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## Motivation for Physical Activity Participation of Cebu Institute of Technology – University Students

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### Abstract

This research identifies the motives and differences for physical activity (PA) participation between male and female students of the Cebu Institute of Technology - University. It uses a descriptive method of research, with survey questionnaire as data gathering instrument, and Microsoft Excel for statistical analyses. Findings revealed that the highest means of motivation for physical participation of male and female respondents were for the Interest motivation, while the lowest was for the Appearance motivation. Results further show that there is no significant difference between male and female motives for physical activity participation as reflected in the result of T-test for significant difference and that there is no significant difference among the five factors for motivation for both male and female respondents using a 2-Factor ANOVA. The study therefore recommends that CIT University further support students' interest for leisure-related physical activity participation, and to possibly organize various sports clubs to create an avenue for students to play and compete in an activity that they are interested in.

**Keywords:** motivation; factors for motivation; physical activity participation

### 1. Introduction

The utmost priority of teachers would be to facilitate the transfer of knowledge to students in all ways possible. Teachers are seen as tools in exercising the cognitive ability of students to learn. To instill a passion to learn and to create a hunger for new knowledge are the driving forces for teachers to dutifully perform their function.

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However, with change come new technologies in forms of multimedia worlds of games, sports and socials that distract students from learning what they ought to learn. Some students succumb to the bait of a technologically-driven world that they tend to forget the importance of learning basic things in school, such as the need to understand and appreciate subjects like Mathematics, History, or even the English Language. Fortunately, there are still a lot of students who perform well in school in spite of all the distractions the world has to offer. To perform well means to still achieve success by comprehending and applying new knowledge that students deem necessary to survive once in the real world outside the walls of their school.

If in spite of distractions, there are still students who discover the joy of learning, then there has to be a driving force that allows them to do so. One contributing and essential factor to consider would be their motivation to learn. Motivation can be defined as a process that influences the direction, persistence, and vigor of goal-directed behavior [1]. This is something that pushes a person to choose to do something on top of another choice, or do something to simply avoid another. Even so, motivation may be external or internal. An external motivation is known as Extrinsic motivation, which is defined as “performing an activity to obtain an external reward or avoid punishment”, while an internal motivation is termed as Intrinsic motivation defined as, “performing an activity for its own sake” [1].

Extrinsic motivation stems from the idea that external and tangible rewards in forms such as money, food, sticker, stamps or grades, will elicit desired behaviours or outcomes. Without such, there would be no or a lesser drive to complete a task, or do a positive act. Intrinsic motivation, on the other hand, is the driving force that comes from within. The sheer joy, fulfilment, and satisfaction of simply doing something or completing the task are enough cause for motivation.

On a deeper and closer look at motivation, it can be said that it works in terms of three systems of mental processing [2]. These systems of processing, namely, (1) Examining Importance, (2) Examining Efficacy, and (3) Examining Emotional Response, were taken from Marzano’s book on “Designing a New Taxonomy of Educational Objectives”. This means that for a student to be motivated, he / she must first believe on the importance of the new learning, and that resources necessary to be successful are available. For example, if a student believes that knowledge of basic mathematical operations would spare him / her from being cheated when buying or selling something, then most likely that interest to learn will be there. Similarly, if the new learning will bring success, then interest to learn will also be present. More importantly though is the emotional response, which is either positive or negative. Creating a positive learning environment will surely bring out a positive result, hence, student progress and student participation.

It is therefore important to consider the motivation behind why a student chooses to do or not do a task, either related to curricular or non-curricular activities in school. In this case, a non-curricular activity, fully voluntary, and conducted during free time, may be in terms of physical activity participation. From the primary to the tertiary level, students participate in various physical activities during organized competitions, and mostly during their free time. Thus, in view of the aforementioned, this study aims to examine what specifically motivates a student to engage in a physical activity during their free time and to further determine if there are significant differences that exists between male and female students’ motivation for PA participation.

## **2. Methods**

### **2.1 Setting and respondents**

The questionnaire was given to seventy (70) male and female students who borrowed sports equipment (table tennis and badminton rackets, basketball, volleyball, chess and scrabble boards) from the CIT University college PE office for the whole Summer 2012 – 2013 (April – May 2012) period. These 70 students comprised all those who borrowed the various sports equipment for the entire target period since it was ensured that partially answered questionnaires would be returned for completion of answers. Likewise, Summer period was the preferred period for the gathering of data since a regular semester would seem to be very difficult to monitor student-borrowers as borrowing of equipment would oftentimes coincide with regular PE classes use of sports equipment.

### **2.2. Instrument**

The study utilized a descriptive method of survey using **Motives for Physical Activities Measure – Revised (MPAM-R)**, a 30-item questionnaire intended to assess the strength of five motives (fitness, appearance, competence/challenge, social, and enjoyment) [3] for participating in physical activities.

The valid scale has been taken from **Intrinsic Motivation Inventory (IMI)**, a multidimensional measurement device intended to assess participants' subjective experience related to a target activity in laboratory experiments [4]. The scale has been also used to predict various behavioural outcomes, such as attendance, persistence, or maintained participation in some sport or exercise activity, or to predict mental health and well-being.

Student-respondents' motivation for physical activity participation was examined using a seven-point Likert scale (1 = not at all true for me to 7 = very true for me).

### **2.3 Data Gathering Procedure**

To cover the entire period of Summer 2012 – 2013, all students who borrowed a particular sports equipment from the PE office were given a questionnaire that were answered and immediately handed back to ensure that every question/item was answered.

### **2.4 Statistical Treatment**

Treatment of data included computation of means, mode and percentages to identify the motives behind PA participation, T-test to determine if there is a significant difference between the motives of male and female students, and a 2-factor ANOVA to determine if there is a significant difference among the mean scores of motivation for PA participation of male and female students.

### 3. Results and Discussion

The seventy (70) respondents who completed the questionnaire during the Summer 2012 – 2013 consisted of nine (9) female students and sixty one (61) male students. The respondents' demographic characteristics are shown in Table 1.

Table 1: Respondents' demographic characteristics

Demographic variables
Gender
Female (13%); Male (87%)
Age (years old)
16 (2.86%); 17 (7.14%); 18 (24.29%); 19 (35.71%); 20 (17.14%); 21 (7.14%); 22 (1.43%); 23 (0%); 24 (1.43%); 25 (1.43%); 26 (1.43%)
Year Level
First year (9%); Second year (21%); Third year (43%); Fourth (20%); Fifth (7%)
Course
Engineering courses [Electrical, Computer, Civil, Mechanical, Chemical and Electronics and Communications] (78 %); Non-Engineering (22%)

Evidently, students who participated in a physical activity during the Summer 2012 period were mostly coming from ages 18, 19 and 20, with age 19 as the most number of those who participated with 25 students, followed by age 18 at 17 students, and at third is age 20 with 12 students.

Furthermore, 3rd year students participated the most at 43%, followed by the 2<sup>nd</sup> year students at 21%, and ranked third were the 4<sup>th</sup> year students. Normally, in a 2-semester per year university / college, the four (4) PE courses in the tertiary level should be taken in the first 2 years, with one PE course enrolled per semester that guarantees that as soon as a college student enters 3<sup>rd</sup> year, all 4 PE courses were taken and finished. This system of enrolment possibly led to the result where 3<sup>rd</sup> year students were almost half of the respondents of this study. It may be that they enjoyed and missed their PE classes that they had in their first 2 years in college, the reason why they decided to still “play” during their vacant time. 5<sup>th</sup> year students, who are only engineering and

architecture students, were the least who played at 7%. A probable reason for this would be that they were mostly focused on completing academic requirements needed for graduation.

Cebu Institute of Technology - University being known as one of the leading engineering tertiary schools in Cebu, is largely populated by students who would want to be future engineers. This accounted for the 78% [combined Civil (25%), Electrical (23%), Mechanical (19%), Computer (4%), Electronics and Communications (4%), and Chemical (3%)] of student-respondents who participated in the study. The remaining 22% were in small percentages distributed in the different courses from other colleges (aside from other engineering courses from the College of Engineering and Architecture), such as Information Technology (IT) from College of Computer Studies, Hotel and Restaurant Management (HRM), Accountancy (BSA), and Business Administration (BA) from the College of Management, Business and Accountancy, Bachelor of Arts (AB) and Math from the College of Arts and Sciences, and Education from the College of Education.

**3.1 Male and female students’ motives for physical activity participation**

Table 2 shows a computed value of 0.0637, which is below the tabular value of 1.645. This implies that there is no significant difference between the motivation for physical activity participation of both male and female students during Summer 2012. The result signifies that both male and female students participated in a physical activity for almost the same reason or motivation.

Table 2. Significant difference between male and female students’ motives for PA participation

	<b>T – Computed Value</b>	<b>T – Tabular Value</b>
Male	0.0637	1.645
Female		

As shown in Figure 1, both male and female students who participated in a physical activity were highly motivated on the aspect of Interest as reflected in the highest 6.26 mean for male students and highest 5.87 mean for female students. As summer period is equally intended as a time to participate in activities that are mostly the hobbies or past time of people, it is also evident in this result that the student-respondents chose to participate in an activity that is worth their interest first and foremost. On the contrary, both male and female students did not participate in a physical activity because of Appearance. Means with the lowest belong to the Appearance motive that posted a 5.14 and 5.06 for both male and female students, respectively. This showed that appearance as a determining factor for motivation was not a high priority for student activity participation.

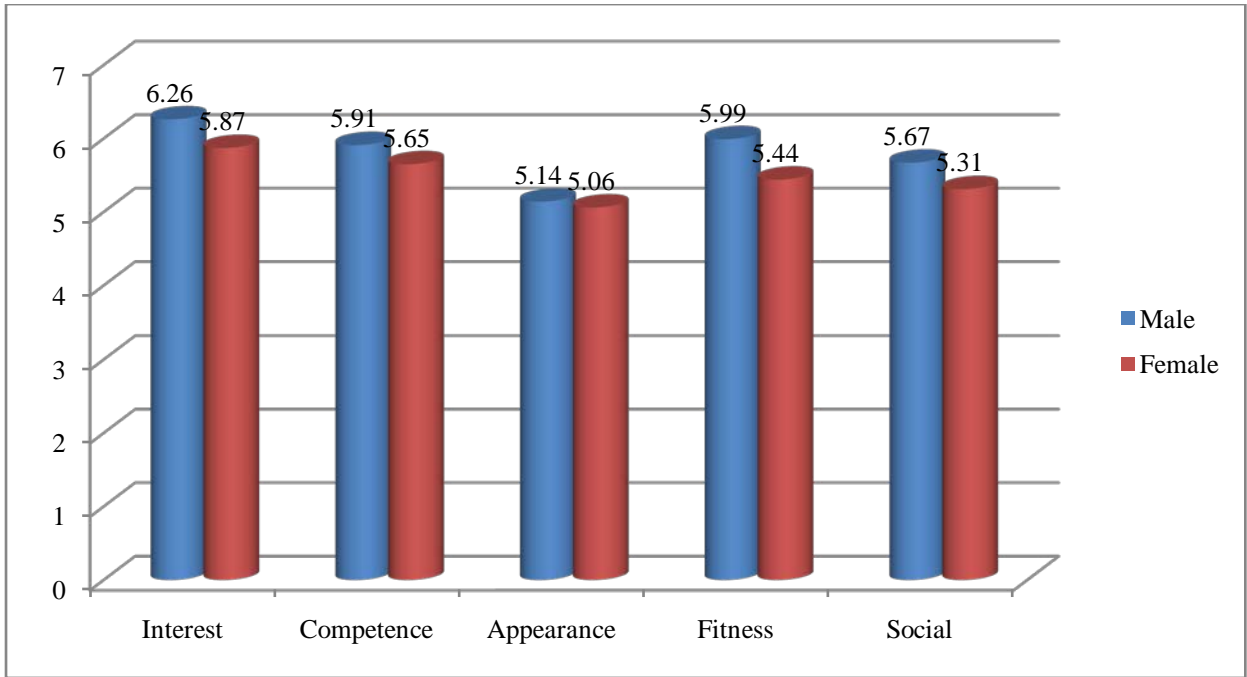


Figure 1. Summary of means for PA motivation for male and female students

3.2. Factors for motivation of male and female students

Table 3. Significant difference of the 5 factors for motivation for PA participation of male and female students

Source	Sum of Squares	df	Mean of Squares	F	Tabular Value
Male	6.553633095	9	0.728181455	1.65447	2.1
Female	1.558481667	1	1.558481667	3.54095	4
Male and Female	0.315767381	9	0.035085265	0.07972	2.1

Table 3 shows that computed values 0.7282, 1.5585 and 0.0797 are lesser than the tabular values 2.1, 4 and 2.1, respectively. These imply that there are no significant differences on the five factors of motivation for physical

activity participation of both male and female students during Summer 2012. Findings show that the five factors of motivation of male and female students who participated in a physical activity are almost the same.

Table 4. Significant difference of the 5 factors for motivation for PA participation of male and female students

Source	Factors for Motivation	Mean	Sum of Squares	df	Mean of Squares	F – ANOVA Computed Value	F – ANOVA Tabular Value
Male	Interest	6.26	6.5536	9	0.7282	1.6545	2.1
	Competence	5.91					
	Appreciation	5.14					
	Fitness	5.99					
	Social	5.67					
Female	Interest	5.87	1.5584	1	1.5585	3.5410	4.0
	Competence	5.65					
	Appreciation	5.06					
	Fitness	5.44					
	Social	5.31					
Male and Female	Interest	6.07	0.3158	9	0.0351	0.07972	2.1
	Competence	5.78					
	Appreciation	5.10					
	Fitness	5.72					
	Social	5.49					

Table 4 shows data on the differences among the five factors for motivation (interest, appreciation, competence, fitness and social) for physical activity participation. Utilizing a 2-Factor ANOVA resulted to a Computed F value of 1.6545, which is below the F Tabular value of 2.1 for the male respondents only, and a Computed F value of 3.5410, which is below the F Tabular value of 4.0 for the female respondents, thus, proving that there are no significant differences among the five factors for motivation for the male and female respondents. This implies that no factor for motivation stands out above the rest for both male and female respondents, or that all factors for physical activity motivation are taken at the same level. Similarly, a Computed F value of 0.07972, which is below the F Tabular value of 2.1 signifies further that there is no significant difference for the five factors for motivation between the male and female respondents emphasizing clearly that factors for motivation for males in comparison with females are of the same level.

**4. Conclusion**

Participation in various physical activities is largely determined by an individual’s motivation, whether intrinsic or extrinsic. In an environment where physical activities are readily available and even accessible such as a school setting, both male and female students must continuously be allowed by the school administration to borrow sports equipment to further support their interest for leisure-related physical activity participation. Active participation in such activities will greatly promote for a more active lifestyle that may possibly decrease occurrence of diseases in the future. Moreover, creation of sports clubs may also be organized to create an avenue for students to play and compete in an activity that they are interested in.

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