



# ASEAN Journal of Sports for Development and Peace

Journal homepage: <https://ejournal.upi.edu/index.php/ajsdp/>



## Benefits of Mental Sports and Their Influence on The Academic Performance of The Students

*Buena D. Calunsag<sup>1</sup>*

JH Cerilles State College Dumingag Campus, Caridad, Dumingag, Zamboanga del Sur

\*Correspondence: E-mail: [calunsagbuena@gmail.com](mailto:calunsagbuena@gmail.com)

### ABSTRACT

The purpose of this study was to ascertain the advantages of mental sports and how they might affect the academic performance of the chosen students in Dumingag, Zamboanga Del Sur, for the 2019-2020 school year. All BPED I to IV students from a chosen Dumingag, Zamboanga del Sur institution were enrolled as student participants. The questionnaire checklist served as the primary instrument used by the researcher to collect the necessary data using the descriptive survey approach. Frequency counts, percentages, and weighted arithmetic mean (WAM) were used to evaluate and interpret the data collected. The findings indicated that half of the individuals aged 18 to 19 were female and actively participated in mental sports. As a result, neither the participant's gender nor age impacts how well they perform academically in mental sports. Additionally, the study showed that the participants believed practicing mental sports gave them a lot of advantages, and one of those was excellent academic performance. However, no discernible link existed between the students' regular participation in mental sports and academic success.

### ARTICLE INFO

#### **Article History:**

*Submitted/Received 5 Feb 2023*

*First Revised 6 Apr 2023*

*Accepted 10 Jun 2023*

*First Available online 20 July 2023*

*Publication Date 30 July 2023*

#### **Keyword:**

*BPED,  
benefits gained,  
academic performance,  
mental sports,*

## 1. Introduction

Engaging in sports or games is one of the best ways to promote a stress-free environment. Being active in the said activity is a healthy practice that exposes students to mental enhancement and is essential in developing their social interaction with others and mental health. They might enjoy playing sports because they bond with friends or loved ones. Chess, crossword puzzles, board games, sudoku, etc., are mental sports. Sports or games are one hundred percent mental Sports ([Collins official scrabble worlds dictionary, 2019](#)).

Mental sports or games are also known as mind sports. It was categorized into three groups. Board games include chess, Sci-damath, Snake and Ladder, mahjong, scrabble, and Monopoly—manipulative games composed of Domino, Lego, Tracking Board, and Interlocking cubes. Computer games include counter-strike, Clash of Clans, Tetris, Zombinis, mobile legend, LOL, Dota1 and 2, etc. Mind sports help alleviate stress-related illnesses such as insomnia and anxiety. In addition, it calms the mind and helps well-being ([Brennan, 2018](#)). Crespo et al. ([2019](#)) opined that playing chess as one of the mental sports reduces the possibility of developing dementia, AD, and other hindering mental illnesses.

Scrabble, chess, bridge, sudoku, and backgammon are just a few of the intellectual games that fall under the umbrella of mind sports and need participants to be mentally agile and capable. Initially enjoyed for recreation, mental marks are now more frequently played for competition at the international, national, state, and local levels, allowing both students who are uninterested in traditional competitive physical sports to participate. Involvement in mind sports is associated with mental benefits. A one-point increment in cognitive activity is significantly connected with reduced dementia ([Coyle, 2003](#)).

According to Ciamarra ([2014](#)), participating in mind sports can halt or even reverse deficits in brain functioning linked to aging. Although mind sports have a direct positive impact on people's health, cognition, and psychological and social well-being, they have also made a significant contribution to the advancement of science due to their pivotal role in several scientific fields (such as cognitive or computer science) ([Brkljadic, 2017](#)).

Parents nationwide are aware of and now preaching the benefits of mind sports. In upwardly mobile families where parents are becoming more aware of the risks associated with their children becoming addicted to digital screens and devices, mind sports, defined as a genre of activities that test participants' mental fortitude and grit, are growing in popularity. Moreover, the popularity of mind sports activities has increased recently. These events are full sporting competitions that include chess as their primary component. A short history of mind sports games has revealed various issues, such as an imbalance in development, a lack of funding, and the difficulties of organizing events, which have slowed down the genre's quick development. They specifically addressed the issues that the development of mental sports games has encountered ([Cui & Li, 2014](#)).

Since the brain is equally powerful as any muscle, exercising it is just as important. It is believed that engaging in brain-strengthening activities can elevate one's mood in addition to helping one operate in daily life. The game used to assess cognitive capacity is a mental sport ([Coyle, 2003](#)). Consequently, playing sports allows us to develop our skills, challenge ourselves, and compete with others to become the best at what we enjoy doing and lets us relax and have fun. Sports that call for physical strength, speed, control, and agility are popular among people, but occasionally people want to go beyond the physical and improve their mental agility and quickness ([Dhar, Lae, & Aw, 2016](#)).

My observation and experience show that students lack analytical and understanding skills today. They find it difficult to understand what the article emphasizes and discusses. I

saw that students were having trouble understanding the content or purpose of the assigned topics. When I spoke with one of my teaching colleagues, she described a similar situation, and nearly all the Bachelor of Physical Education program teachers expressed concern about the same issue among the students.

Because of these experiences and observations, the researcher wanted to discover if mind sports have a beneficial influence on the student's academic performance that may help improve their cognitive ability and comprehension.

## 2. Methods

A descriptive-correlational research design was adopted for this investigation. It sought to display the respondents' gender, course, views on mental sports, and academic success. It also sought to ascertain whether there is a meaningful connection between the student-participant's frequency of engagement and academic success. The Josefina Herrera Cerilles State College (JHCSC) Dumingag Campus was the site of the study. The participants were the BPED 1, II, III & IV students who were formally enrolled for the second semester of the Academic year 2020-2021. A method of random sampling was used in the research. The study made use of a modified questionnaire on the Sports Participation Model Questionnaire (SPMQ) created by Aicinena & Eldridge (2006), and Cristobal and Perez (2003). The survey questionnaire was pilot tested to ensure its reliability and validity. To analyze the gathered data, the 4-point Likert scale was used. To analyze the data, the researcher employed the following statistical treatment; frequency and percentage, mean, analysis of variance, Post Hoc test, t-test, Pearson r, and Levene's Test.

## 3. Results

### Participants Profile

**Table 1.** Shows the profile of the students-participants.

Profile	F	P (%)
Age:		
16-17 yrs. Old	2	2.90
18-19 yrs. Old	39	56.52
20-21 yrs. Old	19	27.54
22 yrs. Old and above	9	13.04
Gender:		
Male	15	21.74
Female	54	78.26

It is shown in the table that there are 15 male participants and 54 female participants. In this study, the majority are female participants.

### a. Mental Sports Played By Student-Participants And The Frequency Of Engagement

Table 2 displays the mental sports played by the student participants, which are categorized into board games, manipulative games, and computer games. For the board

games, scrabble got the highest engagement with a mean of 2.45 and an overall mean of 1.93, which implies that the participants never engaged in board games.

**Table 2.** Presents the mind sports played by student participants and the frequency of engagement

Mental Sports	Mean	AE	I
<b>A. Board Games</b>			
1 Chess	2.13	N	NE
2 Sci-Damath	2.19	N	NE
3 Snake and Ladder	2.77	S	SE
4. Card Board Number Tikes	1.78	N	NE
5 Mahjong	1.70	N	NE
6 Scrabble	2.45	S	SE
7 Role and Cover	1.58	N	NE
8 Ludo	1.29	N	NE
9 Puzzles	2.45	S	SE
10 Monopoly	1.70	N	NE
11 Battleship	1.61	N	NE
12 Axis & Allies	1.61	N	NE
<b>B. Manipulative Games</b>			
1 Domino	2.04	N	NE
2 Lego	1.46	N	NE
3 Uno	1.29	N	NE
4 Tracking Board	1.52	N	NE
5 Munchy Ball Food	1.52	N	NE
6 Pattern Blocks	1.78	N	NE
7 Interlocking cubes	2.10	N	NE
8 Jump rope	2.42	S	SE

Overall Mean	1.77	N	NE
<b>C. Computer Games</b>			
Counter-Strike	2.07	N	NE
Clash of Clans	2.04	N	NE
Tetris	2.36	S	SE
Zoombinis	2.39	S	SE
Angry Birds	2.42	S	SE
Mobile Legend	2.13	N	NE
LOL	1.91	N	NE
Dota 1	1.61	N	NE
Dota 1	1.64	N	NE
2k NBA	1.70	N	NE
Overall Mean	2.03	N	NE
Grand Mean	1.91	N	NE

In terms of manipulative games, jump rope got the highest mean of 2.42, with an overall mean of 1.77, which signifies that manipulated games are not engaged. In the last category, the computer game angry birds got the highest mean of 2.42, equivalent to "sometimes" with a total mean of 1.91, which signifies that computer games are "Never engaged".

The likelihood that a person will participate in sports activities throughout their studies and subsequently also depends on the conditions and possibilities that are accessible in addition to their motivational structure (interests, attitudes, and motives) (Sindik et al.,2013).

#### **b. Benefits Of Mental Sports To The Student-Participants**

Table 3 shows the data on the benefits of mental sports to the students-participants. The overall mean of 3.33 signifies that all the student participants responded favorably to playing mental sports. Astin (2001) added that participation in sports promotes students' cognitive development and social ties among students, parents, and school.

**Table 3.** Benefits gained in playing mental sports as perceived by the student’s participants

Benefits	WAM	AE	I
1. Mental sports improve my concentration	3.30	SA	MB
2 . It improves my positive mood	3.30	SA	MB
3 . Reduces stress	3.43	SA	MB
4 . Enhances Self-esteem	3.39	SA	MB
5 . Improves mental alertness	3.43	SA	MB
6 . Reduces symptoms of anxiety and improve moods and feelings	3.45 3.14	SA SA	MB MB
7 . Improves sleep habit	3.26	A	B
8 . Boost self-confidence	3.26	SA	MB
9 . Link to leadership traits	3.26	SA	MB
10. Widens knowledge	3.26	SA	MB
Overall Mean	3.33	SA	MB

**c. Academic Performance Of The Student-Participants**

Table 4 presents the data on the academic performance of the students-participants. From 69 student participants, 29 got very good, which obtained the highest rank, followed by Good, Excellent, and passed. The results imply that the student participants manifested satisfactory performance. Qurban et al. (2018) stated that sports participation improves mental health and results in academic achievement development.

**Table 4.** Academic performance of the students-participants

Grade Range	Academic performance	F	P(%)
91-100	Excellent	13	18.84
85 - 90	Very Good	29	42.03
79 - 84	Good	24	34.78
73 -78	Passed	3	4.35

**Table 5.** Significance of the correlation between the students frequency of engagement in mental sports and the students academic performance.

Variable	RP	Level of Significance	t-value Computed	Tabular	Decision
Effectiveness of Teaching strategies	-0.11	0.05	-0.90	1.98	Accept Ho
Academic performance					

Table 5 analyses the significance of the correlation between the student participants' frequency of engagement in mental sports and student participants' academic performance. As shown in the table, there is no substantial evidence to reject the null hypothesis. This implies that the student-participant's frequency of engagement in mental sports is not associated with their academic performance. According to Moriana et al. (2006), there is no correlation between sports participation and the academic performance of student participants.

**Table 6.** Significance of the relationship between the participants frequency of engagement in mental sports and their age

Age	Frequency of Engagement in Mental Sports		MTR
	Never	Sometimes/Always	
16-19 yrs. Old	34	7	41
20-21 yrs. Old	14	5	19
22 yrs. Old and Above	7	2	9
MTC	55	14	69

Table 7 Significance of the Relationship Between the Participant's Frequency of Engagement in Mental Sports and their Gender. The table shows that there is sufficient evidence to accept the null hypothesis. The results reveal that the gender of the participants does not relate to their engagement in mental sports. The result of the study is supported by Subramaniam and Silverman (2007) that there was no gender difference in the participation between the male and female participants in mental sports

#### **4. Discussion**

Please explain about the relationship of the findings with previous studies and describe the potential weaknesses of the research and the limitations of the research. Also explain the possibility of further research according to the study results.

#### **5. Conclusion**

A lot of benefits are gained in participation in mental sports. One is the very good results in academic performance. But there was no significant correlation between the student's frequency of engagement in mental sports and academic performance. The participant's profile is not associated with the benefits on mental sports.

Based on the findings and conclusions, it is recommended that JHCSC officials may include varied mental sports in co-curricular activities in school to foster good mental ability. The BPED students may participate and engage in various activities on mental sports implemented in school.

#### **6. Authors' note**

The authors declare that there is no conflict of interest regarding the publication of this article. Authors confirmed that the paper was free of plagiarism.



## 7. References

- Astin (2001). Student Involvement: A Developmental Theory for Higher Education. <https://www.middlesex.mass.edu/ace/downloads/astininv.pdf>
- Aicinena & Eldridge(2006). The Sport Participation Model Questionnaire: A Tool for the Assessment of Sport Orientations <https://files.eric.ed.gov/fulltext/ED491583.pdf>
- Brennan (2018). Benefits of sports for mental health. Retrieved 10-23-2020. <https://www.webmd.com/mental-health/benefits-of-sports-for-mental-health>
- Brkljacic (2017). Brighter, smarter, wiser: distinction & benefits of mind sports. International Scientific Conference RECREATION AND JOY OF LIFE IN SENIORS Torun, 20-21.4.2017. [https://www.researchgate.net/publication/320716154\\_Brighter\\_Smarter\\_Wiser\\_Distinction\\_Benefits\\_of\\_Mind\\_Sports](https://www.researchgate.net/publication/320716154_Brighter_Smarter_Wiser_Distinction_Benefits_of_Mind_Sports)
- Collins Scrabble Official Words Dictionary (2019). Why mind sports are good for children. <https://www.educationworld.in/why-mind-sports-are-good-for-children/>
- Dhar, Lae & Aw (2016). Mind sports: chess. <https://www.ri.edu.sg/highlights/story/mind-sports-chess>
- Edwards D, Burnard P, Owen M, Hannigan B, Fothergill A, Coyle D. A systematic review of the effectiveness of stress-management interventions for mental health professionals. *J Psychiatr Ment Health Nurs.* 2003 Jun;10(3):370-1. doi: 10.1046/j.1365-2850.2003.00606.x. PMID: 12755924.
- Guo Wen Cui, Xin Qiang Li (2014). Simulation analysis of mind sports games based onartificial intelligence. <https://doi.org/10.4028/www.scientific.net/AMR>.
- Lillo-Crespo, M., Forner-Ruiz, M., Riquelme-Galindo, J., Ruiz-Fernandez, D., & Garcia-Sanjuan, S. (2019). Chess Practice as a Protective Factor in Dementia. *International Journal of Environmental Research and Public Health*, 16(12), 2116. <https://doi.org/10.3390/ijerph16122116>
- Moriana et al. (2006). Extra- curricular activities and academic performance in secondary students. April 2006 *Electronic Journal of Research in Educational Psychology* 4(1). [https://www.researchgate.net/publication/237337735\\_Extracurricular\\_activities\\_and\\_academic\\_performance\\_in\\_secondary\\_students](https://www.researchgate.net/publication/237337735_Extracurricular_activities_and_academic_performance_in_secondary_students)
- Psychiatric and MentalHealth Nursing*, 10(3),370–371. <https://doi.org/10.1046/j.1365-2850.2003.00606.x>
- Qurban et al., (2018). The Relation between Sports Participation and Academic Achievement: The Mediating Role of Parental Support and Self-Esteem. DOI:10.14302/issn.2644-1101.jhp-18-2467. [https://www.researchgate.net/publication/333873982\\_The\\_Relation\\_between\\_Sports\\_Participation\\_and\\_Academic\\_Achievement\\_The\\_Mediating\\_Role\\_of\\_Parental\\_Support\\_and\\_Self-Esteem](https://www.researchgate.net/publication/333873982_The_Relation_between_Sports_Participation_and_Academic_Achievement_The_Mediating_Role_of_Parental_Support_and_Self-Esteem)

Sindik J, Furjan MandićG, Schiefler B, Kondrič M.(2013). Differences in the structure of motivation for participation in sport activities among sport students in three countries. *Kinesiologia Slovenica*. 2013;19(1):14–31.