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# Exploring Teachers' Verbal Aggressiveness through Interpersonal Attraction and Students' Intrinsic Motivation

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#### **Abstract**

This study is aiming at: 1) exploring the relationship between perceived teachers verbal aggressiveness, interpersonal attraction and student intrinsic motivation; 2) investigating the influence of teachers verbal aggressiveness on their interpersonal attraction and student intrinsic motivation in physical education context and 3) proposing a students' and teachers' typology. The sample consisted of 223 Greek students (125 males, 98 females) aged 10 - 12 years old (M = 11.2, SD = 0.49) from primary schools. The results supported the internal consistency of the instruments. Statistically significant differences were observed in instructors' verbal aggressiveness, physical attraction, enjoyment/importance, competence and pressure/tension between the genders of the students. ANOVA's findings supported that there was a significant dependence between schools regions on the factors of effort/interest and pressure/tension. Perceived instructors' verbal aggressiveness was negatively related to social attraction, task attraction, physical attraction, enjoyment/importance, effort/interest and competence, while there was a positive significant relationship between verbal aggressiveness and pressure/tension. The results of regression analysis revealed that perceived instructors' verbal aggressiveness could significantly predict the variables of social, physical attraction and students' effort/interest, competence and pressure/tension. Distinct types of relations between students and instructors may be distinguished: The "motivation by attraction" and "student autonomy".

# Keywords

Verbal Aggressiveness, Interpersonal Attraction, Intrinsic Motivation, Physical Education

#### 1. Introduction

Verbal aggressiveness is defined as one's assault on others' self-concept in order to

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cause mental and emotional suffering [1] [2]. According to [2], this term suggests an offense against a victim's character, their competence and physical appearance. There is also cursing, teasing, swearing, humiliation and threats. Sometimes verbal aggressiveness delivers a heavier blow to the sufferer than physical abuse does [3] and it undermines seriously students' performance [4] [5] [6] [7]. A study by [8] found that university teachers are, to a great extent, verbal abusers. And that adversely affects rapport between teachers and their audience, the atmosphere during lectures and students' active involvement [9]-[15]. Therefore teachers' verbal abuse is responsible for a series of unfavorable findings in class enough to demotivate students [14] [16] [17] [18]. The latter support that such manners can lead to antisocial behaviour towards teachers who will be branded as unfair, disrespectful, unreliable [19]-[24]. In a survey carried out by [25] there was an attempt to draw up a list of any kinds of aggressive behaviour that educators exhibit and students counterattack. More recent studies [26] [27] [28] [29] indicate that educators' verbal aggressiveness to students not only impedes progress but it could significantly affect their performance and anxiety. A new survey [24] concludes that when teachers establish good rapport with students it can offset the formers' occasional violent ways.

Interpersonal attraction is considered to be a person's tendency or disposition to evaluate favorably or negatively others or their personality traits [30]. According to [31] it is divided into physical, social and task attraction. A teacher's approach to communicate in class has an impact on the teaching process [32]. Rapport and clarity of ideas promote understanding among learners who motivated and inspired will develop their potential over the course of time [33]. [34] support that when students are drawn by teachers' professionalism, prestige and sociability they are more actively involved and open whereas any deviance from accepted patterns of behaviour alienates students [35]. In a survey conducted by [36] it has been confirmed that the more a teacher appeals to his audience, they more students feel the need to communicate. Similarly studies [37] [38] [39] establish the theory that the communicative type of teacher produces receptive learners. Another study by [40] demonstrates that a sense of humour combined with attractiveness (physical, social, task) predisposes positively students towards their educators. In further research examined the relationship of verbal aggressiveness and interpersonal attraction within the educational environment and pointed out that verbal abuse is unfavorably connected with the three aspects of interpersonal attraction [7] [41]. Furthermore, attractiveness could lead to verbal aggressiveness. On the other hand, femininity, well-educated parents and children, youthful appearance and a stately figure seem to prevent students against verbal aggression [16] [42]. [43] shows that in distant learning, through a teleconference, social and task attraction has a beneficial effect on learning and even greater on students' sense of achievement.

In education sector, one of the determining factors of students' engagement in the learning process is interaction between them and their teachers [44]. When teaches provide the audience with valuable information about future careers and steer them towards the right destination, this reduces stress and students' uncertainty about future

prospects [45]. There are three main categories of motivation: intrinsic, extrinsic and no motivation [46]. [47] state that it is intrinsic motivation that sets certain patterns of genuine behaviour that reflects a person's feelings rather than pre-arranged manners only adopted to serve a deal. More specifically, intrinsic motivation derives from three fundamental needs: 1) self-determination; 2) a sense of competence and achievement and 3) the need for social relationships. The more one feels strong enough to make their own decisions, the higher the level of intrinsic motivation [48]. [49] puts forward the concept of three types of intrinsic motivation: one for the learning process, a second for fulfillment and thirst for a stimulatory experience. A study by [50] suggests that intrinsic stimulation facilitates students' adjustment to school environment, relieves stress, arouses positive feelings and results in better handling of issues at school. It has been found that intrinsically motivated students perform considerably better and take great pleasure from lessons [51] [52] [53]. What is more, verbal aggressiveness has proved to spoil enjoyment in class, weakens attempts for improvement and undermines educators' prestige [54] [55] [56]. Further research of [57] confirms that when teachers embrace unfortunate methods of communication, students are adamantly opposed to them.

#### The Present Study

The present study aims to investigate the relations among perceived teachers' verbal aggressiveness, interpersonal attraction and students' intrinsic motivation in physical education classes from primary schools. In particular, this study intends to answer the following research questions:

- Are there any differences between genders and school regions regarding verbal aggressiveness, interpersonal attraction and intrinsic motivation?
- Is there a positive or negative relationship between instructors' verbal aggressiveness, their interpersonal attraction as perceived by students with students' self-reports of intrinsic motivation in physical education classes?
- To what extent the perceived instructors' verbal aggressiveness could be a significant predictor of their interpersonal attraction and the students' intrinsic motivation?
- Can students' and instructors' typology regarding parameters of verbal aggressiveness, interpersonal attraction perception and intrinsic motivation be extracted?

#### 2. Method

#### 2.1. Participants and Procedures

The sample of the study consisted of 223 students (125 males, 98 females) aged 10 - 12 years old (M=11.2, SD=0.49). The sample was randomly selected from Veria region, Greece. It was randomly selected on the basis of the whole list of primary schools provided by the regional Direction of Primary Education. The particular region was selected as study area due to the fact that it combines both rural and urban milieus. All the participants were from the  $5^{th}$  class (118 students) and the  $6^{th}$  class (105 students) of primary schools (urban area: 76 students, semi-urban area: 73 students and rural area:

74 students). Participants belonged to different socio-economic status. All students answered the questionnaires about verbal aggressiveness, attractiveness and intrinsic motivation in their physical education courses. The questionnaires were voluntarily answered within 20 - 25 minutes. It was emphasized that their anonymity would be assured in order to answer sincerely. Rules of best practice and research ethics were observed.

#### 2.2. Instruments

Verbal aggressiveness. The Greek version [58], which was used to assess physical education teacher verbal aggressiveness and developed by [2]. Preliminary examination [58] supported the psychometric properties of the instrument. In particular, confirmatory factor analysis indicated satisfactory fit indices (CFI: 0.97, SRMR: 0.02), and internal consistency of the scale ( $\alpha = 0.96$ ). The scale consisted of eight items (e.g., "the teacher insults students", "the teacher makes negative judgments of students' ability"). Participants were asked to respond on a 5-point Likert-type scale ranging from 1: Strongly disagree to 5: Strongly agree.

Interpersonal attraction. The Greek version [41], which was used to assess physical education teacher interpersonal attraction and developed by [35]. Preliminary examination [41] supported the psychometric properties of the instrument. In particular, confirmatory factor analysis indicated satisfactory fit indices (CFI: 0.97, RMSA: 0.05), and internal consistency of the scale (from 0.87 to 0.96). The scale consisted of three factors: task attraction (14 items, e.g., "teacher's contribution of any work would be valuable"), social attraction (12 items, e.g., "the teacher is friendly with me") and physical attraction (12 items, e.g., "the teacher looks good"). Participants were asked to respond on a 5-point Likert-type scale ranging from 1: Strongly disagree to 5: Strongly agree.

Intrinsic motivation. The Intrinsic Motivation Inventory [59] a 20-item version first used in Greek physical education settings [60] included four subscales: enjoyment/interest (5 items, e.g., "the lesson was a very interesting experience"), effort/importance (5 items, e.g., "I tried very hard during the lesson"), competence (5 items, e.g., "I think I did quite well in the lesson"), and pressure/tension (5 items, e.g., "I felt pressure during the lesson"). Participants were asked to respond to the items based on a 5-point Likert-type scale ranging from 1 = strongly agree to 5 = strongly disagree.

#### 2.3. Data Analysis

Data analysis included the use of the Statistical Package for Social Sciences (SPSS 21.0). Cronbach's  $\alpha$  reliability analysis was used to examine the internal consistency of the factors of each questionnaire. The t-test for independent samples was used in order to reveal statistical significant differences between genders of the students. The one-way Anova was used in order to reveal statistical significant differences between schools regions from urban, semi-urban and rural areas. The Pearson correlation coefficient was used to measure the correlation between the subscales of the questionnaires. Moreover,

regression analysis was conducted in order to explore the extent to which the perceived instructors' verbal aggressiveness could be a significant predictor of their interpersonal attraction and the students' intrinsic motivation. The level of statistical significance was set at 0.05. Finally, students' and instructors' typology regarding parameters of verbal aggressiveness, interpersonal attraction perception and and students' intrinsic motivation will be formulated using principal component analysis.

### 3. Results

Statistically significant differences were observed in instructors' verbal aggressiveness ( $t_{1221}=-1.98,\,p<0.05$ ), physical attraction ( $t_{1221}=2.30,\,p<0.05$ ), enjoyment/importance ( $t_{1221}=2.04,\,p<0.05$ ), competence ( $t_{1221}=2.58,\,p<0.05$ ) and pressure/tension ( $t_{1221}=-2.10,\,p<0.05$ ) between the two genders of the students (**Table 1**), while there were no differences between gender in social attraction ( $t_{1221}=-1.13,\,p=0.26$ ), task attraction ( $t_{1221}=1.51,\,p=0.13$ ) and enjoyment/importance ( $t_{1221}=1.16,\,p=0.25$ ).

ANOVA's findings supported that there was a significant dependence between schools on the factors of effort/interest ( $F_{2220} = 2.04$ , p < 0.05) and pressure/tension ( $F_{2220} = 3.62$ , p < 0.05) between schools from urban, semi-urban and rural areas (**Table 2**), while were no differences between schools in verbal aggressiveness ( $F_{2220} = 1.05$ , p =

Table 1. Students' gender comparison.

Variables	Gender	N	Mean	SD	t	df	p
Vl-1	males	125	2.36	0.71	1.00	223	0.049
Verbal aggressiveness	females	98	2.54	0.63	-1.98		
D1	males	125	2.76	0.58	2.20	223	0.022
Physical attraction	females	98	2.59	0.52	2.30		
ECC . III	males	125	2.75	0.52	201	223	0.043
Effort/interest	females	98	2.61	0.50	2.04		
	males	125	2.41	0.71	2.50	223	0.011
Competence	females	98	2.16	0.72	2.58		0.011
	males	125	2.77	0.65		223	
Pressure/tension	females	98	2.95	0.57	-2.10		0.037

Table 2. Students' schools comparison.

Variables	Schools region	N	Mean	SD	F	p
	urban	76	2.58	0.48		
Effort/interest	semi-urban	73	2.78	0.55	3.08	0.048
	rural	74	2.71	0.50		
Pressure/tension	urban	76	2.96	0.55		
	semi-urban	73	2.70	0.65	3.62	0.028
	rural	74	2.89	0.63		

0.35), social attraction ( $F_{2220} = 2.22$ , p = 0.11), task attraction ( $F_{2220} = 2.60$ , p = 0.08), physical attraction ( $F_{2220} = 0.47$ , p = 0.63), enjoyment/importance ( $F_{2220} = 1.76$ , p = 0.17) and competence ( $F_{2220} = 0.88$ , p = 0.42). Subsequently applied LSD multiple comparison test which showed that the factor of effort/interest proved to have the higher score on schools from semi-urban area compared to schools from urban and rural areas and the factor of pressure/tension proved to have the higher score on school from urban area compared to schools from semi-urban and rural areas.

In addition, a correlation analysis was conducted, the results of which are presented in **Table 3**. As it can be seen, there was a negative significant relationship between instructors' verbal aggressiveness and social attraction (r = -0.20), task attraction (r = -0.56), physical attraction (r = -0.70), enjoyment/importance (r = -0.47), effort/interest (r = -0.60) and competence (r = -0.47), while there was a positive significant relationship between instructors' verbal aggressiveness and pressure/tension (r = 0.70). At the same time, **Table 3** presents the Cronbach's alpha, mean scores and standard deviations of the variables.

Moreover, a series of simple regression analyses were conducted to examine the extent to which instructors' interpersonal attraction and students' intrinsic motivation could be predicted from the ratings of instructor's verbal aggressiveness. The results indicated that perceived verbal aggressiveness could predict significant variance in interpersonal attraction ( $F_{(3219)}=79.40$ , p<0.001) with an  $R_2$  of 52.1%. Perceived verbal aggressiveness explained 3.7% of the variance in social attraction ( $\beta=-0.35$ ,  $t_{(216)}=-2.89$ , p<0.05) and 27.8% of the variance in physical attraction ( $\beta=-0.75$ ,  $t_{(216)}=-9.18$ , p<0.001). Another linear regression analysis was conducted to predict students' intrinsic motivation based on instructor verbal aggressiveness. The results indicated that perceived instructor verbal aggressiveness could predict significant variance in intrinsic motivation ( $F_{(4218)}=77.41$ , p<0.001) with an  $R_2$  of 58.7%. Verbal aggressiveness explained 6.3% of the variance in effort/interest ( $\beta=-0.30$ ,  $t_{(214)}=-3.82$ , p<0.001), 2.5% of the variance in competence ( $\beta=-0.13$ ,  $t_{(214)}=-2.38$ , p<0.05) and 30.1% of the variance in pressure/tension ( $\beta=0.56$ ,  $t_{(214)}=9.71$ , p<0.001). The results of the regression analyses are presented in Table 4.

Table 3. Reliabilities, means, standard deviations and pearson correlations among variables.

	α	M	SD	1	2	3	4	5	6	7	8
1) rbal aggressiveness	0.82	2.44	0.68	1.00							
2) Social attraction	0.72	3.09	0.26	-0.20**	1.00						
3) Task attraction	0.74	2.92	0.39	-0.56**	0.08	1.00					
4) Physical attraction	0.74	2.69	0.56	-0.70**	0.07	0.72**	1.00				
5) Enjoyment/importance	0.65	2.33	0.63	-0.47**	-0.04	0.36**	0.56**	1.00			
6) Effort/interest	0.61	2.69	0.52	-0.60**	0.03	0.57**	0.67**	0.54**	1.00		
7) Competence	0.67	2.30	0.73	-0.47**	<b>-</b> 0.17*	0.28**	0.51**	0.63**	0.51**	1.00	
8) Pressure/tension	0.72	2.85	0.62	0.70**	-0.14*	-0.59**	-0.65**	-0.37**	-0.54**	-0.35**	1.00

<sup>\*\*</sup>p < 0.001, \*p < 0.05,  $\alpha = Cronbach$ 's alpha.

In Table 5 two types are revealed: The "motivation by attraction" and the "student autonomy". The former presents a class pattern of perceived behavioral interaction, where the image of a scientifically and physically attractive instructor seems to favor students in terms of satisfaction, ability and trying. Simultaneously, such a model of instructor seems to be free of verbal aggressiveness and subsequently, the students appear to be free of anxiety. The latter (students' autonomy) depicts a model of students who are intrinsically motivated in fewer dimensions (only satisfaction and trying) but independently of any "positive" or "negative" characteristic of instructor.

## 4. Discussion and Challenges for Future Research

The aim of the present study was threefold: 1) to explore the relationship between perceived teachers verbal aggressiveness, interpersonal attraction and student intrinsic motivation; 2) to investigate the influence of teachers verbal aggressiveness on their interpersonal attraction and student intrinsic motivation in physical education context and 3) to propose students' and teachers' typology. According to the results of the study, statistically significant differences were observed in instructors' verbal aggressiveness, physical attraction, enjoyment/importance, competence and pressure/tension between genders of the students. The students of schools from semi-urban areas proved to have the higher score on the factor of effort/interest and of schools from urban areas the higher score on the factor of and pressure/tension. Perceived instructors' verbal

Table 4. Regression analysis results according to verbal aggressiveness.

	В	95% CI B	SE	В	t
Social attraction	-0.14	-0.11, -0.60	0.12	-0.35	-2.89*
Physical attraction	-0.62	-0.59, -0.91	0.08	-0.75	<b>-</b> 9.18**
Effort/interest	-0.22	-0.14, -0.45	0.08	-0.30	-3.82**
Competence	-0.14	-0.02, -0.24	0.06	-0.13	-2.38*
Pressure/tension	0.51	0.44, 0.67	0.06	0.56	9.71**

<sup>\*\*</sup>p < 0.001, \*p < 0.05.

**Table 5.** Mixed typology of perceived instructor image and student intrinsic motivation.

		"Motivation by attraction"	"Student autonomy"
Attributes of instructor perceived by students	Verbal aggressiveness	-0.837	0.195
	Social attraction	0.085	-0.810
	Task attraction	0.755	-0.236
	Physical attraction	0.892	-0.059
Attributes of students according to self-assessment	Enjoyment/importance	0.705	0.379
	Effort/interest	0.815	0.066
	Competence	0.665	0.527
	Pressure/tension	-0.781	0.267

Extraction Method: Principal Component Analysis. 2 components extracted.



aggressiveness was negatively related to social attraction, task attraction, physical attraction, enjoyment/importance, effort/interest and competence, while there was a positive significant relationship between verbal aggressiveness and pressure/tension. Perceived instructors' verbal aggressiveness could significantly predict the variables of social, physical attraction and students' effort/interest, competence and pressure/tension. Distinct types of relations between students and instructors may be distinguished: "motivation by attraction" and the "student autonomy".

Educators tended to be more verbally aggressive toward boys [16] [42] [54] [61] which are usually less obedient. This may be due to the fact that boys suffer more often indiscipline cases during the course, which are likely to lead instructors in frequent use verbal aggressive behavior towards them. Thus, a vicious circle is created because the current attitude of the instructor leads students to adopt similar attitudes towards their teachers, and generally anti-social behavior [19] [20] [22] [23] [24] [25]. In addition, male students tend to be more susceptible to physical violence or bulling than female ones [62]. According to [63], male are expected to be more competitive than female ones, as expected in accordance with stereotypes. Moreover, male students of the present study perceived instructors as more verbally aggressive and more physically attractive. Also, male students seem to be more (intrinsically) motivated by enjoyment/importance, competence and pressure/tension than female students one.

Furthermore, the results showed that the students from semi-urban areas proved to be characterized by the higher level of effort/interest and the students from urban areas have been adapted to higher level of pressure/tension. This can be attributed to the fact that in urban areas there is a way of live quite enriched in stimuli which is, however, demanding and exacerbated by numerous factors (from traffic to more chances for career which should be sought). In semi-urban areas, there is a more relaxed way of life, which is characterized by enough stimuli and not by so many intensification factors.

This study has shown that students of urban areas have greater stress and pressure during the course of physical education in comparison with students of suburban and rural areas. The results seem to agree with research that has been done in the past on urban areas [11] [54] [55], supporting that educators' verbal aggressiveness negatively affects students' motivation for learning creating anxiety or stress, denial and lack of interest in the course. Instead, students of suburban areas seem to show more interest and to make a greater effort in the course, compared with students in urban and rural areas.

Relationships between the investigated variables, as correlations showed, were to the expected directions. Studies [32] [33] [36] [38] [39] [63] have shown that the willingness to participate in the course is the result both of interpersonal attraction (social, task, physical) and the way that the teacher communicates with his students. In this study, instructors' verbal aggressiveness was negatively related to social attraction, task attraction, physical attraction, enjoyment/importance, effort/interest and competence, while was positively related to pressure/tension. These results seem to be confirmed by previous studies [14] [17] [25] [56] which have found that educators' verbal aggres-

siveness affects motivation, mood, enjoyment, skill and effort of students [9] [13] [15] [54] [55], often undermining the learning outcome. The results of this research confirm the view [24] [57] [64] that the harmonious relations between educators and students, and the lack of verbally aggressive behavior on the part of instructors, give an extra incentive for students to take an interest in physical education and to feel satisfaction with their participation in it. Educators, reducing interpersonal distance with their students, have the possibility to create an appropriate learning environment to maximize student interest in learning.

Moreover, two types of typology are revealed: The "motivation by attraction" and the "student autonomy". The first type sounds reasonable. The peculiar feature is that social attractiveness of the instructor seems to be insignificant for the students. Thus, this type depicts a students' model, which is strictly or even exclusively dedicated to the intellectual aims (reflected on the scientific attraction), which are simultaneously supported by the pleasure caused by the physical attraction. In the second type, even in case of lack of social attraction, the students seem to continue to be motivated. Thus, a distinct group of students is described, which is not necessarily dedicated to science as it is defined by the instructor, but it has a rather strong self-confidence and consolidated orientation. This kind of typology has been used in several previous researches (e.g., [16] [42] [65] [66] [67] [68]).

In conclusion, it could be stated that the instructors' verbal aggressiveness either in education [9] [13] [14] [15] [16] [17] [54] [56] or in sports [28] [29], negatively affects in relationship between educator and learner, and not only does not lead to improvement, but it could also be detrimental to the performance of students. Future studies could recruit larger number of students from other regions of Greece in order to increase findings' generalizability. A more balanced sampling between rural-urban interviewees can take place. Peer influence on motivational climate and students' satisfaction could also be explored in a future study.

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