# Predictive Effect of Motivational Climate on Adolescents' Physical Self-Perception in Physical Education

## Beden Eğitiminde Motivasyonel İklimin Ergenlerin Kendini Fiziksel Algılama Düzeyleri Üzerine Yordayıcı Etkisi

Research Article

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**ÖZ**

Bu çalışmanın amacı beden eğitimi ortamında algılanan motivasyonel iklimin, kendini fiziksel algılama üzerine tahmin edici etkisini araştırmaktır. Kesitsel nitelikteki bu araştırmanın örneklem grubunu oluşturan 2680 öğrenci (1378 kız, 1291 erkek) 14 farklı devlet lisesinden (1088 9. sınıf, 832 10. sınıf, 592 11. sınıf ve 157 12. sınıf) uygun örnekleme ile seçilmiştir. "Üçlü Motivasyonel İklim Ölçeği" ve "Kendini Fiziksel Algılama Envanteri" öğrencilere sınıf ortamında uygulanmıştır. Aşamalı çoklu doğrusal regresyon analizi sonuçları, lise beden eğitimi ortamında motivasyonel iklimin, ergenlerin kendilerini fiziksel olarak algılamalarının beş farklı boyutunun tahmin edicisi olduğunu ortaya koymuştur. MANOVA sonuçları, algılanan motivasyonel iklim ve kendini fiziksel algılama düzeyinde sınıf ve cinsiyete göre anlamlı fark olduğunu ortaya koymuştur. Çok değişkenli regresyon modelleri, öğrencilerin beden eğitimi dersindeki performans kaçınımı iklimi algısı arttıkça algılanan vücut çekiciliği ve fiziksel öz-saygı düzeylerinin de düştüğünü ortaya

**ABSTRACT**

The aim of this study was to analyse the predictive effect of motivational climate on physical self-perception in physical education environment. The sample of this cross-sectional study was selected with using convenience sampling method and it consisted of 2680 high school students (1378 girls, 1291 boys) from 14 different public schools (1088 9th grader, 832 10th grader, 592 11th grader and 157 12th grader) in central western city. "Trichotomous Motivational Climate Scale" and "The Physical Self-Perception Profile" were administered to the students in classroom environment. MANOVA results revealed gender and grade significant differences in perceived motivational climate and physical self-perception. According to the stepwise multiple linear regression analysis results motivational climate in high school physical education context predicts adolescents' five different aspects of physical self-perception. Multivariate regression models showed that as perceived performance avoidance climate in physical educati-

koymuştur. Beden eğitimi öğretmenlerine, öğrencilerin performans kaçınımı iklimi algılarını destekleyen öğrenme ortamları yaratacak uygulamalardan kaçınmaları önerilmektedir.

on increased, students' perceived body attractiveness and physical self-worth decreased. Physical education teachers are suggested to avoid practices that provide to create learning environments that nourish students' performance avoidance climate perceptions.

## INTRODUCTION

Adolescence is an important period in terms of not only physiological and psychological but also cognitive changes. Due to the cognitive maturity, perceived ability of children decreases at the age of ten (Nicholls, 1989). Hence from this age on during adolescence individuals understand that they cannot be the best in every activity even if they make the greatest effort (Digelidis and Papaioannou, 1999). Physical and psychological modifications work together to shape individual's attitudes, motivation, and self-perception during adolescence (Waylen and Wolke, 2004).

Self-perception refers individual's perceptions of their own capabilities formed through experience with the environment (Inchley, Kirby and Currie, 2011). Fox and Corbin (1989) defined physical self-perception as individual's perception of himself/herself in aspects of physical domains such as strength, endurance, sport ability, and physical appearance. Evaluating views of one's physical self proposes perceived competence in physical contexts (Hagger, Hein and Chatzisarantis, 2011). Perceived competence becomes important in physical education (PE) environment which is a learning environment that adolescents try to display their skills among their counterparts. If they feel that their physical skills required for physical activity and sport is not sufficient enough, participation declines as they deal with the concurrent physical and psychological adaptations related to adolescence (Inchley et al., 2011).

Physical self-perception has been accepted to be important indicators of motivation and psychological well-being (Fox, 1997). Motivation facilitates the students' experiences of achievement by directing and regulating perceptions and behaviours (Roberts, Treasure and Conroy, 2007). One of the contemporary theories that explain individuals' interpretations of situational clues is Achievement Goal Theory (Ames, 1992; Dweck, 1986; Nicholls, 1989). The theory concerns one's beliefs about how to achieve success at the activity (Treasure and Roberts, 1995). Theory offers the term of motivational climate which refers to the situational goals perceived by the students emphasized in a learning setting (Ames, 1992), that is how individuals cognitively process and develop their views about achievement under social contexts (Ntoumanis and Biddle, 1999). How the students perceive the environment is based on how the situation is structured and the manner in which students are judged and how they are judged, underpins variations in motivational climates (Newton, Detling, Kilgore and Bernhardt, 2004).

Students can perceive the learning environment as emphasizing mastery, performance approach, or performance avoidance climates. A mastery climate focuses on self-improvement, effort/persistence, and learning. A performance approach climate emphasizes social comparison by showing high ability, and outperforming others, being the best among others is rewarded. Lastly, a performance avoidance climate emphasizes social comparisons by avoiding showing low ability, losing, or performing the worst among others (Ames, 1992). Because mastery climate sets evaluation based on self-referenced criteria and by this way students can achieve a sense of competence (Digelidis and Papaioan-

nou, 1999, Newton et. al, 2004). This type of climate is considered to be the most adaptive environments for obtaining achievement outcomes such as while performance type of climate found to be linked with maladaptive outcomes (Ntoumanis and Biddle, 1999). Previous studies have manifested that motivational climate had a relationship with self-perception (Papaioannou, Tsigilis, Kosmidou and Milosis, 2007; Reinboth and Duda, 2006). A couple of studies with adolescents examined the relationship between perceived motivational climate in PE environment and the dimensions of students' self-perception. The results indicated that perceived mastery climate in PE was positively correlated with perceived sport competence, physical condition, and body attractiveness (González-Cutre, Sicilia, Moreno and Fernández-Balboa, 2009; Moreno-Murcia 2005; Moreno-Murcia et al., 2012).

The achievement goal theory framework (Ames, 1992; Dweck, 1986; Nicholls, 1989) was used in this study to analyze the effect of each motivational environment on high school students' self-perception in PE lessons. Because previous research showed that as age increases students become less task-oriented (Digelidis and Papaioannou, 1999), it was hypothesized that 9th grade students had the highest perception of mastery climate. Although self-perception changes in a long time periods and establishes in adulthood (Newton et. al, 2004), since it is a dynamic construct adolescents' self-perception was hypothesized to change by grade, namely older students were hypothesized to have lower self-perception level. Duda and Whitehead (1998) stated that the male gender tends to be more concerned with winning and demonstrating his ability in achievement contexts than the female gender. Research showed that females generally endorse a task-involving motivational climate more strongly than boys (Moreno-Murcia, Hernández, Vaillo and Camacho, 2012). Parallel with that, boys perceived higher physical self-concept values than girls (Bertollo, Bortoli and Bucci, 2013; Crocker, Eklund and Kowalski 2000; Digelidis and Papaioannou, 1999; Inchley

et al., 2011; Labbrozzi, Robazza, Moreno-Murcia et al, 2012). In line with previous research it was hypothesized that males had lower mastery climate perception and physical self-perception than females. With regard to the previous work supported link between the perception of a task-involving climate and physical self-concept (Newton et. al, 2004, Moreno-Murcia et al, 2012), it was hypothesized that performance approach and avoidance climates in PE lesson had negative impact on students' different dimensions of self-perceptions.

The number of the studies examining the effect of perceived motivational climate in PE on adolescent students' physical self-perception is limited. Existing research has analyzed the motivational climate in a dichotomous form (mastery-performance climate). Therefore this study by including motivational climate in trichotomous structure, allows in depth understanding the impact of motivational climate types in PE on adolescents' physical self-perception.

## METHODS

**Participants:** Using convenience sampling method (Büyüköztürk et al., 2008), totally 2691 high school students from 14 different public high schools in central district of Denizli, Turkey were selected to the study. Eleven participants were excluded after detecting the outliers in the data set. Hence 2080 respondents were valid to be used for further analysis. 2080 students were consists of 1088 (553 female, 535 male) 9th grade, 832 (432 female, 400 male) 10th grade, 592 (309 female, 283 male) 11th grade, 157 (84 female, 73 male) 12th grade students and 11 students did not specify gender. All schools have two hour compulsory PE lesson in a week and have a gym.

### Instruments:

***Motivational Climate:*** High school students' perception of motivational climate of PE lesson was assessed with Trichotomous Motivational Climate Scale. Scale was developed by Agbuga and Xiang (2008) with Turkish 8th and 11th gra-

de students, Erturan Ilker, Arslan and Demirhan (2009) conducted the validity and reliability study for high school level. Twenty eight-item scale consists of three subscales, namely mastery climate, performance approach climate and performance avoidance climate. Participants responded on a 1 (Strongly disagree) to 7 (Strongly agree) scale which begin with the stem "In my PE class". Example items for mastery climate, performance approach climate and performance avoidance climate respectively are "Skill development for all the students is important", "It is important to outperform other students", and "Students are afraid of making mistakes".

**Self-Perception:** Physical Self-Perception Profile was used to assess students' self-perception in PE class. Inventory was developed by Fox and Corbin (1989) and adapted to Turkish by "Aşçı, Aşçı and Zorba, (1999)". The inventory contains 30 items with five subscales (each subscales have six items); perceived sport competence, physical condition, attractive body, and physical strength, and a global scale of physical self-worth. The Profile uses a 4-point structured alternative format in which the participant must first choose one of two statements and then indicate whether the statement is 'sort of true of me' or 'really true of me'. A sum was created for each of the five subscales with a score of six representative of low self-perception in that subcomponent and a score of 24 indicative of high self-perception.

**Procedure:** This study was the cross-sectional nature of data (Büyüköztürk et al., 2008). With approval from Ministry of Education and Ethical Committee of a large unversity, researchers met with students in their PE class and explained the aim of the study. Consent procedure was clarified as participation was voluntary and anonymous, and letters to parents and parental consent forms were sent home. A week later students who were volunteer to participate and provided consent forms from parents were included to the study. Before administering self-

report questionnaires students were explained that there were no right or wrong answer, obtained data would be kept confidentially, and not be shared with their teachers or parents. They were also told to ask if they had difficulties to understand the instructions or items. Questionnaire pack was administered in the gym or in the classroom during the PE class under the supervision of researchers. It took approximately 20 minutes for students to complete the questionnaire pack. No problems occurred during completing the questionnaire pack or understanding the nature of the questions.

**Data Analysis:** Data were screened for missing values, and univariate or multivariate outliers. Assumptions of normality, linearity, multicollinearity, and homogeneity of variance-covariance matrices were checked (Tabachnick and Fidell, 2007). Preliminary analyses included calculating descriptive statistics and scale reliabilities for all study variables.

To address the first study purpose, 3 x 4 multivariate analysis of variances (MANOVA) was conducted for motivational climate x grade level and 5 x 4 MANOVA was performed for self-perception x grade level to investigate the perception of motivational climate and physical self-perception differences among students in different grade levels. For MANOVAs, motivational climates and sub dimensions of physical self-perception served as the dependent variables and grade level served as the independent variable.

In order to address the second study purpose independent samples t test was computed to examine the gender differences in both motivational climate and self-perception variables.

Lastly, stepwise multiple linear regression was used to address third purpose; to examine how motivational climates affect each of the physical self-concept factors. Mean scores for each subscale of self-concept were hierarchically regressed on the perceived motivational climates.

## RESULTS

**Preliminary Analysis:** After data screening, descriptive statistics, estimated reliability coefficients and correlations among variables were calculated. Descriptive statistics and internal reliability coefficients are presented in Table 1. Skewness and kurtosis values for all subscales revealed that the data were normally distributed in the majority of instances and all subscales had acceptable internal reliabilities (Cronbach's $\alpha > 0.70$; Kline, 1999). In general participants had highest score on physical strength and lowest score on attractive body perceptions. Despite participants' perceptions of all there motivational climate were above mid-point (i.e. 3.5), performance approach climate had the highest mean score.

Correlations among the variables were shown in Table 2. While mastery climate and performance approach climate were positively correlated with perceived sport competence, physical condition and physical strength perceptions, performance avoidance climate was positively correlated with physical strength. As expected mastery climate was negatively correlated with performance approach and avoidance climates.

**Grade Differences:** To investigate the differences among high school students' motivational climate and physical self-perceptions by grade levels 5 x 4 MANOVA was performed (5 self-perception x 4 grade levels). Levene's Test was used to test the amount of difference between variances and results [$F_{sport\ comp.}(3, 2516) = 0.991$,

**Table 1**. Cronbach's alpha and descriptive statistics for study variables

|  | N | Range | M | Sd | Skewness | Kurtosis | $\alpha$ |
|---|---|---|---|---|---|---|---|
| Mastery | 2680 | 1-7 | 4.696 | 1.081 | -.148 | .611 | .73 |
| Performance Approach | 2680 | 1-7 | 4.898 | 1.140 | -.432 | .261 | .78 |
| Performance Avoidance | 2680 | 1-7 | 4.432 | 1.162 | -.070 | -.166 | .75 |
| Sport Competence | 2680 | 1-4 | 3.046 | .557 | .352 | 1.059 | .73 |
| Physical Condition | 2680 | 1-4 | 3.064 | .483 | .353 | .994 | .73 |
| Attractive Body | 2680 | 1-4 | 3.019 | .489 | .024 | .857 | .74 |
| Physical Self-Worth | 2680 | 1-4 | 3.046 | .454 | .026 | .800 | .79 |
| Physical Strength | 2680 | 1-4 | 3.259 | .502 | .040 | .501 | .80 |

**Table 2**. Pearson correlations among study variables

|  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. Sport Competence | - |  |  |  |  |  |  |  |
| 2. Physical Condition | .576** | - |  |  |  |  |  |  |
| 3. Attractive Body | .288** | .411** | - |  |  |  |  |  |
| 4. Physical Self-Worth | .322** | .435** | .577** | - |  |  |  |  |
| 5. Physical Strength | .420** | .441** | .320** | .366** | - |  |  |  |
| 6. Mastery Climate | .040* | .019 | -.025 | -.008 | .052** | - |  |  |
| 7. Per. Approach Climate | .051** | .018 | -.028 | -.017 | .068** | -.484** | - |  |
| 8. Per. Avoidance Climate | -.016 | -.020 | -.054** | -.047* | .058** | -.560** | .587** | - |

*p<= .05, **p<= .01

p = 0.39; $F_{physical con.}$(3, 2516) = 1.835, p = 0.13; $F_{attr. body}$(3, 2516) = 1.640, p = 0.17; $F_{phy.self-worth}$(3, 2516) = 0.878, p = 0.45; $F_{phy. strenght}$ (3, 2516) = 1.02, p = 0.38] proved that equality of variances were assumed. MANOVA results showed a significant difference (Wilks' $\Lambda$ = .983, $F_{(15, 6934.927)}$ = 2.849, p = .000, $\eta^2$= .006) among grade levels. ANOVA on each physical self-perception sub dimension was conducted as a follow-up test to the MANOVA. The ANOVA on the attractive body scores ($F_{(3, 2516)}$ = 4.427, p = .004, $\eta^2$= .005) and physical self-worth scores ($F_{(3, 2516)}$ = 1.878, p = .004, $\eta^2$= .005) found significant. Post hoc test was performed to provide multiple comparisons. LSD test revealed significant differences between 9th and 10th, and 9th and 12th grade students on attractive body scores. Ninth grade students showed the lower attractive body perception scores than 10th and 12th grade students. The LSD test results also indicated significant differences between 12th grade and all other grades levels on physical self-worth scores. Twelfth grade students indicated the highest physical self-worth scores than all the other grade levels.

Grade level differences among students' physical self-perceptions 3 x 4 MANOVA was conducted (3 motivational climates x 4 grade levels). Results indicated a significant difference (Wilks' $\Lambda$ = .983, $F_{(9, 6449.554)}$ = 5.162, p = .000, $\eta^2$= .006) among grade levels. ANOVA on each motivational climate was performed and mastery ($F_{(3, 2656)}$ = 10.315, p = .000, $\eta^2$= .012), performance approach ($F_{(3, 2656)}$ = 7.041, p = .000, $\eta^2$= .008), and performance avoidance ($F_{(3, 2656)}$ = 9.085, p = .000, $\eta^2$= .010) motivational climates scores found significant. LSD test proved significant differences among 9th-11th, 9th-12th, 10th-11th and 10th-12th grade students on mastery, performance approach and performance avoidance climate scores. Ninth grade students showed higher mastery, performance approach and performance avoidance scores than 11th and 12th grade students, similarly 10th grade students had higher mastery, performance approach and performance avoidance scores than 11th and 12th grade students.

**Gender Differences:** Independent samples t test was computed for all study variables to analyze gender differences on each sub scores. Results indicated significant differences between male and female students on sport competence ($t_{(2611)}$ = -3.772, p = .000), physical condition ($t_{(2551)}$ = -3.784, p = .000), physical strength ($t_{(2612)}$ = -3.396, p = .001), and mastery climate ($t_{(2657)}$ = 3.834, p = .01) scores. Male students had higher scores on sport competence, physical condition, and physical strength scores than female students; conversely female students obtained higher scores on perception of mastery motivational climate scores than male students.

**Predictive Effect of Motivational Climate on Physical Self-Perception:** The predictive effect of motivational climates in high school PE lessons on different dimensions of students' physical self-perception was tested with multiple linear stepwise regression analysis.

Assumptions for multiple regression were tested prior to conducting the analysis. Firstly, univariate and multivariate outliers were detected by using Mahalanobis distance method with p < .001, which has been used as an indicator of multivariate outliers (Tabachnick and Fidell, 2007) and 11 cases were excluded from the data set. Multicollinearity was considered as another assumption for the regression. For the current model the VIF values were (between 1.54 and 1.81) all below 10 and the tolerance statistics all were (between 0.55 and 0.64) above 0.2; therefore, it was concluded that there was no collinearity within the data (Field, 2009). Homoscedasticity assumption was also checked by screening each scatterplot for each regression model, and because the clouds of dots were evenly spaced around the line, homoscedasticity was considered to indicate (Field, 2009). As seen in Table 3 the Durbin-Watson scores were between 1.846 and 1.984 which falls within the acceptable range from 1.50 to 2.50. The analysis satisfies the assumption of independence of errors. Table 3 shows the regression analysis results.

As shown in Table 3 however the models were significant, three motivational climates

**Table 3.** Multiple linear stepwise regression analysis

| Dependant Variable | Predictive Variable | β | SE | B | t | p | F | p | ←R2 | Durbin-Watson |
|---|---|---|---|---|---|---|---|---|---|---|
| Sport Competence | Per. App. | .026 | .007 | .089 | 3.583 | .00 | 8.486 | .00 | .08 | 1.872 |
| | Per. Avo. | -.036 | .008 | -.111 | -4.217 | .00 | | | | |
| | Mastery | .018 | .007 | .060 | 2.495 | .01 | | | | |
| Physical Condition | Per. App. | .013 | .006 | .053 | 2.155 | .03 | 3.323 | .03 | .02 | 1.908 |
| | Per. Avo. | -.016 | .007 | -.059 | -2.437 | .01 | | | | |
| Attractive Body | Per. Avo. | -.019 | .007 | -.068 | -2.793 | .00 | 5.144 | .00 | .03 | 1.914 |
| | Per. App. | .003 | .006 | .011 | 0.460 | .64 | | | | |
| Physical Self-Worth | Per. Avo. | -.018 | .006 | -.067 | -2.763 | .00 | 4.182 | .01 | .02 | 1.984 |
| | Per. App. | .006 | .006 | .025 | 1.013 | .31 | | | | |
| Physical Strength | Per. App. | .015 | .006 | .059 | 2.414 | .01 | 6.498 | .00 | .04 | 1.846 |
| | Per. Avo. | .005 | .007 | .016 | 0.643 | .52 | | | | |

**Notes:** B = Unstandardized regression coefficient, SE = Standard error, β = Standardized regression coefficient, ←$R^2$ = Adjusted amount of variance explained.

predicted a limited percentage of the variance for each physical self-perception factors. While mastery climate took place in predictors of only sport competence, other four factors of physical self-perception did not include mastery climate as predictor. Namely, performance approach, performance avoidance and mastery climates were respectively important and predictors of the sport competence. All three climates explained 8% of the variance while performance approach and mastery climates were positive, performance avoidance was negative predictors for the sport competence perception. Physical condition was explained 2% by performance approach and performance avoidance climates respectively while physical strength was explained 4% by only performance approach. Attractive body and physical self-worth perceptions were negatively predicted by performance avoidance and positively predicted by performance approach climates 3% and 2% respectively.

Regression analysis results proved that as students' performance avoidance climate perception increased in PE lessons, their attractive body and physical self-worth perceptions decre-

ased significantly. Performance approach climate was found the most important predictive variable on sport competence, physical condition and physical strength perceptions which means as performance approach climate perception increased in PE lessons, students' sport competence, physical condition and physical strength perceptions significantly decreased.

## DISCUSSION

The aim of this study was to analyze the predictive effect of motivational climate on adolescents' physical self-perception in PE lesson. Initial results showed that ninth grade students showed the lower attractive body perception scores than 10th and 12th grade students. Twelfth grade students indicated the highest physical self-worth scores than all the other grade level students. Body awareness begins to develop with adolescence (Todd, Street, Ziviani, Byrne, and Hills, 2015), so it is meaningful attractive body perception and physical self-worth was increased by age. In line with our result, a study with Scottish adolescents has showed that girls' physical self-perceptions decreased noticeably

over time. Boys' perceived competence decreased, while global self-esteem was increased (Inchley et al., 2011).

In terms of perceived motivational climate comparisons according to grade level, ninth grade students showed higher mastery, performance approach and performance avoidance scores than 11th and 12th grade students, similarly 10th grade students had higher mastery, performance approach and performance avoidance scores than 11th and 12th grade students. Papaioannou (1997) indicated that Greek high school students showed similar results in terms of senior high school students perceiving less task-involvement and being less motivated in the PE lessons than Greek junior high school students.

Regarding gender comparisons our study proved that male students' perceived sport competence, physical condition and physical strength scores were significantly higher than girls'. Sports participation in male adolescents in Denizli is more common than it is in female adolescents (Denizli *Provincial Directorate* of *Youth Services and Sports*, 2015). Based on the literature evidence indicating the positive link between self-perception and sport participation (Dishman et al., 2006), our result is not surprising. Existing literature is parallel with male superiority in terms of self-perception components. For example, girls between 11-15 years old reported lower levels of perceived competence, self-esteem and physical self-worth than boys (Inchley et al., 2011). Moreno-Murcia et al. (2012)'s research among Spanish adolescents has pointed out that boys had higher level of sport competence and physical condition than girls. Results for gender differences in the perception of the motivational climate were similar with previous findings (Papaioannou and Kouli, 1999) reporting that female students obtained higher perception of mastery motivational climate than male students.

In this study, motivational climate was found to predict adolescents' five different aspects of physical self-perception. As perceived performance avoidance climate in PE increased,

students' perceived body attractiveness, and physical self-worth decreased. This result was not surprising due to the rivalry supportive nature of performance avoidance motivational climate. Considering PE environment, students' displaying their competence in front of their peers while excelling exceeding standards and performance evaluations which are overt and obvious (Duda, 1993) in PE can be related with to perceptions of rivalry and perceived performance avoidance climate. Feeling of being "the worst" in terms of the physical capacity in PE will eventuate with perception of low physical self-worth and body attractiveness sooner or later. Because self-concept has been contributed by interactions with significant others, and attributions of fosters individual's own behaviour, and experience with the environment (Inchley at el., 2011; Gehris, Kress and Swalm, 2010).

Adversely, perception of mastery climate in PE has been proved to encourage adolescents' perceived competence therefore positive self-perception. For example a couple of studies with Spanish adolescents proved that perceived mastery climate in PE was positively correlated with perceived sport competence, physical condition, and attractive body subscale scores of self-perception profile (González-Cutre, Sicilia, Moreno and Fernández-Balboa, 2009; Moreno-Murcia 2005; Moreno-Murcia et al., 2012). Çağlar and Aşçı (2010)'s study with Turkish adolescents showed that students who had high level of motivation in PE lessons, got also high scores from sport competence and physical condition subdimensions of physical self-perception scale.

A number of limitations warrant attention. First, this study is cross-sectional in design. Consequently, it is restricted to reveal reciprocal effects. Future research should plan as longitudinal design and repeat the assessments during adolescence. This methodology will allow displaying fluctuations in self-perception and perceived motivational variables during adolescence. Second, students' perceived motivational climate was assessed with trcihotomous structure which allows performance climate in a

dual form while mastery climate in a single form. It would be interesting to elaborate perceived motivational climate in 2x2 model (Elliot and McGregor, 2001) which allows both mastery and performance climates in dual forms. Lastly, self-perception was analysed within the Achievement Goal Theory framework. Self-perception concept can be examined closely related to different aspects of motivational variables that is, different motivation theories.

## CONCLUSION and RECOMMENDATIONS

PE teachers are suggested to avoid practices that provide to create learning environments that nourish students' performance avoidance climate perceptions. Namely, avoiding absolute evaluation that encourages rivalry among students, defining the worst performances in activities and humiliating low performance students during the lessons can polish students' perceptions of performance avoidance climate.

Moreover, PE can be considered as the main learning environment among other lessons that emphasizes the physical development; hence it has the key role to improve positive self-perception. PE teachers are advised to priorities female students when planning the activities regarding their lower self-perception level compared to boys. Teachers should take into account that girls' physical performance levels can be lower than boys' during adolescence. Regardless of their ability levels, girls should experience success and feel competent in PE.

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