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Relationships Between Goal Orientation, Motivational Climate and Perceived Ability with Intrinsic Motivation and Performance in Physical Education University Students

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Abstract: The purposes of the present investigation were to study the relationships between goal orientation, motivational climate and perceived ability with intrinsic motivation, behavioral patterns and performance. One hundred and sixty three males and females students from physical education classes selected and completed the Task and Ego Orientation, Intrinsic Motivation, Perceived Motivational Climate in Sport and Perceived Ability questionnaires. The results of structural equation models (SEM) and correlation coefficients showed that there are significant correlations between ego-orientation, task-orientation and mastery climate with intrinsic motivation ($R = 0.58$, $\chi^2 = 103.72$, $p < 0.0001$) and between intrinsic motivation with trend, effort and performance ($R = 0.42$, $\chi^2 = 37.85$, $p < 0.0001$). In conclusion, to increase trend and effort of students in sport classes their achievement goal orientations should to considered and increasing the intrinsic motivation, perceived ability and mastery climate have a facilitative role.

Key words: Achievement goals, performance, educational contexts

INTRODUCTION

In general, motivation is defined as the intensity and direction of the behavior. The intensity refers to the degree of effort and the direction is one's way to achieve a goal in specific situation. The sport psychologists have used the motivation with different terms such as, achievement motivation and intrinsic/extrinsic motivation (Biddle and Mutrie, 2005; Gill, 1999). Achievement motivation theorists (Duda and Hall, 2001) have claimed that the individuals definitions from the success are different. Participants in sports, physical education or other achievement situations defined the success according to task or ego goal orientations (Duda, 2001; Duda and Hall, 2001). Both the task goal orientations, in which goals are based on learning or task mastery and the ego goal orientation, in which goals focus on outperforming others or on performing equally with less effort, are relatively stable personal orientations. The task and ego goal orientations are independent constructs; individuals could be equally ego and task oriented or higher in one than in the other (Gill, 1999). In addition, the achievement situations and interactions with others affected the goal selection process (Gould and Weinberg, 2005). Goal orientation is one of the important trends of individuals in selection and intensity of behaviors, decision-making (Newton and Duda, 1999; Stephens and Janz, 2000; Cervello *et al.*, 2006) and participation motivation (Viira and Rudsepp, 2000; Zahariadis and Biddle, 2000; Sit and Lindner, 2005).

The motivational climate is important as well as goal dispositions in behavior prediction and satisfaction of learning settings. The perception of the motivational climate affected the achievement patterns of individuals through their view of what goals are reinforced in that setting. There are two type of motivational climate: mastery-based climate and performance-based climate. Individuals in mastery climate are rewarded for effort, learning and improvement. A performance-based climate emphasized social comparison and rewards individuals for outperforming others (Williams, 2001). The previous researches (Overway and Ewing, 2004; Parish and Treasure, 2003; Laparidis *et al.*, 2003; Carr, 2006; Escarti and Gutierrez, 2005) have revealed that the motivational climate is associates with behaviors and the learners have satisfied from mastery climate more than performance climate.

But, according to achievement goal theory, the interaction of dispositional goal orientations and motivational climate affect behavior (Williams, 2001; Spray *et al.*, 2006). In other word, the dispositional goal orientations and the perception of the climate influence the degree of effort and trend in educational settings, together (Skiesol and Halvari, 2005; Standage *et al.*, 2003; Ferrer-Caja and Weiss, 2000; Wu, 2000).

The main goal of present investigation was to study the interaction of goal orientation and motivational climate on intrinsic motivation and their interaction effects on behavior and performance. The cognitive evaluation theory claimed that the primary source of motivation is

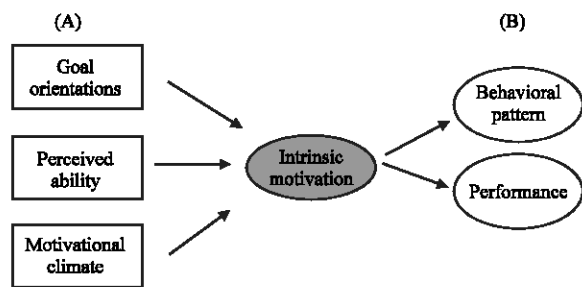


Fig. 1: Theoretical model on relationships between goal orientations, motivational climate and perceived ability with intrinsic motivation (A) and behavioral pattern and performance (B)

intrinsic motivation. Intrinsically motivated behaviors are behaviors, which a person engaged in to feel competent and self-determining (Gill, 1999). Both achievement goal theory and cognitive evaluation theory believed that the perceived competence have a mediator role in the associations between dispositional goal orientations and motivational climate with behavior (Standage *et al.*, 2003; Lemyre *et al.*, 2000) and according to self-determination theory, the effect of perceived competence on intrinsic motivation are in situations in which the individuals have an opportunity to select the type of activity, voluntarily (Williams, 2001).

Thus, in the present study the educational settings of sport classes have considered on the basis of the relationships between goal orientations, motivational climate and intrinsic motivation with motivational behaviors and performance which have proposed through above mentioned theories and have been depicted as the theoretical model in Fig. 1. The important topic to analysis the proposed model is that it has supported in the western countries, but little is known for the generalizability of the model in the middle-east countries such as Iran, because some studies (Gill, 1999; Li *et al.*, 1996; Heo and Shin, 2000; Fontayne *et al.*, 2001; Pepi *et al.*, 2006) have reported the effects of cultural differences in the achievement motivation and intrinsic motivation.

MATERIALS AND METHODS

Participants: The participants were 163 (80 males and 83 females) undergraduate physical education students (Mean age = 22 years) who randomly selected from sport classes including, swimming, volleyball, basketball, handball, track and field, badminton and gymnastics, in the second semester, spring 2006.

Questionnaires: The following questionnaires were used to acquire the information about predictor and criterion variables:

- **Intrinsic motivation questionnaire:** This questionnaire measured the one's intentions for participate in physical activity and has a 7-point Likert scaled (1 = strongly wrong, 7 = strongly correct). The questionnaire has 22 items and its internal consistency computed about 0.70 (McAuley *et al.*, 1989).
- **Task and ego orientation questionnaire:** The questionnaire measured the one's goals orientation on two domains, task and ego. The questionnaire consisted of 13 items with 5-point Likert scaled (1 = strongly disagree, 5 = strongly agree). It's internal consistency computed about 0.81 (Nichols, 1989).
- **Perceived motivational climate in sport:** The questionnaire measured the motivation of educational context on two domains, mastery and performance. The questionnaire consisted of 21 items with 5-point Likert scaled (1 = strongly disagree, 5 = strongly agree). Its internal consistency computed about 75 (Duda and Sefrize, 1992).
- **Perceived ability questionnaire:** This questionnaire had 3 items with 7-point Likert scaled (1-strongly improper, 7 = strongly proper) which measured the one's belief about their competency to do tasks in comparison to others. The internal consistency of scale was 0.80.

Procedure: At first, the education office provided the list of students who recruited in the determined sport classes. Then the investigator selected the participants according to gender and sport classes. The questionnaires completed by participants in the end of semester, because of they report their actual perceptions from their class motivational context. The questionnaires distributed between the students in the sport classes and after 15-20 min they returned the responded questionnaires to investigator.

Statistical methods: The Structural Equations Model (SEM) has used according to path analysis and correlation methods. The canonical correlation and Pearson's correlation coefficient also used to follow up the model's results. Statistical significance was set at $p < 0.05$.

RESULTS

The relationships between goal orientation, motivational climate and perceived ability with intrinsic motivation (the left side of Fig. 1) were positive and significant ($r = 0.58$, $\chi^2 = 103.72$, $p < 0.0001$). In addition, the predictor variables had 81% common variances with intrinsic motivation. Pearson correlation coefficients have

shown that the strongest predictors were perceived ability ($r = 0.58, p < 0.0001$), task orientation ($r = 0.39, p < 0.0001$), mastery climate ($r = 0.24, p < 0.01$) and ego orientation ($r = 0.23, p < 0.05$), respectively. But the performance climate was not the significant predictor of intrinsic motivation ($p > 0.05$).

The relationships of intrinsic motivation and motivational patterns and performance (the right side of Fig. 1) were positive and significant ($r = 0.42, \chi^2 = 37.85, p < 0.0001$). In addition, the predictor variable had 77% common variances with the criterion variables. Pearson correlation coefficients have shown that the relationships of intrinsic motivation with effort ($r = 0.37, p < 0.0001$), performance ($r = 0.32, p < 0.001$) and trend ($r = 0.30, p < 0.0001$) were significant.

DISCUSSION

The present investigation has carried out on the basis of achievement goal and cognitive evaluation theories on the relationships between goal dispositions, motivational climate, intrinsic motivation and performance. According to these theories, the interaction of person and situation affect the behavior. For example, the one's dispositions to achievement and perception of their abilities along with the perceived achievement motivation of educational settings have determinant roles in enjoyment, persistence and next performance.

The first part of structural equations model have confirmed in the present study. In fact, both goal orientation dispositions and perceived ability are requiring for intrinsic motivation. In addition, the mastery educational climate is more beneficial for intrinsic motivation than performance educational climate. These findings have revealed that the goal dispositions is not the mere determinant in satisfaction of sport classes and the instructors' feedback and behavior have significant role in the inherent trend of learners through establishment of climates which considered on the personal improvement and skill learning.

These findings supported the previous research findings. For example, Yoo (1999) in the Korean students, Treasure and Roberts (1998) in the girls students, Newton and Duda (1999) in the female volleyball players, Parish and Treasure (2003), Skiesol and Halvari (2005) and Escarti and Gutierrez (2005) have shown that the goal orientation and motivational climate are related to intrinsic motivation and satisfaction of class environments.

Some authors (Brunel, 1999) have reported that the motivational climate is more important than goal orientation, however others (Cervello *et al.*, 2006) have

demonstrated that the opposite findings. The present study has supported the last viewpoint and has revealed that the mastery climate, task orientation and ego orientation were significant determinants of intrinsic motivation according to the order of intensity of correlation coefficients.

These findings support the achievement goal theory and cognitive evaluation theory. In the achievement goal theory, the one's perception about his/her competency and perceived success have important roles for motivation. The ego-oriented individuals are outcome-oriented and like the win and prize, in contrary, the task-oriented individuals prefer the personal improvement and learning goals (Williams, 2001). Since, the task-oriented goals emphasize on to do task successfully, so it can increase the intrinsic motivation through the effort, fitness level and learning strategies.

The cognitive evaluation theory, which is on the basis of intrinsic and extrinsic motivation and has been revised by self-determination theory in the later, believed that the perceived ability or perception of self-efficacy is one of the basic factors for developing intrinsic motivation. In fact, if one has positive perception about his/her abilities to meet the task needs or take positive reinforcement from the instructor, the intrinsic motivation will increase and in turn, results in more satisfaction and effort in performing the task (Williams, 2001). The high-perceived ability individuals select the more challenge tasks and have more intrinsic motivation to do them. So, the learners should receive more positive feedback on their personal competency and perceive that they are responsible for their successful performances and behaviors (Standage *et al.*, 2003; Hardy *et al.*, 1996).

The importance of motivational climate is another related issue. Initially, the motivational climate has been introduced by Ames as reward structure. He identified two reward structures: competitive and individualistic. Competitive structure encourages individuals to compare their performance to that of others, fostering ego orientation. In contrast, individual structures focus on personal improvement and learning through effort and promote task orientation. Later, some researchers have advocated the motivational climate and have replaced it with reward structures. In the person-environment interaction viewpoint, it claimed that in the academic and sport settings, mastery climate are positively related to task orientation and negatively related to ego orientation, whereas performance climate are positively related to ego orientation and negatively related to task orientation (Gill, 1999). The supplementary analyses of present study have confirmed the above theory and have shown that

ego orientation is positively related to performance climate and task orientation is positively related to mastery climate. Also, the interaction effect of goal dispositions and motivational climate on intrinsic motivation is an important element of achievement goals theory. In fact, the goal orientations and perception of environment are independent dimensions of motivation that affect the behavior simultaneously (Williams, 2001).

The relationships between intrinsic motivation and motivational behaviors and performance have shown in the other part of theoretical structural equations model as have been shown in Fig. 1. The positive relationships of variables have demonstrated that the intrinsic motivation has affected the effort and enjoyment for participation in sport classes and skill learning and has enhanced the academic achievement as shown in performance score of the end semester.

The associations of intrinsic motivation and effort, persistence and skill development have demonstrated in the previous studies through structural equations model (Ferrer-Caja and Weiss, 2000; Escarti and Gutierrez, 2005) and in teaching styles (Yoo, 1999; Amorose and Horn, 2000).

The importance of intrinsic motivation in behavior management is related to the perceptions of control and autonomy. It seems from everyday experiences that we prefer or are more motivated by situations where some choice, control and self-determination exist. The link between perceptions of control and motivated behavior are the central to intrinsic motivation (Biddle and Mutrie, 2005). So, the learning settings that emphasized on enjoyment, fun and satisfaction can lead to increase personal efforts for learning through increase in intrinsic motivation.

In conclusion, the instructors in the educational contexts can consider to the learners' goal dispositions and foster mastery climate through emphasizing on personal improvement and positive reinforcement from their perceived abilities to increase intrinsic motivation, effort and performance. These conclusions are acquire from middle-east society and are on the basis of achievement goal and cognitive evaluation theories, entirely. Therefore, the principles of above theories can generalize to no western cultures, too.

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