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SPORTS IMAGERY ABILITY AND PERFORMANCE OF VOLLEYBALL ATHLETES IN MONKAYO DISTRICT

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Abstract

Sports imagery is one of the identified techniques in applied psychology which is believed to be effective towards improving one's sporting performance. In today's high competition in sporting world, athletes who used another technique to enhance the performance are superior to those who rely only in physical training. Mental practice improves performance significantly more than no practice at all (Taylor, 2018). The study determined the significant relationship of sports imagery to performance. It involved fifty-six (56) athletes particularly volleyball players in Monkayo District using a descriptive-correlation research design. The study used a standardized questionnaire by Peltomaki (2014) to identify the sports imagery of the athletes and an actual game observation was performed to determine the performance of the athletes. Data revealed that the number of years playing and level of competition played had significant difference to sports imagery and performance but not with sex. It was also found out that sports imagery is correlated with performance. It means that the performance of the athletes is dependent to their sports imagery ability. Thus, the more one can imagine strategizing the game, practice the skill in mind, specific goal-oriented and motivated when playing, the better is the performance. Mental training program should be given emphasis to improve performance of the athletes.

Keywords: Sports Imagery, Performance, Volleyball Athletes



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Introduction

Sport is a common activity that involves physical exertion and skill in which an individual or team competes for either recreational or professional against each other (Ekeocha, 2015). As one of the identified team sports, playing volleyball requires technical capabilities (technical and tactical), physical capabilities (strength and speed) such as passing, setting also hitting, and mental capabilities (concentration, self-esteem). Hence, athletes with good spirit and mental preparation, aside from being physically well-trained, are more likely to win, thus, the difference in athletes' performance is dependent on mental preparation more than ever (Gholamhossinzadeheghlidi, Bahari and Shirazi, 2016).

In connection, one of the techniques for mental preparation is sports imagery. As stated by Exercise and Sports Psychology Division of the American Psychological Association (APA), applied sports psychology is important as it can help athletes improve their performance through psychological skills training (PST) by removing mental impediments resulting in improved performance. In the sports where the champions are separated by hundredths of a second or tenths of an inch from the mediocre athletes, an extra edge can be extremely crucial. Thus, many athletes turn to mental imagery to take their game to the next level (Singh, 2013).

On the contrary, Fransen and Broek (2017) stated that traditional training to improve skills is more favored than the use or sports imagery. Likewise, Besiktas and Bicer (2013) claimed that sports imagery is not considered as necessary as physical training as part of the mental preparation within the framework of the training concept. Sports imagery interventions are too often perceived as the last call for help if all else has failed to generate success. However, sports psychology, specifically sports imagery, should be regarded as a handy tool in all stages of the training and coaching process.

Athletes perform poorly because of psychological impediments such as anxiety and lack of goal and motivation, which eventually disrupted and affected their performance. It is one of the problematic situations that the athletes and coaches are facing now. As a result, they may lose sufficient interest in winning, and this affects sporting performance negatively (Khan et al., 2017).

In line with this, the researcher chose to conduct the study to know the extent of application of sports imagery and the level of performance of volleyball athletes in Monkayo District. For the last few years, Monkayo has been known as the home of champions in producing highly competent and successful athletes in the various fields of sports such as tennis, football, and basketball. As one of the identified 1st class municipalities nationwide, Monkayo has a lot to offer when it comes to facilities. It has one gymnasium, one dome, a track and field, and different courts. Despite these availabilities and privileges for training and physical practice, there are areas of sports like volleyball where athletes tend to perform poorly when they compete outside Monkayo. In the past few years, according to the sports coordinator in Monkayo, in the field of volleyball, only a few, if any, qualified athletes



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participate in the regional meet because athletes were eliminated during provincial meet despite their extensive physical training.

Proper application of sports imagery plays a vital role in an improved performance because it will give them an outlet to train their skills mentally, manage their emotions, and set goals. With this observation, the researcher was motivated to formulate an intervention program for sports training that will address the needs of the athletes.

Methods

The study is descriptive-correlational research. It was conducted in the 1st District of the Municipality of Monkayo. The schools involved were: (1) Casoon National High School situated at Barangay Casoon, (2) Monkayo National High school, (3) Pasion National High school, (4) Tubo-Tubo National High School (5) Upper Ulip National High School. There was a total of 56 athletes taken as participants in this study through convenience sampling technique. The instrument used in the study was the standardized questionnaire by Peltomaki (2014) wherein the first part of the questionnaire was for the profile of the athletes and the second part covered the sports imagery ability questions whilst the performance was measured through an actual game observation where it was video recorded and tallied using the researcher-made score sheet patterned after the official NCAA detailed box score sheet.

Moreover, a permission was asked to each secondary school of Monkayo District, sports coordinator and athletes then proceeded to collection of data through questionnaire and actual game competition where a score sheet was used to monitor the statistics of the skill executed. The game competition was video recorded and the performance was carefully tallied after the game. The results underwent statistical analysis, specifically mean, ANOVA and Pearson r and were interpreted using the parameter scale established by the researcher.

Result

Based on the gathered data, the researcher came up with the following findings:

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Table 1. Frequency and Percentage Distribution of the Athletes in Terms of the Profile

PROFILE	CATEGORY	FREQUENCY	PERCENTAGE
Sex	Male	28	50.00
	Female	28	50.00
Total		56	100.00
Years of Playing Experience	1-3	21	37.00
	4-6	30	53.57
	7-10	5	08.00
Total		56	100.00
Highest Level of Competition Played	District	12	21.43
	Provincial	29	51.79
	Regional	15	26.79
	National	0	00.00
Total		56	100.00

As shown in the Table 1, there is an equal distribution of males with 50%, while the females count the other of the athletes. Moreover, the result revealed that majority of the athletes have been playing volleyball for 4-6 years, followed by those with less than 4 years and the least are those with more than 6 years. In terms of competition played, majority of the athletes have reached the provincial level, followed by those who have only reached district meet then regional meet, however, none of the athletes have reached national level.

Table 2. Mean Distribution of Sports Imagery Ability of the Athletes

Indicators	Mean	Description
Strategy	2.55	Seldom
Skill	2.57	Seldom
Goal	2.56	Seldom
Affect	2.58	Seldom
Total	2.57	Seldom

Legend: 1.00 – 1.80 = Never 1.81 – 2.60 = Seldom 2.61 – 3.40 = Sometimes 3.41 – 4.20 = Often 4.21 – 5.00 = Always

Table 2 shows athletes seldom use strategy, skill, goal and affect imagery on their actual performance. This means that the application of the sports imagery was done in very few instances. Thus, the athletes have less ability to imaging their strategy, skill, goal, and affect, which was indicated in the very few instances of their application of imagery.

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Table 3. Difference in the Sports Imagery when Athletes are grouped according to Sex

Sports Imagery Ability	F	p-value	Conclusion	Decision on HO
Strategy	0.53	0.47	Not significant	Do not reject
Skills	0.22	0.63	Not significant	Do not reject
Goal	0.49	0.49	Not significant	Do not reject
Affect	0.08	0.77	Not significant	Do not reject

**p<0.00 *p<0.05

Based on the result presented in Table 3, all the indicators in sports imagery have acquired the p-values which are greater than 0.05 level of significance. This shows that athletes do not have differences in sports imagery in terms of sex. Therefore, the null hypothesis for such is not rejected.

Table 4. Difference in the Sports Imagery when Athletes are grouped according to Years of Playing Experience

Sports Imagery Ability	F	p-value	Conclusion	Decision on HO
Strategy	6.69	0.00	Significant	Reject
Skills	8.51	0.00	Significant	Reject
Goal	6.80	0.00	Significant	Reject
Affect	8.51	0.00	Significant	Reject

**p<0.00 *p<0.05

Table 5. Difference in the Sports Imagery when Athletes are grouped according to Level of Competition Played

Sports Imagery Ability	F	p-value	Interpretation	Decision on HO
Strategy	175.01	0.00	Significant	Reject
Skill	221.60	0.00	Significant	Reject
Goal	206.24	0.00	Significant	Reject
Affect	230.70	0.00	Significant	Reject

**p<0.00 *p<0.05

As shown in Table 6, the result indicated that all computed p-values for the four indicators are lesser than 0.05 level of significance. It implies significant differences between Highest Level of Competition Played and Sports Imagery; therefore, the null hypothesis for such is rejected. This result entails that all four

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indicators of Sports Imagery Ability of athletes' increases, and their level of competition also played increases.

Table 6. Mean distribution of Performance of the Athletes

Skills	Mean	Description
Serve	4.14	Very Good
Receive	3.55	Very Good
Attack	4.34	Excellent
Set	4.37	Excellent
Block	2.32	Fair
Dig	4.04	Very Good
Total	3.79	Very Good

Legend: 1.00 – 1.80 =Poor 1.81 – 2.60 =Fair 2.61 – 3.40 = Good 3.41 – 4.20 =Very Good 4.21 – 5.00 = Excellent

Table 6 further discuss that the mean distribution of performance of athletes is verbally described as very good. The skill set had the highest followed by the attack, and is verbally described as excellent. In addition, the athletes were very good at serve, dig, and receive. It means that the executions or applications of the skills were frequently observed. In terms of block the study revealed that the athletes' performance is notably fair, thus, the execution of the skill was occasionally observed.

Table 7. Significant Difference in Performance according to Sex

Skills	F-value	P-value	Interpretation	Decision on HO
Serve	3.99	0.05	Significant	Reject Ho
Receive	4.45	0.04	Significant	Reject Ho
Attack	3.19	0.08	Not Significant	Accept Ho
Set	1.25	0.27	Not Significant	Accept Ho
Block	0.67	0.42	Not Significant	Accept Ho
Dig	0.61	0.44	Not Significant	Accept Ho

**p<0.00 *p<0.05

Table 7 revealed significant differences in serve and receive of the athletes when grouped according to sex. It implies that serve and receive of the athletes do differ according to their sex. Furthermore, the result of the study also shows no significant difference in attack, set, block dig when grouped according to sex, hence these skills do not differ regardless of the sex of the athletes.

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Table 8. Significant Difference in Performance according to Number of Years Playing

Skills	F-value	P-value	Interpretation	Decision on HO
Serve	2.72	0.08	Not Significant	Accept Ho
Receive	3.28	0.05	Significant	Reject Ho
Attack	0.19	0.82	Not Significant	Accept Ho
Set	0.85	0.44	Not Significant	Accept Ho
Block	1.48	0.25	Not Significant	Accept Ho
Dig	6.64	0.00	Significant	Reject Ho

**p<0.00 *p<0.05

The results of the study revealed a significant difference between receive, dig, and the number of years playing. It means that the performance of the athletes in terms of receiving and digging the ball differed on the number of years they have been playing. Moreover, serve, attack, set, and block of the athletes do not differ according to the number of years playing.

Table 9. Significant Difference in Performance according to Level of Competition Played

Skills	F-value	P-value	Interpretation	Decision on HO
Serve	2.72	0.08	Not Significant	Accept Ho
Receive	3.28	0.05	Significant	Reject Ho
Attack	0.19	0.82	Not Significant	Accept Ho
Set	0.85	0.44	Not Significant	Accept Ho
Block	1.48	0.25	Not Significant	Accept Ho
Dig	6.64	0.00	Significant	Reject Ho

**p<0.00 *p<0.05

Based on the result of the study, it revealed a significant difference between serve, receive, dig and level of competition played which means that the skills mentioned above vary according to their level of competition attended. In addition, attack, set, and block do not vary according to the level of competition played. It means all these skills can be appropriately executed even without competing against higher-level athletes.

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Table 10. Correlation between Sports Imagery Ability and Performance by Skill

Skills	r-value	P-value	Interpretation	Decision on HO
Serve	0.30	0.19	Not Significant	Accept Ho
Receive	0.54	0.00	Significant/positive	Reject
Attack	0.40	0.06	Not Significant	Accept Ho
Set	0.43	0.11	Not Significant	Accept Ho
Block	0.81	0.00	Significant/positive	Reject
Dig	0.45	0.00	Significant/positive	Reject

**p<0.00 *p<0.05

Table 11 shows the relationship of Sports Imagery Ability and Performance of athletes in Monkayo District. Based on the result of the study, sports imagery has a significant relationship with receive, block, and dig. Sports imagery has no significant relationship with serve, attack, and set. Lastly, sports imagery has a direct relationship to performance as a whole.

Discussion

On the Profile of the Athletes

The findings of the study revealed an equal distribution of male and female with a total of 56 athletes. This finding is supported by the Executive Order 64, series of 1993 which centers on the national policy of “Sports for All” which shall make accessible to all Filipinos regardless of age, sex, talent and capabilities. As a sport that can be played by everyone, volleyball is for all and is not dominated by one sex only (Punzalan et., al 2018). Moreover, the study also found out that majority of the athletes have been playing in the later part of their elementary years until the present, this left few of them have been a player since their early years in elementary to present. According to Calicdan et. al (2013), volleyball can be played in all ages. This is also supported by Punzalan et al. (2018) who added that volleyball is an easy sport to play. Thus, it does not require age limit when learning the sport so long as they are capable of executing the basic skills needed. Lastly, majority of the athletes were able to reach the provincial level only. It can be attributed to the idea that during the Provincial Level, many skillful athletes coming from other municipalities compete with each other. As the competition becomes tougher, only a few athletes were able to qualify.

On the Extent of Sports Imagery of Athletes

As reflected in Table 2, the athletes have less ability to imaging their strategy, skill, goal, and affect which was indicated in the very few instances of their application of imagery. Ahmad et al. (2017), stated that imagery skills help athletes to generate persistent image to compete in competitions or during training. However, if it is not practiced repeatedly and adequately, the use of imagery is not efficient resulting to uncontrolled images (Amasiatu, 2013). In addition, since most of the athletes have only been playing for four to six years and the highest level of competition played was provincial level, thus, it can be regarded as a factor which affects the application or usage of sports imagery. Robabeh et al. (2013)



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stated that the less experienced athletes had less ability in sports imagery compared to those superior athletes. It means that with the increase of experience level, athletes' ability in sports imagery will increase too.

On the Significant Difference of the Sports Imagery when Athletes are grouped according to Profile

The result of the study revealed that athletes do not differ in sports imagery in terms of sex. Peltomaki (2014), supported this finding when he stated that men and women do not have differences in imagery use. Thus, sports imagery abilities do not vary according to sex. Added to this, the study also showed that those with longer playing experience appeared to be more tactical than the younger ones and those with more experience in playing showed more desire to compete. This finding is supported by Rattanaoses et al. (2009), who cited that those with experience ranging from 1-2 years, 3-4 years, and 5 years and up were significantly different with regards to sports imagery because of their superior and more matured imagery ability gained through their playing experience. In terms of level of competition played, the results indicated that by the increase in competition level, athletes' ability in sports imagery would increase also. The higher the competition, the higher the sports imagery level, is required. Robabeh and Mona (2013) found out that the players who were university students had less ability in sports imagery than the ones in the league and super league. Likewise, Parnabas et al. (2015) volleyball athletes from university exhibited a lower level of imagery usage than those from district which is in contrast with those who are in regional and national athletes who showed the highest levels of imagery usage.

On the Level of Performance of Athletes

The study found out that the athletes always performed the set and attack. Garcia-de-Alcaraz et al. (2016), emphasized that set and attack are significant in winning a volleyball competition and exclaimed that spike or attack is most influential in predicting team success in a competition. Furthermore, the athletes frequently performed the skills successfully. As cited by Garcia-de-Alcaraz et al. (2016), skills such as dig, receive, and serve are most highly correlated in winning a competition. This indicates that these skills are vital for a successful performance. In terms of block, the application of the skill is occasionally observed. As blocking is an advanced skill, it is complicated and highly risky. Therefore, it requires the players an enough level of jumping to prevent the ball from penetrating one's court. According to American Volleyball Coaches Association (AVCA), the degree of success when performing block is very low at any skill level because it is an advanced skill.

On the Significant Difference in the Performance by Skill when Athletes are grouped according to Profile

Table 7 revealed that the serve and receive of the athletes vary according to their sex. There was a higher proportion of faulty serves and receives performed by male athletes, which is essentially attributed to the 19 cm difference in net height (Kountouris et al., 2015). Moreover, the power jump serve was mostly used by males, while females used the standing serve. The serve was more effective for females than for males, which resulted in more successful serves, while serve reception was more effective for males (Palao et al., 2009). Also, the findings of the study asserted that attack is essential skill in volleyball,



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therefore, regardless of their sex, athletes performed attack towards the advancement of the game so as the set, block and dig for defense skills.

Table 8 showed that the receive and dig of the athletes vary according to the numbers of years they have been playing. The result implies that athletes with longer playing experience committed fewer errors when receiving and digging. It is attributed to their longer training experience, which helped them to be more alert and tactical when playing. Moreover, serve, attack, set, and block of the athletes do not differ according to the number of years playing. It means that these skills can be mastered and performed with less error regardless of the period spent in training.

Table 9 reflected that serve, receive and dig vary according to their level of competition attended. It implies that higher level athletes tended to commit less error when performing the skills, which is attributed to their playing experience. Athletes who have reached a higher level of competition demonstrate a better performance when serving and receiving, which are fundamental skills in volleyball and also digging, which is a defensive skill which is caused by their past playing experience of competing against more skilled opponents. The result of the study is supported by Parnabas et al. (2015) when they emphasized that athletes from a lower level of athletic meets exhibited lower performance compared to higher-level athletes. However, attack, set and block can be appropriately executed even without competing against higher-level athletes. These skills are also essential in volleyball, which can help athletes towards the advancement of the game.

On the Correlation of Sports Imagery and Performance

Table 10 implies that the athletes' capability to imagine how to practice their skills mentally, strategize their plans and game techniques, establish goals towards winning the competition and handle or control difficult situations do not affect their performance specifically in serving the ball, attacking the opponent and setting the ball however, it has direct relationship towards the performance of the athletes in terms of receiving, blocking and digging the ball. Fortes et al. (2018) stated that sports imagery training enhanced the blocking decision-making performance of the athletes. Also, Radhakrishnan (2008) revealed that imagery intervention was effective in improving the performance in serve, pass, attack, and block of volleyball players in actual playing situations. However, in this study the sports imagery is only significant to receive, block, and dig. Thus, applying the techniques of imagery resulted to an improved performance among athletes. Furthermore, Jose et al. (2018) stated on their study that imagery intervention can improve the performance in various sports. Therefore, sports imagery has a direct relationship to performance.

Limitations and Opportunities for Future Research

The study took place in one district only which has few schools participated and the study shares a limitation within the sport of volleyball. Future research could explore the sports imagery and performance in different sports and larger coverage or scope as for the environment of the study. The study also focused in the utilization of a standardized questionnaire by Peltomaki (2014) and fewer variables included. Furthermore, future researchers could investigate the sports imagery of athletes using different instrument so as the sports performance of the athletes.



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Conclusion

Sports imagery develops with time, exposure, and experience. It is a nurtured skill. Sports imagery differs based on the number of years playing and the level of competition played. It means that as the years of playing experience and level of competition played increase, the sports imagery ability of the athletes also increases. On the other hand, the very few instances of the application of sports imagery affected the performance of the athletes in terms of receive, block, and dig. It means that a low frequency of usage of sports imagery indicates a low performance.

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