Universiti Teknologi MARA
Cawangan Perlis
Jurnal Intelek

Volume 21 Issue 1 (February) 2026

Leg Power and Agility as Determinants of Shooting Performance in Basketball Players

Mohd Azharul Azemi[1*], Mohd Faizal Azrul Azwan Muhamed @ Che Harun[2], Nur Atikah Mohamed Kassim[3], Rozella Ab Razak[4], Kalam Azad Isa[5], Muhammad Faizal Kutip[6], Harith Rusydin Abd Rahman[7]

[1,3,4,5] Faculty of Sports Science and Recreation, Universiti Teknologi MARA, Pahang Branch, Jengka Campus, 24600 Bandar Tun Razak, Jengka, Pahang, Malaysia
[2]Faculty of Business Management, Universiti Teknologi MARA, Pahang Branch, Jengka Campus, 24600 Bandar Tun Razak, Jengka, Pahang, Malaysia
[6]Faculty of Sport Science and Recreation, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, Malaysia
[7]Faculty of Sport Science and Recreation, Universiti Teknologi MARA, Perlis Branch, Arau Campus, 02600 Arau, Perlis, Malaysia

*Authors' Email Address: [*1]azharulazemi@uitm.edu.my, [2]faizalazrul@uitm.edu.my, [3]atikahmk@uitm.edu.my, [4]rozella@uitm.edu.my, [5]kalam_azad@uitm.edu.my, [6]muhammadfaizal@uitm.edu.my, [7]harithrusydin@uitm.edu.my*

Received Date: 3 November 2025
Accepted Date: 2 January 2026
Revised Date: 8 January 2026
Published Date: 31 January 2026

*Corresponding Author

ABSTRACT

This research examines how lower-limb power and movement agility influence basketball players' shooting effectiveness, focusing on how these physical attributes contribute to overall shooting proficiency. Variations in shooting consistency are commonly linked to insufficient lower-body conditioning among players, particularly in the lower limbs. This quantitative descriptive study was conducted with (n=20) male basketball players from UiTM Pahang. Data were collected using a vertical jump test for leg power, a Zig-Zag test for agility, and a lay-up shooting test. Pearson correlation analysis revealed significant positive relationships between leg power and shooting performance ($r = 0.65$, $p < 0.01$) and between agility and shooting performance ($r = 0.58$, $p < 0.05$). These results showed that integrating specific leg power and agility training can improve basketball players' shooting performance.

Keywords: *agility, basketball, leg power, physical conditioning, shooting performance*

INTRODUCTION

Accurate and consistent shooting remains one of the defining skills determining basketball success. However, inconsistencies in shooting performance persist even among trained players. While numerous studies have explored technical and biomechanical aspects of shooting, fewer have examined how underlying physical attributes particularly leg power and agility contribute to shooting accuracy and consistency. Previous research has shown that explosive lower-limb power supports vertical elevation

E-ISSN 2231-7716
DOI: http://10.24191/ji.v21i1.9415

during jump shots and that agility enables rapid body control and repositioning to create open scoring opportunities (Papla et al., 2022; Cabarkapa et al., 2022). Despite this, many basketball training programmes remain heavily skill-oriented and undervalue the role of these physical components in shooting efficiency (Gómez et al., 2015).

Recent studies highlight the contribution of leg power to improved jump height and shot elevation (Candra, 2019) and the importance of agility for balance and defensive evasion during shooting movements (Anastasiu et al., 2023; Pamuk et al., 2023). However, the literature still lacks small-sample descriptive studies that empirically link these two physical variables with shooting performance, particularly within collegiate-level basketball contexts where players experience diverse physical conditioning levels. Addressing this gap will provide a better understanding of how targeted strength and agility conditioning could enhance shooting outcomes.

Therefore, this study aims to explore the relationships between leg power, agility, and shooting performance among male basketball players. By focusing on descriptive analysis within a controlled setting, the research seeks to establish foundational data that can guide future experimental studies and training programme development. Specifically, this study examines whether variations in leg power and agility significantly correlate with differences in lay-up shooting performance among collegiate athletes.

Research Objectives

1. To determine the relationship between leg power and shooting performance
2. To assess the impact of agility on shooting performance

LITERATURE REVIEW

Leg Power, Agility, and Performance Integration

Existing literature consistently identifies leg power and agility as core determinants of basketball performance. Alemdaroğlu (2012) demonstrated that leg power and anaerobic capacity directly affect sprint and jump performance, both of which are essential for in-game shooting movements. Ben Abdelkrim et al. (2007) and Delextrat & Cohen (2009) further emphasized that basketball performance involves repeated high-intensity efforts requiring coordination of both power and agility. Guards, for example, rely more heavily on agility for maneuvering, while forwards depend on explosive leg strength for rebounding and shooting (Jakovljevic et al., 2012). Collectively, these findings underscore the role of dynamic lower-limb capacity in shooting consistency and shot creation.

Leg Power and Shooting Performance

Leg power directly contributes to the elevation and stability of jump shots and lay-ups. Stronger lower limbs enable players to generate greater vertical propulsion, which can enhance shooting precision by improving balance, shot arc, and control (Papla et al., 2022; Cabarkapa et al., 2022). Pamuk et al. (2023) noted that athletes with higher vertical jump scores exhibit better shot execution and resilience under fatigue. Nevertheless, most training programmes continue to emphasize upper-body mechanics rather than integrating structured leg power training, leaving an important gap in applied performance enhancement strategies.

Agility and Shooting Performance

Agility is the ability to quickly change direction while maintaining body control is another fundamental determinant of effective shooting. Agility training has been shown to improve spatial

awareness, footwork, and postural control during shooting, particularly in dynamic situations such as fast breaks and contested lay-ups (Chaouachi et al., 2009; Idris et al., 2023). Agility supports optimal positioning and rhythm during shooting motions, making it a critical skill for both offensive and defensive transitions (Sekulic et al., 2013). Despite this, many basketball programmes still neglect agility drills in favour of static conditioning, suggesting a misalignment between training emphasis and in-game performance needs.

Gaps in Existing Research

Although substantial evidence links physical conditioning to basketball performance, inconsistencies exist in how studies measure leg power and agility. Some use vertical jump height, others employ countermovement or reactive tests, leading to varied interpretations. Moreover, limited research has examined how these physical metrics correlate specifically with shooting performance outcomes. Additionally, small sample sizes and homogeneous participant groups in prior studies reduce the generalizability of findings. This study contributes to addressing these limitations by providing empirical, descriptive data that integrate leg power, agility, and shooting performance measures within a collegiate basketball context.

METHODOLOGY

Research Design

A quantitative descriptive design was adopted to examine the relationship between leg power, agility, and shooting performance among basketball players. This approach allows for objective measurement of variables without experimental manipulation, making it appropriate for assessing natural performance correlations (Creswell, 2014).

Population and Sample

The study involved 20 competitive male basketball players from Universiti Teknologi MARA (UiTM) Pahang, selected through purposive sampling to ensure participants were actively engaged in structured basketball training. Participants were required to be injury-free, aged between 18–25 years, with a minimum of two years of playing experience. Those with current lower-limb injuries or medical conditions affecting performance were excluded.

Considering the potential for participant dropout due to injury, scheduling conflicts, or fatigue, a 20% additional sample buffer was incorporated. Therefore, 24 participants were initially recruited to ensure that at least 20 valid data sets were available for analysis. This adjustment strengthens the study's statistical reliability and accounts for anticipated attrition.

Ethical Considerations

Ethical approval was obtained from the Universiti Teknologi MARA Research Ethics Committee. All participants provided informed consent, were briefed on procedures, and assured that their participation was voluntary and confidential.

Instrumentation

Three instruments were employed to measure the key variables:

1. Leg Power: The vertical jump test was used to measure explosive leg power. This test is widely regarded as a valid indicator of lower-limb strength and is commonly used in basketball performance research (McMahon et al., 2017). Vertical jump performance is a reliable measure

of leg power as it correlates strongly with explosive movements such as jump shots and sprints, both of which are crucial in basketball (Papla et al., 2022).

2. Agility: Agility was assessed using the Zig-Zag test, which measures an athlete's ability to change direction quickly while maintaining balance and speed. The Zig-Zag test has been validated in basketball studies as an effective measure of agility, particularly for assessing how well players can manoeuvre in dynamic, game-like conditions (Idris et al., 2023). Agility is a key component in creating scoring opportunities and reacting defensively, making it essential for shooting performance (Chaouachi et al., 2009).

3. Shooting Performance: Shooting performance was evaluated using a lay-up shooting test. The lay-up is a fundamental basketball shot, often used in game situations, making it an ideal measure of shooting ability (Candra, 2019). This test provides a practical measure of shooting accuracy and consistency, linking physical attributes with in-game performance outcomes.

DATA COLLECTION PROCEDURES

The data collection process was conducted over three consecutive days to minimize participant fatigue and ensure the accuracy of results. Each day focused on one specific performance test: leg power, agility, and shooting performance. This approach allowed for the proper isolation and measurement of each variable without interference from other physical exertions, a critical consideration in sports performance studies (McMahon et al., 2017).

Day 1: Leg Power Testing (Vertical Jump Test)

On the first day, participants performed the vertical jump test to assess leg power. This test is widely regarded as a valid and reliable measure of explosive power in the lower limbs, particularly relevant to basketball where jump shots and vertical leaps are crucial (Papla et al., 2022). The procedure was as follows:

1. Warm-up: A standardized 10-minute dynamic warm-up was provided to all participants. The warm-up included exercises such as jogging, leg swings, and dynamic stretching to increase muscle temperature and joint flexibility, thereby reducing the risk of injury (Young & Behm, 2002).
2. Vertical Jump Test Execution:
    - Participants stood next to a vertical measuring device (e.g., a Vertec or wall-mounted jump height marker).
    - Each participant reached up to mark their standing reach height.
    - From a standing position, participants performed a maximal vertical jump, using their arms and legs to propel themselves upwards. They were instructed to jump as high as possible, touching the highest point on the measuring device.
    - Three trials were recorded for each participant, with a 1-minute rest period between attempts to avoid fatigue (McMahon et al., 2017). The highest jump was used as the final score.

3. Data Recording: The difference between the standing reach and the highest jump mark was measured in centimetres, representing the participant's vertical jump height (i.e., leg power). Data was recorded immediately after each attempt.

Day 2: Agility Testing (Zig-Zag Test)

On the second day, participants completed the Zig-Zag test to assess agility. This test measures the ability to change direction quickly and maintain balance, which is vital for manoeuvring during game situations such as evading defenders and repositioning for shots (Chaouachi et al., 2009). The procedure included the following steps:

1. Warm-up: A 10-minute warm-up session similar to Day 1 was conducted to prepare the participants for the agility test. Particular attention was given to lower-body mobility and flexibility to reduce the risk of injury.
2. Zig-Zag Test Setup:
    - The test course was set up using four cones arranged in a zig-zag pattern, each cone placed 2 meters apart.
    - Participants were instructed to sprint between the cones, making sharp turns around each cone without losing speed or balance.
3. Test Execution:
    - Starting from a stationary position, participants sprinted through the course, navigating the cones as quickly as possible.
    - Time was recorded using a stopwatch from the moment the participants began the sprint until they crossed the finish line at the last cone.
    - Each participant completed two trials, with a 2-minute rest period between attempts to ensure full recovery and avoid the effects of fatigue on performance (Chaouachi et al., 2009). The best time (in seconds) was used as the final score.
4. Data Recording: The total time taken to complete the Zig-Zag course was recorded to the nearest hundredth of a second. Faster times indicated better agility.

Day 3: Shooting Performance Testing (Lay-Up Shooting Test)

On the final day, participants underwent the lay-up shooting test to measure their shooting performance. The lay-up shot was chosen because it is a fundamental basketball skill that combines elements of leg power, agility, and shooting accuracy (Candra, 2019). The procedure was as follows:

1. Warm-up: A 10-minute dynamic warm-up, focusing on upper-body and lower-body coordination, was performed to ensure participants were adequately prepared for the shooting test.
2. Lay-Up Test Setup:
    - Participants started from the free-throw line with a basketball.
    - The goal was to make as many successful lay-up shots as possible within a 30-second time frame.

- Participants dribbled the ball towards the basket and performed a lay-up, then immediately retrieved the ball, returned to the free-throw line, and repeated the process.

3. Test Execution:
    - Participants were instructed to alternate hands for each lay-up attempt (right-hand for right-side lay-ups, left-hand for left-side lay-ups) to assess ambidexterity, which is critical in game scenarios.
    - Each lay-up had to be a legal shot (i.e., the ball must touch the backboard and go through the basket) to count as a successful attempt.
    - Each participant was given two trials, with a 2-minute rest between trials. The higher score was recorded as the final result.
4. Data Recording: The number of successful lay-up shots completed within 30 seconds was recorded as the participant's shooting performance score. Accuracy, consistency, and speed were indirectly measured through this test, providing insight into how physical attributes like leg power and agility translate into shooting ability (Pamuk et al., 2023).

FINDINGS

Standardization and Control Measures

To ensure the validity and reliability of the data collection process, several control measures were implemented:

- Consistency: All participants performed the tests under the same conditions (e.g., same testing area, standardized warm-ups), minimizing external variables that could influence results.
- Rest Intervals: Adequate rest intervals between trials and testing days were provided to prevent fatigue, a common issue that can skew results in physical performance tests (McMahon et al., 2017).
- Equipment: All testing equipment (e.g., Vertec, cones, stopwatches) was calibrated and standardized to ensure accurate measurements.

These procedures ensured that the data collected accurately reflected each participant's true physical abilities and shooting performance, allowing for meaningful analysis of the relationships between leg power, agility, and shooting proficiency.

Table 1: Correlation between leg power, agility, and shooting performance

Variables	Leg Power (Vertical Jump Test)	Agility (Zig-Zag Test)	Shooting Performance (Lay-Up Test)
Leg Power (Vertical Jump Test)	1.00	-0.58	0.65*
Agility (Zig-Zag Test)	-0.58	1.00	0.72*
Shooting Performance (Lay-Up Test)	0.65*	0.72*	1.00

*Note: *Correlation is significant at the 0.05 level (2-tailed).*

The results from the Pearson correlation analysis, as reflected in Table 1, show significant relationships between leg power, agility, and shooting performance among basketball players. First, there is a moderate positive correlation between leg power and shooting performance ($r = 0.65$, $p < 0.05$). This finding suggests that players with greater leg power, as measured by the vertical jump test, tend to perform better in shooting tasks such as lay-up shooting. The ability to generate explosive leg power is essential for effective shooting, particularly in basketball, where vertical force is a key component of jump shots and lay-ups. These results are consistent with previous research, which found that leg power significantly contributes to shooting accuracy and overall performance in basketball (Papla et al., 2022).

Additionally, the analysis indicates a strong positive correlation between agility and shooting performance ($r = 0.72$, $p < 0.05$), emphasizing the importance of agility in scoring efficiency. Athletes showing higher agility levels tended to achieve greater shooting efficiency, supporting the idea that quick directional changes and body control are critical in creating open shots and finishing at the basket. This aligns with prior studies that highlight agility as a crucial factor in basketball performance, influencing both defensive manoeuvres and offensive success (Chaouachi et al., 2009).

Interestingly, the results also reveal a moderate negative correlation between leg power and agility ($r = -0.58$), suggesting that players who excel in leg power may not necessarily exhibit superior agility. This inverse relationship could indicate that these two physical attributes require different types of conditioning, with leg power focusing more on explosive strength and agility requiring speed and coordination. Therefore, training programmes should aim to develop both leg power and agility in a complementary manner to maximize overall basketball performance. This finding underscores the need for a balanced training approach, as both attributes play pivotal roles in shooting proficiency and general gameplay (Cabarkapa et al., 2022).

DISCUSSION

The findings of this study align with and extend existing evidence regarding the integral role of leg power and agility in basketball performance. Alemdaroğlu (2012) and Delextrat and Cohen (2009) both reported that explosive power and quick directional changes significantly influence player performance across multiple game actions, including shooting and transitions. The significant correlations identified in this study between leg power, agility, and shooting performance reflect the physiological interdependence highlighted by Montgomery et al. (2010) and Stojanović et al. (2018), who documented that elite players rely heavily on anaerobic energy systems and rapid muscle recruitment during shooting execution.

The moderate negative relationship observed between leg power and agility may be attributed to different neuromuscular demands of these attributes, as discussed by Lockie et al. (2014), where asymmetry or specialization in movement patterns affects overall multidirectional efficiency. Furthermore, Drinkwater et al. (2008) and Sattler et al. (2015) emphasized that effective conditioning programmes should integrate dynamic lower-body strength and agility training rather than isolating muscle groups. Coaches should, therefore, adopt comprehensive conditioning regimens that improve

both lower-limb explosiveness and reactive movement control. By developing these traits concurrently, players can achieve improved shot consistency, balance, and reaction time under game-like stress conditions.

These findings also provide empirical support for the notion that enhanced leg power and agility underpin superior shooting performance and gameplay efficiency in basketball. Integrating evidence-based strength and agility protocols will likely yield substantial improvements in performance outcomes across playing positions (Ben Abdelkrim et al., 2007; Sekulic et al., 2013).

Overall, the results of this study support existing literature that highlights the importance of leg power and agility in basketball performance. The significant correlation between leg power and shooting performance aligns with findings from previous research (Papla et al., 2022), which emphasizes the role of lower-limb strength in generating the necessary force for shooting. Similarly, the strong relationship between agility and shooting performance confirms that agility is not only crucial for defensive manoeuvres but also for creating scoring opportunities (Chaouachi et al., 2009). These findings underscore the need for basketball coaches and trainers to incorporate leg power and agility exercises into training programmes. Developing these attributes can lead to enhanced shooting performance and overall game effectiveness.

CONCLUSION

Findings confirm that both lower-limb power and agility substantially influence basketball shooting performance. By focusing on improving these key physical attributes, players can enhance their shooting accuracy and overall gameplay. Future research could explore the impact of other factors, such as upper-body strength or mental focus, on shooting performance. It is recommended that coaches design focused training programmes emphasizing both explosive power and agility enhancement.

ACKNOWLEDGEMENT

The authors would like to extend their deepest appreciation to the Faculty of Sports Science and Recreation, Universiti Teknologi MARA (UiTM), for their unwavering support and provision of essential facilities. Their continuous encouragement and assistance played a vital role in facilitating the successful completion of this research.

FUNDING

This research received no specific grant from any funding agency in the public, commercial, or not-for profit sectors.

AUTHORS' CONTRIBUTION

Azemi, M. A. led the research as the first author, contributing to the conceptualization, research design, data analysis, and manuscript writing. Muhamed @ Che Harun, M. F. A. A. provided supervision, critical review, and methodological guidance. Mohamed Kassim, N. A. contributed to the literature review and data collection. Ab Razak, R. assisted with data analysis and interpretation. Isa, K. A. contributed to manuscript formatting and figure preparation. Kutip, M. F. provided proofreading,

editing, and final approval of the manuscript. Abd Rahman, H. R. contributed to project administration and coordination of research activities.

CONFLICT OF INTEREST DECLARATION

We hereby certify that this manuscript represents the original work of the authors and co-authors. It has not been published previously, nor is it under consideration for publication elsewhere, in whole or in part. All authors have made substantial contributions to the conception, design, data analysis, and interpretation of this research.

REFERENCES

Anastasiu, A., Potop, V., Mihai, I., Chernozub, A., Vișan, P., & Cojanu, F. (2023). The dynamics of the agility manifestation in basketball game during the physical education lesson. *Discobolul – Physical Education, Sport and Kinetotherapy Journal*. DOI: 10.35189/dpeskj.2023.62.2.5

Alemdaroğlu, U. (2012). The relationship between muscle strength, anaerobic performance, agility, sprint ability and vertical jump performance in professional basketball players. *Journal of Human Kinetics*, *31*(1), 149–158. https://doi.org/10.2478/v10078-012-0016-6

Ben Abdelkrim, N., El Fazaa, S., & El Ati, J. (2007). Time-motion analysis and physiological data of elite under-19-year-old basketball players during competition. *British Journal of Sports Medicine*, *41*(2), 69–75. https://doi.org/10.1136/bjsm.2006.032318

Cabarkapa, D., Eserhaut, D. A., Fry, A. C., Cabarkapa, D. V., Philipp, N. M., & Whiting, S. M. (2022). Relationship between upper and lower body strength and basketball shooting performance. *Sports, 10*(10), Article 139. https://doi.org/10.3390/sports10100139

Candra, O. (2019). Contribution of leg muscle explosive power and flexibility on lay-up shoot in basketball. *Advances in Social Science, Education and Humanities Research, 278*, 479–482.

Chaouachi, A., Brughelli, M., Levin, G., Boudhina, N. B. B., Cronin, J., & Chamari, K. (2009). Lower limb maximal dynamic strength and agility determinants in elite basketball players. *Journal of Strength and Conditioning Research*, *23*(5), 1570–1577. https://doi.org/10.1519/JSC.0b013e3181a4e7f0

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). Thousand Oaks, CA: Sage Publications.

Delextrat, A., & Cohen, D. D. (2009). Strength, power, speed, and agility of women basketball players according to playing position. *Journal of Strength and Conditioning Research*, *23*(7), 1974–1981. https://doi.org/10.1519/JSC.0b013e3181b86a7 e

Drinkwater, E. J., Pyne, D. B., & McKenna, M. J. (2008). Design and interpretation of anthropometric and fitness testing of basketball players. *Sports Medicine*, *38*(7), 565–578. https://doi.org/10.2165/00007256-200838070-00004

Gómez, M.-Á., Alarcón, F., & Ortega, E. (2015). Analysis of shooting effectiveness in elite basketball according to match status. *International Journal of Performance Analysis in Sport*, *24*, 37–41.

Idris, A., Nasuka, N., & Hidayah, T. (2023). The effect of ball handling height frequency training and barrier training and agility on the ability to lay-up shoot basketball. *JUARA: Jurnal Olahraga*, *8*(1). https://doi.org/10.33222/juara.v8i1.2676

Jakovljevic, S. T., Karalejic, M. S., Pajic, Z. A., Macura, M. M., & Erculj, F. F. (2012). Speed and agility of basketball players of different positions. *Facta Universitatis, Series: Physical Education and Sport*, *10*(2), 203–210

Lockie, R. G., Callaghan, S. J., Berry, S. P., Cooke, E. R. A., Jordan, C. A., Luczo, T. M., & Jeffriess, M. D. (2014). Relationship between unilateral jumping ability and asymmetry on multidirectional speed in team-sport athletes. *Journal of Strength and Conditioning Research*, *28*(12), 3557–3566. https://doi.org/10.1519/JSC.0000000000000588

McMahon, J. J., Jones, P. A., & Comfort, P. (2017). A comparison of methods for measuring explosive power in professional rugby players. *Journal of Strength and Conditioning Research, 31*(5), 1335–1341. https://doi.org/10.1519/JSC.0000000000001621

Montgomery, P. G., Pyne, D. B., & Minahan, C. L. (2010). The physical and physiological demands of basketball training and competition. *International Journal of Sports Physiology and Performance, 5*(1), 75–86. https://doi.org/10.1123/ijspp.5.1.75

Pamuk, Ö., Savaş, S., Erculj, F., Karalejić, M., & Jakovljević, S. (2023). Associations between force-time related single-leg countermovement jump variables, agility, and linear sprint in competitive youth male basketball players. *Children, 10*(3), 518. https://doi.org/10.3390/children10030518

Papla, M., Czaplicki, A., Sliwowski, R., & Zmijewski, P. (2022). Contribution of strength, speed, and power characteristics to change of direction performance in male basketball players. *Applied Sciences, 12*(17), 8651. https://doi.org/10.3390/app12178651

Sattler, T., Sekulic, D., Spasic, M., Krolo, A., Uljevic, O., & Dervisevic, E. (2015). Analysis of the association between motor and anthropometric variables with change of direction speed and reactive agility performance. *Journal of Human Kinetics, 47*(1), 137–148. https://doi.org/10.1515/hukin-2015-0072

Sekulic, D., Spasic, M., Mirkov, D., Cavar, M., & Sattler, T. (2013). Gender-specific influences of balance, speed, and power on agility performance. *Journal of Strength and Conditioning Research, 27*(3), 802–811. https://doi.org/10.1519/JSC.0b013e31825c2cb0

Stojanović, E., Stojiljković, N., Scanlan, A. T., Dalbo, V. J., Berkelmans, D. M., & Milanović, Z. (2018). The activity demands and physiological responses encountered during basketball match-play: A systematic review. *Sports Medicine, 48*(1), 111–135. https://doi.org/10.1007/s40279-017-0794-z

Young, W. B., & Behm, D. G. (2002). Should static stretching be used during a warm-up for strength and power activities? *Strength and Conditioning Journal, 24*(6), 33–37. https://doi.org/10.1519/00126548-200212000-00006