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ABSTRACT

Esports integration into PE 4 courses amidst COVID-19 is quite challenging for physical education instructors as part of the distance learning component. This study aimed to identify the attributes developed among the 70 PE 4 students playing Mobile Legends Bang Bang (MLBB) at Christ the King College de Maranding, Inc. The study utilised a triangulation mixed-methods design and revealed that most of the PE 4 male and female students (85.7%) spent at most 3 hours per day playing MLBB. Their top 2 rankings in MLBB were either epic or legendary, and their medal system scores reached either gold or gold MVP. The students' levels of attributes such as interpersonal communication, cooperation, integrity, self-discipline, teamwork, leadership, and problem-solving skills were developed. There was a significant relationship between the students' attributes and their MLBB medal system scores. Moreover, it revealed four themes that represented the experiences of the participants: (1) creating problems and difficulties that students have to overcome; (2) developing in the students the attributes for personal growth and interpersonal development; (3) allowing students to form meaningful relationships and interactions; and (4) giving students a sense of achievement and satisfaction. Hence, playing esports has enhanced the PE 4 students' meaningful learning experiences and inspired them to embrace esports as part of the curriculum. For further validation, the same research is needed to identify the other areas or factors that affect playing eSports in physical education courses.

Keywords: Attributes; physical education; playing esports; mobile legends bang bang

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INTRODUCTION

Esports, also known as "electronic sports" (Stuetz & Waddell, 2020), is a form of competitive sports using video games (Dailey-Hebert et al., 2020). Accordingly, the study of Kari et al. (2019) proved that professional and high-level esports players are physically active as well, with those of age 18 and older exercising more than three times the daily 21-minute physical activity recommendation given by the World Health Organization. Meanwhile, the article by Arbuzov et al. (2018) discussed esports and streaming as modern means of developing universal competencies among students of technical specialties in physical education classes. They concluded that several activities are proposed for the formation of universal competencies by means of esports and streaming in physical education classes.

Playing esports increased during lockdown, causing the COVID-19 in the UK with children, young people, and professionals, illustrating the notable increase in usage of gaming platforms, particularly by boys and young men (Arbuzov et al., 2018). And previous research results indicate that the organisational structure of esports provides fewer opportunities for the development of social support, self-regulatory skills, psychological skills, and physical activity behaviour (Trotter et al., 2020). Previous

studies have tried to analyse esports, and amateur competition has a positive impact on players and helps them advance their knowledge of sports, cognitive skills for competition, and socialisation, as well as helping them feel good in the role of players (Stuetz & Waddell, 2020). However, no previous studies have tried to determine the attributes among the students who played eSports, and no literature is available yet. This effort is expected to be able to present further research directions on learning soft skills and provide useful data for designing learning soft skills in the field of esports.

Meanwhile, Physical Education 4 (PE 4) focuses on team sports (CHEd, 2017). In this course, it is challenging to attain physical or face-to-face activities. To some extent, some groups and stakeholders suggested electronic sports (e-sports) as an alternative in PE 4 courses. De La Salle University—Manila offers esports as an alternative class for physical education, particularly Mobile Legends: Bang Bang (MLBB). They formulated a course that combines a multiplayer online battle arena (MOBA) with physical activity (Zulueta, 2020). This initiative led to the integration of esports in PE 4 courses as part of the online instructions, including understanding movement, different rules or techniques of games and sports, and teaching aids.

Since the researcher urgently implemented the esports integration, his consideration is to identify what attributes may be developed by his students at the end of PE 4 course. This study aims to determine the attributes developed by the students towards esports integration in the PE 4 course. Considering the proposed course description of De La Salle University (DLSU) Manila, interpersonal communication, cooperation, integrity, self-discipline, teamwork, leadership, and problem-solving skills as soft skills were taught to students (Zulueta, 2020). In addition, since the resources on esports integration are limited, this study was conducted to answer if esports would develop the students' soft skills.

METHOD

Design and Procedures

This study used mixed-methods design, combining a quantitative and qualitative approach to collect and analyze data (Schoonenboom & Johnson, 2017). This study appropriately employed the triangulation model. The Triangulation Design is a one-phase design developed by the researcher to use quantitative and qualitative methods currently and with equal weight. In addition, this method helps refute where one dataset invalidates a supposition generated by another (Noble & Heale, 2019). It can assist the confirming of hypothesis where one set of findings demonstrates another set. The researcher attempted to combine the two data sets, generally by bringing different results together in the interpretation or by transforming data to facilitate integrating the two data types during the analysis. The quantitative (profiles and attributes developed Likert scale) and qualitative (experiences in playing MLBB open-ended questionnaire) instruments were utilized to determine the students' attributes in integrating esports.

The researcher organized a MLBB Tournament prior to the course requirements in PE 4. It was a one-week tournament, where it happened last May 24-28, 2021. There are four teams were created wherein each team consisted of 20 players; each of the team was composed of five mixed players. Other members per team served as committees and officials. Then, the researcher secured permission letters from Christ the King College de Maranding, Inc., and signed informed consent agreements from research participants. After the approval of the letter, the researcher asked for consent and informed the respondents of the study's purpose. Consequently, the researcher verified that the 70 students were official enrollees of PE 4 in the second semester of academic year 2020-

2021, through their registration certificate. Then, the researcher created a group chat through Facebook Messenger for the 70 respondents. This process was done through an online platform (Facebook messenger). The researcher explained the data gathering procedure to the respondents, both quantitative and qualitative, through notice messages in the Messenger group chat.

The researcher first provided the quantitative questionnaires through Google Forms. To ensure that all students had responded to the questionnaire, the researcher kept reminding them to submit their answers successfully. The questionnaire contained their profile such as gender, an hour spent playing, their game ranks, medal system scores, and attributes developed in playing MLBB. Then, the data gathered were organized in this stage, and the service of a statistical consultant was needed.

On the other hand, a qualitative questionnaire was given to the 20 students who successfully played the MLBB tournament. The researcher created another Messenger group chat for the 20 respondents. After that, the researcher conducted an online meeting to the said respondents through Google Meet. The planned interview was done individually on the scheduled time. The whole process of this research was video recorded. To ensure the accuracy of the transcription, the researcher frequently and critically reviewed the transcriptions through the recording or the notes taken in the study. The data were analyzed thematically.

Participants and Materials

The participants of this research were the 2nd year students who officially enrolled in Physical Education 4 courses in the academic year 2020-2021 at Christ the King College de Maranding, Inc. The researcher used the total study population of 70 students that comprised 40 females and 30 males from both Colleges of Education (CED) and Computer Science (CCS) for quantitative. On the other hand, 20 respondents who played the MLBB tournaments were chosen for interview, of which 13 are male and seven are female. In choosing the participants for the interview, the following were taken into considerations: (1) he/she could either be male or female who knows how to play the MLBB game; (2) he/she is able to play the MLBB Tournament either preliminary or finals rounds; and (3) he/she officially belongs to his/her designated team.

In this study, the researcher created a researcher-made questionnaire. There were two sets of questionnaires; (1) a quantitative questionnaire on the respondents' profiles and attributes developed in playing MLBB; and (2) a qualitative questionnaire on the experiences of the respondents in playing MLBB. The quantitative questionnaire material comprised four variables for student's profile; (1) gender; (2) estimated hours spent; (3) current ranks; and (4) medal system scores in playing MLBB. Meanwhile, there were seven variables for attributes developed; (1) interpersonal communication; (2) cooperation; (3) integrity; (4) self-discipline; (5) teamwork; (6) leadership; and (7) problem-solving skills rated through a 4-point Likert scales. Moreover, it was pilot tested at the Christ the King College de Maranding, Inc. to 50 randomly-selected Block A 1st-year students under the College of Business Administration (CBA) during their Physical Activity Towards Health and Fitness (PATH-FIT) 2 class. The result from the test yielded an acceptable reliability.

Meanwhile, the qualitative questionnaire comprised one open-ended question that focused on the experiences in playing MLBB among the students. An interview was used to gather the important data of the students. The focus of the discussion was to let the students share their observations on the esports integration, particularly MLBB, in their Physical Education 4 course. All the interviews utilized the English and Cebuano-Bisaya

languages, thus ensuring that the respondents really understood the language. The interview was conducted through Google Meet where deep conversations were established between the researcher and the respondents. Questions were asked carefully to produce a polite and friendly manner of the conversation, in order to gather accurate and authentic information from the respective student respondents. This questionnaire were verified and validated by the adviser, panel members, and the Dean of the School of Graduate Studies of La Salle University, Ozamiz City.

Analysis

The researcher employed descriptive statistical analysis to report the frequency and percentage distribution of the student's profile and attributes developed in playing MLBB. Meanwhile, a Levene's test and Kruskal-Wallis test were used to find out if there was a significant difference of the student's levels of attributes developed when grouped according to gender, hour spent per day in playing, and current ranks in playing MLBB. In addition, Chi-square test was used to find out if there was a significant relationship between students' attributes developed towards playing esports and their medal system scores in playing MLBB.

On the other hand, the qualitative data was analyzed using Thematic Analysis. It applies a systematic manner to describe and explain the analysis process within the context of learning and teaching research (Maguire & Delahunt, 2017). This procedure was done by getting the main ideas during the interview. Once the implicit and explicit statements were identified, they were then coded. It was done by recognizing the essential concepts and encoding the ideas for interpretation. The interpretation of these codes included identifying the ideas, comparing the frequent theme or ideas, identifying the theme co-occurrence, and graphically displaying relationships between different themes. Its purpose is to capture the intricacies of meaning within a data set.

RESULTS AND DISCUSSION

This chapter presents the results of the data gathered from the study. The discussion focuses on the Physical Education 4 students' profile, attributes developed, and experiences in playing esports particularly in Mobile Legends Bang Bang (MLBB).

Table 1. Students' Gender and Hours Spent per Day in Playing MLBB

Hour Spent per day in Playing MLBB	Gender				Total	
	Male		Female		Frequency	Percent
	Frequency	Percent	Frequency	Percent		
1 hour below	12	40.00	20	50.00	32	45.71
2-3 hours	11	36.70	17	42.50	28	40.00
4-5 hours	3	10.00	3	7.50	6	8.57
6 hours above	4	13.30	0	0.00	4	5.71
TOTAL	30	100.00	40	100.00	70	100.00

It is shown in Table 1 that there were 40 female and 30 male students. In this study, majority were female PE 4 students. It is revealed that most of the PE 4 students (85.71%) spent at most 3 hours per day playing MLBB while 14.29% of them played MLBB for more than 3 hours a day. This was attested by the student:

"As one of the male players, I almost played more than 3 hours per day in the MLBB game with my friends and teammates". PES3

It can also be gleaned from the table that female players outnumbered the male players. This can be attributed to the fact that more female students were enrolled in CKCM. This data also implies that both female and male students play MLBB. This just showed that in this online game, male or female players are equally welcomed and respected. They both work and play collaboratively with high spirit of teamwork and sportsmanship. According to [Atmoko and Ellyawati \(2021\)](#) they explained that males and females played MLBB at most 3 hours daily.

Table 2. Students' Current Ranks in the MLBB

Current Ranks	Gender				Total	
	Male		Female			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Epic	5	16.67	9	22.50	14	20.00
Legend	3	10.00	10	25.00	13	18.57
Mythic	7	23.33	5	12.50	12	17.14
Grand Master	7	23.33	3	7.50	10	14.29
Master	3	10.00	5	12.50	8	11.43
No Rank	3	10.00	4	10.00	7	10.00
Elite	2	6.67	2	5.00	4	5.71
Warrior	0	0.00	2	5.00	2	2.86
TOTAL	30	100.00	40	100.00	70	100.00

It is shown in Table 2 that the majority (38.57%) of the students' current ranks in MLBB were either epic or legendary, which are the top 2 ranks in MLBB, while 31.43% of the students had ranks that were either mythic or grand master. Meanwhile, 8.57% of the respondents were in the bottom two ranks, either Elite or Warrior. The students really aimed for the highest ranks. They liked it very much and were very proud of what they achieved, as the participant narrated:

"...my rank is on Epic; whatever my ranks I have achieved, I still get jealous of other players because their ranks are higher than mine. I always play because I am eager to enter as a top player in MLBB. So, I kept playing the game before the tournament so that they may appreciate my current ranks. One of the reasons for having this is in my locality, and I need to enter as top 5 since my current rank in the locality is 7th rank."
PES17

The result is supported by [Moontoon's \(2020\)](#) statement that the epic, legend, and mythic ranks require strategy, communication, and strong collaboration, as they are the keys to rising through the ranks to win the match. Moreover, [Mawalia \(2020\)](#) also argued that cooperating with the team players makes it easier to win the game.

Table 3. Students' Medal System Scores

Medal System Scores	Gender				Total	
	Male		Female			
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Gold	7	23.33	10	25.00	17	24.29
Gold MVP Win	7	23.33	7	17.50	14	20.00
Gold MVP Loss	5	16.67	9	22.50	14	20.00
Silver	7	23.33	6	15.00	13	18.57
Bronze	4	13.34	8	20.00	12	17.14
TOTAL	30	100.00	40	100.00	70	100.00

Table 3 reveals that many (44.29%) of the students achieved either Gold or Gold MVP Win medal scores, while only 35.71% got either silver or bronze medal scores. This is what they got after spending at most 3 hours per day in playing the MLBB. They even missed their classes just to play MLBB as two students shared:

"As a Legend in rank, I usually receive an MVP or Gold medal at the end of most of the game. I always play and receive various MVP medal scores which really satisfied me. I want my every kill, death, and assist score to be consistently high because currently, I am in the number 2 "Fanny" role here in Lanao del Norte." PES9

"...I have observed that if you have performed like teamwork, cooperation, communication, and even self-discipline, it is possible that you can win, especially the teams that have many kills, deaths, and assists. This results with my team being rewarded with Gold medal scores." PES16

This implies that the students are closely tied to their medal system scores as they depend on their skills level in matchmaking how many kills, death, and assist (KDA) are created while playing the MLBB. Based on their KDA, their individual skill reflects which strategies or techniques are used. Moreover, students may develop teamwork, cooperation, communication, and even self-discipline based on their behavior on their KDA performance. The results of this study are supported by Moontoon (2020), who states that the medal score depends on the match results and the player's accuracy in terms of individual skill level. In addition, the overall score also reflects how well the team performed during the match.

Table 4. Summary of the Students' Level of Attributes

Attributes	Average Mean	Verbal Interpretation
Self-discipline	2.90	Developed
Integrity	2.86	Developed
Interpersonal Communication	2.72	Developed
Leadership	2.71	Developed
Problem-solving Skills	2.69	Developed
Teamwork	2.67	Developed
Cooperation	2.60	Developed

Legend: 3.26-4.00 Highly Developed; 2.51-3.25 Developed; 1.76-2.50 Moderately Developed; 1.00-1.75 Poorly Developed

From the results, it is revealed that all the seven attributes of the students are developed upon the integration of esports, particularly MLBB, in their PE 4 class. Among the attributes, self-discipline got the highest mean of 2.90, while cooperation got the lowest mean of 2.60. This result implies that students tend to be more self-disciplined when they are playing esports as one team. One student shared:

"...I have an experience that I develop discipline within myself. I have all the patience with my teammates, who understand my situation. Aside from that, I did not "talk back" or "trash talking" and even degraded my teammates. I managed the time in playing and school matters. I humbly respect the command or suggestions of our leader. I was able to control how I reacted with my opponent, especially when we were playing a game. I can also prevent myself from making a bad decision and performing the wrong things. I am a responsible member of my team." PES20

Karelina et al. (2020) believed that students who participate in physical education and sports class have better self-discipline. Ultimately, according to Holtz, 2018 as cited in (Kitsantas et al., 2017), success is impossible without self-discipline.

Table 5. Differences of Students' Level of Attributes When Grouped According to Gender

	Equal variances assumed	Levene's Test for Equality of Variances					Interpretation
		F	Sig.	t	df	Sig. (2-tailed)	
Respondents Attributes'		0.333	0.692	-0.581	68	0.437	Not Significant

Not significant: p-value>0.05

Levene's test shows a p value of 0.692, proving that the population has equal variances. It also indicates a p value of 0.437, which is greater than 0.05. This signifies that the attributes of females and males are not significantly different because they have the same attributes developed at 0.05 degree of confidence. This implies that the students may develop attributes regardless of their genders, considering that PE 4 course is a mixed class, combining both males and females. Meanwhile, esports allow both genders to play the game. One student shared:

"As a female player, I experienced that I maintained calm and played seriously. My male teammates supported me when they saw that I could beat other male players. I believed that you should not underestimate females because they can do something that males cannot. Aside from that, I salute my male teammates, who show utmost respect to me that they did not look at me as a low player in the game." PES1

The study results are supported by Thapa (2018) in the MLBB game that the game developers are attracting both female and male gamers by merging the game characters with relatable circumstances, for example, heroes for males and females, which made it a gender-neutral game.

Table 6. Differences of Students' Level of Attributes when Grouped according to Hours Spent per Day Playing

Attributes Developed	Kruskal-Wallis Test			
	Kruskal-Wallis H	df	Asymp. Sig.	Interpretation
Interpersonal Communication	2.019	3	0.568	Not Significant
Cooperation	1.292	3	0.731	Not Significant
Integrity	2.168	3	0.538	Not Significant
Self-discipline	1.058	3	0.787	Not Significant
Teamwork	11.449	3	0.010	Significant
Leadership	3.739	3	0.291	Not Significant
Problem-Solving Skills	5.448	3	0.142	Not Significant
Average	3.882	3	0.438	Not Significant

Not significant: p-value>0.05

The Kruskal-Wallis test shows a value of 3.882 and a computed p value of 0.438, which is greater than the level of significance at 0.05. This means that there is no significant difference between the students' attributes, especially interpersonal communication, cooperation, integrity, self-discipline, leadership, and problem-solving skills, when grouped according to hours spent per day playing MLBB. This suggests that the students' attributes as to hours spent per day playing do not bear a significant difference because even if they played at most 3 hours or more than 3 hours per day, they could still both

develop their attributes at the same level.

Considering each variable separately, there is a significant difference between the students' teamwork attributes when grouped according to hours spent per day playing MLBB. The computed Kruskal-Wallis test is 11.449 and the computed p value is 0.010, which is less than the level of significance at 0.05. This implies that there is a significant difference in the students teamwork when they are grouped according to the number of hours they spent playing in MLBB. One could infer that the longer the hours they spent playing MLBB, the more they developed their teamwork. The student's teamwork as an attribute plays an important role in the number of hours they spend per day playing the MLBB. One student explained:

"...I always play and spend most of my time on my cell phone and keep playing more than 4 hours per day in the game with my sister. We mainly spent playing games during weekends. I believe we develop the essence of teamwork." PES5

It was supported by Lokananta's (2019) study, revealed that players play online games as their pastime.

Table 7. Differences of Students' Level of Attributes when Grouped according to Current Ranks

Attributes Developed	Kruskal-Wallis Test			
	Kruskal-Wallis H	df	Asymp. Sig.	Interpretation
Interpersonal Communication	11.261	7	0.128	Not Significant
Cooperation	6.468	7	0.486	Not Significant
Integrity	14.351	7	0.045	Significant
Self-discipline	11.225	7	0.129	Not Significant
Teamwork	4.799	7	0.685	Not Significant
Leadership	11.296	7	0.126	Not Significant
Problem-Solving Skills	12.499	7	0.085	Not Significant
Average	10.271	7	0.241	Not Significant

Not significant: p-value>0.05

The Kruskal-Wallis test shows 10.271 and computed p value is 0.241, which is greater than the level of significance at 0.05. This means that there is no significant difference between the students' attributes especially interpersonal communication, cooperation, self-discipline, teamwork, leadership, and problem-solving skills when grouped according to current ranks in playing MLBB. Regardless of their ranks, which are Warrior, Elite, Master, Grandmaster, Epic, Legend, and Mythic, students' level of development among the attributes mentioned in this study remains the same.

However, there is a significant difference in the development of their integrity when grouped according to current ranks they have in MLBB. In this particular attribute, the computed Kruskal-Wallis test is 14.351 and calculated p value is 0.045, which is lesser than the level of significance at 0.05. Considering that the students respond to the tournament orientation about the rules and regulations, they practice fairness, and play fairly with their classmates. One student explained:

"...as Legend ranks, I am always too careful because it is so hard to gain that ranking level. However, I had trust issues in the game because I did not see our opponents. Maybe their neighbors or friends played in the tournament." PES7

The study results are supported by [Rossel's \(2021\)](#) statement that the better they are at the game, like showing integrity, the higher their ranks. Moreover, [Toomey \(2019\)](#) stated that students with integrity adhere to moral and ethical principles when making decisions and interacting with teammates in the game.

Table 8. Relationship between Students' Attributes and the Medal System Scores

Variables		Chi-square	d.f.	p value	Interpretation
Attained Attributes	Medal System Score				
Interpersonal Communication		23.036	12	0.027	Significant
Cooperation		23.292	12	0.025	Significant
Integrity		20.655	12	0.056	Not Significant
Self-discipline		13.456	12	0.097	Not Significant
Teamwork		25.504	12	0.013	Significant
Leadership		23.646	12	0.023	Significant
Problem-Solving Skills		26.054	12	0.011	Significant
Average		22.330	12	0.036	Significant

Not significant: p-value>0.05

The calculated Chi-square test is 22.330, and the computed p value is 0.036, which is lesser than the significance level at 0.05. This means, that overall, there is a significant relationship between the student's attributes especially interpersonal communication, cooperation, teamwork, leadership, and problem-solving skills and the medal system scores in playing MLBB. This implies that the students' attributes and the medal system scores play an important role, considering that their medal system scores are closely tied with each other based on their skills level in terms of kills, death, and assist (KDA) while playing the MLBB. This may suggest that students cannot develop interpersonal communication, cooperation, teamwork, leadership, and problem-solving skills as attributes if their behavior on their KDA performance is low. One student stated:

"Our performance depends on the kills, death, and assist. As a result of our teamwork, I was rewarded during the last game as an MVP." PES14

The result of the study is supported in a [Moontoon \(2020\)](#) article that reflects how well the team performed during the match in terms of overall score throughout the gameplay based on the results of medal system scores.

Table 9. Initial Codes and Categories

No.	Initial Codes	Categories
1.	Having a lag during the clashing due to the internet connection that does not cooperate	Experiencing problems with Internet Connection
2.	Having experienced that the voice chat sometimes affect communication due to low internet connection	
3.	Develop the essence of teamwork	Developing teamwork, cooperation, and communication
4.	Having trust within a team	
5.	Working as a team always	
6.	Developing our teamwork skills	
7.	Helping teammate as a healer	
8.	Having teamwork, cooperation, and communication made them to win the game	Applying leadership skills
9.	Guiding and leading my teammates on what to do	
10.	Acting as a leader	

No.	Initial Codes	Categories
11.	Giving suggestions	
12.	Being a responsible member of the team	
13.	Having self-discipline while playing	
14.	Respecting teammates decisions	
15.	Developing self-discipline	Developing self-discipline
16.	Respecting the command or suggestions of the leader	
17.	Having fairness and fair play	
18.	Building friendship	Gaining friendship
19.	Developing friendship	
20.	Challenging	
21.	Having some trust issues	
22.	Facing some mastered in playing MLBB	Experiencing challenges in playing
23.	Feeling jealous to other players because of their high ranks in the game	
24.	Playing MLBB more than 3 hours a day negatively affect my studies; getting poor grades	Experiencing slight disinterest in the academics
25.	Losing a slight interest in the academics due to aiming as a top player in MLBB	
26.	Prioritizing MLBB over studies	
27.	Skipping meals and classes due to MLBB	Skipping meals and classes in the school
28.	Eating meals very late	
29.	Spending time mostly in playing cell phone and MLBB	
30.	Passing my responsibilities at home (household chores) on to my sister	Spending time more on cellphone
31.	Being addicted to the MLBB game	
32.	Being scolded by my parents	
33.	Desiring to get a higher grade	Prioritizing the school and household works and aiming a higher grade
34.	Prioritizing school and household works over MLBB	
35.	Lacking some strategies that put our heroes to death	Experiencing lacking of strategies
36.	Developing respect, unity, and closeness	
37.	Exercising sportsmanship and observing the rules and regulations while playing	Developing respect, unity, closeness, and sportsmanship
38.	Not being underestimated as a female player	Experiencing not being underestimated as a female player
39.	Showing respect to female	
40.	Receiving various MVP medal scores satisfied me	Receiving high awards in the MLBB
41.	Being number 2 "Fanny" in the province	
42.	Being rewarded as the MVP	
43.	Communicating with each other in the team	
44.	Having communication with the teammates and going with the team in the entire play is very essential	
45.	Using some techniques or strategies to win the game	Having communication and employing strategies/ techniques
46.	Being attentive while playing MLBB	
47.	Being careful in playing MLBB	
48.	Helping the team in the entire game and maintaining calm, and playing seriously	
49.	Having time management	Having time management
50.	Learning to manage time before or after playing MLBB	
51.	Being productive during the tournament	
52.	Being happy about the integration of MLBB in PE 4 course	Experiencing enjoyment, productive moments, and happiness
53.	Just enjoying the game	
54.	Being happy for the team as champion	
55.	Having a leisure time in playing with friends or neighbors	Preferring to play mostly with friends or neighbors

No.	Initial Codes	Categories
56.	Playing MLBB sharpens my thinking abilities	Developing problem-solving skills
57.	Finding solutions to a problem being encountered	

Table 9 shows 57 initial codes and 19 categories. Codes which were closely related were grouped together and categorized. For example, codes "having a lag during the clashing due to the internet connection that does not cooperate" and "having experienced that the voice chat sometimes affects communication due to low internet connection" were categorized as one with "experiencing problems with internet connection", together with the other related codes.

Table 10. Categories and Themes

No.	Categories	Themes
1.	Experiencing challenges in playing	Facing challenges and difficulties
2.	Experiencing lacking of strategies	
3.	Experiencing not being underestimated as a female player	
4.	Experiencing problems with Internet Connection	
5.	Experiencing slight disinterest in the academics	
6.	Skipping meals and classes in the school	
7.	Spending time more on cellphone	
8.	Experiencing prioritizing the school and household works and aiming a higher grade	
9.	Having time management	
10.	Applying leadership skills	Acquiring soft skills
11.	Having communication and employing strategies/ techniques	
12.	Developing respect, unity, closeness, and sportsmanship	
13.	Developing self-discipline	
14.	Developing teamwork, cooperation, and communication	
15.	Developing Problem Solving Skills	Developing friendship
16.	Gaining friendship	
17.	Preferring to play mostly with friends or neighbors	Achieving satisfaction
18.	Experiencing enjoyment, productive moments, and happiness	
19.	Receiving high awards in the MLBB	

Table 10 shows the four themes that all emerged from the categories of this study. These themes are "facing challenges and difficulties", "acquiring soft skills", "developing friendships", and "achieving satisfaction". These themes summarised the students' experiences in the Physical Education 4 MLBB tournament.

Facing Challenges and Difficulties. This theme gives emphasis on the problems and hindrances that confronted students' playing the MLBB. These challenges include experiencing lacking strategies, not being underestimated as a female player, prioritizing the school and household works and aiming a higher grade, problems with internet connection, slight disinterest in academics, skipping meals and classes in the school, spending time more on a cellphone, prioritizing the school and household works and aiming a higher grade.

They experienced challenges while playing the MLBB like lacking of strategies while playing the game which has a significant impact on the results of the awards that the students may receive. Additionally, they were also having internet connection issues, which was unusual given that the tournament was held online. Moreover, some were

experiencing slight disinterest in academics because they became engaged in playing the MLBB. With this, students may have skipped their meals and classes in school just to play. The two students shared:

"...the internet does not cooperate. It makes a lag, especially when clashing in the game. This lag annoyed me because I cannot execute my heroes' skills, spells, etc. My teammates also experience a lag. This is why I always blame my internet connection. Moreover, I earned low scores in school because I did not study well. For the activity task among my courses, I always submit late. I give an excuse that I cannot join our online class because of a low internet connection. Instead of spending my time to study the lessons, I just keep playing the game. This resulted to earning poor grades."

PES3

"...I skipped my classes and even did some household chores. However, I also skip my eating schedules. I always eat late, which made me always scolded by my parents for my health and school performance. In the end, I was able to pass my courses; however, my grades were poor." **PES17**

Some researchers also reported these problems. [Buarao \(2020\)](#) pointed out that the players have lost some interest in their academics. Instead of devoting time and effort to their studies, they are engrossed in the MLBB game, working to improve their rank divisions. These challenges and difficulties hindered the students from doing very well in their studies and in performing their assigned tasks or household chores.

On facing challenges and difficulties, the essence is that **playing MLBB creates problems and difficulties that student players have to overcome.**

Acquiring Soft Skills. This means the students gain or develop some soft skills while playing MLBB. Soft skills are the essential attributes of students ([Reddy & Pankaja, 2018](#)). Students develop a variety of soft skills by participating in competitive activities ([Alton, 2020](#)). These soft skills include applying leadership, developing communication and strategies, developing respect, unity, closeness, and sportsmanship, and making wise decisions.

Playing MLBB can develop leadership skills since the game is played with five members on each team ([Moontoon, 2020](#)). While in the game, they may communicate with their teammates using voice chat or messages. Aside from that, they can execute some strategies or techniques during the game. Moreover, their teams may develop respect, unity, closeness, and sportsmanship towards each other. However, players of the MLBB should have time management skills, especially among the students. Lastly, students can make wise decisions considering that playing the game can be learned through experience. Students shared:

"...I followed and respected my teammates' decision-making before playing the game. I sometimes act as a leader, considering I am the eldest in my team. Aside from that, they always listened to me. I am so happy that they followed my suggestions on the lanes of the game they should position. I wanted to show them that I am an effective player and a leader. Furthermore, the results of being a leader have paid off because we are in the first place. With this experience, I successfully used my leadership skills."

PES19

"... aside from that, my teammates are skillful, and we usually communicate with each other as we have a squad group. I may have self-discipline in playing the game, but I am not good at it in school." PES9

"...I also keep informing my teammates using either the voice chat or messages chat regarding the directions, orders, or commands in each of us. By having this type of task, we show courtesy towards each other. As I believe that communication is essential, especially we are online." PES4

"My team and I always bear in mind the orientation that we should play with sportsmanship and observe the rules and regulations during the tournament while playing the game. In my case, I practice fairness and fair play to my teammates and my opponents, even though we are far from each other." PES15

"I have observed that if you have teamwork, cooperation, and communication, it is possible that you can win, especially the teams that have many kills, deaths, and assists." PES16

"I have an experience that I develop discipline within myself. I humbly respect the command or suggestions of our leader." PES20

This theme conforms to [Amadora \(2021\)](#), which suggests that the youth or online players be educated on how to be responsible in gaming and help them sharpen and showcase their skills. Also, positive learning outcomes are achieved even with serious games (appropriate game genre and appropriate attributes) in conjunction with students' cognitive abilities in school ([Olvecky & Gabriska, 2018](#)). In addition, PE and sports foster valuable attributes such as motivation, organisation, leadership, responsibility, and emotional intelligence—all of which are essential in today's society ([Al-Dimitrova, 2018](#)). Moreover, esports help students cultivate soft skills like communication, cooperation, teamwork, and problem-solving skills in school ([Alton, 2020](#)). Thus, in the PE 4 course, the students are expected to demonstrate their knowledge, skills, and values ([CHED, 2017](#)).

The essence of their acquiring soft skills is that **Playing MLBB develops in the students the attributes for personal growth and interpersonal development.**

Developing Friendship. This theme refers to students who developed friendship among their teammates or classmates. While playing, a student can find new friends or make friends since it is a team-based game. The most important aspect of the game is that players can play with their friends or meet new people. The atmosphere is more friendly when a player plays with persons they know or of someone who have friendly personalities. Students narrated:

"I experience that I have many friends inside and outside of the school. Since this is a team-based game, I believe that no man is an island; that is why I execute in a friendly manner. I believed that we could win this tournament by trusting my friends or teammates." PES2

"I treat my teammates like a brother. I value the essence of friendship." PES19

Some articles revealed that in playing MLBB, one of the qualities a player may develop is friendship. It is stated in the report by [Toomey \(2019\)](#) that it is best to play with a friend in an MLBB game. In addition, it will be easier to win the game if one of their friends is skilled at playing the said game. So, it is essential to show a team that they can play with others, even if they play primarily independently. [Baltezarević and Baltezarević \(2019\)](#) stated that there is socialization among the players in a game competition, making them feel good about their position as players.

On their developing friendship, the essence is that **Playing MLBB allows students to form meaningful relationships and interactions.**

Achieving Satisfaction. The last theme refers to the students who felt satisfied every time they were awarded as a winner, like MVP, after playing the MLBB. Moreover, awards motivate students to play, considering they are eager to enter as top players on either national or global leader boards. Students shared:

"Our opponents always taught us that we are skilled compared to them. Meanwhile, at the end of the game in all matches, I was surprised that I always received Gold even if I was not rewarded as an MVP." PES16

"I observed I felt I was productive during the tournament because I could submit the requirements from other courses. As for the requirements in PE 4, I still have not suffered any pressure because I did my duties and responsibilities as a student." PES11

"I usually receive an MVP or Gold medal at the end of most of the game. They considered that I always play and receive various MVP medal scores which really satisfied me. I am the number 2 "Fanny" here in Lanao del Norte." PES9

According to [Kumar et al. \(2019\)](#), completing a level in the game or winning the game would involve things like sky-punching, shouting, and possibly dancing around the room. In playing MLBB, [Buarao \(2020\)](#) stated that students played MLBB to improve their rank divisions even though they were poor in academics. However, according to [Kishimoto et al. \(2021\)](#), the satisfaction among the players may be affected by different circumstances, like the internet connection, the quality of the updated game, promos, gifts, avatar customization, and others.

On their achieving satisfaction, the essence is that **Playing MLBB gives students a sense of achievement and satisfaction.**

As the PE 4 students experienced esports integration in PE, four themes were revealed. These themes help in understanding the course of its condition. The outcomes are the essences from the following (1) facing challenges and difficulties, (2) acquiring soft skills, (3) developing friendship, and (4) achieving satisfaction. Synthesizing the identified essences of the experiences of the Physical Education 4 students, the researcher established that the main essence of the phenomenon is, playing esports has enhanced the **PE 4 students meaningful learning experiences and inspired them to embrace esports as part of the curriculum.**

CONCLUSIONS

The transition of sports to esports in the Physical Education 4 courses was never easy, yet it was successful. Playing esports, especially Mobile Legends Bang Bang (MLBB), has truly empowered the PE 4 students to be better students by equipping them with new knowledge and new perspectives in playing esports. This is an achievement since learning is evident among them. Hence, it is a course that develops students holistically. The course has also developed in students soft skills like interpersonal communication, cooperation, integrity, self-discipline, teamwork, leadership, and problem-solving skills, all of which are essential in playing esports. Finally, this study proved that esports integration, as an alternative to distance learning, provides meaningful learning experiences among the PE 4 students as they embrace esports as part of the course.

One of the limitations of this study is its scope. This present study is only applicable to students who are currently part of the setting where this research has been conducted. This means the results of this study may not apply to other populations. Also, it does not generally represent the entire population of students from various higher education institutions (HEIs) in the local, regional, or national setting. In this case, future researchers may conduct a similar study or include some esports, widening its scope at a regional or national level. Hence, future researchers may find it interesting to work on in-depth studies by comparing the results among HEIs outside the local scope of this present study using a different approach and determining if the results support or refute the findings of this research.

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REFERENCES

- Al-Dimitrova, Z. (2018). Physical Education and Sport Used as Forming of “Soft Skills” in Primary School Age. *Knowledge - International Journal*, 28(3), 1099–1103. <https://doi.org/10.35120/kij28031099Z>
- Alton, L. (2020). *How eSports Help Students Cultivate Soft Skills*. Connected. <https://community.connection.com/how-esports-help-students-cultivate-soft-skills/>
- Amadora, L. (2021). Youth esports program creating a clear path for the fervent youth gamer. *Manila Bulletin*. <https://mb.com.ph/2021/07/26/youth-esports-program-creating-a-clear-path-for-the-fervent-youth-gamer/>

- Arbuzov, S.S., Pankrashchenko, M.V. and Tomilova, S.V. (2018), Development of universal competencies of students of technical specialties by means of esports and streaming in physical culture classes. *Pedagogical education in Russia*, 8, 28-33. <https://elpub.ru/elpub-article/pedobrazovanie/129?layout=article>
- Atmoko, B. (2021). *Determinant of In-App Mobile Game Purchase Intention: An Empirical Study of Indonesian Mobile Gamer*. European Union Digital Library. <https://eudl.eu/doi/10.4108/eai.1-10-2020.2304925>
- Baltezarević, B., & Baltezarević, V. (2019). eSports as a new playground. *Facta Universitatis, Series: Physical Education and Sport*, 17(1), 23-30. <https://doi.org/10.22190/FUPES190303005B>
- Buarao, J. (2020). *Mobile Legends: Why It's Bad for You*. <https://josephbuarao.com/blog/mobile-legends-why-its-bad-for-you/>
- CHED. (2017). *Policies, Standards, and Guidelines for Bachelor of Physical Education major in P.E. (BPE-SPE) and major in Sports and Wellness Management (BPE-SWM) Programs. CMO 23 series of 2011*. <https://ched.gov.ph/wp-content/uploads/2017/10/CMO-No.23-s2011.pdf>
- Dailey-Hebert, A., Simmons Estes, J., & Choi, D. H. (2021). This History and Evolution of Virtual Reality. *Current and Prospective Applications of Virtual Reality in Higher Education*, 1-20. <https://doi.org/10.4018/978-1-7998-4960-5.ch001>
- Gordon, F. (2021). *Online harms experienced by children and young people: 'Acceptable use' and regulation*. London, Catch22.
- Karelina, N. N., Smirnov, O. Yu., Tarasov, A. V., & Katkova, A. M. (2020). Formation of Student Self-discipline in Modern Physical Education. *Scientific Outlook into the Future*, 3(17), 79-84. <https://www.elibrary.ru/item.asp?id=44016556>
- Kari, T., Siutila, M., & Karhulahti, V. (2019). An Extended Study on Training and Physical Exercise in Esports. In B. Dubbels (Ed.), *Exploring the Cognitive, Social, Cultural, and Psychological Aspects of Gaming and Simulations* (pp. 270-292). IGI Global. <https://doi.org/10.4018/978-1-5225-7461-3.ch010>
- Kishimoto, R. T., Prasetyo, Y. T., Persada, S. F., & Redi, A. A. N. P. (2021). Filipino Generation Z on Mobile Legends during COVID-19: A Determination of Playtime and Satisfaction. *International Journal of Information and Education Technology*, 11(8), 381-386. <https://doi.org/10.18178/ijiet.2021.11.8.1538>
- Kitsantas, A., Kavussanu, M., Corbatta, D. B., & van de Pol, P. K. C. (2018). Self-regulation in athletes: A social cognitive perspective. In D. H. Schunk & J. A. Greene (Eds.), *Educational psychology handbook series. Handbook of self-regulation of learning and performance*. Routledge/Taylor & Francis Group. 194-207. <https://psycnet.apa.org/record/2017-45259-013>
- Kumar, J. M., Herger, M., & Dam, R. F. (2019). *Happiness in Gaming*. The Interaction Design Foundation. <https://www.interaction-design.org/literature/article/happiness-in-gaming>

- Lokananta, A. C. (2019). *Interpersonal Communication Behavior Online Game Addict: Case Study on Mobile Legends Bang Bang Online Game Addict in South Tangerang, Indonesia*. Proceedings of the 1st International Conference on IT, Communication and Technology for Better Life. Published. <https://doi.org/10.5220/0008929200530056>
- Maguire, M., & Delahunt, B., (2017). Doing a Thematic Analysis: A Practical, Step-By-Step Guide for Learning and Teaching Scholars. *Reflections, Journeys and Case Studies*, 9(3), 1-10.
- Mawalia, K. A. (2020). The impact of the Mobile Legend game in creating virtual reality. *Indonesian Journal of Social Sciences*, 12(2), 49. <https://doi.org/10.20473/ijss.v12i2.22908>
- Moontoon. (2020). *Mobile Legends: Bang Bang*. Mobilelegend.com. <https://m.mobilelegends.com/en/newsdetail/1447>
- Noble, H. (2019). *Triangulation in research, with examples*. Evidence-Based Nursing. <https://ebn.bmj.com/lookup/doi/10.1136/ebnurs-2019-103145>
- Ölvecký, M., & Gabriska, D. (2018). Relationships between game attributes and cognitive abilities. *IEEE Conference Publication*, 403-410. <https://doi.org/10.1109/ICETA.2018.8572254>
- Reddy, R. & Pankaja, M. S. (2018). *Soft Skills. The Most Essential Attributes of Students*. Semantic Scholar.
- Schoonenboom, J., & Johnson, R. B. (2017). How to Construct a Mixed Methods Research Design. *Kolner Zeitschrift für Soziologie und Sozialpsychologie*, 69(2), 107–131. <https://doi.org/10.1007/s11577-017-0454-1>
- Stuetz, K., & Waddell, J. C. (2020). Esports Fandom and the Collegiate Student-Athlete Experience: Active Audiences and Spectatorship. In R. Dunn (Ed.). *Multidisciplinary Perspectives on Media Fandom*, 240-252. Published. <https://doi:10.4018/978-1-7998-3323-9.ch013>
- Thapa, R. (2018). *The 'New Woman' and 'Mobile Legends: Bang Bang.'* Café Dissensus. <https://cafedissensus.com/2018/11/25/the-new-woman-and-mobile-legends-bang-bang/>
- Toomey, R., (2019). Upholding the Integrity of Esports to successfully and Safely Legitimize Esports Wagering. *Gaming Law Review*, 23(1). <http://doi.org/10.1089/glr.2.2019.23112>
- Trotter, M. G., Coulter, T. J., Davis, P. A., Poulus, D. R., and Polman, R. (2020). The Association between Esports Participation, Health and Physical Activity Behaviour. *International Journal of Environmental Research and Public Health*, 17(19), 7329. <http://doi.org/10.3390/ijerph17197329>
- Zulueta, M. (2020). *This university now offers Mobile Legends as a PE class*. When In Manila. <https://www.wheninmanila.com/de-la-salle-university-mobile-legends-physical-education/>

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