




The Relationship between Multiple Intelligences and Participation Rate in Extracurricular Activities of Students from a Catholic Education Institution

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ABSTRACT

Multiple intelligences and extracurricular activities are two variables that may affect a student's academic and non-academic performance in school. This study aimed at describing and finding the relationship between multiple intelligences and participation rates in extracurricular activities of students from a Catholic educational institution. The study also used a descriptive-correlational design. For the respondents, the study randomly selected a sample of 200 students studying within the academic year of 2017-2018 from a Catholic educational institution. For the instrument, this study adapted the Multiple Intelligence Survey developed by Chislett and Chapman (2006) and Extracurricular Activities Survey by Kelley (2012). The study analyzed and treated statistically the collected data using rank and Spearman Rho with the help of SPSS 20. The findings revealed that visual intelligence emerged as the top-ranked multiple intelligences. Dance/ sports club emerged as the top extracurricular activities took part by most of the students. Also, there was no statistical evidence of the relationship between the multiple intelligences and participation rate to extracurricular activities of the students. Based on the result, the researchers provided pertinent recommendations for teachers, students, and the institution.

Keywords: multiple intelligences, participation rate, extracurricular activities, correlation study

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INTRODUCTION

Most scholars on Multiple Intelligences claim that MI-based instructions have a great significant effect on students learning, on how students learn inside and outside the classroom. Bas (2016) has found out that Multiple Intelligence theory-based education has a significant effect on the students' academic achievement. Jimenez (2020) stated that improving the students' problem-solving ability remains a challenge to teachers and students. Abdi et al. (2013) showed that students instructed through Teaching Strategy based on Multiple Intelligences achieved a higher score than the ones with traditional instruction. Safein's (2012) study showed the Multiple Intelligences based program had a significant effect on improving the subjects' listening and speaking skills.

There are so many literatures today that focused on the applying multiple intelligences in various ways. For example, a study described the effects of multiple intelligence-based reading tasks on both EFL male and female learners' reading comprehension (Modirkhamene & Azhiri 2012). From the study of Otieza (2013), they showed that innovative intelligences-based reading tasks grants chances to discover,

value, and enhance the talents of learners. This is for a learner's better tackling of reading comprehension shortcomings. The author also revealed a relationship between multiple and language learning strategies. According to Ermis and Imamoglu (2013), doing sports has a positive effect on verbal, interpersonal, and kinesthetic intelligence. Thus, we encourage students to be in sports.

In another study by Akyol (2018), the author determined whether drama education causes any difference in the multiple intelligences of children. Because of the study, there was no significant difference between the children in the experimental and control groups in terms of their pretest and posttest mean scores. From the paper of Abdulkarim and Al Jadiry (2012), the team showed that there was no significant difference in acquiring physical concepts because of the cooperative learning group division based on multiple intelligences theory and previous achievement. Still, in most cases, cooperative learning has a significant effect on the students, those who are not well-equipped in acquiring concepts.

Multiple intelligences also influence the academic achievements of students in an overall sense. From the study of Bicer (2017), student-centered learning methods have an overall positive and high-level effect

on the academic success of students. The company of Ahvan et al., (2016) studied the relationship between multiple intelligences and academic performance achievement of students and found a positive relationship. Multiple regression analyses showed that visual-spatial, interpersonal and verbal-linguistic intelligence predicts academic performance achievement. In some sex-concern concerning Multiple Intelligence-based Instruction, the researchers have found out that there are blind spots among authors like Obianuju et al. (2015), Punia and Jyoti (2016).

From the perspective of Kasmahsari (2015), it revealed that educators recognize the many paths to understanding, and students learn best when they can engage in activities that involve their strengths. In a Southeast Asian country, teachers' daily lesson planning integrates the multiple intelligence elements and approaches. Naeni (2015) also discovered that integrating multiple intelligence theory can contribute to enhancing of learners' listening comprehension. Also, the effect is even more significant if the teachers practice the integration of all intelligence rather than the most developed ones. Finally, Bas and Beyhan (2010) exposed that the students educated by multiple intelligences supported project-based learning methods are more successful. In addition, these students have a higher motivation level than the students who are educated by the traditional instructional methods.

This particular paper focuses on the idea to prove whether the students' multiple intelligences affect the participation rate of students to extracurricular activities of the school. The focus inspired the researchers since an advocate of multiple intelligences; Devlin (2010) claimed that there was no significance between students' learning style and the participation rate in extracurricular activities.

The purpose of this study includes the describe the level of multiple intelligence of the students of a private higher education institution, to determine the level of the participation rate in extracurricular activities of the students, and to analyze the relationship between students' multiple intelligences and the participation rate in extracurricular activities of the institution.

This study hopes to contribute to the ever-growing ideas and concepts of multiple intelligences and how it affects students. Also, the researchers hope to help teachers, educators, and the like in realizing the innate capacity of students and their hunger for learning. Considering this minute detail could help both students and teachers build a solid foundation of the teaching-learning process.

METHODOLOGY

The researchers used a descriptive-correlation design of the study with the survey as the primary instrument for data gathering. The aim of the study is to discover the relationship between multiple intelligence and participation in extracurricular activities, such a correlation type applies to this current study.

To achieve the study's aim, the researchers took a sample of 200 students from the senior high school department of a private higher education institution in the academic year 2017-2018. The researchers used a simple random sampling technique in establishing the sample for this study.

For the instrument, the researchers adapted the "Multiple Intelligence Test" developed by Chislett and Chapman (2006) based on

Howard Gardner's Multiple Intelligences Model. This test is a standardized test and available online. The "Extracurricular Activities Survey" established by Kelley (2012) is an investigatory study which examined the participation in extracurricular activities of students. Prior to the actual administration of the survey, a pool of experts examined the said instrument for reliability. They consisted a seasoned researcher-publisher, a university professor (with experience in research publication), a senior high school teacher and a school guidance counselor. The researchers considered their comments and suggestions to improve the instrument. Furthermore, a pilot survey of the instrument commenced to a group of students who were not part of the survey to find out any misunderstood terms and concepts.

After gathering and tabulating the data using Microsoft Excel, the proponents used Spearman Rho to extract the correlation between the two variables of this study. The researchers used the Statistical Package for Social Science (SPSS) 20 in the correlation's computation using Spearman Rho as a statistical method.

RESULTS

This study aimed to analyze the relationship between multiple intelligences and the participation rate of students in extracurricular activities. This study revealed the results shown in **Figure 1**.

Figure 1 showed the result of multiple intelligence lists of the respondents of the study. As seen, the lowest-ranked intelligence rated by the respondents was the linguistic-intelligence which falls on the 9th order. The next lowest ranked intelligence was logical, which falls on the 8th position. Existential intelligence was in 7th place. The 6th positioned intelligence was kinesthetic, followed by the naturalist intelligence on the 5th position. For the 4th place, the interpersonal intelligence came in, followed by musical intelligence in 3rd place. The highest places intelligence was visual, followed by intrapersonal intelligence in second place.

Figure 2 displayed the result of the extracurricular activities survey to the respondents. As observed, the figure showed that Altar-servers' club and *Augustino* Chronicles club is the lowest-ranked clubs in the 8th and 7th position. The Arts Club (6th place) and the Nature-lovers' club (5th place) followed next. In the 4th position were the Peer Facilitators' club/Usher and Usherettes' club followed by the Choir club that ranked 3rd. The Dance/Sports Club took the 1st place and Theatre club the second place.

Table 1 showed the Multiple Intelligences with its corresponding extracurricular activities/clubs. We set the equivalence of each extracurricular activity to the multiple intelligences according to the club and organizations' job descriptions (the Students' Development Services Archives provided the information). First, linguistic/verbal intelligence corresponds to the *Augustino* Chronicles. Second, logical/mathematical intelligence has no corresponding extracurricular activity. Third, musical intelligence corresponds to choir club. Fourth, spatial/visual intelligence corresponds to the Arts club. Fifth, the bodily/kinesthetic club corresponds to sports varsity club and to dance club. Sixth, we see intrapersonal intelligence within Altar Servers Club. Seventh, we see interpersonal intelligence in peer facilitators' club and in usher and usherettes club. Eighth, naturalistic intelligence corresponds to nature lovers' club. Last, we see existential intelligence with theatre club.

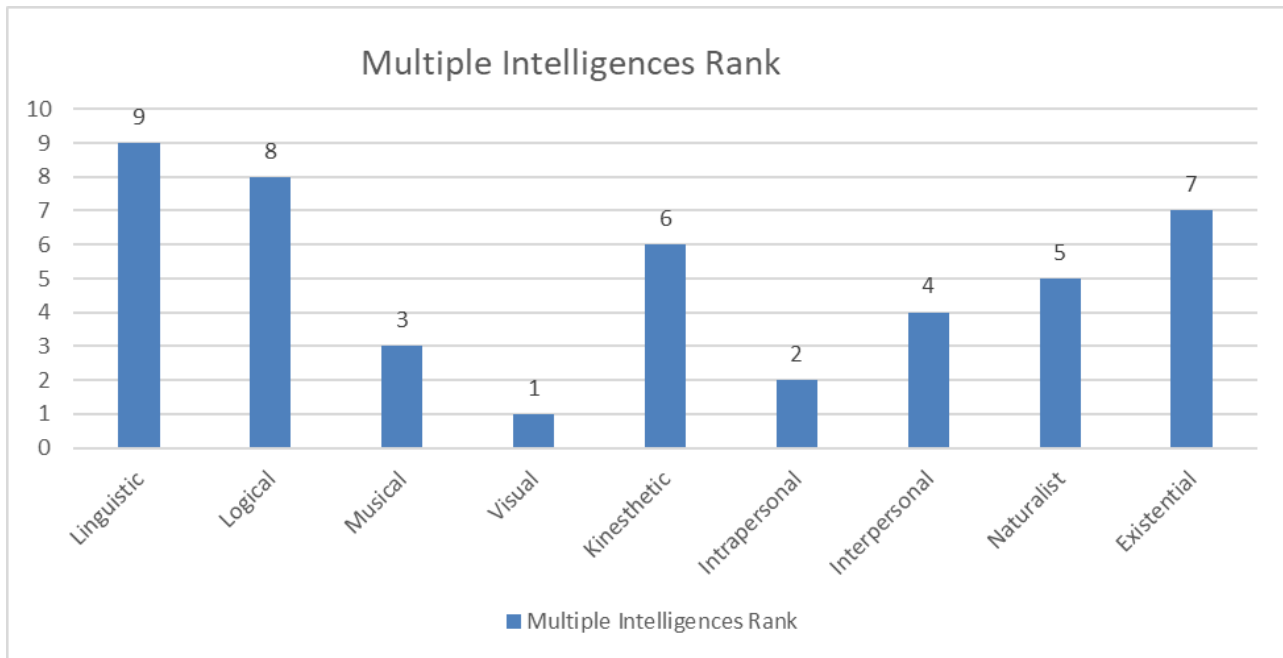


Figure 1. Multiple Intelligence Inventory by Gardner (2007)

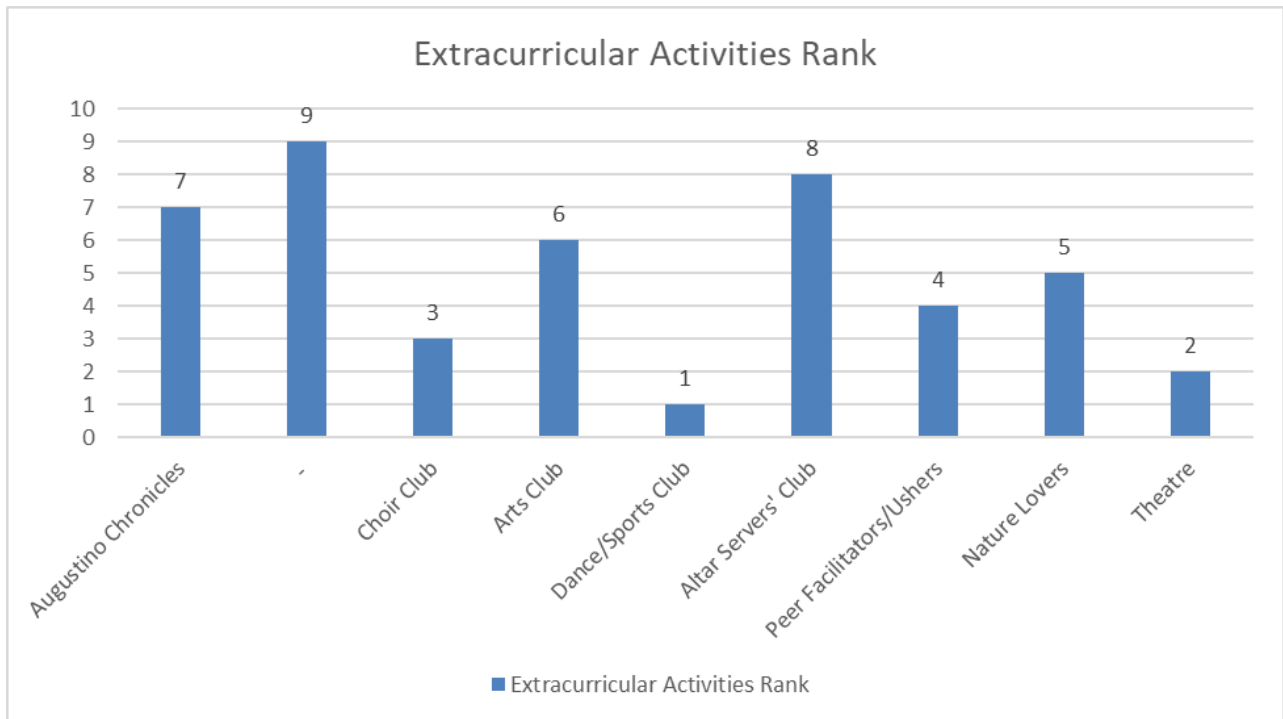


Figure 2. Extracurricular Activities Survey by Kelley (2012)

Table 1. Multiple Intelligence and their Corresponding Extracurricular Activities

No.	MULTIPLE INTELLIGENCES (MI)	EXTRACURRICULAR ACTIVITIES (ECA)
1	Linguistic/Verbal	Augustino Chronicles
2	Logical/Mathematical	No Club Available
3	Musical	Choir Club
4	Spatial/Visual	Arts Club
5	Bodily/Kinesthetic	Sports Varsity Club / Dance Club
6	Intrapersonal	Altar Servers' Club
7	Interpersonal	Peer Facilitators' Club / Ushers and Usherettes
8	Naturalist	Nature Lovers' Club
9	Existential	Theatre Club

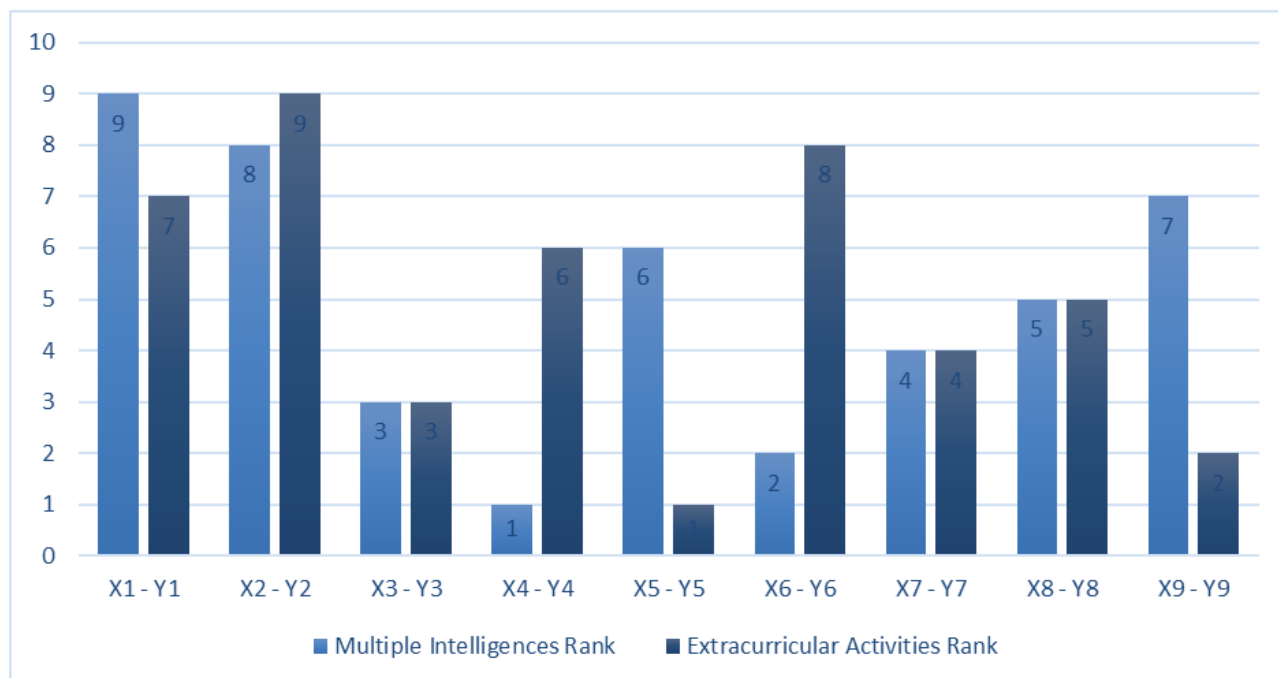


Figure 3. Relationship between Multiple Intelligences and Extracurricular Activities Participation Rate

Table 2. Computation of Correlation Coefficient Using Spearman Rho

		Rank of X	Rank Y
Spearman's rho	Rank of X	Correlation Coefficient	1.00
		Sig. (2-tailed)	.932
		N	9
	Rank of Y	Correlation Coefficient	.033
		Sig. (2-tailed)	.932
		N	9

*p > .05

Figure 3 showed the relation between multiple intelligences versus extracurricular activities. The *Augustino* Chronicles as conceived to be as 9th in participation rate rank while the Linguistic-intelligence falls under 7th in rank. Both Choir Club as well as being 8th. Both X3 and Y3 are 3rd. The X4 is 1st while Y4 is 6th. The X6 is 2nd while Y6 is 7th. The X7 is 4 while the Y7 is also 4th. Both X8 and Y8 are the same as the 5th. The X9 is 7th while the Y9 is 2nd (Please refer to Figure 1 and Figure 2).

Table 2 revealed the computation of the correlation coefficient between multiple intelligence and extracurricular activities using Spearman Rho. The X-variable was the multiple intelligences. The Y-variable was the extracurricular activities. As seen, there was no significant relationship between the two variables. This is because the Spearman's rho correlation coefficient result of .033. It has a corresponding probability value of .932. The p-value is greater than the Alpha significance level of .05. This showed further that the multiple intelligence rank differs from extracurricular activities rank. Therefore, the multiple intelligences of a student are not one of the key factors that influence the participation rate of the students to extracurricular activities in the school.

DISCUSSION

This study described the multiple intelligences and extracurricular activities participation of students from a private higher education

institution. It also analyzed the relationship between multiple intelligences and extracurricular activities participation of students.

The result of the study is interesting. In multiple intelligences, the linguistics intelligence ranked the lowest and the visual intelligence ranked on top. The reason seems to be that majority of students are visual learners thus, visual intelligence top the list. Therefore, teachers need to capitalize on such opportunity, so more students appreciate the lessons at hand by using technology-based learning. In a parallel idea, Shabiralyan (2015) shared that majority of teachers and students had affirmative perceptions of the use of visual aids and other learning material that would appease the students in visual learning. The next intelligence on the list was intrapersonal. We deduct that technology-based learning affected intrapersonal intelligent individuals. Suhana (2017) posited that ICT usage of children leads to self-isolation from social life and a lack of emotional management. The third most exhibited intelligence is musical. Music aids students through learning just like Kusnierek (2016) stated that teaching with the use of music highly motivates students. Sebastian (2020) concluded that using music is effective in improving a student's performance. For the fourth, most exhibited intelligence is interpersonal. The increase of gadget use and exposure to social media, students nowadays lack social skills and other related life skills. However, Slof et al. (2016) suggested that the interpersonal skills of students predict the degree to which computer-supported collaborative learning has influenced students' achievement. Next came the naturalistic intelligence which ranked 5th in position. Students live in a world where diversity exists and plenty of issues and

concerns to address such as health concerns, environment protection, economic growth, and many more. A study by Adisendjaja et al. (2019) concluded that field trip influences students' naturalistic intelligence. The last four remaining positions belonged to kinesthetic intelligence, existential intelligence, and logical intelligence which placed 6th, 7th, 8th, and 9th. With these final four in mind, the results seemed low, and these areas need improvement. In terms of existential intelligence, Francisco (2016) in a philosophical paper stated that there should be a primacy of faith to that of reason. Concerning the logical intelligence, a study recommended that problem-based learning might improve the level of critical thinking skills of students (Lapuz & Fulgencio, 2020).

In terms of the participation rate of the students in extracurricular activities, the study revealed a 93.5% percent of the total 200 respondents or 186 students who take part in any of the activities that the institution provides. The remaining 6.5% responded have other things in mind than to join extracurricular activities. To attain the researchers' aim, participation in clubs was likewise ranked in the order. The students choose which club activities to engage themselves in. The researchers ranked the students' participation in club activities based on students' preference. The different clubs were: (1) Dance/Sports Club, (2) Theatre Club, (3) Choir, (4) Peer Facilitator's Club, (5) Nature Lovers Club, (6) Arts Club, with (7) *Augustino* Chronicles and (8) Altar Servers' Club as the least preferred clubs and organizations.

In this particular study, the researchers emphasize the non-academic clubs as organizations that are independent in nature. There is no direct influence from other colleges/ departments. The membership is open to all bonafide students regardless of the college/department. These organization's activities are more of the extracurricular types. They provide opportunities for the enrichment of skills and attitudes of the students. This in turn contributes to the total welfare of the individual, creating a holistic member of the society. Larson et al. (2006) reported the profiles of youth in terms of developmental experiences across different organized activities. Mahoney et al. (2003) on the other hand, associated extracurricular activities with high educational status. Besides, Lewis, (2004) argued that participation in extracurricular activities enhances student's self-esteem and self-efficacy which motivates them to work to achieve academic goals.

According to Craft (2012), students that participate in extracurricular activities have a slightly higher grade point average. Extracurricular activities also provide an avenue for strengthening the lessons learned and offer an opportunity to apply academic skills in a real-world context. Hence, the extracurricular activity is a significant constituent of a student's experience in school. It encourages the holistic growth of each student. That is why, teachers should lead students in the best extracurricular activities that best suit their interests and intelligence.

CONCLUSION

Based on the result and findings of the study, the researchers concluded that in terms of multiple intelligences, visual intelligence emerged on top of the survey. However, linguistic intelligence is at the bottom of the ranking. On the other hand, for the participation rate of extracurricular activities of students, the dance/ sports club came up on top of the survey. Yet, the altar servers were the least favored extracurricular activities for students. In the context of the relationship

between the two variables, there was no statistical evidence that supports the idea that multiple intelligences have a significant relationship to the students' participation rate to extracurricular activities.

RECOMMENDATIONS

This study aimed to describe the multiple intelligences and participation rates of extracurricular activities of students. At the same time, analyze the relationship between the two variables. Based on the result of the study, the researchers provide the following recommendations:

1. Teachers in the participating institution should consider enriching and enhancing other intelligence like those at the bottom of the ranking.
2. Encourage teachers to integrate other multiple intelligences in their lessons and activities for students.
3. For the institution, since there were only eight extracurricular activities listed and considered for this study, the researchers suggest providing more options or other extracurricular activities for students to choose from.
4. The institution should empower the student affairs office for extracurricular activities of students.
5. The students may consider determining their own intelligences as it could boost their self-confidence as an individual and a student.
6. Students may opt to join extra-curricular activities since this could help develop their talents and skills especially in competitions in and outside the school.
7. The institution may give contingent rewards to encourage students to participate in various competitions that would show up the good image of the institution that they represent.

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