

VERIFICATION OF A MOTIVATIONAL CLIMATE INVENTORY IN A SPORTS SETTING

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Abstract:

It is determined that two dispositional points exist, which differentiate between individuals in their goal perspective decisions (i.e. task and ego orientation) in relation to the way a person judges his/her competence and defines achievement success. Motivational climate in a sport setting can be characterised as more or less task or ego involving which is related to the athlete's motivational responses, i.e. goal perspective choice in the training process. The sample comprised of 144 male Croatian basketball players from 9 teams, aged 14-16 years. They responded to the LAPOPECQ questionnaire that was constructed to measure the learning and the performance orientation in PE classes. By applying this instrument to the sports setting it was expected to obtain an insight into the factor structure which defines the motivational climate of young basketball players based on their achievement orientation (learning or performance orientation) in basketball training. According to the principal components factor analysis (GK - criterion) and after fixing the principal components of intercorrelation items matrix, these results mostly confirmed Papaioannou's model because 23 out of 27 items defined the same hypothetical factors as in Papaioannou's solution, and 45.71% of variance was explained by the questionnaire items. The first factor was defined as the learning-oriented environment occurring as a result of the athlete's satisfaction in learning. The second factor suggested a climate in which success is defined by the normative based criteria of evaluation. The third factor explained the athlete's worries about mistakes. The fourth one implied a climate in which success is defined by the ability criteria based on the outcome without effort, and the last factor implied a learning orientation climate, which is created by the coach's behaviour.

Key words: motivational climate, goal orientations, basketball

VERIFIKATION EINES FRAGEBOGENS ÜBER DAS MOTIVATIONSKLIMA IM SPORTBEREICH

Zusammenfassung:

Es wurde festgestellt, dass es zwei Dispositionspunkte gebe, die zwischen individuellen Personen betreffend ihrer zielbezogenen Entscheidungen (d.h. Aufgabe- oder Egoeinstellung) unterscheiden. Es geht darum, in welcher Weise jemand seine/ihre eigene Kompetenz beurteilt und seinen/ihren eigenen Erfolg bestimmt. Das Motivationsklima im Sportbereich kann als mehr oder weniger aufgabe- oder egobezogen beschrieben werden, was von den Motivationsantworten eines Sportlers, bzw. seiner Auswahl der Zielperspektive im Trainingsprozess abhängt.

Die Stichprobe umfasste 144 kroatische Basketballspieler aus 9 Teams, 14-16 Jahre alt. Sie füllten den LAPOPECQ Fragebogen aus, der zum Messen von Lern- und Leistungsorientierung in den Sportstunden gestaltet wurde. Durch Anwendung dieser Methode auf den Sportbereich sollte die Einsicht in die Faktorenstruktur ermöglicht werden, die, auf der Erfolgsorientierung junger Basketballspieler beim Basketballtraining (Lern- oder Leistungsorientierung) beruhend, ihr Motivationsklima bestimmt.

Nach der Faktorenanalyse der Hauptkomponenten (GK-Kriterium) und nach dem Korrigieren der Hauptkomponenten der Matrix der Interkorrelationspunkte, haben die Ergebnisse das Papaioannous Model größtenteils bestätigt, denn in 23 von 27 Punkten sind dieselben hypothetischen Faktoren wie bei Papaioannou bestimmt und 45,71% der Varianz mit den Fragebogenpunkte erklärt worden. Der erste Faktor ist als die lernorientierte Umgebung bestimmt worden, die das Ergebnis der Lernzufriedenheit des Sportlers widerspiegelt. Der zweite Faktor hat ein Klima suggeriert, in dem Erfolg durch normative Bewertungskriterien bestimmt wird. Der dritte Faktor hat die Besorgnis der Sportler wegen ihrer Fehler erklärt, während der vierte ein Klima impliziert hat, in dem Erfolg durch die aufs Ergebnis ohne Anstrengung beruhenden Fähigkeitskriterien bestimmt wird. Der letzte Faktor hat ein durch das Benehmen des Trainers gestaltetes lernorientiertes Klima suggeriert.

Schlüsselwörter: Motivationsklima, Einstellung zum Ziel, Basketball

Introduction

Versatile types of achievement goals have been identified, but two perspectives persist generally across sport science studies.

According to numerous authors (Roberts, 1993; White, Duda, 1994; Newton, Duda, 1999; Biddle, 1999), two dispositional points exist and differentiate among individuals in their goal perspective decisions. These

achievement goals have been contrasted as the task versus ego orientation (Duda, 1989), as learning versus performance orientation (Papaioannou, 1994, 1998), or mastery versus ability criteria (Ames, 1984 according to Roberts, 1993, Theboom et al., 1995; Goudas, 1998).

A highly task-oriented athlete judges his/her success in the sports environment as a personal improvement in skills and the mastery of the sport through effort. However, an ego-oriented athlete tends to judge the level of his/her competence with reference to the performance of others; only if his/her performance is better than the others then the athlete experiences success (normative based criteria).

The motivational climate in the sports setting can be characterised as more task or ego involving (Newton, Duda, 1999), which is related to the athletes' motivational responses, i.e. a goal perspective choice in the training process. A task - involving motivational climate represents an environment in which a coach supports the athletes. Thus they experience their improvement as being the result of their work and effort, they help their team-mates and receive help from them when learning and they believe that each team player contributes to the team success. An ego - involving motivational climate develops when a coach punishes or emphasises the athletes' poor performance or failure, when the accent is on results, not on good performance, when a coach encourages competition between the team members.

These are interesting premises with regard to the sport motivation context. When athletes are strongly task-oriented, they will be presumably more intrinsically motivated, which consequently results in a greater enjoyment in sports participation, a greater investment of effort, and in general, an increment in perceived competence level over a period of time. Ego-oriented athletes differentiate abilities from effort (Biddle, 1999), by using the normative criteria (comparison to the others) of performance evaluation, and by believing that success is a result of superior abilities. Either the positive relationship between the task orientation and beliefs in success, which are caused by proportional effort investment, or, the opposite, the ego orientation, which judges

success as a function of superior ability, could determine the behavioural variations. Athletes will exhibit positive achievement-related cognition, emotions and behaviours in a strongly task-oriented context. This adaptive pattern works independently of the individual goal orientation or perceived ability. Strongly task-oriented athletes will exhibit positive reactions and behaviours in both the effort and skill improvement supporting climate, even in the ego-emphasised team climate, regardless of their level of competence (Newton, Duda, 1999). Strongly ego-oriented athletes should express adaptive responses in participation in either the task or ego involving context only if they have a high level of perceived competence. Ego-oriented athletes who have a low level of perceived competence will express maladaptive motivational responses (i.e. low intrinsic motivation and belief that success stems from ability) in an ego - involving situational goal structure. (Newton, Duda, 1999).

According to the goal perspective theory, the task-motivational climate is a desirable one, and a perception of a learning-oriented environment is positively related to intrinsic motivation and constructive attitudes toward practising. It is a way of achieving good sports results. Considering a reciprocal relationship between motivation and goal achievement, it is reasonable to examine this hypothesis in the sport environment. Papaioannou (1994) developed an instrument to assess the Greek students' perceptions of achievement orientations in physical education classes. The purpose of the presented study, therefore, is to translate, adopt, test and verify this instrument (Papaioannou, 1994) that measures perceptions of learning and performance orientation in the physical education setting, as the main guidelines of two different goal prospectives, namely, task and ego. Applying this instrument to the sport setting, the author expected to obtain an insight into the factor structure that defines the motivational climate in such environments and to test the possibility of obtaining the same principles of organising the perception of the motivational climate as they are obtained in PE classes. As an example of a sport setting young basketball players have been chosen, close in age to the students of

the PE classes of Papaioannou's. It is expected that their achievement orientation (both learning and performance) will emerge in the structure of the test. In other words, it would be interesting to examine whether the motivational climate concept that was defined by Papaioannou as the learning and performance orientation could be reached and confirmed on a different sports sample. This has been the main issue of this study.

Materials and method

Sample

The sample consists of 144 male basketball players from 9 Croatian teams from Zagreb. The mean age of the participants was 15.5 yrs. (185.65 months), SD = 1.2 (14.28 months), range = 3.9 yr. (47 months). Out of the whole sample, 81 boys have been training with the cadet sections of the Croatian first league basketball teams that practice 5-10 times a week, whereas 63 cadets played in the lower competition level teams that have less than 5 work-outs per week.

Procedures

LAPOPECQ questionnaire - *Learning and Performance Orientations in a Physical Education Questionnaire*, was created to measure the learning and performance orientation in PE classes. It was developed by Papaioannou in 1994 to measure student's achievement orientations in physical education on the basis of the work of Ames (1992, according to the Papaioannou) that examined a classroom motivational climate, and on the basis of recent theories of achievement motivation, especially the works that examined goal structure in a sports context (Duda 1989, 1995). In this paper a final solution of 27 items of the mentioned questionnaire was used (Papaioannou, 1994).

The participants were asked to focus on the characteristics of their training sessions and to indicate their responses to the 27 questions on a five-point Likert type scale (1-strong disagreement, 5-strong agreements). The questionnaire took approximately 12 minutes to complete.

Results

Factor analysis

Principal components factor analysis followed by varimax and oblimin rotation was performed for the 27 items contained in the LAPOPECQ questionnaire. Exploratory factor analysis (GK-criterion) resulted in the 8-factor structure and 59.03 % of variance was explained by the questionnaire items (Table 1).

Since the results were not as the author had expected according to Papaioannou (1994), the procedure was repeated.

Table 1: Eigenvalues, percent of variance explained, cumulative percent of LAPOPECQ questionnaire, sport version.

	Eigenval	% Total Variance	Cumul. %
1	4.39	16.26	16.26
2	2.49	9.23	25.48
3	2.10	7.79	33.27
4	1.94	7.20	40.47
5	1.41	5.24	45.71
6	1.27	4.69	50.40
7	1.23	4.56	54.96
8	1.10	4.07	59.03

This time, the co-ordinate system was fixed in advance at five factors according to Papaioannaou's results (Papaioannou, 1994, 1998). These five factors explained 45.71% of the variance of the questionnaire items. The obtained results confirmed Papaioannou's model because 23 out of 27 items defined the same hypothetical factors as in Papaioannou's solution (Table 2.1). The first factor (9 items) was defined as the learning-oriented environment that occurs as a result of an athlete's satisfaction in learning. The second factor (5 items) explained the athletes' worries about mistakes. The third one (4 items) implied a climate in which success was defined by the ability criteria based only on the outcome and not on the effort made. The fourth factor (6 items) suggested a climate in which success was defined by the normative-based criteria of evaluation. The last factor (3 items) implied a learning orientation climate created by the coach's behaviour.

Table 2.1: Factor structure (Varimax normalised) of LAPOPECQ questionnaire, sport version.

	Factor 1 LEARNING	Factor 2 WORRIES	Factor 3 ABILITY	Factor 4 NORMATIVE	Factor 5 COACH	h ²
VAR1	0.244	0.026	0.003	0.118	0.727	0.604
VAR2	0.134	0.030	- 0.133	0.037	0.561	0.353
VAR3	0.450	- 0.061	0.100	0.196	0.197	0.294
VAR4	0.523	- 0.239	- 0.051	- 0.060	0.128	0.353
VAR5	0.133	0.048	- 0.025	- 0.089	0.633	0.429
VAR6	0.286	- 0.430	0.180	0.173	0.251	0.391
VAR7	0.179	0.163	0.017	0.635	- 0.186	0.497
VAR8	0.117	- 0.230	- 0.069	0.562	0.223	0.438
VAR9	- 0.049	0.109	0.069	0.634	0.176	0.451
VAR10	- 0.045	- 0.007	0.017	0.686	0.198	0.512
VAR11	- 0.034	0.058	- 0.015	0.512	- 0.092	0.275
VAR12	0.108	0.599	0.166	0.122	- 0.072	0.419
VAR13	0.109	0.194	- 0.079	0.513	- 0.182	0.352
VAR14	0.409	0.456	- 0.127	0.224	- 0.053	0.445
VAR15	0.025	0.759	- 0.045	0.010	0.340	0.695
VAR16	0.082	0.693	0.034	0.172	0.047	0.520
VAR17	0.012	0.004	0.783	0.032	- 0.080	0.620
VAR18	0.008	0.006	0.669	- 0.005	0.073	0.453
VAR19	- 0.134	0.149	0.704	- 0.099	- 0.016	0.546
VAR20	0.032	- 0.116	0.648	0.136	- 0.177	0.484
VAR21	0.682	- 0.125	0.045	- 0.045	0.086	0.492
VAR22	0.533	0.140	0.081	0.168	0.052	0.341
VAR23	0.621	0.364	0.006	- 0.092	0.201	0.567
VAR24	0.586	0.098	0.004	0.002	- 0.080	0.359
VAR25	0.658	0.134	- 0.131	0.001	0.140	0.488
VAR26	0.420	- 0.128	- 0.199	0.078	0.244	0.298
VAR27	0.777	0.200	- 0.044	0.020	0.136	0.665
Expl.Var	3.614	2.294	2.171	2.381	1.883	
Prp.Totl	0.134	0.085	0.080	0.088	0.070	

FACTOR 1 - Athlete's learning orientation

FACTOR 2 - Athlete's worries about mistakes

FACTOR 3 - Outcome - without - effort orientation

FACTOR 4 - Athlete's competitive orientation

FACTOR 5 - Coach-initiated learning orientation

According to the oblimin rotation (pattern and structure matrix), a quite similar factor structure was obtained.

The factor structure obtained in the presented research was defined by almost the same items for each single factor as it had been defined in Papaioannou's original solution, with the exception of 4 items. Namely, the first factor (learning as a result of the student's satisfaction) consisted of 7 items in Papaioannou's version (21-27 item), while in this research this factor was defined by 9 items (3-4, 21-27). Two additional items (3-4) were included in Papaioannou's model in the fifth factor (learning climate determined by the coach's behaviour). The second factor (worries) here consists of 5 items, as in

Papaioannou's model, with a slight difference in one item: instead of Papaioannou's sixth item, in this research the thirteenth item was attributed to this factor (in his version it belonged to the first factor). But, instead of the sixth item, which in his version belongs to the first factor, the thirteenth one was placed here. The third factor (ability) is comprised of 4 items, which is completely the same as in Papaioannou's model. The fourth factor (normative evaluation criteria) consists of 6 items (7-11, item 13); in Papaioannou's model this factor was comprised of 5 items (7-11), but the thirteenth item belonged to the second factor. The last factor (learning climate determined by the coach's behaviour) consists of 3 items (1,2,5). In Papaioannou's model 6 items constituted (1-6) that factor.

Table 2.2: Oblimin rotation, pattern matrix - LAPOPECQ questionnaire, sport version.

	Factor 1 LEARNING	Factor 2 WORRIES	Factor 3 ABILITY	Factor 4 NORMATIVE	Factor 5 COACH
VAR1	0.443	0.570	0.057	-0.257	0.192
VAR2	0.652	-0.039	-0.118	0.097	0.080
VAR3	0.127	0.108	0.021	0.037	0.723
VAR4	0.384	0.066	-0.193	-0.152	0.197
VAR5	0.044	0.036	-0.118	0.043	0.561
VAR6	0.256	0.168	0.179	-0.445	0.210
VAR7	0.419	0.170	0.104	-0.089	0.151
VAR8	0.063	0.115	0.641	-0.124	-0.178
VAR9	0.043	-0.095	-0.004	0.072	0.643
VAR10	0.100	0.508	-0.095	0.152	-0.209
VAR11	0.009	-0.029	0.673	0.019	0.091
VAR12	0.616	-0.039	0.010	0.057	-0.138
VAR13	0.693	-0.086	0.551	-0.162	0.017
VAR14	0.036	0.003	0.782	0.010	-0.065
VAR15	0.164	0.624	-0.001	0.118	-0.222
VAR16	-0.060	0.519	-0.032	0.030	-0.105
VAR17	0.528	0.129	0.087	0.101	0.002
VAR18	-0.126	0.640	0.056	0.086	0.172
VAR19	0.409	0.189	-0.123	0.417	-0.087
VAR20	0.062	0.142	0.042	0.686	0.064
VAR21	-0.116	-0.123	0.710	0.173	0.025
VAR22	-0.130	0.700	0.002	-0.031	0.188
VAR23	-0.033	-0.015	-0.025	0.776	0.379
VAR24	0.776	-0.034	-0.029	0.156	0.069
VAR25	0.114	0.089	0.172	0.588	-0.059
VAR26	0.523	-0.083	-0.044	-0.265	0.069
VAR27	0.613	-0.145	0.026	0.340	0.163

Factor statistics

The means and standard deviations for each of the LAPOPECQ (sport version) questionnaire factors were calculated according to the results of the factor analysis of the questionnaire items. The results are presented in Table 3.

It is obvious that players gave the highest grades to the items related to the learning-oriented climate created by the coach's behaviour and to the items related to the learning-oriented climate as a result of the players' satisfaction with learning. Both can be connected with the task goal orientation.

Players gave the lowest grades to the items pertaining to the third factor, which defined success by the clear ability criteria (achieving results without effort). It is related to the ego goal orientation.

At the same time players are moderately concerned about failure and perceive competition between each other as a

moderately important element, which is in accordance to their age, the nature of the game and the game selection criteria.

Internal consistency

The internal consistency of the motivational climate items was determined by calculating Cronbach's alpha coefficient. The observed coefficients and average inter-item correlations for the five factors are presented in Table 4, together with Cronbach's alpha coefficients that were calculated in Papaioannou's original solution. Almost all the alpha coefficients calculated in this research were of a lower value than Papaioannou's, except for the third factor (ability) alpha coefficient which was a little bit higher (.681 - .65). In general, the results obtained in the present research confirmed the validity and reliability of the instrument employed. It can be considered, according to

Table 2.3: Oblimin rotation, structure matrix - LAPOPECQ questionnaire, sport version.

	Factor 1 LEARNING	Factor 2 WORRIES	Factor 3 ABILITY	Factor 4 NORMATIVE	Factor 5 COACH
VAR1	0.158	0.566	0.083	-0.219	0.245
VAR2	0.676	0.062	-0.148	0.130	0.238
VAR3	0.322	0.164	-0.016	0.002	0.755
VAR4	0.439	0.107	-0.208	-0.132	0.315
VAR5	0.193	0.065	-0.148	0.011	0.577
VAR6	0.289	0.185	0.180	-0.435	0.300
VAR7	0.473	0.237	0.094	-0.062	0.263
VAR8	0.008	0.142	0.657	-0.112	-0.183
VAR9	0.191	-0.054	-0.046	0.020	0.644
VAR10	0.136	0.521	-0.062	0.220	-0.167
VAR11	0.006	0.016	0.666	-0.006	0.055
VAR12	0.579	0.052	-0.007	0.101	0.007
VAR13	0.673	0.007	0.031	-0.130	0.192
VAR14	-0.004	0.051	0.785	-0.001	-0.098
VAR15	0.209	0.648	0.038	0.193	-0.162
VAR16	-0.006	0.506	0.004	0.080	-0.097
VAR17	0.551	0.221	0.074	0.142	0.126
VAR18	0.145	0.640	0.085	0.124	0.161
VAR19	0.445	0.275	-0.131	0.468	-0.002
VAR20	0.139	0.217	0.028	0.696	0.034
VAR21	-0.140	-0.083	0.701	0.137	-0.059
VAR22	0.017	0.686	0.036	0.009	0.189
VAR23	0.106	0.064	-0.063	0.754	0.315
VAR24	0.798	0.096	-0.063	0.196	0.248
VAR25	0.143	0.165	0.162	0.603	-0.079
VAR26	0.513	-0.028	-0.063	-0.245	0.215
VAR27	0.651	-0.015	-0.019	0.352	0.281

Table 2.4: Factor correlation matrix, oblimin rotation - LAPOPECQ questionnaire items obtained on the sample of young Croatian basketball players.

	F 1	F 2	F 3	F 4	F 5
F1	1.00				
F2	.148	1.00			
F3	-.032	.057	1.00		
F4	.061	.088	-.023	1.00	
F5	.245**	.045	-.053	-.072	1.00

**p < 0.01

the results produced on this sample, that this instrument is moderately reliable in the sports (team games) environment.

The differences in the factor structure that occurred after applying the exploratory factor analysis could have been caused by the double translation (Greek-English-Croatian) or by a different environment in which this study was executed. To confirm the assumption that the

players' perceptions of the achievement goals refer primarily to both the dispositional differences and situational factors (White, Duda, 1994), it is necessary to compare these results to other research studies, as well as to further improve and adapt the instrument.

Table 3: Descriptive statistics for the five factors of LAPOPECQ questionnaire derived from the significant saturations of factors with items obtained from Croatian basketball players

		Mean	Minimum	Maximum	SD
F1	LEARNING	4.23	2.00	5.00	0.54
F2	WORRIES	3.58	2.00	5.00	0.62
F3	ABILITY	2.36	1.00	5.00	0.89
F4	NORMATIVE EVALUATION	3.56	1.00	5.00	0.71
F5	COACH	4.44	1.00	5.00	0.62

Table 4: Internal reliability for LAPOPECQ subscales.

	Cr. alpha (1)	Cr. alpha (2)	r int-item
F 1	.77	.84	.30
F 2	.66	.71	.25
F 3	.50	.67	.18
F 4	.68	.65	.35
F 5	.52	.79	.28

Cr. alpha (1) - Cronbach alpha coefficients after applying the LAPOPECQ questionnaire (Papaioannou, 1994) on a sample of young Croatian basketball players

Cr. alpha (2) - Cronbach alpha coefficients after applying the LAPOPECQ questionnaire by Papaioannou on a sample of Greek students in PE class in 1994

r int-item - inter-item correlation for the items consisting factors

Discussion

The five-factor solution, which emerged in Papaionnaou's research, was mostly confirmed by the presented data after fixing the principal components of the intercorrelation items matrix to five, and their confirmation to the varimax and oblimin solution. It implied an existence of two learning-oriented and three performance-oriented factors. The independence of these two different goal orientation concepts was confirmed by the intercorrelations among the factors. According to Table 2.4 it can be assumed that the only relationship between the two learning-oriented factors may be considered as significant, even though these two dimensions share about 6% of common variance. It is a relatively low value, but in Papaioannou's solution it was about 14%, which is not much higher. The other factors can be considered as orthogonal dimensions.

According to the reliability analysis of the questionnaire items, the observed Cronbach's alpha coefficient values showed that the most reliable scale is the *athlete's learning orientation scale*. Slightly less reliable according to the mentioned coefficients are the *athlete's worries about mistakes* and the *athlete's competitive orientation*. Relatively

low reliabilities emerged regarding the *coach-initiated learning orientation*, and the *outcome-without-effort scale*.

As it can be assumed, according to the goal perspective, theory-learning orientation (i.e. task or mastery orientation) corresponds to a high level of intrinsic motivation (as was confirmed in Papaionnaou, 1994; Papaionnaou, 1998; Duda et al., 1998; Newton and Duda, 1999). A higher value of intrinsic motivation can be associated with a higher quality of performance (Goudas, 1998; Theeboom et al., 1995) and positive attitudes development (Papaionnaou, 1994; Duda et al., 1995).

Hence, since a coach plays a main role in the development of the training motivational climate, it should be recommended to any coach to create a highly learning-oriented environment. What does that mean?

A learning-(mastery or task)-oriented environment can be developed if a coach takes care of every player individually, giving him/her a challenging tasks according to his/her ability, level of competence, preferences and his/her responsibility with regard to his/her game (team) role. At the same time, a coach should control and direct a player's performance by providing informative comments with an emphasis on good

performance, and not on criticism or punishment. A coach should promote health and teach players to improve their fitness status or specific sports tasks through individual work. A coach should develop a co-operative team climate, independently of competitive characteristics of the sport discipline, further, he/she should be a good communicator, and a friendly person, an accessible (appropriate) role-model in general.

According to Papaionnaou (1998), it can be concluded that a coach who emphasises a mastery orientation behaves the same towards all players, focusing equally on high and low achievers in learning, which corresponds positively to the players' motivation.

As motivation generally depends on both the environment characteristics and on the individual's disposition, it would be interesting in further research to examine the influence of dispositional factors (such as personality or social factors) on sports achievements.

Conclusion

The LAPOPECQ inventory was applied in the sports environment. The presented results showed the congruency with Papaioannou's five-factor model of learning and perfor-

mance orientation that had been established in the context of physical education classes. Young basketball players assigned greater importance, generally, to the items which were connected with the task-oriented motivational climate, and not to those concerning the ego goal orientation. Considering the obtained results together with the results of the previous studies, it is necessary to underline the importance of the task- or mastery-oriented climate in a sports setting. Its importance arises from the following aspects: personal improvement, exhibiting positive adaptive motivational patterns and maintaining the athletes' motivation. In further research the differences among young basketball players according to the level of competition should be examined.

This paper could be a base for further investigations and could be useful for those who want to study the effects of dispositional and situational differences on athletes' motivation. It would be useful, also, to determine LAPOPECQ questionnaires' correlation to some similar instruments that measure motivation in a sports environment, such as Task and Ego Sport Questionnaire, Sport Orientation Questionnaire etc., and this application of LAPOPECQ questionnaire is a contribution to its general validity.

References

1. Biddle, J.H.S. (1999). Motivation and perceptions of control: tracing its development and plotting its future in exercise and sport psychology *Journal of Sp. & Exerc. Psychology*, 21, 1-23.
2. Duda, J.L., Chi, L., Newton, M.L., Walling, M.D., Catley, D. (1995). Task and ego orientation and intrinsic motivation in a sport. *International Journal of Sport Psychology*, 26, 40-63.
3. Duda, J.L. (1989). The relationship between task and ego orientation and perceived purpose of sport among male and female high school athletes. *Journal of Sport and Exercise Psychology*, 11, 318-335.
4. Goudas, M. (1998). Motivational climate and intrinsic motivation of young basketball players. *Perceptual and Motor Skills*, 86, 323-327.
5. Newton, M., Duda, J.L. (1999). The interaction of motivational climate, dispositional goal orientations, and perceived ability in predicting indices of motivation. *International Journal of Sport Psychology*, 30, 63-82.
6. Papaioannou, A. (1994). Development of a questionnaire to measure achievement orientations in physical education. *Research Quarterly for Exercise and Sport*, 65(1), 11-20.
7. Papaioannou, A. (1998). Student's perceptions of the PE class environment for boys and girls and the perceived motivational climate. *Research Quarterly for Exercise and Sport*, 69(3), 267-275.

8. Roberts, G. (1993). Motivation in sport: understanding and enhancing the motivation and achievement of children. In Singer, R.N., Murphey, M. and Tennant, L.K.: *Handbook of Research on Sport Psychology* (pp.405-420). New York: MacMillan.
9. Theboom, M., De Knop, P., Weiss, M. (1995). Motivational climate, psychological responses, and motor skill development in children's sport: A field-based intervention study. *Journal of Sport and Exercise Psychology*, 17(3), 294-311.
10. White, S.A., Duda, J.L. (1994). The relationship of gender, level of sport involvement, and participation motivation to task and ego orientation. *International Journal of Sport Psychology*, 25, 4-18.

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