Motivation in Physical Education among Filipino High School Students

James V. Bailon, Erwin M. Blancaflor, Ma. Joannes Kevin B. Datu-Puda, Karen Jade Dabu, Romeo R. Rioflorido, and Jonathan Cagas
Philippine Normal University
University of the Philippines Diliman
vergara.la@pnu.edu.ph

Keywords: Autonomy Support, Gender Differences, Motivation, Physical Education.

Abstract: Motivating students to participate actively in physical education (PE) is often major concern for physical education teachers. As physical ability, interest levels, and effortful investment of students within PE classes can vary among students, understanding the motivational issues in this setting is particularly interesting to researchers and practitioners alike. One line of research has examined the antecedents of three broad teacher behaviors, namely provision of autonomy support, structure (i.e. clear expectations and guidelines), and involvement (i.e. personal interest in students (Ntoumanis, & Standage, 2009). Therefore, the objectives of this study are: (1) to test the hypothesis that perceived autonomy support from teachers influences students' motivation in PE, and (2) to examine gender differences in the perceived autonomy support from the teachers. Two hundred seventy nine (n = 279) students from two public high schools participated. Results of Pearson R indicated that perceived autonomy support from teacher affects students' intrinsic motivation, and identified regulation. In terms of gender differences, results showed that they are no significant differences in the Perceived Autonomy Support in Physical Education. Overall, results suggest that providing autonomy supportive learning environment in PE is beneficial in terms of developing more autonomous forms of motivation in students.

1 INTRODUCTION

Motivating students to participate actively in physical education (PE) is often major concern for physical education teachers. The physical ability, interest levels, and effortful of students within PE classes can be different among students, understanding the motivational issues in this setting is particularly interesting to researchers and practitioners in the field of teaching. Teachers' interpersonal style has been shown to influence students' motivation in PE (Reeve, Jang, Carrell, & Barch, 2004). Physical Education (PE) is significant setting where youth are taught about lifelong physical activities (Bocarro, Kanters, Casper, & Forrester, 2008) and it has the potential to provide children and adolescents with opportunities to meet the recommended amount of health-enhancing physical activity to promote students participation in PE (Trudeau & Sheppard, 2008). With physical inactivity among school children becoming a health concern worldwide based on the research of Guthold, Cowan, Autenrieth, Kann, & Riley, 2010. According to Barkoukis, Hagger, Lambropoulos, and Tsorbatzoudis (2010), understanding how to enhance young people's motivation in PE is an important research area. Research suggests that students who are motivated in PE are most likely to feel motivated in becoming physically active during their leisure-time as well.

The study aims to examine how a teacher's motivational style can affect students' motivation in physical education classes. Specifically, it had the following statement of purposes:

1. to determine how the perceived autonomy support of teachers is related to high school student's motivation in PE;
2. to test if there is a difference in the perceived autonomy support based on students' gender.

1.1 Motivation in Physical Education

According to Ryan and Deci (2002), Self-determination theory proposes that there are three basic psychological needs which are essential

Bailon, J., Blancaflor, E., Datu-Puda, M., Dabu, K., Rioflorido, R. and Cagas, J.
Motivation in Physical Education among Filipino High School Students.
In *Proceedings of the 2nd International Conference on Sports Science, Health and Physical Education (ICSSHPE 2017) - Volume 1*, pages 364-369
ISBN: 978-989-758-317-9

rudiments for optimal motivation and well-being. These psychological needs are the need for competence (belief in one's ability to perform a certain task efficiently and effectively), relatedness (feeling of belongingness or being connected with others), and autonomy (perception of being the initiator and source of one's behavior). Fulfillment of experiencing these psychological needs can lead to cognitive, affective, and behavioral outcomes in PE (Ntoumanis & Standage, 2009). The research of Ryan and Deci (2000) says that the failure to address these needs may lead to decreased motivation and experience of ill-being or boredom. One way in which these needs are fulfilled is when the PE teacher creates an autonomy-supportive learning environment that proves by the research of Bryan and Solmon, (2007), and it also promotes self-development, and exhibits compassion and consideration towards the students. Specifically, says that needs fulfillment plays a mediating role in the relationship between perceived teacher autonomy-support and students' self-determined motivation as agreed on the research of Barkoukis, Hagger, Lambropoulos, & Tsorbatzoudis, (2010) and subjective vitality resulted on the research of Taylor and Lonsdale, (2010). Various studies have examined the effects of needs fulfillment on students' motivation and other essential outcomes in PE. One of the studies from Barkoukis, Hagger, Lambropoulos, & Tsorbatzoudis (2010) tested the role of needs fulfillment in the formation of self-determined motivation in PE and leisure time contexts.

1.2 Intrinsic and Extrinsic Motivation and Learning

Intrinsic motivation refers to behaviors done in the absence of external impetus that are inherently interesting and enjoyable which is according to the research of Ryan and Deci (2000a). Based on deCharms (1968), when people are intrinsically motivated they play, explore, and engage in activities for the inherent fun, challenge, and excitement of doing so. Such behaviors have an internal perceived locus of causality. Proven to the research of Deci and Ryan, 1985, they are experienced as emanating from the self rather than from external sources, and are accompanied by feelings of curiosity and interest.

To support the definition of *Extrinsic motivation*, according to the research of Ryan and Deci (2000a), refers to behaviors performed to obtain some outcome separable from the activity itself. SDT specifies four distinctive types of extrinsic motivation that vary in the degree to which they are experienced as autonomous and that are differentially associated with classroom practices (e.g. autonomy supportive versus controlling instruction) and learning outcomes (e.g. conceptual learning versus rote memorization) The least autonomous type of extrinsic motivation is external regulation, whereby behaviors are enacted to obtain a reward or to avoid a punishment. It was proven from the research of Vansteenkiste, Ryan, and Deci (2008), that such behaviors are poorly maintained once the controlling contingencies (e.g. grades) have been removed. The next type of extrinsic motivation is introjected regulation, whereby behaviors are enacted to satisfy internal contingencies, such as self-aggrandizement or the avoidance of self-derogation. It is say in the research of Nicholls (1984) and Ryan (1982) with introjected regulation, the student who studied to perform well on the exam now studies to feel pride or to avoid feeling guilty for not having studied enough. One particular type of introjected regulation is ego involvement, which refers to one's self-esteem being contingent on one's performance. When ego is involved, a student feels internal pressure to learn so as to avoid shame or to feel worthy (Niemiec, Ryan, & Brown, 2008). The most autonomous type of extrinsic motivation is integrated regulation, whereby those identified regulations have been produced with other aspects of the self.

1.3 Self Determination Theory

Based on the research of Deci and Ryan (2000), Niemiec, Ryan, and Deci (2010), and Ryan and Deci (2000b), Self Determination Theory is a macro-theory of human motivation, emotion, and development that takes interest in factors that either facilitate or forestall the assimilative and growth-oriented processes in people.

One of the principles of SDT is that there are three basic psychological needs namely, universal across cultures, gender, and developmental stage. According to Deci & Ryan, 2000, the basic needs are vital for continuous psychological growth, integrity, and well-being. Based on the studies of Taylor and Lonsdale (2010) to observe SDT's universality hypotheses in the PE context, the study compared the relationships between perceived autonomy support, needs fulfillment, and subjective vitality in individualistic (UK) and collectivistic (Hong Kong, China) cultures.

1.4 The Basic Psychological Needs in Physical Education Scale

In the year 2011, Vlachopoulos, Katarzi and Kontou research about the Basic Psychological Needs in Physical Education Scale (BPNPE) Scale; where it is defined as a short context-specific instrument designed to measure fulfillment of students' basic psychological needs in PE. The said instrument was anchored to SDT and has only been validated recently. The instrument has been translated to German (Heckmann, 2013) and Filipino (Cagas & Hassandra, 2014) which the researcher has used for the studies.

1.5 Perceived Autonomy Support of Teachers

In the field of teaching the practices does not come in empty. Based on the research of (Ryan & Brown, 2005) one major reason teachers use controlling, rather than autonomy-supportive, strategies in the classroom is that external pressures are placed on them, and this idea has been supported in a growing number of studies in accordance with SDT. Same as with the study of Pelletier Séguin-Lévesque & Legault. (2002) they examined 1st to 12th grade Canadian teachers and have observed that the more teachers perceive pressure from above (e.g. having to comply with an imposed curriculum, pressure toward performance standards), the less autonomous they are toward teaching, which in turn was connected with teachers being more controlling with students.

2 METHOD

Participant were 279 students (105 boys, 174 girls) from two public high schools. They completed a two-page questionnaire assessing their perceived levels of needs fulfillment, autonomy support, and vitality. Ages ranged from 11 to 19 years. Participants also indicated their primary spoken language. Three hundred fifty one answered only one primary language, 351 of which speaks Filipino (91.88%),

3 MEASURES

Perceived Autonomy Support. Students' perceptions of the level of autonomy support provided by their teacher in physical education classes were measured using the 15-item; e.g., "I feel that my PE teacher provides me choices and options") translated in Filipino which is Learning Climate Questionnaire (LCQ; Williams & Deci, 1996).

The Motivation was measured using the Perceived Locus of Causality Scale (PLOC; Goudas, Biddle, & Fox, 1994) was employed to assess four types of behavioral regulation in the physical education context. All items were rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree).

4 PROCEDURE

The data gathering of the researchers was first to get permit to collect data from the principal of the two public schools. Then questionnaire were administered to the participants and data was collected during their free time. The purpose of the research was explained to the participants before the questionnaires were administered. Consent form was also given to the students that their participation is voluntarily. The participants were also told that their answers would not affect their grades, remain confidential unless requested by the participants and their principal, and be accessible only to the researchers.

5 DATA ANALYSIS

The statistical analysis that was used to get the correlational of the types of motivation to perceived autonomy support of teachers is through Pearson R. Same as with the students' gender difference in terms of motivation in physical education and independent t-test sample was also used.

6 RESULTS AND DISCUSSION

In this section presents the correlational results between the types of motivation and perceived autonomy support of teachers. This shows also difference in motivation based on student's gender.

6.1 Perceived Autonomy Support of Teachers and Students' Motivation in Physical Education

Table 1: Mean Score And Response on The Perceived Autonomy Support And Types of Motivation.

	M	SD	α
Perceived Autonomy Support	5.19	.89	.65
Intrinsic	5.77	1.15	.85
Identified	5.23	1.09	.69
Introjected	3.83	1.25	.62
External	3.86	1.25	.47

In table 1, it presents the result of the response of students for the Perceived Autonomy Support (PAS) and the types of motivation in Physical Education. The Perceived Autonomy Support in general got a mean score of 5.19 with a standard deviation of 0.89, means that the students feel that the teachers are supportive in teaching Physical Education. Then, the first type of motivation is Intrinsic Motivation which got a mean score of 5.77 with a standard deviation of 1.15 these means that the students wants to learn PE because it's enjoyable and fun, while the second type of motivation which is Identified Regulation got a mean score of 5.23 with a standard deviation of 1.09 it means that it is a need for them to learn Physical Education because it will not only develop their physical aspects but holistically. The other types of motivation which are Introjected Regulation got a mean score of 3.83, External Regulation got a mean score of 3.86 and Amotivation got a mean score of 2.68. Those three types got a low mean score and it means that students don't use ego involvement for the Introjected, rewards and punishment are not their motivation in Physical Education for the External Regulation.

Tabel 2: Correlations between Perceived Autonomy Support Types of Motivation.

		PAS	INTRIN	IDENT	INTROJ	EXTER	AMOTIV
PAS	Pearson Correlation	1	0.79	0.425	0.038	0.096	0.151
	Sig (2-Tailed)		0.000	0.000	0.465	0.063	0.003
	N	279	279	279	279	279	279
INTRIN	Pearson Correlation	0.379	1	0.730	0.222	0.004	-0.366
	Sig (2-Tailed)	0.000		0.000	0.000	0.936	0.000
	N	279	279	279	278	279	279
IDENT	Pearson Correlation	0.425	0.73	1	0.251	0.09	-0.266
	Sig (2-Tailed)	0.000	0.000		0.000	0.082	0.000
	N	279	279	279	278	279	279
INTROJ	Pearson Correlation	0.038	0.222	0.251	1	0.368	0.000
	Sig (2-Tailed)	0.465	0.000	0.000		0.000	0.000
	N	279	279	278	279	278	278
EXTER	Pearson Correlation	0.096	0.004	0.090	0.368	1	0.379
	Sig (2-Tailed)	0.063	0.936	0.082	0.000		0.000
	N	279	279	279	278	279	279
AMOTIV	Pearson Correlation	-0.151	-0.366	-0.266	0.248	0.379	1.000
	Sig (2-Tailed)	0.003	0.000	0.000	0.000	0.000	
	N	279	279	279	278	279	279

Table 2 shows the result for the correlation between Perceived Autonomy Support and Types of Motivation (Intrinsic, Identified Regulation, Introjected Regulation, External Regulation). It shows that Perceived Autonomy Support is highly related to Intrinsic with Pearson R value of 0.79, p>0.05 and Identified regulation with Pearson r value of 0.425, p>0.05 which means students have motivation in PE when teacher makes the class fun and enjoyable at the same time explained the importance of PE in their lives. There is a High Perceived Autonomy Support and Low Introjected regulation (Pearson r value of 0.038, p<0.05) External Regulation (Pearson r value of -0.096, p<0.05) which means the motivation of students in PE is not because of rewards and punishment.

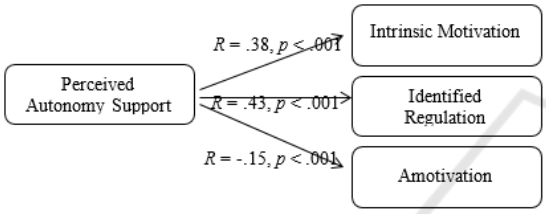

Figure 1: Correlational Between PAS and Types of Motivation Based on Students' Gender.

Based on the figure above the results shows the correlation of PAS and Types of Motivation based on gender. The Perceived Autonomy Support with the Pearson r value of 0.38, p<0.001 for Intrinsic Motivation, 0.43, p<0.001 shows that the students have motivation in PE based on their perception that it's fun and learning experience and at the same it's important for them to learn PE in their daily life which promotes lifelong fitness while Amotivaton for -0.15, p>0.001 means that the students are motivated in PE.

6.1.1 Gender Difference in Perceived Autonomy Support

Based on Table 3 it shows the result of gender differences on perceived autonomy support. The male got a mean score of 5.30 while the female 5.25 it means both are motivated in PE because of the teachers support and style in teaching PE. Based on the mean difference of 0.4947 it means that there is no significant difference in the motivation in PE based on gender.

Table 3: Group Statisties.

	Gender	N	M	SD	df	Sig.	Mean Difference
PAS	Male	105	5.3	0.861	277	0.662	0.494
	Female	174	5.25	0.943			

7 CONCLUSION

In conclusion, Physical Education plays an important role in promoting positive attitudes towards lifelong physical activity. Our study concludes that Filipino P.E teachers may use autonomy support strategies to enhance students' motivation in PE. It is also concluded that students' perception to autonomy support based on gender signifies the important role of teachers in PE and the students' motivation in promoting lifelong fitness.

REFERENCES

Barkoukis, V., Hagger, M. S., Lambropoulos, G., Tsorbatzoudis, H. 2010. Extending the trans-contextual model in physical education and leisure-time contexts: Examining the role of basic psychological needs satisfaction. *British Journal of Educational Psychology,* 80, 647-670.

Bocarro, J., Kanter, M., Casper, J., Forrester, S. 2008. School Physical Education, Extracurricular Sports, and Lifelong Active Living. *Journal of Teaching in Physical Education,* 27, 155-166.

Bryan, C. L., Solmon, M. A. 2007. Self-determination in physical education: Designing class environments to promote active lifestyles. *Journal of Teaching in Physical Education,* 26, 260- 278.

deCharms, R. 1968. Personal Causation. New York: Academic Press

Deci, E. L. and Ryan, R. M. 1985. *Intrinsic Motivation and Self-determination inHuman Behavior*. New York: Plenum.

Deci, E.L. and Ryan, R.M. 2000. The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior, *Psychological Inquiry* 11:227–68.

Deci, E. L. and Ryan, R. M. 2002. The paradox of achievement: The harder you push, the worse it gets, in *J. Aronson (ed.), Improving Academic Achievement: Contributions of Social Psychology,* pp. 59–85. New York: Academic Press.

Flavell, J. H. 1999. Cognitive development: Children's knowledge about the mind, in *J.T. Spence (ed.), Annual Review of Psychology,* Vol. 50, pp. 21–45. Palo Alto, CA: Annual Reviews, Inc.

Gagne, M. 2003. The role of autonomy support and autonomy orientation in prosocial behavior engagement. *Motivation and Emotion*, 27, 199–223.

Gagne, M., Ryan, R. M., Bargmann, K. 2003. Autonomy support and need satisfaction in the motivation and well-being of gymnasts. *Journal of Applied Sport Psychology*, 15, 372–390.

Goudas, M., Biddle, S., Fox, K. 1994. Perceived locus of causality, goal orientations and perceived competence in school physical education classes. *The British Journal of Educational Psychology,* 64, 453–463. PubMed.

Guthold, R., Cowan, M. J., Autenrieth, C. S., Kann, L., Riley, L. M. 2010. Physical activity and sedentary behavior among schoolchildren: A 34-country comparison. *The Journal of Pediatrics,* 157, 43-49.

Nicholls, J.G. 1984. Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance, *Psychological Review* 91: 328–46.

Niemiec, C.P., Ryan, R.M., Brown, K.W. 2008. *The role of awareness and autonomy in quieting the ego: A self-determination theory perspective,* in H.A.

Niemiec, C.P., Ryan, R.M. and Deci, E.L. 2010. *Self-determination theory and the relation of autonomy to self-regulatory processes and personality development', in R. H. Hoyle (ed.), Handbook of Personality and Self-regulation. Malden,* MA: Blackwell Publishing.

Ntoumanis, N., Standage, M. 2009. Motivation in physical education classes: A self-determination perspective. *Theory and Research in Education,* 7, 194-202.

Pelletier, L.G., Séguin-Lévesque, C. and Legault, L. 2002. Pressure from above and pressure from below as determinants of teachers' motivation and teaching behaviors', *Journal of Educational Psychology* 94: 186–196.

Ryan, R.M. and Brown, K.W. 2005. Legislating competence: High-stakes testing policies and their relations with psychological theories and research, in *A.J. Elliot and C.S. Dweck (eds), Handbook of Competence and Motivation,* pp. 354–72. New York: Guilford Publications.

Ryan, R. M., Deci, E. L. 2002. *Overview of self-determination theory: An organismic dialectical perspective. In E. L. Deci & R. M. Ryan (Eds.), Handbook of self-determination research (pp. 3-33). Rochester,* NY: University of Rochester Press.

Ryan, R. M., Deci, E. L. 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and wellbeing. *American Psychologist,* 55(1), 68-78.

Ryan, R.M. and Deci, E.L. 2000a. Intrinsic and extrinsic motivations: Classic definitions and new directions, *Contemporary Educational Psychology* 25: 54–67.

Ryan, R.M. 1982. Control and information in the intrapersonal sphere: An extension of cognitive evaluation theory*, Journal of Personality and Social Psychology* 43: 450–61.

Ryan, R.M., Connell, J.P. 1989. Perceived locus of causality and internalization: Examining reasons for acting in two domains. *Journal of Personality and Social Psychology,* 57, 749–761. PubMed.

Reeve, J., Jang, H., Hardre, P. and Omura, M. 2002. Providing a rationale in an autonomy-supportive way as a strategy to motivate others during an uninteresting activity, *Motivation and Emotion* 26: 183–207.

Taylor, I. M., Lonsdale, C. 2010. Cultural differences in the relationships among autonomy support, psychological need satisfaction, subjective vitality, and effort in British and Chinese physical education. *Journal of Sport & Exercise Psychology,* 32, 655-673.

Trudeau, F., Sheppard, R. J. 2008. Physical education, school physical activity, school sports, and academic performance. *International Journal of Behavioral Nutrition and Physical Activity,* 5(10).

Vansteenkiste, M., Ryan, R.M. and Deci, E.L. 2008. Self-determination theory and the explanatory role of psychological needs in human well-being, in *L. Bruni, F. Comin and M. Pugno (eds), Capabilities and Happiness, pp. 187-223.* Oxford: Oxford University Press.

Vlachopoulos, S. P. 2012. The role of self-determination theory variables in predicting middle school students' subjective vitality in physical education*. Hellenic Journal of Psychology,* 9, 179-204.

Williams, G., Deci, E. 1996. Internalization of biopsychological values by medical students: A test of selfdetermination theory. *Journal of Personality and Social Psychology,* 70, 767–779. PubMed.