Physical Self-Perception and Sport’s Activity Applied in Physical Education Context: The Self-Efficacy of Achievement Performance

Chawki Derbali, Zouheir Ben Jannet, Ali Elloumi
Institution of Physical Education and Sport, University of Gafsa
derbali_chawki@yahoo.fr

ABSTRACT

This study case has a double purpose. It aims 1) to examine students’ physical self-perception (PSP) in physical education (PE) with construction and validation of (PSP) Questionnaires; 2) to analyse the relationships between students’ self-perception, physical condition, body fat, appearance, self-esteem, all to predict student ‘physical’ self-efficacy in and outside secondary school. Participants consist of 179 secondary-school students 15 to 19 years old (109 girls; 70 boys). The first study was designed to develop and validate (PSP) Questionnaires among pupils. Factor analyses were conducted to determine the underlying structure of the (PSP). The confirmatory factor analyses were used to assess reliability and validity of the Questionnaires. In a second study, correlation designs were used to evaluate relationships between (PSP) and performance in for physical education activities (gymnastics, shot put, basket-ball and long jump). Then, a deductive study, testing a model of predictors ‘physical’ self efficacy with regression analyses, was undertaken. Exploratory and confirmatory factor analyses suggested that the final items version of the PSP questionnaire is represented by eight variables, respectively. These have been labeled: (appearance, body fat, strength, endurance, coordination, flexibility, self esteem and health). The (PSP) items display satisfactory internal consistency values with α = .76 and α =.73), respectively. ‘Physical’ self efficacy was predictable from performance (β = .508, p < .001), physical condition (β = .181, p < .001), self esteem (β = .91, p < .05), and health (β = .188, p < .01). Some sub-scales of (PSP) can be predictors for ‘physical’ self efficacy. A good correlation between physical self-perception (PSP) and the self-efficacy was highlighted. Thus the (PSP) Questionnaire provides a useful method to study the relationships between the physical self-perception and physical education average performance in order to predict the ‘physical’ self-efficacy. Estimating that this method may have implications for prescription of ‘physical’ self-efficacy and promoting the physical well-being, it can be extended to other populations in order to be confirmed and to have a more general value.

Keywords: Physical self-perception, Self-esteem, Performance, Self-Efficacy.
1. Introduction

Studies in physical education (PE) and sport psychology have confirmed the importance of body awareness in building self-esteem. Some authors (Abamara and Agu, 2014; Goudas, 1994; Roberts, 1981) show that the development of the perceived physical value assistance to improve self-esteem. As the self-confidence keeps the commitment of the student in a physical practice, as a catalyst for self-esteem. In this logic, it is interest to develop the self-esteem through some physical education programs. So, the issue of self-perception may be placed on an evaluative level that corresponds to the concepts of self-esteem and feeling of competence. This is the highest level of conscious and specific in the subject. On one hand, James (1890) saw self-esteem as a relationship between the desires of the person and his actual achievements. On the other hand, Cooley (1902) considered the self-esteem as the interpretation of reactions and behaviors of the other to us.

Throw a quantitative approach (Coopersmith, 1967; Muhammad et al., 2014), we could find that the concept of self-esteem indicates what the individual feels within him and his own self-worth. Thereby, research on self-esteem have been many criticisms, both theoretical (Rosenberg, 1979; Wylie, 1979) Metrological (Harter, 1983). This led us to a multidimensional approach or heuristic path. Noting as well as Harter (1982) is influenced by Bandura (1977), he wished to develop the concept of perceived competence. To say that this concept refers to assess the skills, by individual expertise in various domains (Harter, 1982). These domains are designed multidimensional structure of self-concept, the overall level of global self esteem (Harter, 1982) located on the upper level and covering the whole. Noting that advantage Epstein (1973) suggests a hierarchical organization of self-esteem.

This approach has benefited from scientific progress on the self. These advances relate to its cognitive structure (Marsh & Shavelson, 1985), development (Rosenberg, 1986), operation (Tesser and Campbell, 1983) and its relationship with emotions (Higgins, 1987). Currently, researchers are more concerned with its changes and the cognitive functions, affects and ways of coping with stress (Bariaud Bourcet, 1994), by diversity (Ninot, G.2000). Thus explaining, the construction of physical self-concept has been used to explain the behavior manifested through a field of design and completion of a positive physical self-concept has been posited as a desirable personality and adolescent development in physical education. Its importance is paramount despite the theoretical formulation of this concept is imprecise, and the construction and measuring instruments are inadequate.

To try to remedy this situation, Shavelson, Hubner and Stanton (1976) asked multifaceted, hierarchical self-concept with different facets of growing older. The hierarchical structure of physical self-concept seems complicated and depends primarily on the population and purpose of the study as it depends on the evaluation criteria of adequate instruments. In addition to that, studies on self-concept have been many criticisms, both theoretical (Rosenberg, 1979; Wylie, 1979) Metrological (Harter, 1983). Most of these studies do not present a strong theoretical basis (Bariaud Bourcet, 1994), but they constitute a large operational confusion (Bariaud Bourcet, 1994). Where we are, sometimes, before a conceptual fragility as rated Wells and Marwell (1976) notion it a conceptual sponge.
Study 1

2. Methodology

2.1. Subjects

This first study was conducted in a public secondary school of general education. This school is large. It educates over 1,400 students. The population consisted of 217 students volunteered for the study, who attend seven classes of different levels. The age of participants varies between 15 and 19 years and the group is homogeneous (109 girls and 70 boys).

2.2 Statistical Analysis

2.2.1. Procedure

The questionnaire was completed by 179 participants in the classroom at the beginning of Physical Education session. This is a response to the questionnaire voluntarily for a period about ten minutes of award, noting the sex and date of birth without their names. It was just information, not an event. The results would remain anonymous and will be used for a scientific purpose.

2.2.2. Factor analysis

The factor structure of perceived physical self concept in physical education and sport, is determined by an analysis of critical factors submitted by all 39 items, escorted by a varimax rotation. The analysis of the factor structure reached a result that completed nine factors which develops 52% of the total variance. The items are each assigned to a specific factor and are based on weight saturation. To do this, it is important to note that the selection of factors was based on the base casting and representation theory as described above for each of these nine concepts of self-perception. The resulting factor structure revealed the presence of nine factors of perceived physical self. We record four items for each of the factors that correspond to concepts: coordination, power, resistance, suppleness, obesity, Physical condition and physical hygiene. Noting also five items in the category of self-esteem. Finally, three items come together under one factor that corresponds to the physical appearance.

3. Results and Discussion

Initially, the results show the tests on the physical self-perception of students in terms of physical education and sport. Subsequently, further analysis of survey to assess the validity of the measuring instrument (questionnaire).

3.1. Normality of distribution and exploratory factor analysis

Initially, the data analysis has enabled the elimination of eight statements that reflected discomfort distribution. This allowed to exclude statements that showed saturation too low (<0.30 Gorsuch, 1983). Subsequently, the degree of flatness (kurtosis) and asymmetry (skewness) of data, averages, and also the standard deviations were examined by the
distribution of statements. To do this, exploratory factor analysis by the likelihood method with Oblimin rotation oblique type were performed on the 36 retained statements. The results indicate that the nine factors have an eigen value greater than 1. These factors develop 53% of the total variance. This percentage is admissible since it satisfies the test value of 40% suggested by Gorsuch (1983). Any statements had loadings greater than 0.5 (values ranging between 0.51 and 0.96) on the factors involved. Moreover, Table 1 shows the coefficients of saturation for the 36 statements. And otherwise, it is worth mentioning that the final structure was examined with men and women separately and it is really like.

The results in Table 2 are the primordial distribution indices of normality for the nine sub-scales. For the first case, average results show that there is no ceiling effect (value 5). As for the floor effect on (1), sub-scales show averages ranging above 1. On the other hand, the results show evidence of flattening (kurtosis) and asymmetry (skewness), which indicate acceptable values, having a normal distribution of data compliant. And this is approved by Bentler (1983, 1985, 1986), which proposes that the value of the indices of a normal distribution should be close to zero and does not access more or less 2. However, we have kept the statements that fall within the best predictors of distribution in the nine sub-scales. Furthermore, factor analysis can determine some structural purpose in the various categories of physical self-perception. However, it remains to confirm these results using a confirmatory factor analysis.

Table (1)

<table>
<thead>
<tr>
<th>Items measuring physical self-perception</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coordination</td>
</tr>
<tr>
<td>I1</td>
<td>.932</td>
</tr>
<tr>
<td>I2</td>
<td>.944</td>
</tr>
<tr>
<td>I3</td>
<td>.951</td>
</tr>
<tr>
<td>I4</td>
<td>.908</td>
</tr>
<tr>
<td>I5</td>
<td>.708</td>
</tr>
</tbody>
</table>

Study 1: Results of standardized loadings of exploratory factor analysis on the physical self perception questionnaire (PSP)
Note. N = 179; I = item, there is only the factor saturations > à 0.5

Table (2)
Means, standard deviation, internal consistency and correlation between subscales

<table>
<thead>
<tr>
<th>Physical self perception sub-scales</th>
<th>Sub-Scales</th>
<th>M</th>
<th>SD</th>
<th>Cronbach Alpha</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coordination</td>
<td></td>
<td>2.98</td>
<td>.932</td>
<td>.912</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power</td>
<td></td>
<td>2.94</td>
<td>.953</td>
<td>.899</td>
<td>.493</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance</td>
<td></td>
<td>2.79</td>
<td>.940</td>
<td>.936</td>
<td>.617</td>
<td>.493</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppleness</td>
<td></td>
<td>3.24</td>
<td>1.151</td>
<td>.839</td>
<td>.710</td>
<td>.478</td>
<td>.626</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity</td>
<td></td>
<td>2.93</td>
<td>1.147</td>
<td>.980</td>
<td>-399</td>
<td>-275</td>
<td>-453</td>
<td>-369</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical Condition</td>
<td></td>
<td>3.27</td>
<td>.992</td>
<td>.932</td>
<td>.540</td>
<td>.510</td>
<td>.505</td>
<td>.504</td>
<td>.504</td>
<td>.306</td>
</tr>
<tr>
<td>Self-esteem</td>
<td></td>
<td>3.27</td>
<td>1.032</td>
<td>.828</td>
<td>.538</td>
<td>.440</td>
<td>.531</td>
<td>.498</td>
<td>.447</td>
<td>.537</td>
</tr>
<tr>
<td>Physical Appear.</td>
<td></td>
<td>2.92</td>
<td>.972</td>
<td>.734</td>
<td>.067</td>
<td>-.023</td>
<td>.038</td>
<td>.091</td>
<td>-.009</td>
<td>.025</td>
</tr>
<tr>
<td>Physical Hygiene</td>
<td></td>
<td>3.28</td>
<td>.996</td>
<td>.883</td>
<td>.582</td>
<td>.574</td>
<td>.574</td>
<td>.591</td>
<td>-.430</td>
<td>.798</td>
</tr>
</tbody>
</table>

Note. N = 179; p < 0.001

3.2. Internal consistency of the sub-scales of the PSP

Table 2 also presents the values of the internal consistency of the nine subscales of physical self-perception. The Cronbach alpha indices (Cronbach, 1951) to verify the internal consistency of these subscales. The alpha values appear acceptable because they are higher than 0.70 (Nunnally and Bernstein, 1994). Although the internal consistency of two of these nine sub-scales does not lead the recommended threshold of 0.80 is greater than 0.70 recommended by Nunnally (1978). In addition, a sub-scales is very small (three items), however, the internal consistency reduced mainly dominates the glint of the limited number of items. Generally, the Cronbach alphas vary between .734 and .936.
3.3. Construct Validity

The correlational analysis between the sub-scales of the PSP was performed. The table shows the results of these tests. The observation is that adjacent sub-scales on the continuum are the most positive correlations, specifically between the coordination, power, resistance, suppleness, physical condition, self-esteem and physical hygiene, determined between \( r = 0.44 \) and \( r = 0.79 \). This corroborates data from literature (Deci and Ryan, 1985 and Deci and Ryan, 2000). While the correlations are negative and lower than observed between sub-scales on the continuum adjacent to the opposite and most subjective, the highest negative correlations were obtained between obesity the farthest along the continuum, and the other subscales, this is confirmed by (Gauthier, 2007). The values vary between correlations \( r = -0.27 \) and \( r = -0.45 \). Similarly although there is positive correlation between body image and other factors of the physical self-perception, but they are not significant \( (p > 0.05) \). The summary of correlations is consistent with the continuum of the physical self-perception (Deci and Ryan 2000, Ryan and Connell, 1989), throw the correlational profile obtained.

Study 2

4. Methodology

The objective of this study included to confirm the factor structure of physical self-perception (SPP), through a large population, to verify the validity of the construct. Thus, the second study aims to validate the results achieved during this first study and confirm the theoretical model of the questionnaire.

4.1. Subjects

Participants in this study are composed of 267 students (124 boys and 143 girls) from the region of Sbeitla. The subjects’ age ranges between 15 and 21 years. The population follows a regular practice sessions of PSE. The social profile of the population was completely similar to that of Study 1, with the same procedure for the award of the questionnaire.

4.2 Statistical Analysis

4.2.1. Procedure

Study 2 takes advantage of the choice of population in study 1, and this, with socio-cultural criteria of participants. Moreover, taking consideration that students are invested within a broader search, appearing as longitudinal study of larger scale. It was also indicated that participants were asked to complete the questionnaire as a measure of the PSP during the hours of practice physical education. The study was aimed to better understand the determinants of physical self-perception by verifying the reliability and validity of the sub-scales of the questionnaire for the PSP.
4.2.2. Confirmatory factor analysis and internal consistency of the instrument

The confirmatory factor analysis was performed using the software LISREL (Jöreskog and Sörbom, 1993). The hypothetical model proposes that the items of each subscale require saturation on their appropriate variable in accordance with the results is that the previous study. A correlational matrix determined from the Prêles software (Jöreskog and Sörbom, 1993) deciphering the nine variables studied for the 36 items of the questionnaire to calculate the confirmatory factor analysis (Chou and Bentler, 1995). Thus, the results confirm the factorial validity of the hypothetical model ($\chi^2 (39) = 217.26, p < 0.001, GFI = 0.91, CFI = 0.93, RMSEA = 0.063, \text{confidence interval for RMSEA} = 0.056/0.076, \text{ECVI} = 0.43, \text{ECVI for saturated model} = 0.41$). For each factor, the estimates of all standardized coefficients were above 0.70 and significant at $p < 0.01$.

According to the procedure used by Elliot and McGregor (2001), we examined the indices of five competing models, and we compared the indices of hypothetical model.

4.2.3. Analysis of indices of model fit

The indices based on the observed covariance, note that the value of chi2 is significant, but this model is insufficient to confirm the validity of the construct. However, it is essential that the analysis model must cover a large population, except that the result may be considered influenced by the size of the population and doesn't draft the reality of the model. Hence the need to appeal to examine other indices affinity usually recommended (Arbuckle and Wothke, 1999; Bollen and Long, 1993).

4.2.4. Confirmatory factor analysis (CFA)

Initially, confirmatory factor analysis was performed using the software AMOS. This analysis helps to examine and check the adequacy of the model. The estimated factor model presents nine sub-scales of four items made, except for factors, self-esteem consists of five items and physical self-perception has three items. Five adjustment indices, the most frequently used, can inspire the validity of the model: NNFI (Bentler-Bonett Normed Fit Index-No, Tucker and Lewis, 1973), CFI (Comparative Fit Index, Bentler, 1990) The RMSEA (Root Mean Square Error of Approximation), chi-square ($\chi^2$) and the ratio of freedom khi-carré/degrés ($\chi^2/dl$; Marsh et al., 1996). Indices NNFI and CFI usually range between 0 and 1 (Fassinger, 1987). Indeed, over the values of these indexes are close to 1.0, the model shows significant fit (Bentler, 1992; Schumacker and Lomax, 1996).

With respect to the RMSEA index, some authors priconise a value of less than 0.05 indicates a very good level of scalability, although values between 0.05 and 0.08. These values are also acceptable (Jöreskog and Sörbom, 1993). In addition, the chi-square assessing the degree to which observed data model is similar to the alternative model. Therefore, the non significance of chi-square shows a good fit of data to the model. However, the population size has an effect on this index. Indeed, the population study is great, more the value of chi-square is significant. Finally, the ratio of freedom khi-carré/degrés ($\chi^2/dl$) is used to evaluate the fit of a model. It is usefull when the value of this ratio is less than 2, where the model is a level of adequate fit (Marsh et al. 1996).
5. Results and Discussion

The reader is invited to refer to Table 2 for detailed results for these indices. The confirmatory factor analysis of this second study shows results indicating a value of chi-square significant [$\chi^2 = 217.26$, $p < 0.001$]. In addition, the results show parallel values of CFI (0.93) and NNFI (0.91), which are acceptable. In addition, indices RMSEA (0.063) and $\chi^2/dl$ (2.27) are still satisfactory. So, we got through to approve the confirmatory analysis, all the coefficients of correlation and saturation, and also the measurement errors are significant ($z > 1.83$). Finally, we have noted that the fit indices are a good level of adequacy of data supporting the profile of nine subscales of physical self-perception (PSP).

Study 3

6. Methodology

This study is interested to identify: -1) the correlation between physical self-perception and performances; -2) prediction of the physical self-efficacy.

6.1. Subjects

The study population consists of 70 boys and 109 girls, of an age ranging between 15 and 19 years have been examined. They attend physical education classes at the secondary school of Sbeïtla from Tunisia.

6.2 Statistical Analysis

Measured sport performance and data of questionnaires were collected and ready for analysis, the data were input into SPSS version 17.0 for advanced examination. Descriptive statistics and regression analysis were utilized for the quantitative and qualitative analysis.

6.2.1. Procedure

During 5 cycles of physical education (13 sessions), questionnaires on physical self-perception, just validated, and self-efficacy questionnaire (Bandura, 1977) were used. Before the first session, students completed these questionnaires measuring their physical self-perception in physical education. Responses were made on a five-point scale as adapted from a Likert scale form, ranging from (1): "not agree at all to (5): "completely agree”. Then, they completed the self-efficacy questionnaire

Performance in five physical education activities (gymnastics, shot put, basket-ball and long jump). 1) Students’ performance in gymnastics activity was evaluated on five gymnastic difficulties (e.g., handstand, pirouette, face board, wheel and handspring); 2) students’ performance measured and observed in shot put phases (e.g., the Shot grip and placement, delivery of the shot, power position, and the glide position); 3) The basket-ball assessment was determinate throw (e.g., conquered Ball, lost ball, interrupted ball, scored goal, game volume); 4) The long jump assessment was based on the following four phases (e.g., Approach run up; Take off; Flight through the air and landing) and a quantitative
performance. The students were videotaped and evaluated during those fore physical education activities cycles.

Grade. After accomplishment of each activity cycle, teacher provided the grades obtained by the students in competition using assessment grids. Grades are scores comprised between 0 and 20, and the score of 10 is generally considered the middling measure.

On the one hand, Follow-up analysis showed a significant multivariate main effect of treatment could be attributed to physical activity performance and physical self perception (coordination, power, resistance, suppleness, obesity, Physical condition and physical hygiene) On the other hand, no significant between obesity and physical appearance from PSP and physical activities. In the contrary all other subscales from the both PSP in relationship to achievement performance in physical education activities throw efficient strategy were correlated. The correlation ranged from (0.754, 0.188) with the performance in several physical activities such as Gymnastic, Shot Put, Basket-Ball and Long Jump.

7. Results and Discussion

7.1. Physical self perception and physical education activities

This article wanted to fill the lack of studies about the physical self-perception at least in physical education and this, in describing the development of a theoretical model and the construction of an instrument of measure for students. The evaluation of psychometric qualities of the questionnaire was conducted in two studies. Thus, the development and validation of the questionnaire on physical self-perception in physical education reside in the construction of two additional studies. The questionnaire consists of nine subscales, measuring physical self-perception among pupils in PE and is a reliable and valid. The validity of the tool has been provided by the exploratory and confirmatory factor analysis.

To say that the observation of correlations between the sub-scales consistent with theoretical assumptions, in addition to the collection of correlations consistent with theory and results in the academic field. Finally, the fidelity of the Physical Education Questionnaire has been demonstrated by a high internal consistency, temporal stability and a satisfactory medium term. Moreover, evidence of validity of this instrument broadcast positive self-perception as the negative. According to the validity confirmed in the field of sport and physical education. The results corroborate research found developed in the scientific literature showing that in this school subject, the students are able to identify themselves through their beliefs identified by the physical self-perception.

The results of the preliminary study show the relevance of theoretical magnitudes corresponding to the physical self-perception in the field of physical education among students. The analysis conducted in relation to the dimension of physical and motor belief, show a factor structure with nine factors supporting three areas of physical skills, physical self inventory and physical hygiene. Although the internal consistency of the nine subscales not reaches the threshold of 0.80, it accesses the 0.70 recommended by Nunnally (1978). However, the internal consistency including reduced dominates the image of this small number of items.
Furthermore, high correlations identified between the new questionnaire and the French version of the self-perceptions are that these two measuring instruments like the same building: the physical self-perception. However, the new questionnaire provides a more comprehensive assessment of this construct. On one hand, it adopted to invest specifically motor skills against which young people value. On the other hand, the new tool accesses assess how the young are perceived and appreciated at three levels (body image, physical quality and health), to provide a level corresponding to the physical self-perception.

Finally, descriptive data pertaining to the first study are derived that, overall, boys and girls reach scores relatively high and comparable to each of the subscales of self-perception about the plans, body image and physical hygiene. It therefore shows that they derive their sense of themselves in terms of individual similarly, except exception on two forms of physical qualities (endurance and strength). Indeed, the results show that boys receive more importantly, develop their physical skills through their self-perceptions, whereas girls seem a bit more worried in provisions for physical assertiveness. However, boys are more able than girls to demonstrate skills that benefit from a positive physical self-perception.

7.2. Prediction of physical self-efficacy and performances measure

Albert Bandura defines self-efficacy as the self-efficacy that identifies an individual's belief that he is able to achieve a specified property. It was found that self-efficacy emerged as a very efficient predictor of learner performance. It seems a measure of performance based on perceived capabilities. Self-efficacy is related to a change in conceptual levels, the outcome expectations, self-concept, and control. Thus it challenges us to broaden the scope of investigation by discussing the concept and more self another dimension might be useful in physical education is the concept of self-physical.

The theory of self-efficacy, as advocated by Bandura in 1977, postulates several mechanisms of personal beliefs through guidelines to the acquiring of self-efficacy beliefs in various fields of operation. In this study, we seek to predict self-efficacy of students in physical education and which interests us here is the physical and motor field of pupils, hence the physical self-efficacy. This concept takes advantage of concepts related to literature and is distinguished by its specificity directed towards the prediction of physical self-efficacy, by describing the special charge of reasons referring to the belief in the student's abilities to manage or not his own learning activity and discuss the sensitivity of self-efficacy to academic achievement and its effect on physical well-being.

On the structural side, we suggest that physical self-efficacy may be much more useful if its prediction by students depends on the reflected beliefs, that is to say, their ideas and beliefs about themselves, in a reasonable mind. As the level of self-efficacy depends essentially on the degree of difficulty of the task designated. For Bandura (1986), ways to provide the people had adhered to their judgments of how they will be able to perform data subjects. He added that in 1997, the structure of self-efficacy is perceived personal judgments on the ability to organize and execute during action to achieve the identified objectives. On the other hand, the nature of the contents of the physical self-efficacy is determined through measurement of physical self-efficacy based on criteria for control performance, the physical and psychological characteristics.
Self-efficacy beliefs are not a single decision, but rather are multidimensional forms and are distinguished on the basis of field operation. Given that the efficacy beliefs on an athletic individual sport event may be different to those on a test of team sport. Thus, measures of self-efficacy are all designed to be sensitive to changes in the performance applied in physical education context. However, predicting specific judgments of self-efficacy and physical functioning are evaluated before students carry out the practices identified. This property positions prior beliefs about the physical self-efficacy, regardless of positive or negative could be subjective and affect the performance of learners. In this logic Shell, Murphy, and Bruning (1989) add that only self-efficacy measured in terms of perceived ability interesting predictor of writing performance. The results show not only the discriminant validity of measures of self-efficacy, they support the idea that Bandura's self-efficacy plays more serious outcome expectancy in motivation.

This newly built, self-efficacy, physical, based in its approach to construction work of (Marsh & Shavelson, 1985; Rogers, 1951, Hattie, 1992; Wylie, 1968; Harter, 1978, Marsh & Shavelson, 1985). Indeed, the prediction of physical self-efficacy of students in the field of physical education and sports highlights several factors such as self-concept, many forms of self-knowledge and feelings of self-evaluation, the global self perception and self-esteem, all as a Hierarchical construction, with a comprehensive self-concept on top of a self-hierarchy. In contrast, self-efficacy items focuses exclusively on the expectations of performance on specific tasks. Long before the responses to the scenarios and the expectations of future performance are often correlated.

5.3. Correlation between the subscales of physical self-perception and measured performances in physical activities

<table>
<thead>
<tr>
<th>Regression analysis</th>
<th>B</th>
<th>SE</th>
<th>Beta</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical condition</td>
<td>.181</td>
<td>.043</td>
<td>.137</td>
<td>.001</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>.089</td>
<td>.036</td>
<td>.091</td>
<td>.013</td>
</tr>
<tr>
<td>Average Performance</td>
<td>.201</td>
<td>.016</td>
<td>.531</td>
<td>.000</td>
</tr>
<tr>
<td>Physical Appearance</td>
<td>.083</td>
<td>.052</td>
<td>.091</td>
<td>.109</td>
</tr>
<tr>
<td>Physical Hygiene</td>
<td>.188</td>
<td>.058</td>
<td>.190</td>
<td>.001</td>
</tr>
<tr>
<td>BMI</td>
<td>-.007</td>
<td>.008</td>
<td>-.024</td>
<td>.390</td>
</tr>
</tbody>
</table>

Note. Beta: regression coefficient; P< .05 : shows a significant effect
To facilitate the interpretation of the physical self efficacy, the 6 paths listed in table 4 can represent the prediction model of physical self efficacy. Consistent total, direct, and indirect effects shows the results of the regressing analyses for males and females. To explore the significance of the indirect effects that emerged, results provided support for partial mediation for self-efficacy. Globally, multiple regression analyzes revealed that physical self perception scales can predict different levels of sport performance in physical education context. Lastly, partial mediation was supported for the path between 4 predictors, such as performance ($\beta = .508$, $p < .001$), physical condition ($\beta = .181$, $p < .001$), self-esteem ($\beta = .019$, $p < .015$) and physical hygiene ($\beta = .188$, $p < .01$).

Finally, measures of physical self-efficacy are not only different, but they are conceptually related to deep structures. On the one hand, the perceptions of physical-self, such as self-esteem, physical condition are determinant factors in prediction of self efficacy of performance achievement. On the other hand, these factors pointing to the self-efficacy may have physical discriminant validity in predicting a variety of school results in terms of physical self-efficacy in physical education. Contrary to our prediction the body mass index (BMI) function did not emerge as a significant predictor of self efficacy, caused by the negative effect of elevated BMI on selected parameters of physical educations and sport performance (Nikolaidis and Ingebrigtsen, 2013).

### Table (4)
Correlation coefficients of Pearson between the subscales of physical self-perception, and measured performances in physical activities

<table>
<thead>
<tr>
<th>Pearson Correlations</th>
<th>Gymnastic</th>
<th>Shot Put</th>
<th>Basket-Ball</th>
<th>Long Jump</th>
<th>Average Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.193**</td>
<td>.040</td>
<td>.055</td>
<td>.063</td>
<td>.098</td>
</tr>
<tr>
<td>Poids</td>
<td>-.253***</td>
<td>-.293**</td>
<td>-.352**</td>
<td>-.359**</td>
<td>-.345***</td>
</tr>
<tr>
<td>Taille</td>
<td>.199**</td>
<td>.258**</td>
<td>.229**</td>
<td>.165**</td>
<td>.235***</td>
</tr>
<tr>
<td>IMC</td>
<td>-.341***</td>
<td>-.418**</td>
<td>-.460**</td>
<td>-.438**</td>
<td>-.455**</td>
</tr>
<tr>
<td>Coordination</td>
<td>.576**</td>
<td>.487**</td>
<td>.621**</td>
<td>.646**</td>
<td>.640**</td>
</tr>
<tr>
<td>Power</td>
<td>.554**</td>
<td>.540**</td>
<td>.562**</td>
<td>.624**</td>
<td>.627**</td>
</tr>
<tr>
<td>Resistance</td>
<td>.593**</td>
<td>.591**</td>
<td>.617**</td>
<td>.649**</td>
<td>.674**</td>
</tr>
<tr>
<td>Suppleness</td>
<td>.536**</td>
<td>.452**</td>
<td>.550**</td>
<td>.619**</td>
<td>.592**</td>
</tr>
<tr>
<td>Obesity</td>
<td>-.297**</td>
<td>-.354**</td>
<td>-.419**</td>
<td>-.384**</td>
<td>-.399**</td>
</tr>
<tr>
<td>Physical Condition</td>
<td>.596**</td>
<td>.531**</td>
<td>.590**</td>
<td>.675**</td>
<td>.657**</td>
</tr>
<tr>
<td>Self-Esteem</td>
<td>.573**</td>
<td>.520**</td>
<td>.596**</td>
<td>.683**</td>
<td>.652**</td>
</tr>
<tr>
<td>Physical Appearance</td>
<td>-.056-</td>
<td>.158</td>
<td>.089</td>
<td>.068</td>
<td>.070</td>
</tr>
<tr>
<td>Physical Hygiene</td>
<td>.665**</td>
<td>.566**</td>
<td>.680**</td>
<td>.754**</td>
<td>.732**</td>
</tr>
</tbody>
</table>

Note. *. Correlation is significant at $p < 0.05$.
**. Correlation is very significant at $p < 0.001$. 
8. General Discussion

The self-efficacy image of Bandura (1997) notes that it is conceptually possible to have high self-efficacy about a capability that we have not considered singularly as well as reverse. Thus, it is interested to mention the physical self-efficacy beliefs mediated primarily by self-efficacy depends on the physical self-perception to identify a comprehensive physical image, and the keys of meditation and Self-assessment requires a determination based on a control strategy with a well-developed self-esteem depending on activity to execute. Another concept deeply contributor to the construction of physical self-efficacy is perceived control, which represented the control situation. The perception of control reference to general expectation to know whether the results are verified by conduct or by external forces, hence the interest that internal locus of control should support ongoing self-directed from action internal locus of control, whereas external locus of control should be discouraged (Rotter, 1966).

All these parameters belongs to regression equations. Hence the beliefs of physical self-efficacy can predict the evolution of academic success previously. While tasks are not specific, at least the field is clear. Here, we seek self-efficacy in physical domain, in physical education, the ability to measure performance of learners proposed. Thus, self-efficacy differs from self-concept as its specificity, various performance tasks and contexts.

7. Conclusions

The purpose of this study was to identify the relationships between physical self perception and performance in order to predict the physical self-efficacy. Certainly, the prediction of physical self-efficacy of students in the field of physical education and sports highlights several factors such as self-concept, many forms of self-knowledge and feelings of self-evaluation, the global self perception and self-esteem, all as a hierarchical construction, with a comprehensive self-concept on top of a self-hierarchy. In contrast, self-efficacy items focuses exclusively on the expectations of performance on specific tasks. Long before the responses to the scenarios and the estimation of future performance are often correlated.

In addition to that, we have found that the objective indicator of physical self perception (Coordination, Power, Resistance, Suppleness, Obesity, Physical Condition, Self-Esteem, physical Appearance, and Physical Hygiene) was most highly related to measured performance for five sports activities. So to explore the significance of the indirect effects that emerged, results provided support for partial mediation for self-efficacy. Lastly, partial mediation was supported for the path between 4 predictors, such as performance, physical condition, self-esteem and physical hygiene. Finally, measures of physical self-efficacy are not only different, but they are conceptually related to deep structures.
References


