

The practice of Tunisian physical education teachers at the end of initial training during the preparation for professional life

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Abstract:

Background and Study Aim: The purpose of this article is to describe and analyze students' disruptive behavior and teacher trainee responses before and after a "Body Language and to Speak in Public" training module for school teachers at the end of initial training physical education teachers (PET).

Material and Methods: Delayed video scope analysis was conducted using the "Disciplinary Incidents Observation System (DIOS)" of "Brunelle J." (1996) [7].

Results: The data collected, it can be deduced that the courses directed by trainee students during work readiness internships show a high degree of disruption, since there is a rate of 1.3 and 1.01 DB per minute.

Conclusions: The frequency of onset of disruptive behaviors (DB1 and DB2) is slightly lower in sessions facilitated by trainees who have been trained in "Body language and public speaking". Similarly, at the level of disruptive behaviors (DB3), the trainees who underwent the training realized a greater decrease in the frequency of appearance of these behaviors.

Faced with these disruptive behaviors, the trainees who attended the training were slightly more interactive in their reactions during the sessions.

The impact that this study could have on the initial training of physical education teachers (PET).

The results of our studies illustrate the reality of the practice of future teachers during the internship preparation to professional life. Indeed, they constitute a

repertoire to perceive the different disruptive behaviors of students and the reactions of trainee students to these behaviors.

By way of this presentation, our work can certainly be used as part of the initial training of PET and in formalizing the professional skills repository.

Key Words: disruptive behaviors, physical education, students, training, body language, public speaking.

Introduction

Changes in society are causing new tensions in the role of the teacher. Indeed, the teaching profession requires the development of professional skills of teachers that can only be acquired during vocational training [21, 23]. Whereas, the design of vocational training programs is essentially based on solving problems related to the work of teachers [19].

However, the first opportunity to confront real problems related to the work of the teacher is during the internship preparation to professional life [4, 5]. In addition, many studies indicate that the majority of trainee teachers have communication difficulties with their students during physical education courses [2, 23].

This reality is contradictory to what has been put forward by “Provencher G.” [22] who states that "the teacher of the future will be the one who masters the mechanisms of communication between teacher and pupils and who will accept to be really involved in the pedagogical relation that a real communication obliges ". Similarly, “Richmond V. P” [24] proves that "For teachers, having basic communication skills is not enough."

As a result, the initial training of physical education teachers (PET) has to focus on communication skills. In fact, the future teacher must consider the natural use of the

language and the capacity to adjust linguistically and physically to the various learning situations [9, 11].

While during the initial training of PET at the Higher Institute of Sport and Physical Education of Tunis, the students underwent training in communication through the programming of a communication module that consists mainly of 3 languages: French, English and computer science [3]. Hence the idea of developing the communication competence of PET through training programs in Body language and public speaking.

For this research, we have established whether the frequency of disturbing behavior episodes is affected by this training since all the behaviors manifested by the classroom teacher, whether conscious or unconscious, are worthy of messages and the students are sensitive to all these signs and clues: their classroom behavior is directly related to their perception of these messages [20].

Presentation of the reference framework

It is in this perspective that we drew on the work carried out by “Jean-François Desbiens” and collaborator [13, 14]. “Desbiens” [13, 14] set objectives for his approach: i) draw a portrait of disruptive behavior during physical education classes taught by trainees; ii) compare the frequency and distribution of CPs according to the gender of the trainees; iii) compare the frequency and distribution of CPs according to the degree of advancement of the trainee in his training program (‘Internship preparation to professional life’ at the end of initial training (terminal class)).

The proposed model nevertheless remains more general than specific in its foundations strongly oriented by the approaches to problems of indiscipline encountered during learning the trade, conflict situations [28], the work on disruptive behavior (CP) concerns situations in regular classes rather than in physical education [16] and the

work of “Brunelle J.” [7] on disruptive behavior (CP) detect by the ‘disciplinary incident observation system’ (DIOS).

The purpose of this study is to contribute to the improvement of the initial training in communication of PET by proposing a complementary training program in 'Body Language and Public Speaking' articulated in the terminal internship. Indeed, the specific objective is measuring its impact on: (a) the frequency of CPs occurring during courses taught by student interns; (b) the types of reactions of student interns to the various disruptive behaviors of their students.

More precisely, it will first be a question of describing the repercussions of this program on the practices of the trainees of the experimental (GrExp) and control (GrTém) groups between the start and the end of the internship preparation to professional life.

Our Convictions

We believe that initial teacher training needs to be further emphasized on the dimensions of classroom teacher interactions [9]. Therefore, our main objective is to study the contributions of a training module in "Body Language" and to speak in public about the appropriation of the communication skills of trainees in EPS training during vocational training. This internship is the first opportunity to confront real problems of learning and teaching [13, 14].

More specifically, our work consists in analyzing the variation of pupils 'disruptive behaviors and trainees' reactions to these behaviors during the internship preparation to professional life.

Research Objective

This research aims at elaborating and experimenting a training program of 'Body

Language and Public Speaking ' (BLPS) by trainee students at the end of initial training in physical education. The specific objective of the study was deals with the description of student's disruptive behavior during the sessions led by the trainee teachers as well as about these reactions to these deviant behaviors of the students before and after the training (BLPS) in the internship preparation to professional life.

Material & methods

This research consists in a quasi-experimental study for the fact that there is manipulation of a variable, namely the training program of « Body Language and Public Speaking (BLPS) » and that there is an observation of its effect on disruptive behavior in physical and sports education.

The Training Program in 'Body Language and Public Speaking'

The training program predicted 12 meetings lasting 2 hours, which makes 24 training hours. The training started in September and it ended in March.

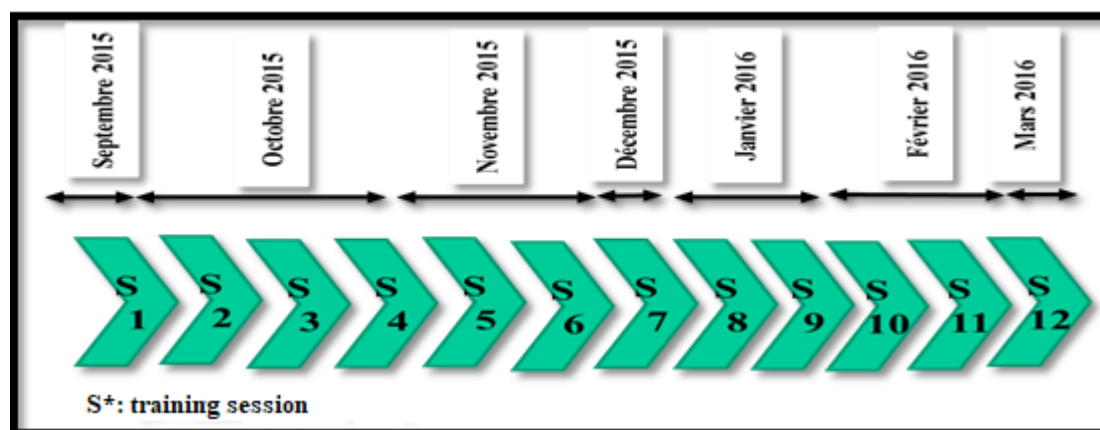


Figure 1: The Training Program in 'Body Language and Public Speaking'.

Indeed, each meeting is associated to a thematic content that was presented, worked, discussed and experimented. A training meeting implies a theoretical content followed by its implementation. By the 'active experience', the trainees are asked to

plan, organize and supervise teaching sequences then, outside meetings, they were invited to implement the elements of content in their training environment. In order to have a more positive effect between the experience and the learnings, successes were systematically underlined while failures were discussed and analyzed, thus allowing to make all the aspects of the training program constructive.

Trainee teachers are invited to:

- (1) Work on oral expression techniques (breathing, voice, articulation, rhythm and repetition).
- (2) Improve nonverbal communication (territories, proximity, posture, gestures, facial and facial expressions).
- (3) Improve the perception of self.
- (4) Tame, regulate stress and control the speech.

Note: The former is a University professor at Higher Institute of Dramatic Arts in Tunis (I.S.A.D), communications specialist and expert in 'Body language and speaking in public.

Participants

The sample formed by student volunteers consists of a first reference group (A) n = 10 (6 men, 4 women) and the second experimental group (B) n = 10 (5 men, 5 women). All volunteers were in the third and final year of university education in PSE. They were launched in a practical training course in a thirty-week long secondary school environment, with four hours of practice for each of them, for a total of 120 hours of annual practice.

Each of the four-hour episodes was a block of four 50-minute lessons each time around the same groups. All participants were previously informed about the aims of

the study as well as the arrangements made to preserve their anonymity and the confidentiality of the data collected.

A total of 389 (Mature: 13.22 ± 0.35) high school students, of whom 243 (62.47%) were male and 146 (37.53%) female, participated in this study with an average of 34 students per class.

They were engaged in collective sports activities (either handball or basketball) since the project of their schools only uses collective sports with a view to facilitating their social integration.

Procedure: Didactic observation

The ten trainee teachers in cohort B (experimental group) will be compared to the ten other trainee teachers in cohort A (control group) during a practical training course.

The observation was made at two moments: the first collection before training, the second within a week of the end of the training. These observations took place in the exercise sites of the practical pedagogy course. The data collection will cover 40 sessions of 50 minutes each, which were filmed before and after the training. It was done at two points during the 2015-2016 school year: the first collection at the beginning of the 'internship preparation to professional life' (September: before the beginning of the training) and the second at the end of the internship (March: after the end of the training).

The Instrument of Data Collection

The device uses the sound / image coupling in order to be able to relate the behaviors of the different actors and tell them of each one (instructions, private or public remarks, verbal reactions of the trainee and the students). We used two Sony model 4K Handcam cameras with built-in projector and a Boom Tone DJ wireless microphone equipped

with a transceiver (VHF 10HL F4 Micro HF) and a range of 100 meters to be able to intercept verbal interventions of the student's teacher.

All the trainee teachers were filmed at least during a session before the recording of the data, in order to accustom the protagonists of the study to the material used. In order to reduce the Hawthorne effect among teachers (behavior modification due to the presence of an observer), the experimenter introduced himself to the teacher as being a student conducting a survey on student motivation in EPS, without making any reference to the Pygmalion effect.

Data collection is done with the help of two camcorders and a wireless microphone. The two cameras are placed in diagonally opposite positions that cover the different angles of the whole area where the session takes place. The data collection will cover 40 sessions of 50 minutes each, which were filmed before and after the training.

The Grid of Observation

In order to analyze students' disruptive behaviors in physical education classes, we have used the works of "Brunelle J." [7], the authors of the DIOS. 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;

To analyze the disruptive behavior of students in physical education sessions, we used the version of “DISCIPLINARY INCIDENTS OBSERVATION SYSTEM (DIOS)” [12]. The DIOS is an observation system with predetermined categories. It identifies and describes the content of disciplinary incidents that DB encounter during a physical education session. The DIOS is based on an event observation strategy, that is to say that disciplinary incidents are noted according to their appearance during a session.

The DIOS uses an event observation strategy. For example, disciplinary incidents are coded as they occur during physical education classes. More specifically, the DIOS allows the analysis of a disciplinary incident according to several components (the moment of the lesson where the incident occurs, the number of students involved the disruptive behavior of the students, the reactions of the teacher, the duration of the disciplinary episode, the effect of the teacher's reaction and the source of the incident). The nineteen behaviors that were chosen to report the most common deviances of students are presented in Table 1. These behaviors are grouped into three levels according to the severity of the disruptive behavior and its influence on the course of the session (Table 1).

Table 1. Disruptive behaviours of students:

The first level disruptive behaviors (DB₁)	The second level disruptive behaviors (DB₂)	The third level disruptive behaviors (DB₃)
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Disruptive behaviors that have a weak influence on the life of the class, but which can disturb the teacher.	Disruptive behavior likely to disturb the class in the short or medium term.	Disruptive behaviors that actually disturb the good flow of the class when they occur.
Behaviours	Behaviours	Behaviours
<input type="checkbox"/> Distracted <input type="checkbox"/> Bavarde <input type="checkbox"/> Late <input type="checkbox"/> No costume <input type="checkbox"/> Leaving the classroom	<input type="checkbox"/> Fooling around <input type="checkbox"/> Squabbling <input type="checkbox"/> Bulling <input type="checkbox"/> Making noise <input type="checkbox"/> Deforming the rules <input type="checkbox"/> Violates the rules voluntarily <input type="checkbox"/> Giving up practice	<input type="checkbox"/> Criticizing <input type="checkbox"/> Lashing out at matériel <input type="checkbox"/> Mugging <input type="checkbox"/> Dangerous behaviour <input type="checkbox"/> Being rude <input type="checkbox"/> Ridiculing <input type="checkbox"/> Resisting instructions

The possible reactions that the teacher can adopt when there is an emergence of non-observances are twelve in number and are related to the three types of pedagogy (normative: behaviors of imposition, libertarian: permissive behaviors, interactive: behaviors of affirmation and openness). Categories of teacher reactions are presented in Table 2.

Table 2. The reactions of trainees.

Normative imposition	Libertarian Permissive	Interactive affirmation	
		<i>Assertion behaviour</i>	<i>Assertion behaviour</i>
The reactions lead students to execute orders that are transmitted authoritatively and without the right to appeal.	Permissive reactions are characterized by behaviors in which students are virtually left to their own devices.	The teacher expresses his needs by applying sanctions as consequences to the breaches of rules known but not	The teacher opens up to the needs of students so that they can decide for themselves, express themselves, negotiate and take charge.

**respected by the
students.**

- Dictate a	- Make a reminder	- Apply a consequence	- Describes the behavior
- behaviour	- Ignore	- Give a reason.	- Express feelings
- Reprimand			- Recognize feelings
- Designate a			- Attracting arrangement .
- consequence.			- Encouragement

The coding

Two coders were trained in the use of DIOS for coding video recordings. The coders first worked as a team to become familiar with the observation grid and master all its components. There was a need to practice classifying DB that occur during PET sessions. In the second place, comes the individual coding followed by the confrontation of the grids which showed some divergences. It was therefore necessary at times to return to the definitions of the components of the grid to ensure the compliance of the DB and agree on the same interpretation.

After the training period, the coding of the two coders was subjected to the fidelity test several times before starting the final coding.

Statistical Analysis

The set of dependent variables related to time of learning have been identified by a grid of observation measuring the time of performance of the duties mentioned above.

We used a software of statistical “Statistical Package of Social Science” SPSS 16.0. The threshold of meaning withheld is of 0.05.

Inference statistics

Given the small number of observations and the non-normality of the distribution of the whole of the values of the variables, we chose the Mann-Whitney U-test of independent samples and Wilcoxon signed rank test of associated samples to compare the values of

the variables related to the learning time of two groups of trainee teachers.

Results

Disruptive behaviour of students before and after training:

The results shown in **Table 3** show the frequency of onset of disruptive behaviour before and after training in both groups of trainee students.

Table 3. Frequency of disruptive behavior adopted by students before and after training in ten sessions led by student physical education trainees.

Disruptive Behaviors	Before the training (T0)		After the training (T1)	
	Control group	Experimental group	Control group	Experimental group
Level 1	298 (42.27%)	259 (40.72%)	231 (40.17%)	184 (41.82%)
<input type="checkbox"/> Distracted		70 (11.01 %)	57 (9.91%)	57 (12.95 %)
<input type="checkbox"/> Talkative	87 (12.34 %)	163 (25.63 %)		
<input type="checkbox"/> Late			124 (21.57%)	116 (26.36 %)
<input type="checkbox"/> No costume	158 (22.41 %)	19 (2.98 %)		
<input type="checkbox"/> Leaving the classroom			21 (3.65 %)	08 (1.82 %)
	34 (4.82 %)	07 (1.1 %)		
	16 (2.27 %)	00 (00 %)		02 (0.45 %)

	03 (0.43 %)		26 (4.52 %)	01 (0.23 %)
			03 (0.52 %)	
Level 2	354 (50.21%)	330 (51.89%)	300 (52.17%)	219 (49.77%)
<input type="checkbox"/> Fooling around		27 (4.25 %)	19 (3.3 %)	
<input type="checkbox"/> Squabbling	24 (3.4 %)			06 (1.36 %)
<input type="checkbox"/> Bulling	126 (17.87 %)	109 (17.14%)	94 (16.35 %)	78 (17.73 %)
<input type="checkbox"/> Making noise		72 (11.32 %)		
<input type="checkbox"/> Deforming the rules	52 (7.37 %)	51 (8.02 %)	31 (5.39 %)	46 (10.45 %)
<input type="checkbox"/> Violates the rules voluntarily	84 (11.91 %)	43 (6.76 %)	68 (11.83 %)	
<input type="checkbox"/> Giving up practice		19 (2.99 %)		53 (12.05 %)
	49 (6.95 %)		71 (12.35 %)	
		09 (1.41 %)		24 (5.45 %)
	13 (1.84 %)			
			17 (2.95 %)	12 (2.73 %)
	06 (0.85 %)			
			00 (00 %)	00 (00 %)
			00 (00 %)	

Level 3	53 (7.52%)	47 (7.39%)	44 (7.65%)	37 (8.41%)
<input type="checkbox"/> Criticizing	07 (0.99 %)	04 (0.63 %)		03 (0.68 %)
<input type="checkbox"/> Lashing out at matériel	08 (1.13 %)	06 (0.94 %)	05 (0.87 %)	06 (1.36 %)
<input type="checkbox"/> Mugging	05 (0.71 %)	07 (1.1 %)	09 (1.57 %)	08 (1.82 %)
<input type="checkbox"/> Dangerous behavior	12 (1.7 %)	08 (1.26 %)		05 (1.14 %)
<input type="checkbox"/> Being rude			05 (0.86 %)	
<input type="checkbox"/> Ridiculing	06 (0.85 %)	06 (0.94 %)		04 (0.91 %)
<input type="checkbox"/> Resisting instructions	02 (0.28 %)	00 (00 %)	07 (1.22 %)	00 (00 %)
	13 (1.84 %)	16 (2.52 %)		11 (2.5 %)
			06 (1.04 %)	
			03 (0.52 %)	
			09 (1.57 %)	
	705	636	575	440
Total	1341		1015	

Before training, the absolute frequency is expressed as a function of all the disturbing behaviours (n = 1341) with an average of 67.05 disruptive behaviour per session and 1.3 disruptive behaviour per minute. This very high number of disturbing behaviours (DB) coded prior to the start of training was divided into 705 DB occurring in the ten sessions presented by the control group and 636 DB occurring in the ten sessions presented by the experimental group.

After training, the absolute frequency is expressed as a function of the set of disruptive behaviours (n = 1015) with an average of 50.75 DB per session and 1.01 DB per minute. This number of DB coded after the training, divided into 575 DB occurred in the ten sessions presented by the control group and 440 DB occurred in the ten sessions presented by the experimental group.

For **the control group**; during the first two months of work experience preparation (T0); the classification of disruptive behaviours by level shows that about 50.12% of the behaviours are of second level, that is to say that they are likely to disturb the class in the short or medium term. More specifically, the behaviours " Fooling around " (24), "Make noise" (84), " Squabbling " (126), and " Bulling " (52) are the second most commonly reported second-level deviances.

First-level disruptive behaviours, which have a small influence on the life of the class but may still disturb the student trainee, account for approximately 42.27% of disruptive behaviours adopted by students. The main deviances of this category are "Talkative " (158) and "Distracted" (87). Third-level disruptive behaviours, which actually disturb the good progress of the class from the moment they occur, are much less frequent (7.52%) and are expressed mainly by deviances such as " Resisting instructions" (13)," Dangerous behaviour "(12).

Finally, it is interesting to note that the disruptive behaviours "Distracted" and "Talkative" (first level) as well as " Squabbling " and " Making noise" (second level) alone account for 64.54%.

At the end of the work experience preparation course (T1); 52.17% of the behaviours are second level. More specifically, the behaviours " Squabbling " (94), " Deforming the rules " (71) and " Making noise" (68), constitute the most often identified deviances.

First-level disruptive behaviours account for approximately 40.17% of the disruptive behaviours adopted by students. The main deviances of this category are "Talkative" (124) and " Distracted" (57).

At the level of third-level disruptive behaviour, which accounts for 7.65% of all disruptive behaviours and is expressed mainly by deviances such as " Resisting instructions " (09), " Lashing out at matériel" (09). It is interesting to note that disruptive behaviours "Talkative" (first level) as well as " Squabbling ", " Deforming the rules " and "makes noise" (second level) alone account for 79.55% of all behaviour's disruptors.

Finally, it should be noted that all the disruptive behaviours (1st, 2nd and 3rd level) were reduced by 18.44% at the end of the work experience training period.

For **the experimental group**; before the beginning of the training (T0); the classification of disruptive behaviours by level shows that about 51.89% of the behaviours are second level. More specifically, the " Squabbling" (109) and " Bulling " (72) are the second most frequently identified second-level deviances.

At the level of first-level disruptive behaviours that account for about 40.72% of disruptive behaviours adopted by students. The main deviations of this category are "Talkative" (163) and " Distracted" (70).

Finally, third-level disruptive behaviours are less frequent (7.39%) and are expressed mainly by deviances such as " Resisting instructions " (16), " Dangerous behaviour" (08). Finally, it is interesting to note that the disruptive behaviours " Distracted" and "Talkative" (first level) as well as " Squabbling ", " Bulling" (second level) count alone for 73.11%.

After three months of training (T1), 49.77% of the behaviours are second level. More specifically, the behaviours «Squabbling» (78), «Making noise" (53) and «Bulling " (46), constitute the most frequent deviances.

First-level disruptive behaviours account for approximately 41.82% of the disruptive behaviours adopted by students. The main deviances of this category are "Talkative" (116) and "distracted" (57).

At the level of third-level deviant behaviour which represents 8.41% of all disruptive behaviours and is expressed mainly by deviances such as " Resisting instructions " (11), " Mugging" (08).

We also find that the disruptive behaviours "distracted" and "Talkative" (first level) as well as " Squabbling", " Making noise " and " Bulling " (second level) alone account for 79.55%.

Finally, it should be noted that all the disruptive behaviours (1st, 2nd and 3rd level) suffered a decrease of 30.82% in the control group. Hence, this decrease in the frequencies of appearance of deviant behaviours adopted by the students during the sessions led by the trainee teachers is more important at the experimental group than the control group.

The first level disruptive behaviors (DB₁)

Table 4. Frequency of onset of type 1 disruptive behaviours (DB₁) by session time before and after training in both groups (experimental and control).

Situations	G _{CONT} / G _{Exp}	G _{CONT} / G _{Exp}	Control	Experimental
	T ₀	T ₁	group	group
			(T ₀ → T ₁)	(T ₀ → T ₁)
Before class	P=0.247	P=0.796	P = 1	P = 0.305
Introduction	P= 1	P= 0.19	P = 0.003	P = 0.001
Warming up	P= 0.631	P= 0.971	P =0.002	P =0.00
Explanation	P= 0.353	P= 1	P = 0.000	P = 0.000
DB₁ Transition	P= 1	P= 0.19	P =0.000	P =0.000
Educative	P= 0.063	P= 1	P =0.000	P =0.000
Game	P= 1	P =1.229.10 ⁻⁴	P =0.000	P =0.000
Conclusion	P= 0.315	P =0.007	P =0.000	P =0.007

NOTE: DB₃: disruptive behavior type 3; G_{CONT}: Control group; G_{Exp}: Experimental group; T₀: Observation before the designed training (September 2015); T₁: Observation after the designed training (March 2016).

Before training (T₀), the frequency of onset of Type 1 disruptive behaviours (DB₁) was insignificant between the two groups. This means that there is no difference between the two groups in the frequency of occurrence of DB₁.

After three months of training (at T₁), the frequency of deviant episodes was not significant between the two groups except at the 'Game' (p = 1.229.10⁻⁴) and 'conclusion' moments (p = 0.007). In situations of 'play' and 'conclusion', the frequency of occurrence of these behaviours was greater in Control group than Experimental group.

At the end of the vocational training course, the variation in the frequencies of DB₁ appearances decreased significantly in both groups (Control group and

Experimental group). However, at the time before the course the frequencies of appearance of the **DB₁** remain very high for the Control group ($p = 1$) and the Experimental group ($p = 0.305$).

The second level disruptive behaviors (DB₂)

Table 5. Frequency of onset of Type 2 Disruptive Behavior (DB₂) by session time before and after training in both groups (experimental and control).

Situations	G_{CONT} / G_{Exp}	G_{CONT} / G_{Exp}	Control	Experimental
	T_0	T_1	group ($T_0 \rightarrow T_1$)	group ($T_0 \rightarrow T_1$)
Before class	$P = 0.481$	$P = 0.796$	$P = 0.001$	$P = 0.001$
Introduction	$P = 0.143$	$P = 0.481$	$P = 0.000$	$P = 0.000$
Warming up	$P = 0.247$	$P = 3.2 \cdot 10^{-4}$	$P = 0.000$	$P = 0.001$
Explanation	$P = 0.739$	$P = 0.912$	$P = 0.000$	$P = 0.000$
DB₂ Transition	$P = 0.143$	$P = 0.015$	$P = 0.001$	$P = 0.000$
Educative	$P = 4.8 \cdot 10^{-8}$	$P = 1.08 \cdot 10^{-5}$	$P = 0.000$	$P = 0.000$
Game	$P = 0.247$	$P = 0.436$	$P = 0.000$	$P = 0.000$
Conclusion	$P = 0.353$	$P = 0.015$	$P = 0.000$	$P = 0.001$

NOTE: DB_3 : disruptive behavior type 3; G_{CONT} : Control group; G_{Exp} : Experimental group; T_0 : Observation before the designed training (September 2015); T_1 : Observation after the designed training (March 2016).

Before training (T_0), the frequency of onset of Type 2 disruptive behaviors (**DB₂**) was insignificant between the two groups, except at the 'Educative' phase ($p = 4.8 \cdot 10^{-8}$). During this phase, sessions led by the G_{CONT} scored a higher number of **DB₂**.

After three months of training (T1), the frequency of **DB₂** remained insignificant for the following phases: 'Before the course' (p = 0.796), 'Introduction' (p = 0.481), 'Explanation' (p = 0.912) and 'Game' (p = 0.436). While during the warm up situations' (p = 3.2.10-4), 'Transition' (p = 0.015), 'Educational' (p = 1.08.10-5) and 'Conclusion' (p = 0.015); the frequency of **DB₂** is less important in Experimental group than Control group.

At the end of the work experience preparation course, the variation in **DB₂** occurrence frequencies decreased significantly in both groups (Control group and Experimental group).

The third level disruptive behaviors (DB₃)

Table 6. Frequency of onset of type 3 disruptive behaviours (DB3) by session time before and after training in both groups (experimental and control).

Situations	G_{CONT} / G_{Exp}	G_{CONT} / G_{Exp}	Control group	Experimental group
	T ₀	T ₁	(T ₀ → T ₁)	(T ₀ → T ₁)
Before class	P = 0.481	P = 0.143	P = 0.157	P = 0.002
Introduction	P = 0.143	P = 0.739	P = 0.166	P = 0.002
Warming up	P = 1	P = 0.481	P = 0.157	P = 0.058
Explanation	P = 0.143	P = 0.481	P = 0.366	P = 0.003
DB₃ Transition	P = 0.436	P = 0.218	P = 0.01	P = 0.026
Educative	P = 0.796	P = 0.481	P = 0.184	P = 0.032
Game	P = 0.393	P = 0.579	P = 0.007	P = 0.001
Conclusion	P = 0.123	P = 1	P = 0.346	P = 0.007

NOTE: DB₃: disruptive behavior type 3; GCONT: Control group; GExp: Experimental group; T₀: Observation before the designed training (September 2015); T₁: Observation after the designed training (March 2016).

Before the formation (T₀), there is no difference between the two groups at the frequency of occurrence of **DB₃**.

After three months of training (T₁), the frequency of **DB₃** was not significant between the two groups (Control group than Experimental group). However, it should be noted that at the level of the variation of the frequencies of appearances of the **DB₃**, one detects a significant decrease and more important in the Experimental group than the Control group. This decrease appeared mainly in the situations of 'Before class' (p = 0.002), 'Introduction' (P = 0.002), 'Explanation' (p = 0.003), 'Transition' (p = 0.026), 'Educational' (p = 0.032), 'Game' (p = 0.001) and 'Conclusion' (p = 0.007).

For the Control group, at the end of the work-experience training period, the variation in the frequency of **DB₃** was not significant for the 'before class' situations (p = 0.157), 'introduction' (p = 0.166), 'Warming up' (p = 0.157), 'Explanation' (p = 0.366), 'Educative' (p = 0.184) and 'Conclusion' (p = 0.346).

Trainee teachers' reactions to the disruptive behaviour of their students before and after the training

Table 7: Trainee teacher reactions to student disruptive behaviour (DB) before and after the training.

	Before the training		After the training	
	(T ₀)		(T ₁)	
	Control group	Experimen tal group	Control group	Experimen tal group
Reactions of teachers Trainees	F	F	F	F
NORMATIVE IMPOSITION	258	287	223	210

	(46.74 %)	(58.45 %)	(45.05 %)	(51.6 %)
Dictates behaviour	192 (34.78 %)	214 (43.58 %)	151 (30.51 %)	156 (38.32 %)
Reprimand	38 (6.88 %)	52 (10.59 %)	40 (8.08 %)	35 (8.59 %)
Designate a consequence	28 (5.07 %)	21 (4.28%)	32 (6.46 %)	19 (4.69 %)
LIBERTARIAN PERMISSIVE	224 (40.58 %)	161 (32.79 %)	189 (38.18 %)	123 (30.22 %)
Make a reminder	61 (11.05 %)	46 (9.37 %)	79 (15.96 %)	71 (17.44 %)
Ignore	163 (29.53 %)	115 (23.42 %)	110 (22.22 %)	52 (12.78 %)
INTERACTIVE	70	43	83	74
AFFIRMATION	(12.68 %)	(8.76 %)	(16.77 %)	(18.18 %)
<i>1. Assertion behaviour:</i>				
Apply a consequence	13 (2.36 %)	07 (1.43 %)	16 (3.23 %)	14 (3.44 %)
Give a reason	26 (4.71 %)	12 (2.44 %)	21 (4.24 %)	18 (4.42 %)
<i>2. Opening behaviour:</i>				
Describes the behaviour	07	08	12	13

	(1.27 %)	(1.63 %)	(2.42 %)	(3.19 %)
Expresses feelings	13	11	21	19
	(2.36 %)	(2.24 %)	(4.24 %)	(4.67 %)
Recognize feelings	04	00	04	03
	(0.72 %)	(00 %)	(0.81 %)	(0.74 %)
Attracting arrangement	05	05	03	03
	(0.9 %)	(1.02 %)	(0.61 %)	(0.74 %)
Encouragement	02	00	06	04
	(0.36 %)	(00 %)	(1.21 %)	(0.98 %)
Total	552	491	495	407

NOTE: F: frequency of occurrence of disruptive behaviors; T₀: Observation before the designed training (September 2015); T₁: Observation after the designed training (March 2016).

The trainees' reactions to the disruptive behavior of their students are shown in Table 7 and reveals that trainees' Experimental group and Control group reacted 491 and 552 times respectively to disruptive behaviors displayed by their students in ten sessions before the start of the formation (T₀).

The nature of the trainees' reactions reveals that the normative approach is dominant among them (Experimental group and Control group). Indeed, more than 50% of his reactions constitute tax behaviors. The most revealing reactions of this trend for both groups are "dictates behavior" and "reprimand". In addition, the Control group is regularly libertarian (40.58%) than the Experimental group (32.79%). Finally, it should be noted that the interactive pedagogy is far from being used by the trainees of the two groups: Control group (12.68%) and Experimental group (8.76%) at the beginning of the internship preparation to professional life. After 3 months of training,

the reactions of training teachers to the DBs of pupils reach 495 for GCONT and 407 for GEXP during 10 sessions after the end of the training.

After the training, the normative approach dominates the nature of the reactions of the trainees of the two groups (Experimental group and Control group). In fact, the tax behaviors cover more than 45% of Control group and 51.6% of Experimental group reactions. The most revealing reactions for both groups remain "dictates behavior" and "reprimand". In addition, the Control group is regularly libertarian (38.18%) than the Experimental group (30.22%). Finally, it should be noted that the Experimental group after the training was more interactive in its reactions to their students than the Control group since they reach 18.18% of the reaction set, while the Control group reaches 16.77%.

Discussion

At the level of disruptive behaviors (DB), the data collected with the help of DIOS first showed that the courses run by trainee students during a work experience training course show a high degree of disruption since there is a rate of 1.3 and 1.01 DB per minute. We also find that the highest number of deviant student behaviors was second-level (DB2) with a percentage of over 49% of all behaviors. In addition, all type 1 and 2 disruptive behaviors constitute 90% of inappropriate behaviors and are behaviors with little influence on the life of the class when they appear. Whereas, third-level deviances, which actually interfere with the smooth running of the class from the moment they occur, are much less frequent and constitute between 7% and 8% of students' deviant behavior during sessions led by trainee students. These results are clearly in line with other research using "DIOS" [16].

For first-level disruptive behavior (DB1), the frequency of onset was insignificant between the two groups (Control and Experimental group) during the

different moments of the session, at the beginning of the internship preparation to professional life. Indeed, DB1 represents approximately 42.27% for the Control group and 40.17% for the Experimental group. This is consistent with the study by 'Stephan Dostie' [15] who states that students commit particularly high-level non-observances when they are close to the teacher during periods of explanation.

After three months of training (T1), the frequency of deviant episodes was insignificant between the two groups except at the 'Game' ($p = 1.229.10^{-4}$) and 'conclusion' moments ($p = 0.007$). In both situations, the frequency of occurrence of these deviant behaviors was greater in the Control group than the Experimental group. This is explained by trainees' ignorance behaviors to disruptive behaviors in certain phases of the session, which encourages their repetition and even their amplification [7].

However, the high frequency of disruptive behaviors in the classes observed suggests a more specific analysis of the moments when these non-observances occur. Indeed, the variation of the frequencies of appearances of DB1 underwent a significant decrease in the two groups (Control group and Experimental group) except at the moment 'Before the course' the frequencies of appearance of the DB1 remains very high for the Control group ($p = 1$) and the Experimental group ($p = 0.305$). Indeed, during this moment of the session, the trainee is focused on the preparation and organization of the students, materials ... This result converges with the research of "**Wahl-Alexander Z. & Curtner-Smith M.D**" [26] which asserts that the deranging behaviors of students are more likely to occur during organizational periods than during explanations or practice periods. Likewise, it should be noted that the main deviances in this category before and after training for both groups were "Talkative" and "Distracted".

For second-level disruptive behaviors (DB2), the frequency of onset was not significant between the two groups and represented approximately 50.21% for the

Control group and 51.89% for the GEXP. Thus, the sessions led by the trainees of the Control group marked a higher number of DB2 at the 'Educational' moment ($p = 4.8.10^{-8}$). This is translated by "Ménard L." [18] who found that the attitude of students varies according to the situation, according to the more or less important importance of the rules to which teachers are attached when they teach.

After three months of training (T1), the frequency of DB2 remained insignificant at the following times: 'Before class', 'Introduction', 'Explanation' and 'Game'. Indeed, the DB2 remained very frequent during these sessions led by the two groups of trainees. This is the result of greater freedom of action and interaction between students during these moments of the session [17]. While during the warm-up situations' ($p = 3.2.10^{-4}$), 'Transition' ($p = 0.015$), 'Educational' ($p = 1.08.10^{-5}$) and 'Conclusion' ($p = 0.015$); the frequency of DB2 are less important in Experimental group than the Control group. This can be explained by the fact that trainees who have been trained in "Body language and public speaking" are more interactive with students in the classroom. Hence, the pupil is not in a situation of spectators where the possibilities of adopting inappropriate behavior are numerous [27].

However, the variation in the frequency of DB2 appearances at the end of the 'internship preparation to professional life', was significantly reduced in both groups (Control group and Experimental group).

Similarly, it should be noted that the main deviations of this category before and after the training for both groups were s "chamaille".

At T0, the frequency of onset of third-level disruptive behaviors (DB3) was insignificant between the two groups (Control group and Experimental group) at different times of the session. Indeed, the DB3s represent approximately 7.52% for the Control group and 7.39% for the Experimental group of the set of behaviors.

At T1, the frequency of the DB3s was no significant between the two groups (Control group than the Experimental group). However, it should be noted that at the level of the variation of the frequencies of appearances of the DB3, a significant decrease is detected and more important in the Experimental group than the Control group. For the Experimental group, this decrease appeared mainly in the situations of 'Before class' ($p = 0.002$), 'Introduction' ($P = 0.002$), 'Explanation' ($p = 0.003$), 'Transition' ($p = 0.026$), 'Educational' ($p = 0.032$), 'Game' ($p = 0.001$) and 'Conclusion' ($p = 0.007$). Whereas at the level of the sessions led by the Control group, the variation of the frequency of the DB3 were not significant in the situations of 'Before the course' ($p = 0.157$), 'Introduction' ($p = 0.166$), 'Warming up' ($p = 0.157$), 'Explanation' ($p = 0.366$), 'Educational' ($p = 0.184$) and 'Conclusion' ($p = 0.346$). These results converge towards the study of “**Cicurel F.**” [10] who asserts that the high frequencies of DB3 is one of the clues for the teacher that these episodes are too long for the attention span of his students and that these organizational routines are no longer effective.

Faced with the various disruptive behaviors, normative pedagogy dominates the nature of the reactions of the trainees of the two groups (Experimental group and Control group) along the internship preparation to professional life. In the same way, trainee students are also quite permissive but rarely use interactive pedagogy. This propensity for normative pedagogy is relatively constant regardless of the level of disruptive behavior involved. This finding is explained by the rather limited repertory index of trainees' reactions to these behaviors [1].

However, it should be noted that trainees trained in "Body language and public speaking" were slightly more interactive in their reactions to the different deviant behaviors of their students than other trainees.

In terms of finalization, the data collected with the help of the DIOS at the end of the work experience preparation period first allowed us to note the high frequency of disruptive behaviors in the sessions observed. More specifically, more than 90% of these non-observances may potentially disturb the class in the short or medium term (DB1 and DB2). For third-level deviances (DB3), which actually disturb the smooth running of the class from the moment they occur, are much less frequent and constitute between 7% and 8% of non-observances shown by students.

In addition, disruptive behaviors appear more frequently at certain times of the session. In fact, students regularly adopt inappropriate behaviors during transitions, explanations, educational and play situations [25]. However, in the course of the sessions led by trainee students who have undergone the training of "Body language and speaking in public "; the frequency of occurrence of DB1 and DB1 are slightly lower. For DB3s, a larger decrease was detected in sessions led by trainees who attended the training than their counterpart.

On the other hand, normative pedagogy dominates the nature of student trainees' reactions to the different disruptive behaviors along the internship preparation to professional life. While, the trainees who attended the training were slightly more interactive in their reactions to the different deviant behaviors of their students than the other trainees.

Conclusions

From the data collected with the help of the DIOS, it can be deduced that the courses directed by trainee students during work readiness internships show a high degree of disruption, since there is a rate of 1.3 and 1.01 DB per minute. In addition, all Type 1 and Type 2 disruptive behaviors constitute 90% of inappropriate behaviors and they are a little influence on the life of the class when they occur. Whereas, third-level

deviances, which actually interfere with the smooth running of the class from the moment they occur, are much less frequent and constitute between 7% and 8% of students' deviant behavior during sessions led by trainee students.

However, the frequency of onset of disruptive behaviors (DB1 and DB2) is slightly lower in sessions facilitated by trainees who have been trained in "Body language and public speaking". Similarly, at the level of disruptive behaviors (DB3), the trainees who underwent the training realized a greater decrease in the frequency of appearance of these behaviors.

Faced with these disruptive behaviors, the trainees who attended the training were slightly more interactive in their reactions during the sessions.

The results of our studies illustrate the reality of the practice of future teachers during the internship preparation to professional life. Indeed, they constitute a repertoire to perceive the different disruptive behaviors of students and the reactions of trainee students to these behaviors.

By this presentation, our work can certainly be used as part of the initial training of PET and in formalizing the professional skills repository.

References

- Amamou S., Desbiens J.F., Spallanzani C., & Vanderclayen F. (2017). La perception du sentiment d'efficacité personnelle à gérer la classe par des enseignants stagiaires au milieu de leur formation en éducation physique. [The perception of a sense of personal effectiveness in managing the classroom by student teachers in the midst of their physical education training.] *Revue PhénEps*, 9(1), 1-18.
- Bangir Alpan, G., Özer, A., Koç Erdamar, G., & Subasi, G. (2014). The development of a student teacher concerns scale.
- Boizumault M. (2013): Les communications non verbales des enseignants d'Education Physique et Sportive: Formes et fonctions des CNV, croyances et réalisation effective des enseignants, ressenti des effets par les élèves. [Non-verbal

- communications of teachers of Physical and Sports Education: Forms and functions of NVCs, beliefs and effective achievement of teachers, felt effects by students.] Doctoral thesis defended on November 19, 2013. Université Claude Bernard - Lyon 1.
- Beckers J. (2009). Learn from their professional action and from their reflection on this action. Liège: IFRES Conference. [Online]. Page consulted on February 20, 2011.
<http://orbi.ulg.ac.be/bitstream/2268/21230/2/Communication%20IFRES%202009.pdf>
- Beckers J. (2012). Competency-based approach and reduction of inequalities between pupils: from the analysis of school situations to teacher training. *Pédagogies en développement*. ISBN/ISSN/EAN: 978-2-8041-6871-1.
- Blais M., & Martineau, S. (2006). The General Inductive Analysis: Description of an Effort to Make Sense of the Raw Data. *Qualitative Research*, 26, 1-18.
- Brunelle, J., Brunelle, J.P., Gagnon, J., Goyette, R., Martel, D., Marzouk, A. et Spallanzani, C. (1993). *Système d'observation d'incidents disciplinaire (SOID) [Disciplinary Incident Observation System (DIOS)]*. Québec: L'intervention éducative, Département d'éducation physique, Université Laval.
- Chan K.-W. & Elliott R. G. (2004). Relational analysis of personal epistemology and conceptions about teaching and learning. *Teaching and Teacher Education*, 20 (8), 817-831.
- Charles, C.M. (1997). *La discipline en classe : Modèles, doctrines et conduites [Discipline in the Classroom: Models, Doctrines and Behaviours]*. Montréal: Éditions du Renouveau Pédagogique Inc.
- Cicurel F. (2011). *De l'analyse des interactions en classe de langue à l'agir professoral : une recherche entre linguistique interactionnelle, didactique et théories de l'action [From the analysis of interactions in language class to teaching action: a research between interactional linguistics, didactics and theories of action]*. Paris: Didier.
- Clément R., & Noels K. (2006). *Social communication: Interpersonal and intergroup aspects, The foundations of social psychology*. Quebec: Gaëtan Morin Editor.
- Crahay M., & Laduron I. (2009). *Les croyances des enseignants peuvent-elles évoluer? Fonctions, origines et évolution des croyances des enseignants. [Can teachers'*

- beliefs change? Functions, origins and evolution of teachers' beliefs.]. *Revue Française de Pédagogie*.
- Desbiens, J.F., Lanoue, S., Turcotte, S., Tourigny, J.S., & Spallanzani, C. (2009). Perception de la fréquence d'apparition des comportements perturbateurs par des stagiaires en enseignement de l'éducation physique et à la santé (ÉPS). [Perception of the frequency of occurrence of disruptive behaviours by trainees in physical education and health education (PSE)]. *Nouveaux cahiers de la recherche en éducation*, 12(2), 179–193.
- Desbiens, J.F., Spallanzani, C., Turcotte, S., Roy, M., Lanoue, S., & Tourigny, J.S. (2014). A multi-referenced analysis of the quality of learning climate in health and physical education student teaching. *Sport Science Review*, 23(5–6), 175–204. Doi: 10.1515/ssr-2015-0001.
- Dostie S. (1996): thesis “analysis of disciplinary incidents experienced by physical educators in elementary school”. September 1996. University of Quebec.
- Hodges Kulinna P., Cothran C.J. & Regualos R. (2006). Teachers' reports of student misbehaviour in physical education. *Research Quarterly for Exercise and Sport*, 77(1), 32-40.
- Maddeh, T., Hermessi, S., Bennour, N., & Souissi, N. (2015a). Student teachers' reactions responding to students' disruptive behaviours: A case study in high school education in Tunisia. *Creative Education*, 6, 1121–1128.
- Maddeh, T., Bennour, N., & Souissi, N. (2015b). Study of students' disruptive behaviour in high-school education in physical education classes. *Advances in Physical Education (APE)*, 5, 143–151.
- Ménard L., Legault F., & Dion J. S. (2012). Impact of Teacher Training and Supervision in the Sense of Self-Efficacy of New Teachers College. *Canadian Journal of Education*, 35, 212-231.
- MEQ (2001): [Ministry of Education, Government of Quebec (2001). *The Training of Vocational Education. The Guidance, Vocational Skills.*]
- Moulin J-F. (2004), “The silent discourse of the teaching body. The teacher's non-verbal communication in classroom practices ”, *Carrefours de l'Education*, 1/2004, n ° 17, p.142-159.
- Perrenoud Ph. (2001). *Develop reflective practice in the teaching profession. Professionalization and educational reason.* Paris: ESF.

- Provencher G. (1983). Skills for effective pedagogical communication among teachers of vocational education. *Journal of Educational Sciences*.
- Ria L., Sève C., Durand M., & Bertone S. (2004). Uncertainty, Contradiction and Exploration: Three Typical Experiences of Beginning Teachers in Physical Education. *Review of Educational Sciences*, 30, 535-554.
- Richmond V. P., Wrench J. S., & Gorham J. (2001). *Communication, affect, and learning in the classroom*. Acton, MA: Tapestry Press.
- Supaporn, S., Dodds, P., & Griffin, L. (2003). An ecological analysis of middle school misbehaviour through student and teacher perspectives. *Journal of Teaching in Physical Education*, 22(3), 328–349.
- Wahl-Alexander Z., & Curtner-Smith, M.D. (2015). Influence of negotiations between preservice teachers and pupils on instruction within multiactivity and sport education units. *Sport, Education and Society*, 20(7), 838–854. Doi: 10.1080/13573322.2013.835257.
- Whear, R., Thompson-Coon, J., Boddy, K., Ford, T., Racey, D., & Stein, K. (2013). The effect of teacher-led intervention on social and emotional behaviour in primary school children: a systematic review. *British Educational Research Journal*, 39 (2), 383–420
- Yuan, X., & Lin, C. (2012). How to deal with student misbehaviour in the classroom? *Journal of Educational and Developmental Psychology*, 2(1), 143–150.