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## The Role of the Teaching Style adopted by the Physical and Sports Education Teacher in Fostering Motivation in Middle School Pupils

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### ABSTRACT

This study aims to identify the relationship between teaching style(s) in physical and sports education (PSE) and motivation in middle school pupils and the extent to which these styles might motivate them to engage in physical activity, for this purpose, we used the descriptive research method, on a sample composed of 30 pupils randomly chosen, and for data collection, we used the questionnaire tool and a direct observation grid. After collecting the results and having treated them statistically, we conclude there is a significant increase in motivation amongst these preadolescents to physical practice, due to the teaching style adopted. On this basis, the study recommended the motivational teaching style be used more in the classroom for better achievement of motor tasks, and that it be replicated over a longer period of time by including other research tools for more authentic and generalisable results.

**Keywords:** PSE, Preadolescence, Teaching style, Motivation.

### المخلص

تهدف الدراسة للتعرف إلى العلاقة بين أسلوب (أساليب) التدريس في التربية البدنية والرياضية و الدافعية لدى تلاميذ الطور المتوسط، وإلى أي درجة قد تحفزهم هذه الأساليب على ممارسة النشاط البدني، لهذا الغرض، استخدم الباحث المنهج الوصفي، على عينة مكونة من 30 تلميذاً تم اختيارهم عشوائياً، ولجمع البيانات، استخدمت كل من أداة الاستبيان وشبكة الملاحظة المباشرة. بعد جمع النتائج ومعالجتها إحصائياً، استنتج الباحث أن هناك زيادة ذات دلالة في الدافعية لدى أطفال مرحلة ما قبل المراهقة للممارسة البدنية، و يعود السبب لأسلوب التدريس المعتمد. على هذا الأساس، أوصت الدراسة باستخدام أسلوب التدريس التحفيزي (المثير للدافعية) بشكل أكبر في القسم لأداء أفضل للمهام الحركية، وأن يتم تنبيه مجدداً على فترة زمنية أطول من خلال تضمين أدوات بحث أخرى للحصول على نتائج أكثر واقعية ودقة وقابلة للتعميم.

**الكلمات المفتاحية:** التربية البدنية و الرياضية، مرحلة ما قبل المراهقة، أسلوب التدريس، الدافعية.

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## **INTRODUCTION**

The reform of Algerian school curricula, using the competency-based approach, is intended to continually generate changes in teaching practices so as to place the pupil at the centre of learning. In this sense, the researcher, in this study, focuses on the act of teaching in physical and sports education (PSE) and its impact on the motivation of pupils, which, most often, is not very tangible, without an internal and/or external force being involved.

If we assume that the PSE teacher, like teachers of other school subjects, represents this external force, the question he or she would ask is how to motivate his or her pupils and to what degree, hence the problem of this study. To do this, we must first identify the notion of motivation.

Scientifically, it is the "hypothetical construct used to describe the internal and/or external forces producing the initiation, direction, intensity and persistence of behaviour" (Vallerand & Thill, 1993, p.18). For the pupil, the teacher represents an external force that can indeed impact on his or her motivation. Moreover, a number of research studies deduce that there is not a single motivation but rather a number of motivations, some of which are highly beneficial to the individual. The researcher, in his or her problem, would try to bring out the relationship between the type of teaching adopted and the unforced motivation of pupils for learning tasks in PSE in the middle school.

### **The research problem**

Given the benefits of physical exercise in daily life, both for health and personal development, the Algerian education system, through official texts, has considered the issue and decided to integrate the subject of PSE in schools at all levels. And given the specificity of the discipline, based in particular on movement, in addition to the sensitivity of the pre-adolescent phase that the pupil of the middle cycle is going through, the PSE teacher must be competent in order to be able to transmit his taste for physical practice to his pupils by motivating them and consequently to achieve the expected objectives of the subject in question. Hence the following problematic:

To what extent can the teaching style adopted by the PSE teacher contribute to the development of motivation in pupils of the middle school?

### **Main hypothesis**

The teaching style used by the PSE teacher can contribute to the development of motivation in pupils of the middle school.

### **The significance of research**

The aim of the research is mainly the following:

- To find out the reason for the lack of interest and/or avoidance of physical and sports exercise by pupils.
- To remedy the blatant lack of self-determined motivation amongst pupils.
- To determine the impact of the PSE teacher on the development of self-determined motivation.
- To know the degree of impact of motivation on the success of the physical and sports education session.
- To help PSE teachers cope with the challenging difficulties they face in carrying out their duties.
- To move towards a new understanding of the objectives of PSE and its relationship to motivation.
- To investigate the constraints faced by the teacher in developing students' motivation.

### **Some definitions of concepts**

• **Physical and Sports Education (PSE) teacher:** The PSE teacher is defined as the sole source of information and the sole leader in the educational process (Mahmoud Saâd, and Ramzi Fahim, 2004).

And the operational definition as prospected by the researcher in this study is the one based on the definition of (Ward & Barret, 2002; Ward, 2007) qualifying the effective PSE teacher as the one who employs the right procedures to make their pupils progress. And this implicitly refers to how to motivate the pupil.

• **Teaching style:** If style is defined as a personal way of acting, behaving..., in education, teaching style is considered as a particular way of organising the teacher-taught relationship in a learning situation, without prejudging the strategies used.

Therer and Willemart (1984) attempted to identify and describe four teaching styles that are representative of observable pedagogical practices, which the current study draws on in the operational definition of the concept of teaching style:

- Transmissive style, which is more subject-centred;
- Incentive style, both subject and learner-centred;
- Associative style, more learner-centred;
- Permissive style, very little focus on both learners and subject matter.

*Teaching styles* were defined by Muska Mosston as a framework in the relationships between the teacher and the student and the duties they perform, and it is a guide for choosing the appropriate style to reach the goals of the studied transition within the existing options to ensure compatibility and harmony of the goal with the work (Kecili, Dj., Ouchene, B., 1918, p. 289-290).

• **Motivation:** The most appropriate definition of this concept is the following:

Motivation refers to the action of all the conscious or unconscious forces that push us to act in a certain direction, to adopt certain behaviour.

And according to some researchers,

Motivation is the selection, energisation and direction of behaviour (McCelland, 1988).

Motivation is defined as the process that determines how energy is used to satisfy needs (Pritchard & Payne, 2003).

Motivation means the switching on of some pattern of behaviour, of a programme of action specified within the individual – motivation is what makes people tick (Laming, 2004).

Ahmed Hussein (1988) has identified six factors that make up motivation: perseverance and continuous desire for achievement, dedication to work, success, showing off, ambition and desire for self-affirmation.

Motivation, as perceived in this research, comes from the theory of school motivation, which is essentially derived from approaches such as: achievement motivation, behavioural approach, self-determination approach and social-cognitive approach. And the most relevant from the researcher's viewpoint, remains that of achievement, which is based on the concept of the need for achievement, a motivation that is supposed to be for performance or for the success of learning, given that the concept of the need for achievement is defined as the desire to do things quickly and well, to overcome obstacles, to succeed in difficult activities and to achieve high levels of efficiency. This

definition can be applied in the school learning process in general and in physical and sports education field in particular.

• **Preadolescence:** Pre-adolescence, also known as early adolescence, whose age (11-15 years) corresponds precisely to the transition from primary school to middle school, is not the end of childhood, as the desires and habits of the latter continue to drive the actions of pre-adolescents (Delalande, Dupont & Filisetti, 2010). Rather, pre-adolescence is a phase of preparation for leaving childhood and assuming the identity of an adolescent. It is an in-between period and, in this sense, pre-adolescence itself can be seen as a period of margin between childhood and adolescence. It is a transitional state, an intermediate stage, a preparation phase, during which children as well as parents and teachers look for reference points to guide their actions. The transition from child-schooler to pre-adolescent-college pupil shows that there is at the same time a change of school status and a change of age group, this age group having itself a biological and cultural dimension: pre-adolescents are prepubescents, their body begins to operate its transformation; pre-adolescents identify themselves by a new age culture, they give up partly their childish culture. In the end, the term pre-adolescent condenses in one word the social, cultural and biological issues at stake in these years. It allows us to try to understand how these issues are intertwined, how one transformation (social, cultural and biological) gives its dynamics to the other, drives it and supports it. And since the school environment is the privileged place for learning, empowerment and socialisation of children, in addition to the importance of the teacher-taught relationship in learning, the quality of which has a determining impact on performance and behaviour (Janosz and Deniger, 2001), the consequences of the type of teaching adopted by the PSE teacher on the motivation of the pupil, who is already quite fragile due to his or her pre-adolescent age, were the subject of particular attention in the current study.

### **Previous and similar research**

There are different types of motivation that can explain human behaviour. Thus, certain tasks or certain behaviours would be fuelled by "autonomous motivation", i.e., at the initiative of the person, chosen, spontaneous, whereas others would be fuelled by "constrained, obliged motivation, controlled by pressures" (Sarrazin, Pelletier, Deci & Rayan, 2011, p.274). The idea is that every human being has three basic needs directly related to their well-being: the need for competence, the need for social proximity and the need for autonomy. It is the social environment that causes the threat or satisfaction of

these needs (Delas & al., 2013, p.38). And given that in education, the teacher is seen as a crucial part of the pupil's social environment. His or her actions, behaviours and words therefore have a telling effect on the satisfaction or threat of these basic needs. The continuation of the researcher's ideas, in the current study, is exclusively inspired, therefore, by the research carried out by a PSE teacher named Bénédicte Reynaud, whose title is:

*“Motivating pupils in PSE through his or her teaching style”*

The data from this teacher's study reflects identifiable teacher behaviours and their consequences for the above-mentioned needs of pupils.

Her problematic, therefore, is whether or not the autonomy-supporting teaching style in PSE would be able to increase pupils' self-determined motivation for physical activity in primary school? To do so, she needed to measure, in addition to her own motivational style based on the need for autonomy, the degree of self-determination in the practice of PSE among her pupils and the satisfaction of their need for autonomy, opting for a sample of six (6) pupils in the primary cycle, and a simplified questionnaire consolidated by a direct observation grid, as research tools.

She concluded that her motivational style had indeed evolved towards more autonomy support and that the primary school teacher can, by being trained in the theory of self-determined motivation and the benefits of an autonomy support style, evolve his or her motivational style in such a way that it would be able to positively impact on pupils' self-determined motivation, although the latter is difficult to measure.

The researcher of the current study, drawing on the results obtained through the above-mentioned research, has tried to maintain practically the same experimental protocol, but using a larger sample for greater authenticity and especially from the middle school, where the age of the pupils is very sensitive due to the multiple changes to which they (the pupils) are subject.

Furthermore, here the researcher does not focus on a single motivational teaching style, but rather on a variety of styles, assuming that there is no single good style, and similarly for motivation, the study here does not look at it in fragments but rather as a whole, hence the difference.

## **Interpretation of the findings after studying the questionnaires**

### **Method of investigation**

The researcher's investigation was based on experimentation with a sample of 30 pupils from the middle school in the age range of 11 to 12 years.

The descriptive method was used, using the questionnaire as a relevant research tool, especially since this type of method, in this case the descriptive method, would seem to be important in the field of sport, if we knew that many of the variables correlated with education require description and explanation and still need to understand the relationships that link these variables with other variables (Alawi & Kamel Rateb, 1999, pp.139-140).

Before answering the questionnaire, the subjects were given recommendations and guidelines appropriate to the research topic.

The PSE teacher, here, participates in the experimentation through his actions and behaviours reflecting the teaching style(s) implemented. The researcher observes and takes notes throughout the experiment using an observation grid.

### **The study variables**

The independent variable: The teaching style or styles adopted by the PSE teacher.

The dependent variable: The motivation of pupils in the middle school.

### **Sampling**

As mentioned above, the sample consists of 30 pupils (girls and boys) in their first year of study at the middle school, the majority of whom are being introduced to sport for the first time.

### **The data collection tool**

The researcher constructed a simplified and adapted questionnaire for the pupils selected in the sample that is intended to allow statistical inferences. It contains precise and clear numbered questions in order to avoid errors that could bias it. These questions correlate closely with the main hypothesis of the study.

### **The limitations of the study**

The period: the 2018/2019 school year.

Location of the experiment: Abbas Laghrour middle school, in El-Madania, Algiers-centre.

***The Role of the Teaching Style adopted by the Physical and Sports Education  
Teacher in Fostering Motivation in Middle School Pupils  
Rafika CHEBHI***

Age group: first-year pupils (11-12 years old).

**Analysis of the findings**

In order to measure the pupils' motivation to sports exercise, ten questions are designed in relation to the initial hypothesis, each of which consists of a number of pre-established answers, results were obtained following statistical processing by means of the percentage and Chi-square test ( $\chi^2$ ) whose formula is:

$$\chi^2 = \sum (O_i - E_i)^2 / E_i$$

It should be noted that the researcher presents here only the most salient results:

**Q.1.** The kinetic gestures (the mimogestuality) of the teacher while explaining the motor tasks motivate the pupils to physical practice.

**Table 1.** Results of the measures of teaching style motivating pupils to physical practice via mimogestuality.

**Abbreviations:**

Answer: **A**, Frequency: **F**, Percentage: **P %**, Significance level: **S.L.**, Degree of freedom: **D.F.**, Calculated  $\chi^2$ : **C  $\chi^2$** , Tabulated  $\chi^2$ : **T  $\chi^2$**

<b>A</b>	<b>F</b>	<b>P %</b>	<b>S.L.</b>	<b>D.F.</b>	<b>C <math>\chi^2</math></b>	<b>T <math>\chi^2</math></b>
<b>Yes</b>	25	83,33	0,05	01	13,32	3,84
<b>No</b>	5	16,66				
<b>Total</b>	30	100				

**Source:** made by the researcher on the basis of data from the research community



***The Role of the Teaching Style adopted by the Physical and Sports Education  
Teacher in Fostering Motivation in Middle School Pupils  
Rafika CHEBHI***

Table 1 shows that 83.33 % of the sample members see that the kinetic gestures (the mimogestuality) of the teacher while explaining the motor tasks motivate the pupils to physical practice during the PSE session, however, 16.66 % of, do not.

The calculated chi-square, evaluated at 13.32, is higher than the tabulated chi-square (at the significance level: 0.05 and at the degree of freedom: 01), whose value is estimated at 3.84. This indicates a statistical significance in favour of the responses of the pupils, who are more motivated to do physical activity when the teacher uses mimogestuality during the PSE session. This leads the researcher to deduce that the kinetic gestures (mimogestuality) of the teacher during the explanation make the pupils more motivated to practice.

**Q.2.** Repeated interventions by the teacher demotivate pupils to take part in physical activities.

**Table 2.** Results of the measures of teaching style based on repeated interventions and demotivating pupils to physical practice.

**Abbreviations:**

Answer: **A**, Frequency: **F**, Percentage: **P %**, Significance level: **S.L.**, Degree of freedom: **D.F.**, Calculated  $\chi^2$ : **C  $\chi^2$** , Tabulated  $\chi^2$ : **T  $\chi^2$**

<b>A</b>	<b>F</b>	<b>P %</b>	<b>S.L.</b>	<b>D.F.</b>	<b>C <math>\chi^2</math></b>	<b>T <math>\chi^2</math></b>
<b>Yes</b>	24	80,00	0,05	01	10,80	3,84
<b>No</b>	06	20,00				
<b>Total</b>	30	100				

**Source:** made by the researcher on the basis of data from the research community

Table 2 shows that 80.00 % of the sample members see that repeated interventions by the teacher demotivate pupils to take part in physical activities, while 20.00 % of, do not.

***The Role of the Teaching Style adopted by the Physical and Sports Education  
Teacher in Fostering Motivation in Middle School Pupils  
Rafika CHEBHI***

The calculated chi-square, evaluated at 10.80, is higher than the tabulated chi-square (at the significance level: 0.05 and at the degree of freedom: 01), whose value is estimated at 3.84. This indicates a statistical significance in favour of the responses of the pupils, who are not motivated to do physical activity when the teacher intervenes repeatedly during practice. This makes the researcher conclude that repeated interventions by the teacher demotivate pupils to take part in physical activities.

**Q.3.** The change of explanation method by the teacher in case of misunderstanding of the motor task to be performed motivates the pupils more to achieve it.

**Table 3.** Results of the measures of teaching style based on the change of explanation method supposed to motivate the pupil more.

**Abbreviations:**

Answer: **A**, Frequency: **F**, Percentage: **P %**, Significance level: **S.L.**, Degree of freedom: **D.F.**, Calculated  $\chi^2$ : **C  $\chi^2$** , Tabulated  $\chi^2$ : **T  $\chi^2$**

<b>A</b>	<b>F</b>	<b>P %</b>	<b>S.L.</b>	<b>D.F.</b>	<b>C <math>\chi^2</math></b>	<b>T <math>\chi^2</math></b>
<b>Yes</b>	28	93,33	0,05	01	22,52	3,84
<b>No</b>	02	06,66				
<b>Total</b>	30	100				

**Source:** made by the researcher on the basis of data from the research community

Table 3 shows that 93.33 % of the sample members see that the change of explanation method by the teacher in case of misunderstanding of the motor task to be performed motivates the pupils more to achieve it, while 06.66 % of, do not.

The calculated chi-square, evaluated at 22.52, is higher than the tabulated chi-square (at the significance level: 0.05 and at the degree of freedom: 01),

whose value is estimated at 3.84. This indicates a statistical significance in favour of the responses of the pupils, who are more motivated to achieve motor tasks when the teacher changes his or her method of explanation in case of misunderstanding of the exercise by pupils. This leads the researcher to conclude that the change of explanation method by the teacher in case of misunderstanding of the motor task to be performed motivates the pupils more to achieve it.

The synthesis of the results of the questionnaire measuring the motivational degree of the teaching style adopted by the PSE teacher on the middle school pupils, supported by those obtained from the observation grid established by the researcher, shows that the behaviours for which the growth of motivation in the latter (the pupils) was the most statistically significant, are to provide modified explanations whenever an exercise to be performed is not understood and to use gestures and mimics during intermittent interventions.

Thus, at the end of the study, we note the absence of inconsistency in the measures of motivation obtained by questionnaire, in terms of evolution. In fact, the researcher, after reading and analysing all the statistical data (see tables), noted a moderate to strong increase in the sample as a whole.

## **Discussion**

The question the researcher initially asked was: To what extent does moving towards a teaching style or styles in PSE increase the motivation of middle school pupils? To answer this question, the researcher implemented an experimental protocol in a grade one class throughout the school year during an athletics activity. He began the study by identifying the style or styles of the PSE teacher to be developed in the classroom, by introducing the necessary modifications, using an observation grid. The challenge was then to evaluate via appropriate questionnaire the consequences of this change on the motivation of the pupils to physical practice.

The main hypothesis that the researcher had formulated at the beginning of this study, was as follows:

*The type of teaching adopted by the PSE teacher in the classroom contributes to the development of motivation in middle school pupils.*

The results of this study showed that the teaching style has indeed evolved and positively impacted the motivation of pupils to physical practice. These results are consistent with the research work carried out on this subject

(Aelterman et al. 2014, Cheon et al. 2012) which shows that by receiving training in motivation theory, teachers can effectively modify their styles towards more effectiveness and motivational impact on students.

Through the statistical analysis of the tables, the researcher notes that a large percentage of the pupils consider the modification of teaching styles and methods carried out by the teacher during the PSE session to be useful, in the sense that it contributes to an increase in motivation for physical practice.

This modification of teaching style for motivational purposes, according to the results of this study, is based, among other things, on: explanations of motor tasks deemed difficult to understand by the pupils, the use of mimogestuality to reinforce verbal explanations and, finally, the avoidance of repeated interventions for fear of boring the pupil and demotivating him/her as a result.

Although these results are in line with the initial problem and, by extension, the initial hypothesis, they remain relative for a number of parameters, including: The need to broaden the sample, for greater authenticity and especially generalisation. It may be necessary to consider reproducing this experimental protocol in the future, but with a larger sample of pupils of all ages and all levels and with more PSE teachers having to supervise these pupils. The need to reconsider the use of the questionnaire with children. Indeed, this study shows that the use of this research tool had its constraints, as the majority of 11–12-year-old learners have difficulty understanding the questions asked due to their complexity, which resulted in some inconsistent responses. The need to improve the experimental protocol by diversifying the research tools (video, direct observation grid, accelerometer, etc.) likely to measure pupil motivation and by avoiding relying solely on the questionnaire so as not to bias the results obtained too much, in line with the research work carried out by (Lonsdale et al., 2013).

## **CONCLUSION**

The researcher in this study focused on two crucial elements in the teaching-learning of PSE: motivation and teaching style.

The aim was to demonstrate, in fact, how the latter could motivate or demotivate the learner to physical practice.

Based on the principle that motivating the learner requires, among other things, the choice of an appropriate teaching style of any kind, the researcher

therefore hypothesised that there is an interlocking link between the two elements mentioned above, and wanted to verify the veracity and degree of this link, through an experiment targeting pupils in the middle school, fresh from primary school, the majority of whom had never done sport.

He used for, a questionnaire adapted to children as a research tool, supported tentatively by a direct observation grid.

The results collected, after statistical analysis, support the initial hypothesis, which concerns the evaluation of the degree of impact that the teaching style adopted could have on the pupils' motivation to take part in physical practice, and therefore respond positively to the problem question of the study, although the concept of motivation is complex and difficult to measure.

The style of the PSE teacher, therefore, like that of teachers of other subjects, based on appropriate interventions that include mainly explanations, mimogestual demonstrations and encouragements, could, in fact, easily impact on the motivation of pupils as well as on their passivity and total disinterest in physical and sports activities.

In short, the teaching style works both on the pupil and on the knowledge to be taught, in this case relating to PSE, the choice of which therefore, at the end of this study, makes it possible to improve the teacher-taught interaction, in other words, social proximity being one of the fundamental needs of the individual, and this, during PSE sessions.

Finally, it would seem more appropriate to repeat this research, with a more comprehensive analysis of the teacher's motivational style, a larger sample of pupils and a well thought out choice of research tools for a better assessment of motivation and for more credible and generalisable results.

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