Journal of Physical Education and Sports

12 (2) (2023) : 88-98

https://journal.unnes.ac.id/sju/index.php/jpes

# The Relationship Between Mental Toughness and Sports Motivation With The Achievements of Introvert and Extrovert Personality Athletes in Individual Sports

**Agiarnanda Wafiq Berliana[1]✉, Said Junaidi[2], Donny Wira Yudha Kusuma[3]**

[1,2,3]Universitas Negeri Semarang, Indonesia

**Article Info**

History Articles
Received:
15 March 2023
Accepted:
17 April 2023
Published:
30 June 2023

Keywords:
*Mental Toughness, Sports Motivation, Introvert, Extrovert.*

**Abstract**

The researcher's observations during fieldwork found that coaches in Semarang City pay insufficient attention to the psychological aspects of their athletes during training or competitions. This includes aspects such as mental toughness and sports motivation, which may be related to the performance of introverted and extroverted athletes. The aim of this research is to determine the significant differences in the relationship between mental toughness and sports motivation with the performance of introverted and extroverted athletes in individual sports. The research method employed is quantitative with a correlational approach. The sample size consists of 11 introverted athletes and 35 extroverted athletes. Prerequisite analysis includes tests for normality, linearity, and multicollinearity. Hypothesis testing involves multiple linear regression, simultaneous test (F), partial test (t-test), and coefficient of determination. The results indicate that mental toughness and sports motivation variables have a significant relationship with the performance of introverted athletes. The contribution of mental toughness and sports motivation variables to influencing the performance of introverted athletes in individual sports is 48.6%. However, these variables show an insignificant relationship with the performance of extroverted athletes, with a contribution of 9.2% in individual sports.

✉ Correspondence address:
Kampus Pascasarjana UNNES Jl. Kelud Utara 3, Gajahmungkur, Semarang
E-mail: yuunand8@students.unnes.ac.id

**p-ISSN 2252-648X**
**e-ISSN 2502-4477**

## INTRODUCTION

Sports is a universal human behavior oriented towards both physical and psychological goals (Weinberg, R., Freysinger, V., & Mellano, 2018). One of the reasons why the field of sports psychology emphasizes the development of mental toughness is its importance, and why consultations with coaches, parents, sports psychologists, and athletes themselves are necessary in helping athletes build mental toughness (Hidayat, 2009). One aspect that can influence mental toughness is the athlete's personality, which can be categorized as introverted or extroverted.

In human personality, introversion and extroversion are defined as psychological qualities contributing to enduring patterns, unique feelings, thinking, and behavior (Corvone & Pervin, 2010). Initial observations indicate a prevalence of extroverted athletes. Extroverts tend to be friendly, open, and spend significant time enjoying social interactions in the external world (Hidayat, 2009). This observation is crucial for this research as it involves athletes willing to participate.

Conversely, introverted individuals are introspective, analytical, cautious in speech, comfortable working alone, and tend to assess situations or reflect on what they have learned before forming conclusions (Farrell, 2017). Introverted athletes may exhibit characteristics such as being less social, passive, hesitant, quiet, thoughtful, sad, obedient, pessimistic, fearful, closed, peaceful, calm, and controlled. Introverts focus on activities within their minds rather than their external environment, and this tendency may correlate with social anxiety.

Each athlete possesses unique mental toughness and sports motivation when facing competitions, victories, or defeats. This research is necessary because many coaches still neglect mental toughness in their athletes, focusing solely on their physical and technical preparedness. Mental toughness components, including commitment, control, challenge, and confidence, are essential for athletes, positively influencing their performance. Similarly, good motivation enhances an athlete's performance and can be influenced by their personality, shaped by genetic and environmental factors.

Introverted athletes may struggle with confidence, while extroverts typically exhibit high confidence and excel in social interactions. Many athletes may not fully understand their capabilities, leading to challenges in achieving their goals. Although personality formation primarily occurs in early life, some experts believe individual personalities can be reformed through subsequent experiences. Training in mental skills can help introverts adapt to extroverted situations and vice versa.

Previous research has highlighted the importance of extroverted and introverted behaviors in enhancing a player's abilities, impacting their coordination with teammates. Coaches should understand their players' personalities to provide appropriate guidance, helping introverted athletes boost their confidence within the team. Sports offer a platform for learning cooperation, negotiation, moral conflict resolution, self-control, courage, and understanding policies such as justice.

Therefore, coaches must address athletes' mental toughness and sports motivation to overcome obstacles and enhance performance. Athletes with low mental toughness and motivation may benefit from training to improve these aspects, regardless of their introverted or extroverted personalities. The research aims to explore the relationship between mental toughness, sports motivation, and athlete performance in introverted and extroverted individuals participating in individual sports. The study also seeks to determine if significant differences exist in the relationships between mental toughness, sports motivation, and athlete performance based on personality types.

## METHODS

The correlational research design was applied in this study. One dependent variable (Y) was included in this research, which is the performance of introverted and extroverted athletes in individual sports, along with two

independent variables (X): mental toughness (X1) and sports motivation (X2). The sample size for this study consisted of 11 introverted athletes and 35 extroverted athletes. The sample selection was conducted through the Myers-Briggs Type Indicator (MBTI) test to identify introverted/extroverted athletes. The research subjects were athletes from the Central Java Provincial Sports Week XVI 2023, divided into three individual sports branches: rock climbing, athletics, and wrestling. The procedures in this study involved determining the research subjects (introverted and extroverted athletes), specifying the research location and period, conducting prerequisite tests such as normality, linearity, and multicollinearity tests, collecting data on athlete performance, mental toughness, and sports motivation. Subsequently, the data were analyzed using multiple linear regression, simultaneous tests (F), partial tests (t-tests), and determination coefficient tests.

## RESULTS AND DISCUSSION

### Results

The purpose of this research is to investigate the relationship between mental toughness and sports motivation with the performance of athletes exhibiting introvert and extrovert personalities in individual sports. The subjects of this study are wrestlers, rock climbers, and track and field athletes, totaling 45 individuals with introverted and extroverted personalities, as outlined in the following table.

**Table 1.** Description of Research Subjects

| Personality | Sports | Age | Frequency |
|---|---|---|---|
| Introvert | Wrestling | 16-26 | 4 |
| | Athletics | 16-23 | 4 |
| | Rock climbing | 17-30 | 3 |
| Extrovert | Wrestling | 19-34 | 15 |
| | Athletics | 17-26 | 12 |
| | Rock climbing | 14-28 | 7 |
| Amount | | | 45 |

Based on Table 1, it can be observed that the research subjects consist of 45 athletes with two personality types, namely Introvert and Extrovert. The age range for athletes with Introvert personality in Wrestling is 16-26 years with a frequency of 4 athletes, in Athletics it is 16-23 years with a frequency of 4 athletes, and in Rock Climbing it is 17-30 years with a frequency of 3 athletes. Subsequently, the age range for athletes with Extrovert personality in Wrestling is 19-34 with a frequency of 15 athletes, in Athletics it is 17-26 with a frequency of 12 athletes, and in Rock Climbing it is 14-28 with a frequency of 7 athletes.

### Multiple Linear Regression

Multiple linear regression analysis is employed to analyze the magnitude of each coefficient measured based on data from athletes with introvert and extrovert personalities. The results can be observed in the following table:

**Table 2.** The Result Multiple Linear Regression Introvert Personality

| Coefficientsa | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -52.382 | 42.890 | | -1.221 | .257 |
| | Mental Toughness | .296 | .487 | .146 | .607 | .561 |
| | Sports Motivation | 1.279 | .435 | .706 | 2.940 | .019 |

a. Dependent Variable: Sports Perfomance

Based on Table 2, it is indicated that the constant value (a) of the regression model is -52.382, and the regression coefficients (b) for each of the independent variables are b1 = 0.296 and b2 = 1.279. Therefore, the multiple linear regression equation can be formulated as follows:

Y = -52,382 + 0,296 X1 + 1,279 X2 + e

Description:

Y = Sport Performance, X1 = Mental Toughness, X2 = Sport Motivation

The equation above is interpreted as follows:

1) The constant value of the equation, -52.382, indicates that if the independent variables, namely mental toughness and sports motivation, are considered zero (0), the average performance variable in individual sports for athletes with an introverted personality is -52.382.

2) Each contribution provided by the Mental Toughness variable (X1) has a positive multiple regression coefficient (+) of 0.296. This signifies that a one-unit increase in the Mental Toughness variable will result in a 0.296 increase in Sports Performance for introverted athletes in individual sports, assuming other variables remain constant.

3) Each contribution given by the Sports Motivation variable (X2) has a positive multiple regression coefficient (+) of 1.279. This implies that a one-unit increase in the Sports Motivation variable will lead to a 1.279 increase in Sports Performance for introverted athletes in individual sports, assuming other variables remain constant.

**Table 3.** The Result Multiple Linear Regression Extrovert Personality

| Coefficientsa | | | | | |
|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.872 | 33.266 | | .086 | .932 |
| | Mental Toughness | .668 | .317 | .356 | 2.106 | .043 |
| | Sports Motivation | .178 | .343 | .088 | .520 | .607 |
| a. Dependent Variable: Sports Perfomance | | | | | | |

Based on Table 3, it is evident that the constant value (a) of the regression model is 2.872, and the regression coefficients (b) for each independent variable are b1 = 0.668 and b2 = 0.178. Consequently, the multiple linear regression equation can be formulated as follows:

Y = 2,872 + 0,668 X1 + 0,178 X2 + e

Description:

Y = Sport Performance, X1 = Mental Toughness, X2 = Sport Motivation

The equation above is interpreted as follows:

1) The constant value of the equation, 2.872, indicates that when the independent variables, namely Mental Toughness and Sports Motivation, are considered zero (0), the average of the Sports Performance variable in individual sports for athletes with extroverted personalities is 2.872.

2) Each contribution provided by the Mental Toughness variable (X1) has a positive multiple regression coefficient (+) of 0.668. This implies that an increase of 1 unit in the Mental Toughness variable will result in a corresponding increase of 0.668 in Sports Performance in individual sports for athletes with extroverted personalities, assuming other variables remain constant.

3) Each contribution provided by the Sports Motivation variable (X2) has a positive multiple regression coefficient (+) of 0.178. This indicates that an increase of 1 unit in the Sports Motivation variable will lead to an increase of 0.178 in Sports Performance in individual sports

for athletes with extroverted personalities, assuming other variables remain constant.

**Simultaneous Test (F-Test)**

The F-test is employed to examine whether the overall independent variables collectively have a significant impact on the dependent variable. The results of the F-test can be observed in the following table:

**Table 4.** The Results of Simultaneous Test (F Test) for Introvert Personality

| ANOVA[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 2104.616 | 2 | 1052.308 | 5.726 | .029[b] |
| | Residual | 1470.293 | 8 | 183.787 | | |
| | Total | 3574.909 | 10 | | | |

a. Dependent Variable: Sports Perfomance

b. Predictors: (Constant), Sports Motivation, Mental Toughness

The critical F-value (F-table) is determined using degrees of freedom (k; n-3) or (2; 11-3 = 9), resulting in an F-table of 4.10.

Based on data processing in Table 4, the calculated F-value is 5.726, which is greater than the critical F-value of 4.10. It can be concluded that both mental toughness and sports motivation variables simultaneously have a significant impact on sports performance in athletes with introverted personalities.

**Table 5.** The Results of Simultaneous Test (F Test) for Extrovert Personality

| ANOVA[a] | | | | | | |
|---|---|---|---|---|---|---|
| Model | | Sum of Squares | df | Mean Square | F | Sig. |
| 1 | Regression | 1306.573 | 2 | 653.287 | 2.670 | .085[b] |
| | Residual | 7583.662 | 31 | 244.634 | | |
| | Total | 8890.235 | 33 | | | |

a. Dependent Variable: Sport Perfomance

b. Predictors: (Constant), Sports Motivation, Mental Toughness

It is known that the value of k = 2, and the sample size for Introverted Personality is 34 (n). The critical F-value is obtained from the F-table with degrees of freedom (k; n-3) or (2; 34-3 = 31), resulting in an F-table value of 3.32.

Based on the data processing in Table 5, it is observed that the calculated F-value (F-test) is 2.670, which is smaller than the critical F-value of 3.32. It can be concluded that, simultaneously, the variables of mental toughness and sports motivation do not have a significant impact on the sports performance of athletes with an extroverted personality.

**Partial Test (t-test)**

The testing mechanism in the partial t-test is as follows: if the t-value is greater than the critical t-value, it is stated that an independent variable individually significantly influences the dependent variable. Conversely, if the t-value is less than the critical t-value, it is declared that an independent variable individually does not significantly affect the dependent variable. The results of the t-test can be observed as follows:

**Table 6.** The results of the Partial Test (t-test) for Introverted Personality

| Coefficients[a] | | | | | |
|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | B | Std. Error | Beta | | |
| 1 (Constant) | -52.382 | 42.890 | | -1.221 | .257 |

| | | | | | |
|---|---|---|---|---|---|
| Mental Toughness | .296 | .487 | .146 | .607 | .561 |
| Sports Motivation | 1.279 | .435 | .706 | 2.940 | .019 |

a. Dependent Variable: Sports Perfomance

The significance level is set at 5% or 0.05, and the degrees of freedom (df) are known to be 11 (n-k-1 = 11-2-1). Consequently, the obtained t-table value is 2.306. Based on Table 6, the t-test results can be examined by proving each variable as follows:

1) Proof of the Mental Toughness Variable: According to Table 6, the t-statistic is 0.607, which is less than the t-table value of 2.306. The significance level is 0.561, which is greater than 0.05. This indicates that the mental toughness variable, in partial terms, does not have a significant effect on athletic performance in athletes with introverted personalities.

2) Proof of the Sports Motivation Variable: According to Table 6, the t-statistic is 2.940, exceeding the t-table value of 2.306. The significance level is 0.019, which is less than 0.05. This implies that the sports motivation variable, in partial terms, has a significant impact on the athletic performance of athletes with introverted personalities.

**Table 7.** The results of the Partial Test (t-test) for Extrovert Personality

| Coefficients[a] | | | | | |
|---|---|---|---|---|---|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.872 | 33.266 | | .086 | .932 |
| | Mental Toughness | .668 | .317 | .356 | 2.106 | .043 |
| | Sports Motivation | .178 | .343 | .088 | .520 | .607 |

a. Dependent Variable: Sports Performance

The significance level is set at 5% or 0.05, and with df = 34 (n-k-1 = 34-2-1), the obtained t-table value is 2.040. Based on Table 4.13, the t-test results can be conducted by proving each variable as follows:

1)Proof of the Mental Toughness Variable: Based on Table 7, the t-value is 2.106, which is greater than the t-table value of 2.040, and the significance is 0.043, which is less than 0.05. This indicates that the mental toughness variable has a significant partial effect on the sports performance of athletes with an extroverted personality.

2)Proof of the Sports Motivation Variable: Based on Table 7, the t-value is 0.520, which is less than the t-table value of 2.040, and the significance is 0.607, which is greater than 0.05. This means that the sports motivation variable does not have a significant partial effect on the sports performance of athletes with an extroverted personality

**Test of Coefficient of Determination**

The Coefficient of Determination (R2) test is essentially used to measure the extent to which the model can explain the variation in the dependent variable. The Coefficient of Determination (Adjusted R2) is expressed as a percentage. The results of the Coefficient of Determination (Adjusted R2) test can be seen in the following table:

**Table 8.** The Results of the Coefficient of Determination Test for Introverted Personality

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .767a | .589 | .486 | 13.557 |

a. Predictors: (Constant), Sports Motivation, Mental Toughness

The Coefficient of Determination (Adjusted R2) test is essential to support the F test. Based on Table 8, the Adjusted R2 value obtained is 0.486 or 48.6%, indicating that the variables of mental toughness and sports motivation contribute 48.6% to the influence on the dependent variable, which is the athletic performance of introverted individuals. Meanwhile, the remaining 51.4% is influenced by other variables not examined in this study.

**Tabel 9.** The Results of the Coefficient of Determination Test for Extroverted Personality

| Model Summary | | | | |
|---|---|---|---|---|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .383a | .147 | .092 | 15.641 |
| a. Predictors: (Constant), Sports Motivation, Mental Toughness | | | | |

The Determination Coefficient Test (Adjusted R2) is necessary to support the F test. Based on Table 9, the Adjusted R2 value obtained is 0.92 or 9.26%, indicating that the variables of mental toughness and sports motivation contribute 9.2% to the influence on the dependent variable, which is the athletic performance of extroverted individuals. The remaining 90.8% is influenced by other variables not examined in this study.

**Discussion**

The findings of this research reveal differences in the relationship between mental toughness and sports motivation on the performance of athletes with introverted and extroverted personalities in individual sports, based on the results of statistical tests. Simultaneously, mental toughness and sports motivation show a significant relationship with the performance of athletes with introverted personalities. However, these variables do not show a significant relationship with the performance of athletes with extroverted personalities.

Evidence for the relationship between mental toughness and athlete performance with an introverted personality, using t-tests, indicates that, in isolation, mental toughness does not have a statistically significant relationship with the performance of athletes with introverted personalities. On the contrary, evidence for the relationship between mental toughness and athlete performance with an extroverted personality shows that, in isolation, mental toughness has a significant relationship with the performance of athletes with extroverted personalities.

These results are elaborated by (Komarudin, 2014) that the motivational structure in sports is built on three dimensions of motivational constructs, namely intrinsic motivation, extrinsic motivation, and amotivation. These three dimensions are further elaborated into several indicators, namely non-regulation, external regulation, introjection regulation, identified regulation, and internal motivation. The analysis of the factor structure of the motivation scale in sports becomes important because motivation is believed and proven to be a decisive factor in learning and behavior success (Komarudin, 2014). This makes athletes with an introverted personality fulfill the three motivational dimensions that can support their performance.

Similarly, evidence for the relationship between sports motivation and athlete performance with an introverted personality, using t-tests, reveals that, in isolation, sports motivation has a significant relationship with the performance of athletes with introverted personalities. However, evidence for the relationship between sports motivation and athlete performance with an extroverted personality, using t-tests, indicates that, in isolation, sports motivation does not have a significant relationship with the performance of athletes with extroverted personalities.

Furthermore, from the results of the coefficient of determination, it is evident that the combined contribution of mental toughness and sports motivation in influencing the performance

of athletes with introverted personalities in individual sports is 48.6%. On the other hand, the combined contribution of mental toughness and sports motivation in influencing the performance of athletes with extroverted personalities in individual sports is 9.2%. Athletes emphasize that mental toughness is not only about dealing with competitive aspects but also about training and general lifestyle that can present their own demands. It is truly about knowing what the athlete's priorities are at any given time and not being distracted from them, and these priorities are not always about training and competition (Jones, G., Hanton, S., & Connaughton, 2002).

## CONCLUSION

The variables of mental toughness and sports motivation have a significant relationship with the performance of introverted personality athletes. The results of testing the mental toughness variable show a nonsignificant relationship with the performance of introverted personality athletes. The testing of the motivation variable indicates a significant relationship with the performance of introverted personality athletes. The combined contribution of the mental toughness and sports motivation variables in influencing the performance of introverted personality athletes in individual sports is 48.6%.

On the other hand, the variables of mental toughness and sports motivation have a nonsignificant relationship with the performance of extroverted personality athletes. The testing of the mental toughness variable shows a significant relationship with the performance of extroverted personality athletes in individual sports. The testing of the sports motivation variable indicates a nonsignificant influence on the performance of extroverted personality athletes. Furthermore, the coefficient of determination test reveals that the Adjusted R2 value reaches 9.2%. The combined contribution of the mental toughness and sports motivation variables in influencing the performance of extroverted personality athletes in individual sports is 9.2%.

## ACKNOWLEDGEMENT

Contributors who are not mentioned as authors should be acknowledged, and their particular contribution should be described. All sources of funding for the work must be acknowledged, both the research funder and the grant number (if applicable) should be given for each source of funds.

## REFERENCES

ALY, A., & ELEMIRI, A. (2014). Mental toughness and its relationship to the achievement level of the weightlifters in Egypt. Turkish Journal of Sport and Exercise, 16(2), 63–63.

Anshel, M. (1990). (n.d.). Sport Psychology : From Theory to Practice. Arizona : Gorsuch Scarisbrick Publisher.

Arifin, Zainal. (1991). (n.d.). Evaluasi Intruksional. Bandung: Remaja Rosda Karya.

Berliana, 2011. (n.d.). Wanita dan Olahraga Prestasi. Bandung: PT . Karyamanunggal Lithomas.

Brennan, 1990. (n.d.). a team that is well prepared mentally and physically, then success is clear in sight.

Bull, S. J., Shambrook, C. J., James W., & B. J. E. (2005). (n.d.). Towards an understanding of mental toughness in elite English cricketers. Journal of Applied Sport Psychology.

Caddick, N., & Ryall, E. (2012). (n.d.). The Social Construction of Mental Toughness - A Fascistoid Ideology?. Journal of the Philosophy of Sport.

Campo, M., Sanchez, X., Ferrand, C., Rosnet, E., Friesen, A., & Lane, A. M. (2017). (n.d.). Interpesonal Emotion Regulation in Team Sport: Mechanisms and Reasons to Regulate Teammates' Emotions Examined. International Journal of sport and Exercise Psychology.

Carl Jung, 1913. (n.d.). Memperkenalkan Psikologi Analitis (diindonesiakan oleh G. Cremers). Jakarta: PT Gramedia.

Chiu, L. K., Mahat, N. I., Marzuki, N. A., & Hua, K. P. (2014). Student-athletes' evaluation of coaches' coaching competencies and their sport achievement motivation. Review of European Studies, 6(2), 17–29.

Clavio, G., & Walsh, P. (2014). Dimensions of Social Media Utilization Among College Sport Fans. Communication & Sport, 2(3), 261–281.

Connaughton, D., Wadey, R., Hanton, S., & Jones, G. (2009). (n.d.-b). The Development and Maintenance of Mental Toughness: Perceptions of Elite Performers. Journal of Sports Sciences.

Corvone & Pervin, 2010. (n.d.). Mental Toughness, Personality has been defined as the psychological qualities that contribute to enduring patterns.

Cowden, Richard G., Fuller, D. K., & Anshel, M. H. (2014). (n.d.). Psychological Predictors of Mental Mental Toughness in Elite Tennis : An Exploratory Study in Learned Resoucefulness and Competitive Trait Anxiety. Perceptual and Motor Skills.

Creswell, J. W. 92013). (n.d.). Research Design (Pendekatan Kualitatif dan Mixed) Edisi Revisi. Yogyakarta: Pustaka Pelajar.

Crust, L., & Azadi, K. (2010). (n.d.). Mental Toughness and Athletes' Use of Psychological Strategis. European Journal of Sport Science.

Deci, E. L., Ryan, R. M., & Koestner, R. (1999). (n.d.). A Meta-Analytic Review of Experiments Examining the Effect of Extrinsic Rewards on Intrinsic Motivation. Psychological Bulletin.

Dobersek, U., & Bartling, c. (2008). (n.d.). Connection Between Personality Type and Sport. American Journal of Psychological Research.

Dorfman, H. A., & Kuehl, K. (2002). (n.d.). The Mental Game of Baseball : A Guide to Peak Performance (3rd ed.). Lnham. MD: Diamond Communications.

Dress & Mack, 2012. (n.d.). An Examination of Mental Toughness Over the Course of A Competitive Season. Journal of Sport Behaviour, 35, 377-386.

Duda J. L., N. J. G. (1992). (n.d.). Dimensions of Achievement Motivation in Schoolwork and Sport. Journal of Educational Psychology 84, 290-299.

Dweck, C. S. (1986). Motivational Processes Affecting Learning. American Psychologist. 066X.41.10.1040. Psychological Science.

Farrell, M. (2017). (n.d.). Leadership Reflections: Extrovert an Introvert Leaders. Journal of Library Administration.

Fraenkel, 2013. (n.d.). How to Design and Evaluate Research in Education.

Gacar, A. (2013). (n.d.). Examination of Sport-Specific Achievement Motivation Level of Super League Handball Players in Universities. European Journal of Experimental Biology, 3(1), 181-184.

Gaudreau, P., & Braaten, A. (2016). (n.d.). Achievement Goals and Their Underlying Goal Motivation: Does It Matter Why Sport Participants Pursue Their Goals? Psychologica Belgia.

Ghaderi, N, m & Ghasemi, A. (2012). (2012). The Association Between Personal Characters (Extroversion, Introversion). and Emotional Intellegence with Choose Type of Sport (Team and Individually). European Journal of Experimental Biology. Journal of Zhejiang University: Science C, 13(7), 520–533.

Gill, D. L., & Williams, L. (2008). (n.d.-a). Competitive Orientation Among Intercollegiate Athletes: Is Winning the Only Thing? The Sport Psychologist, 2, 145-159.

Gillet, N., Vallerand, R. J., & Paty, B. (2013). (n.d.). Situational Motivational Profiles and Performance with Elite Performers. Journal of Applied Social Psychology.

Gledhill, A. (2010). (2010). Psychology for Sports Performance. BTEC Level 3 National Sport Book 1, 279-320. Journal of Hydrology, 381(1–2), 112–120.

Golby, J., & Sheard, M. (2004). (n.d.). Mental toughness and hardiness at different levels of rugby league. Personality and Individual Differences.

Gordon, S., & Gucciardi, D. F. (2011). (n.d.). A Strengths-Based Approach to Coaching Mental Toughness Journal of Sport Psychology in Action.

Gordon, S. (2012). (n.d.). Strengths-Based Approaches to Developing Mental Toughness : Team and individual. international Coaching Psychology Review. DOI : 10.1080/21520704.2011.598222.

Gucciardi, D. F., Gordon, S., & Dimmock, J. A. (2009). (n.d.). Advancing Mental Toughness Research and Theory Using Personal Construct Psychology.

Gunarsa, (2008). (n.d.). Psikologi Olahraga Prestasi. Jakarta : PT. BPK Gunung Mulia.

Gunarsa, D., Singgih., (1989). (n.d.). Psikologi Olahraga Prestasi. Jakarta: PT. BPK Gunung Mulia.

Harackiewicz, J. M., Barron, K. E., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Predictors

and consequences of achievement goals in the college classroom: Maintaining interest and making the grade. Journal of Personality and Social Psychology, 73(6), 1284–1295.

Harackiewicz, J. M., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002). Revision of achievement goal theory: Necessary and illuminating. Journal of Educational Psychology, 94(3), 638–645.

Hidayat, Y. (2009). (n.d.-b). Psikologi Olahraga. Bandung: CV. Bintang Waliartika.

Hurlock, E., (1974). (n.d.). Developmental Psychology 4th Edition. New York: McGraw Hill.

Huschle & Katie, 2008. (n.d.). Achievement motivation in the field of Literature in the field of sports psychology.

Hussain, G., Naz, T., Shahzad, N., & Bajwa, M. J. (2021). Social Media Marketing In Sports And Using Social Media Platforms For Sports Fan Engagement. Journal of Contemporary Issues in Business and Goverment, 27(6).

Jones, G., Hanton, S., & Connaughton, D. (2002). (n.d.-a). What is this thing Called Mental Toughness? An Investigation of Elite Sport Performers. Journal of Applied Sport Psychology.

Koentjaraningrat, (2003). (n.d.). Pengantar Antropologi I. Jakarta: PT. Rineka Cipta.

Komarudin, 2014. (n.d.). Psikologi Olahraga. Bandung: PT. Remaja Rosdakarya.

Kuan, G., & Roy, J. (2007). (n.d.). Goal Profiles, Mental Toughness and its Influence on Performance Outcomes Among Wushu Atheletes. Journal of Sports Science and Medicine.

Kucukibis, H. F., & Gul, M. (2019). Study on sports high school students' motivation levels in sports by some variables. Universal Journal of Educational Research, 7(3), 839–847.

Lemyre, P. N., Roberts, g. c., & Ommundsen, Y. (2002). (n.d.). Achievement Goal Orientations, Perceived Ability, and Sportspersonship in Youth Seoccer. Journal of Applied Sport Psychology.

Li, C. H., Chi, L., Yeh, S. R., Guo, K. Bin, Ou, C. T., & Kao, C. C. (2011). (n.d.). Prediction of Intrinsic Motivation and Sports Performance Using 2x2 Achievement Goal Framework. Psychological Reports.

Login, S. (2020). (n.d.). Why Do We Participate in Sports? Achievement and Competitiveness in Sports What is Achievement Motivation? /(877), 1-6.

Maehr, M. L. (2008). (n.d.). Culture and Achievement Motivation. International Journal of Psychology.

Mageu, G. A., & Vallerand, R. J. (2003). (n.d.). The Coach-Athlete Relationship: A Motivational Model. Journal of Sports Sciences.

Maleki, B., Sanei, S., Borhani, H., & Ghavani, S. (2012). (n.d.). Effect of Military Training on Personality Traits of Military Students. Journal of Military Medicine. In Cereal Chem (Vol. 57, Issue 2).

Mallet, C., Kawabata, M., Newcombe, P., Otero-Forero, A. (2007). (n.d.). Sport Motivation Scale-6 (SMS-6): A Revised Six-Factor Sport Motivation Scale. Psychology of Sport and Exercise.

Manos, M., & Popescu, L. (2019). The psychological profile of group rhythmic gymnasts. Discobolul – Physical Education, Sport and Kinetotherapy Journal.

McKelvie, S. J., Lemieux, P., & Stout, D. (2003). Extraversion and Neuroticism in Contact Athletes, No Contact Athletes and Non-athletes: A Research Note. Athletic Insight: The Online Journal of Sport Psychology, 5(3), 19–27.

Mihăilescu, L., & Cucui, A. (2014). Contributions to the Identification of Personality Traits in Athletes. Procedia - Social and Behavioral Sciences, 127, 302–306.

Muhidin, Sambas Ali, M. A. (2017). (n.d.). Analisis korelasi, Regresi, dan Jalur dalam Penelitian (Dilengkapi Aplikasi Program SPSS). Bandung : CV PUSTAKA SETIA.

Newcombe, P., & Boyle, G. (1995). High school students' sports personalities: Variations across participation level, gender, type of sport, and success. International Journal of Sport …, 277–294.

Newland, A., Newton, M., Finch, L., Harbke, C. R., & Podlog, L. (2013). (n.d.). Moderating variables in the relationship between mental toughness and performance in basketball. Journal of sport and Health Science.

Nicholls, A. R., Polman, R. C. J., Levy, A. R., & Backhouse, S. H. (2009). (n.d.). Mental toughness in sport: Achievement level, gender, age, experience, and sport type differences.

Nicholls, J. G. (1989). (n.d.). The Competitive Ethos and Democratic Education. Cambridge. MA: Harvard Univer. Press.

Papageorgiou, K. A., Malanchini, M., Denovan, A., Clough, P. J., Shakeshaft, N., Schofield, K., & Kovas, Y. (2018). (n.d.). Longitudinal Associations between Narcissism, Mental Toughness and Scholl Achievement. Personality and individual Differences.

Pervin & John, 2001. (n.d.). Personality; Theory and Reasearch. 8 ed. New York: John Wiley & Sons, Inc.

Petric, D. (2019). (n.d.). Intorvert, Extrovert and Ambivert. The Knot Theory of Mind.

Phil, B. (20200. (n.d.). Motivation in Sports Psychology. 1-9.

Priatna, T. (2017). Prosedur Penelitian Pendidikan (Nurhamzah, Ed.). CV. Insan Mandiri.

Quinn, T., & Cavanaugh, L. (2017). (n.d.). Mental Toughness. Strategies.

Reeve, J. (2015). (n.d.). Extrinsic Rewards and Inner Motivation. Handbook of Classroom Management.

Resilience, S., Ancient, I. N., & Temples, I. (2015). (n.d.). Indian Scholar Indian Scholar. 3(Iv), 648-659.

Revola, Y. (2016). (n.d.). An Analysis of Writing Achievement Among Personality Type at the Third Semester Students of English Departement IAIN Bengkulu. Linguistics and Language Teaching.

Riordan, C. M. (2013). (n.d.). 6 Elements Of Mental Toughness. Soccer Journal.

Roberts, G. C., Treasure, D. C., & Conroy, D. E. (2012). (n.d.). 51-96-1-Sm. Understanding the Dynamic of Motivation in Sport and Physichal Activity: An Achievement Goal Interpretation. in Handbook of Sport Psychology: Third Edition.

Setyobroto, S. (1989). (n.d.). Psikologi Olahraga. Jakarta. Anem.

Smela, P., Pacesova, P., Antala, B., Cekanova, I., & Fucik, H. (2019). Achievement motivation of physical education teachers. Sport Mont, 17(3), 67–71.

Spray, C. M., Wang, C. K. J., Biddle, S. J. H., & Chatzisarantis, N. L. D. (2006). Understanding motivation in sport: An experimental test of achievement goal and self-determination theories. European Journal of Sport Science, 6(1), 43–51.

Sukys, Tilindiene, Cesnaitiene, & Kreivyte, 2019. (n.d.). Does Emotional Intelligence Predict Athletes' Motivation to Participate in Sports? Perceptual and Motor Skills.

Uzoalor, B. E. (2007). (n.d.). Achieving needs refers through sports. Journal of sports management and education management and education research 3, 10-13.

Uzoka, R. N., & Nnaedozie, C. A. (2013). (n.d.). Psychological Correlates of Achievement in Sports Among Nigerian Adolescents. Mediterranean Journal of Social Science.

Vallerand, 1997. (n.d.). Motivasi intrinsik dan ekstrinsik dalam kalangan atlet.

Wang, J. C. K., Liu, W. C., Lochbaum, M. R., & Stevenson, S. J. (2009). Sport Ability Beliefs, 2 x 2 Achievement Goals, and Intrinsic Motivation. Research Quarterly for Exercise and Sport, 80(2), 303–312.

Weinberg, R., Freysinger, V., & Mellano, K. (2018). (n.d.). How Can Coaches Build Mental Toughness? Views from Sport Psychologist. Journal of sport psychology in Action.

Yousuf, M. S., Naz, T., Asghar, Dr. E., Touqeer, M., Shahzad, N., & Liaquat, A. (2020). The Effects of Social Media Marketing on Sports by Using Sports Videos on Facebook and Instagram to Attract the Peoples to Watch More Sports. International Journal on Integrated Education, 3(6), 61–67.

Zamirullah khan, Sartaj Khan, & Z. Haider. (2012). (n.d.). Sports Achievement Motivation in National and International Athletes. A Comparitive Study. International Journal of Physical Education. Fitness and Sports.