Fortin \(2010\)](#), the rate of this inter-coder concordance is considered reliable.

4. Findings and Discussion

The findings illustrated in [Table 2](#) show the appearance and frequency of disruptive behaviors that are codable in relative or absolute terms. The absolute frequency is expressed according to the entirety of incidents ($n = 1900$) of which some were non-codable ($n = 521$) and others were codable ($n = 1379$).

We first highlight the very high number of disciplinary incidents (1900) divided into 1379 having taken place within the intern teachers’ field of vision and 521 outside their field of vision.

As for the codable disciplinary incidents, we notice that the highest number was of DB level 2 with a percentage of 46.7%. This is followed by DB level 1 (43.7%). DB level 3 come in the third position with a weak percentage of 9.6%.

For level 1 incident, the most frequent is that of “nattering” with 16.2% of all incidents. However, for level 2, the most dominant incident is that of “squabbling” with 8.8% of the total and 12.1% of codable incidents. The most frequent incident in level 3 is that of “criticizing” with 2.7%. As can be clearly noticed from [Table 2](#), the dominant DB are those which are likely to disturb the normal proceeding of the session (levels 2 and 3) with a rate of 56.1%.

For non-codable disciplinary incidents, [Table 3](#) illustrates some more surprising findings. For instance, DB level 3 are proportionally much more important (48.1%) than those of level 2 (30.8%) which themselves largely outnumber those of level 1 (21.1%).

As far as level 3 is concerned, the “lashing out at material” category (15%) predominates, and is followed by the “criticizing” category with only 1.9%. At level 2, the “giving up practice” has the highest proportion (10.2%) as is the case with the “distracted” category (11.6%) in level 1.

The findings reached in this study witnessed the students’ agitation during the observed physical education classes assured by intern teachers. In fact, the very high appearance frequency explains the rate of 1.2 disciplinary behaviors per minute. Besides, 43.7% of the disciplinary behaviors taking place have hardly any influence on class life (level 1), while disciplinary behaviors that actually disturb the good proceeding of the session (level 3) present but a very weak frequency of 9.6%.

Although these findings confirm [Desbiens’ \(2008\)](#) concerning DB frequency, we have noticed a divergence in DB levels. In fact, the author claims that 0.82 DB take place every minute, that 48.1% among DB happening in class belong to level 3 and that they disturb the good proceeding of the session. In contrast, DB level 1 are the least frequent.

Nonetheless, our findings go hand in hand with the works of [Kulinna, Cuthran, & Regualos \(2006\)](#) on disruptive behaviors that take place in regular class situations. Indeed, these researches highlight a quite important DB frequency, yet the DBs remain of weak intensity.

In physical education classes, the research work conclusions go in the same directions since a slight number of serious aggressive behaviors in class is reported. We also noticed that the DB that occur there are expressed

Table 2. Relative and absolute frequencies of the appearance of codable disciplinary incidents.

Categories	Frequencies	Absolute frequencies (the total)	Absolute frequencies (without non codable)	Total absolute frequencies/intensity level
DB level 1 (n = 604)				
Distracted	148	7.7%	10.7%	
Nattering	308	16.2%	22.3%	
Late	84	4.4%	6.1%	43.7%
No costume	20	1%	1.4%	
Leaving the room	44	2.3%	3.2%	
DB level 2 (n = 644)				
fooling around	52	2.7%	3.8%	
Squabbling	168	8.8%	12.1%	
Bullying	112	5.8%	8.1%	
Making noise	120	6.3%	8.7%	46.7%
Deforming the activity	84	4.4%	6.1%	
Breaking the rules intentionally	84	4.4%	6.1%	
Giving up practice	24	1.2%	1.8%	
DB level 3 (n = 131)				
Criticizing	52	2.7%	3.8%	
Lashing out at material	38	2%	2.8%	
Mugging	25	1.3%	1.8%	
Dangerous behavior	00	0%	0%	9.6%
Being rude	16	0.8%	1.2%	
Ridiculing	00	0%	0%	
Resisting instructions	00	0%	0%	
Total without non-codable	1379	72.6%	100%	--
Non-codable	521	17.4%	--	--
Total	1900	100%	--	--

in a physical rather than verbal manner (Corriveau, Lirette, & Laurencelle, 1991). What we have found out is that the “lashing out at material” category alone represents 15% of all non-codable incidents.

The study angles of disruptive behaviors have become more and more diversified. In fact, some researchers look into it from the students’ perspective (Stork & Saunders, 2002), while others study it from the teachers’ (Kulinna et al., 2006). Still, a new trend of research works adopt a new perspective, that aiming at identifying DB according to their level of severity (Ben Chaaben-Abdennader, 2007).

Thus, the findings on non-codable disciplinary incidents go in the opposite direction with those of codable ones. For instance, a percentage of 48.1% of non-codable disciplinary incidents (vs. 9.6% of codable ones) level 3 has been recorded. This divergence between the findings on codable and non-codable disciplinary incidents can be interpreted, as Ben Chaaben-Abdennader (2007) explain it clearly, as putting too much emphasis by Tunisian intern teachers of physical education on the organization and the positioning during learning situations at

Table 3. Relative and absolute frequencies of non-codable disciplinary incidents.

Categories	Frequencies (f)	Absolute frequencies (f%)	Absolute frequencies/intensity level
DB level 1 (n = 110)			
Distracted	60	11.6%	21.1%
Nattering	15	2.9%	
Late	13	2.4%	
No costume	12	2.3%	
Leaving the room	10	1.9%	
DB level 2 (n = 160)			
Fooling around	1	0.2%	30.8%
Squabbling	10	2%	
Bullying	3	0.6%	
Making noise	15	2.9%	
Deforming the activity	40	7.7%	
Breaking the rules intentionally	38	7.2%	
Giving up practice	53	10.2%	
DB level 3 (n = 251)			
Criticizing	10	1.9%	48.1%
Lashing out at material	78	15%	
Mugging	68	13.1%	
Dangerous behavior	53	10.2%	
Being rude	11	2.1%	
Ridiculing	13	2.4%	
Resisting instructions	18	3.4%	

the expense of more fundamental aspects such as class management which requires having all the students in one's field of vision.

The alarming findings on non-codable disciplinary incidents show that the ecological equilibrium during the analyzed physical education sessions has not always been suitable for learning, and accordingly an intern teachers' training in the management of indiscipline is of certain urgency.

5. Conclusion

The analysis of physical education teaching sessions taught by intern teachers shows the salience of DB levels 2 and 3 representing 56.3% of all DB, among which 46.7% are likely to disturb the class in medium and short runs and 9.6% are likely to disrupt the good proceeding of the sessions. These findings suggest that the learning conditions adopted in these sessions have not been the most convenient.

The findings of this study aim not only at helping the reader make a better representation of this complex phenomenon, but also at inviting us to think of solutions that may remedy the existing difficulties. In fact, these findings can be used to improve the initial training of intern teachers.

In this regard, they constitute a directory of disruptive behaviors that illustrates the field work reality of teaching physical education in Tunisia very well. The study also invites us to think seriously of teaching intern

teachers how to deal with and how to prevent indiscipline at school. A revision plan of their university studies in this field can make the difference in excellence at school.

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