

Play Approach to Improve Learning Outcomes of Squat Style Long Jump in Elementary School Students

Muslimin Mus¹, Muh. Adnan Hudain², Hasyim³, Ilham Kamaruddin⁴, Benny Badaru⁵
^{1, 2, 3, 4, 5} Pendidikan Jasmani dan Olahraga, Program Pascasarjana, Universitas Negeri Makassar, Indonesia

Article Info

Article history:

Received May 07, 2025

Revised June 19, 2025

Accepted June 24, 2025

Keywords:

Elementary School;

Learning Outcomes;

Long Jump;

Play Approach;

Squat Style.

ABSTRACT

This study aims to improve the learning outcomes of the basic long jump technique of the squat style in elementary school through the application of a play approach. The type of research used is classroom action research with 29 students as subjects at the fourth-grade level of Islamic Elementary School Unggulan BTN Pemda. The instruments used include an initial test, cycle I, and cycle II, as well as data analysis using SPSS version 21.00. The study was conducted in two cycles, with observations of the difficulties experienced by students and modifications to the learning approach. The results of the initial test indicated that only 27.02% of students achieved learning mastery. After the application of the play approach, in cycle I the learning mastery increased to 54.05%, and in cycle II it reached 81.08% with an average score of 81.03. This increase indicates the effectiveness of the play approach in overcoming difficulties in the basic long jump technique. The application of the play approach has proven effective in improving the learning outcomes of the basic long jump technique of the squat style in fourth-grade students, with learning mastery reaching the standard of 80%. This study provides important implications for the development of physical education learning methodology in elementary schools.

Copyright © 2025 ETDCI.
All rights reserved.

Corresponding Author:

Muslimin Mus,

Pendidikan Jasmani dan Olahraga, Program Pascasarjana, Universitas Negeri Makassar.

Email: musliminmus100@gmail.com

1. INTRODUCTION

Physical education is a learning process through systematically designed and structured physical activities to improve physical fitness and develop motor skills, knowledge, and behaviors for a healthy and active lifestyle, sportsmanship, and emotional intelligence (Rico-Gonzalez, 2023; Badwi et al., 2025). The goals of physical education include holistic individual development (Suwardi et al., 2025). This means that the scope of physical education encompasses not only the physical aspects but also the cognitive, affective, and psychomotor aspects. Furthermore, physical education also encompasses mental, emotional, social, and spiritual aspects.

In physical education, several sports are taught within the physical education curriculum. One of the sports taught is athletics. Athletics is a core subject required in

physical education (Molly & Weight, 2019). The athletic events taught include walking, running, jumping, and throwing. Each of these events includes several competitions. The running events include short-distance running, middle-distance running, long-distance running (marathon), hurdles, relay running, and cross-country running. Jumping events include the long jump, high jump, triple jump, and pole vault. Throwing events include the discus, javelin, shot put, and hammer throw (Saniyah, 2019; Suwardi et al., 2024).

The long jump is one of the jumping events in athletics that plays a crucial role in supporting children's development and growth (Canata et al., 2022). The definition of the long jump is a form of jumping movement with the goal of achieving the greatest possible jump distance. The continuity of movement in the long jump includes the run-up, take-off, position in the air, and landing. The long jump consists of three styles: the squat long jump, the walking long jump, and the hanging long jump. Based on these three styles, this study will examine and research the squat long jump.

Playfulness is a biological trait in children's motor development. Through play, children experience joy and satisfaction and can even foster mutual respect. Based on the characteristics of elementary school students, teaching the squat long jump in elementary schools must be tailored to their individual needs. Teachers should be aware that elementary school students tend to get bored easily. To address this, teaching the squat long jump should be done in a variety of fun activities. Efforts to increase student motivation for athletics lessons must be implemented through learning approaches appropriate to their developmental level (Thompson et al., 2022; Hart et al., 2024). Teachers must be able to implement effective and appropriate learning approaches. With the right learning approach, students will easily absorb the material and achieve optimal results (Wang et al., 2024).

One learning approach that aligns with the characteristics of elementary school students is the play approach. As explained by Kunaedi (2018), "Play and games are educational tools through physical activity. Play stimulates the development of thinking and physical abilities (Prasetyo, 2016). If children are given the opportunity to play according to their preferences, there will never be any detrimental effects; in fact, it will provide added value for them regarding their needs for self-development and emotional development.

The play approach is a learning method implemented through play (Keung & Cheung, 2019; Nurbakti, 2020; Parker et al., 2022). In this play approach, students are given the freedom to express their abilities toward established learning objectives. Through play, it is hoped that students will develop creativity and initiative to solve problems that arise during the learning process (Konstantinidou et al., 2014). Competitive elements are also developed through play, allowing students to compete with each other to demonstrate their abilities (Hellín et al., 2023). Based on the description of the play-based learning approach described above, it is clear that the play-based approach is one learning approach that can be used to improve learning outcomes in the squat long jump. However, learning outcomes are not solely influenced by the

learning approach; other factors include student physical condition, motivation, facilities and infrastructure, and others (Lo et al., 2022; Nursaid et al., 2023).

Efforts to address these challenges in achieving learning outcomes in the squat long jump require in-depth study and research, both theoretically and practically, through classroom action research. The subjects of this study were fourth-grade students at the Islamic elementary school Unggulan BTN Pemda.

Building upon observations, physical education lessons implemented at the Islamic elementary school Unggulan BTN Pemda still faced challenges, such as students' disinterest in athletics and lack of commitment to the lessons. Student presence is one factor that can influence student learning outcomes. Disinterest and lack of commitment to the lessons will negatively impact student learning outcomes. Furthermore, the learning approaches currently implemented by teachers have not yielded optimal results. Such behavior is evident in the students' low motor skills and jumping abilities. This situation requires attention, and the underlying causes need to be investigated.

2. METHOD

In this study, the author will use the classroom action research (CAR) method (Nawir et al., 2023). The research will take place in the field at the Islamic elementary school Unggulan BTN Pemda, involving fourth-grade students. This research will take place over two cycles, with two meetings per cycle. The subjects of this research are 29 fourth-grade students at an Islamic elementary school, consisting of 13 boys and 16 girls. The following is the flow of the classroom action research in Figure 1.

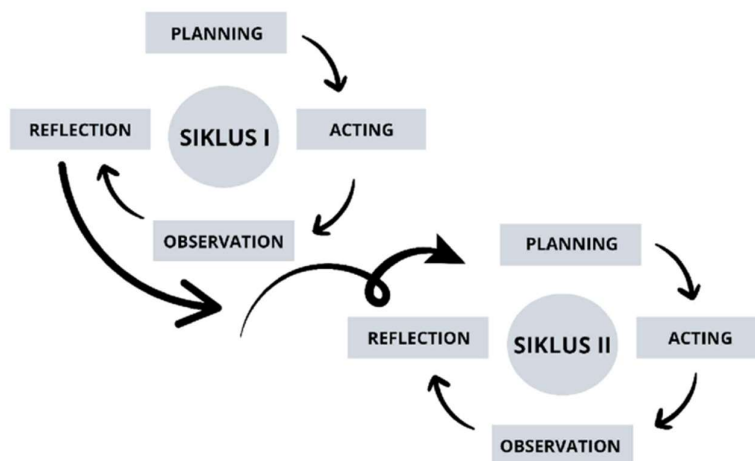


Figure 1. Classroom Action Research Diagram

The research tools include 1) Syllabus, 2) Lesson Plans, and 3) Assessment Instruments.

a. Syllabus

A syllabus is a learning plan for a subject that includes competency standards, basic competencies, main material, learning activities, indicators, assessments, time allocation, and learning resources. The syllabus is also used as a guideline for creating lesson plans.

b. Lesson Implementation Plan

The lesson plan is a set of plans that outline the processes and procedures for organizing learning activities to achieve core competency as defined in the content standards and the syllabus.

c. Observation Sheet

Observation sheets are more structured, containing detailed guidelines containing the steps to be taken, allowing observers to simply check off the steps or count the frequency with which the subjects have completed them.

The assessment of learning outcomes consists of starting, taking off, and landing. Assessment occurs during the learning process, concurrently with observations of deficiencies in student learning outcomes. Class learning completion is declared complete if more than 80% of students have completed the learning, with a score of >80 for complete and <80 for incomplete.

3. RESULTS AND DISCUSSION

Results

Descriptive Analysis

From the results of initial actions taken with fourth-grade students at the Islamic elementary school Unggulan BTN Pemda, it was found that the students were unable to perform the basic long jump technique in the squat style.

Table 1. Squat Style Long Jump Initial Test

No	Test Results	Number of Students	Percentage	Information
1.	≤ 80	22	72,98%	Not Completed
2.	≥ 80	7	27,02%	Completed

The initial test table for the basic long jump technique using the play approach above shows that students' abilities in learning the long jump using the squat style are still relatively low. Of the 29 students who were the subjects of this study, it turns out that only 7 (27.02%) have achieved learning completion, while the remaining 22 (72.98%) have not. The average score for the students' learning outcomes was 60.23.

Table 2. Learning Outcomes of Cycle I Long Jump Squat Style

No	Test Results	Number of Students	Percentage	Information
1.	≤ 80	13	45,95%	Not Completed
2.	≥ 80	16	54,05%	Completed

From the description of the learning outcomes of cycle I of the squat long jump learning process using a play approach above, it can be seen that students' abilities in learning the squat long jump are still relatively low. Out of the 29 students involved in this study, only 16 (54.05%) successfully completed the learning process, while the remaining 13 (45.95%) did not. The average score for student learning outcomes was 76.08. Students experience difficulties in learning the squat long jump using a play approach, including a lack of basic push-off techniques and some students' feet passing

the take-off board during the jump. To overcome this, the teacher will make the next game even better and include all the basic techniques of the run-up, push-off, floating position, and landing in the squat long jump. Students are still hesitant to jump during the push-off process. To overcome this, the teacher repeats the game several times so that students become more accustomed to jumping. Since the learning completion rate is below the class standard of 80%, this learning will proceed to cycle II.

Table 3. Learning Outcomes of Cycle II Long Jump Squat Style

No	Test Results	Number of Students	Percentage	Information
1.	≤ 80	5	18,91%	Not Completed
2.	≥ 80	24	81,08%	Completed

From the description in Table 3 of learning outcomes in cycle II of the squat-style long jump learning process using the play approach above, students' abilities in learning the squat-style long jump are still relatively low. Of the 29 students who were the subjects in this study, it turned out that 24 students (81.08%) had learning completion, while the remaining 5 students (18.91%) had not yet achieved learning completion. The average value of student learning outcomes was 81.03. These results indicate that there has been an increase and that it has met the class completion criteria of 80% so that this classroom action research ended in this second cycle.

Discussion

Based on the results of classroom action research conducted on fourth-grade students at the Islamic elementary school Unggulan BTN Pemda, it can be concluded that the application of a playful approach to teaching the squat long jump demonstrated a significant improvement in student learning achievement. These findings align with motor learning theory, which emphasizes the importance of a fun approach in developing basic motor skills in elementary school-aged children.

In the initial test, students' ability to perform the basic squat long jump technique was still very low, with only 7 students (27.02%) achieving learning success out of a total of 29. This indicates that the conventional learning approach currently implemented has not been effective in developing students' motor skills. This low learning achievement at this early stage indicates the need for innovation in learning methods that better align with the developmental characteristics of elementary school-aged children.

The implementation of the play-based approach in Cycle I showed significant improvement, with 16 students (54.05%) achieving learning completion, with an average score of 76.08. This improvement confirms the findings of Gallahue and Ozmun's (2006) study, which found that the play-based approach can increase student motivation and participation in movement learning. However, class completion still fell short of the 80% standard, necessitating improvements in subsequent cycles.

Analysis of the difficulties experienced by students in Cycle I revealed that the primary issues lay in basic push-off techniques and movement coordination. Students still struggled with proper push-off, and some committed violations by going over the take-off board. This finding aligns with research by [Kyriakidis et al. \(2022\)](#), which

found that elementary school students require repeated practice and a systematic approach to master the basic long jump technique.

The success of this study in Cycle II, with 24 students (81.08%) achieving learning completion and an average score of 81.03, demonstrates the effectiveness of the improved play-based approach. The drastic increase in learning completion from 54.05% to 81.08% proves that the teacher's game modifications were on target. These results support constructivist learning theory, which emphasizes the importance of meaningful and enjoyable learning experiences.

The playful approach applied in this study proved effective in addressing students' psychological issues, particularly hesitation and fear of jumping. According to [Harris et al. \(2024\)](#) research, a playful approach can reduce student anxiety and increase confidence in performing complex movements. The teacher's repetition of games helps students become more accustomed to and confident in performing long jump techniques.

The improvement in basic technical skills of the approach, takeoff, floating position, and landing, integrated into the game, demonstrates the advantages of a holistic approach to motor skills learning. Research conducted by [Invernizzi et al. \(2019\)](#) confirms that motor skills learning is more effective when all technical components are taught in an integrated manner through fun activities. This benefit is evident in the increase in students' average scores from 60.23 in the initial test to 81.03 in the second. The characteristics of elementary school-aged children's motor development, which is more responsive to learning through play, also support the success of this study. According to [Lee and Schmidt \(2025\)](#) motor development theory, children between the ages of 9 and 10 have rapidly developing coordination skills that can be maximized through varied and fun activities. The play approach provides the right stimulus to optimize motor development at this stage.

The intrinsic motivation developed through a playful approach was a key factor in the success of this research. [David and Weinstein \(2024\)](#) stated that enjoyable activities that provide appropriate challenges will increase students' intrinsic motivation. This was evident in the increasing student enthusiasm from cycle I to cycle II, which ultimately resulted in improved learning outcomes.

The integration of all components of the basic long jump technique into a single playful activity demonstrated the effectiveness of the integrated learning approach. Research by [Vanhala et al. \(2023\)](#) demonstrated that learning complex motor skills is more effective when broken down into components that are then reintegrated into a single, enjoyable activity. This strategy has proven successful in improving overall understanding and mastery of the technique.

Increasing student confidence in jumping is an important indicator of the success of the playful approach. [Schunk and DiBenedetto \(2021\)](#), in his self-efficacy theory, explains that repeated experiences of success increase a person's belief in their abilities. The repetition of the game used in this study provided students with the opportunity to experience success gradually, thereby reducing feelings of doubt and fear.

The 81.08% class completion rate in Cycle II indicates that the play approach is effective for teaching the squat long jump at the elementary school level. These results align with research by [Prasetyo \(2016\)](#), which found that the play approach can increase motor skill completion by up to 80% compared to conventional methods. This success demonstrates that the play approach can be an alternative solution to address students' low motor skill mastery.

The teacher's improvements in designing a more comprehensive game in Cycle II demonstrate the importance of reflection and evaluation in classroom action research. Kemmis and McTaggart emphasized that the reflection-action-evaluation cycle is key to successful classroom action research ([Puri, 2023](#)). The teacher's ability to identify weaknesses and improve learning strategies is a determining factor in achieving learning objectives ([Marantika, 2021](#)).

The success of this study has important implications for the development of physical education instruction in elementary Research demonstrates that the play-based approach not only enhances learning outcomes but also concurrently fosters the development of students' affective and psychomotor aspects. This supports the holistic learning concept proposed by McFarlane (2021) regarding the importance of developing multiple intelligences through varied and enjoyable activities. This study's success rate, which increased.

The increase in learning outcomes from 27.02% to 81.08% provides strong empirical evidence of the effectiveness of the play-based approach in teaching the squat long jump. This 54.06% increase demonstrates that the play-based approach not only has a statistically positive impact but is also practically significant in improving the quality of physical education instruction in elementary schools.

The results of this study confirm that the play-based approach is an appropriate learning strategy for developing elementary school students' motor skills, particularly in the squat Research has proven that integrating cognitive, affective, and psychomotor aspects into play activities creates a conducive and effective learning environment. Thus, this research makes a significant contribution to the development of a more innovative physical education learning methodology that is appropriate to the characteristics of child development.

4. CONCLUSION

The conclusion of this study indicates that learning through a playful approach can improve the learning outcomes of fourth-grade students in the basic squat long jump technique at the Islamic elementary school Unggulan BTN Pemda. Initial test results indicated that only 27.02% of students achieved learning completion. After implementing the playful approach, learning completion increased to 54.05% in the first cycle and 81.08% in the second cycle, with an average score of 81.03. This improvement demonstrates the effectiveness of the playful approach in overcoming difficulties in the basic long jump technique. The implementation of the playful approach has been proven effective in

improving fourth-grade students' learning outcomes in the basic squat long jump technique, with learning completion reaching the standard of 80%.

As a recommendation, practitioners can implement a playful approach in teaching the squat long jump to increase learning motivation and learning outcomes in elementary school students. Furthermore, further research can develop a more specific and effective playful approach to improve learning outcomes in the squat long jump in elementary school students. Future research can compare the playful approach with other methods to improve learning outcomes in the squat long jump in elementary school students.

REFERENCES

- Badwi, A., Arba, M. A., Rahmatullah, W., Rerung, C. T., Aulria, S. N. M., Arga, A., & Hasran, H. (2025). Socialization of Petanque Sports at SMAS YASPIB Bontolempangan Gowa. *Jurnal Perjuangan dan Pengabdian Masyarakat: JPPM*, 1(2), 1-8. <https://journalpejuang.web.id/index.php/perjuanganpengabdian/article/view/14>
- Canata, G. L., Casale, V., Ferrario, A., Calderoni, E. F., Zanon, G., & Bidoglio, F. (2022). Athletics, sprints, hurdles, high jump, long jump, triple jump, distance running. In *Specific Sports-Related Injuries* (pp. 187-196). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-66321-6_12
- David, L., & Weinstein, N. (2024). Using technology to make learning fun: technology use is best made fun and challenging to optimize intrinsic motivation and engagement. *European Journal of Psychology of Education*, 39(2), 1441-1463. <https://doi.org/10.1007/s10212-023-00734-0>
- Harris, S., Massey, S., Cordner, C., & Scott Jones, J. (2024). Less Anxious, More Confident: the Use of Playful Pedagogy to support student learning of quantitative methods. In *10th International Conference on Higher Education Advances (HEAd'24)* (pp. 665-672). Universitat Politècnica de València.
- Hart, K., Madrigal, L., Ede, A., & Fogaca, J. (2024). Examining classroom learning behaviors academic and athletic motivation in collegiate athletes. *Journal of Intercollegiate Sport*, 17(2).
- Hellín, C. J., Calles-Esteban, F., Valledor, A., Gómez, J., Otón-Tortosa, S., & Tayebi, A. (2023). Enhancing student motivation and engagement through a gamified learning environment. *Sustainability*, 15(19), 14119. <https://doi.org/10.3390/su151914119>
- Invernizzi, P. L., Crotti, M., Bosio, A., Cavaggioni, L., Alberti, G., & Scurati, R. (2019). Multi-teaching styles approach and active reflection: Effectiveness in improving fitness level, motor competence, enjoyment, amount of physical activity, and effects on the perception of physical education lessons in primary school children. *Sustainability*, 11(2), 405.
- Keung, C. P. C., & Cheung, A. C. K. (2019). Towards holistic supporting of play-based learning implementation in kindergartens: A mixed method study. *Early Childhood Education Journal*, 47(5), 627-640. <https://doi.org/10.1007/s10643-019-00956-2>
- Konstantinidou, E., Gregoriadis, A., Grammatikopoulos, V., & Michalopoulou, M. (2014). Primary physical education perspective on creativity: The nature of creativity and creativity fostering classroom environment. *Early Child Development and Care*, 184(5), 766-782.

- Kunaedi, D. (2018). Meningkatkan Kesegaran Jasmani Siswa Kelas VI SD Negeri 2 Sidamulya Melalui Pendekatan Bermain dalam Pembelajaran Pendidikan Jasmani Olahraga Dan Kesehatan. *Pedagogi*, 3(1), 316879.
- Kyriakidis, G., Chatzopoulos, D., Paraschos, I., Panoutsakopoulos, V., Kollias, I. A., & Papaiakevou, G. I. (2022). The effect of blended learning new technologies and direct video feedback on the long jump technique in primary school students. *International Journal of Human-Computer Interaction*, 38(6), 529-540. <https://doi.org/10.1080/10447318.2021.1952378>
- Lee, T. D., & Schmidt, R. A. (2025). *Motor learning and performance: From principles to application*. Human Kinetics.
- Lo, K. W., Ngai, G., Chan, S. C., & Kwan, K. P. (2022). How students' motivation and learning experience affect their service-learning outcomes: A structural equation modeling analysis. *Frontiers in psychology*, 13, 825902.
- Marantika, J. E. R. (2021). Metacognitive ability and autonomous learning strategy in improving learning outcomes. *Journal of Education and Learning (EduLearn)*, 15(1), 88-96.
- McFarlane, D. (2021). Multiple intelligences: The most effective platform for global 21st century educational and instructional methodologies. *College Quarterly*.
- Molly, H., & Weight, E. A. (2019). Education through athletics: Interest in an athletics performance curriculum. *Journal of Applied Sport Management*, 11(4), 6. <https://doi.org/10.18666/JASM-2019-V11-I4-9608>
- Nawir, N., Jamaluddin, J., & Hudain, M. A. D, MNI, & Arga, A.(2023). Meningkatkan Kemampuan Passing Bawah Bolavoli Melalui Media Pembelajaran Audio Visual Pada Siswa Kelas IV di UPT SPF SD Inpres Rappokalling I Kota Makassar. *Journal on Education*, 6(1), 2318-2326.
- Nurbakti, N. H. (2020). Upaya Meningkatkan Kemampuan Senam Lantai Tanpa Alat Siswa Sekolah Dasar melalui Pendekatan Bermain. *PEDADIDAKTIKA: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 7(3), 36-45. <https://ejournal.upi.edu/index.php/pedadidaktika/article/view/28023>
- Nursaid, N., Nuraini, S., & Novitasari, D. R. (2023). How" influence" do media, facilities, and learning interests influence students' economic learning outcomes?. *Assyfa Journal of Multidisciplinary Education*, 1(1), 41-49.
- Parker, R., Thomsen, B. S., & Berry, A. (2022). Learning through play at school—A framework for policy and practice. In *Frontiers in Education* (Vol. 7, p. 751801). Frontiers Media SA.
- Prasetyo, K. (2016). Penerapan Pendekatan Bermain untuk Meningkatkan Hasil Belajar Lompat Jauh Gaya Jongkok Pada Siswa Kelas 5 Sekolah Dasar. *Scholaria: Jurnal Pendidikan Dan Kebudayaan*, 6(3), 196-205. <https://doi.org/10.24246/j.scholaria.2016.v6.i3.p196-205>
- Puri, G. (2023). Participatory action research in social sciences and education. *Journal of NELTA Gandaki*, 6(1-2), 66-77.
- Rico-Gonzalez, M. (2023). Developing emotional intelligence through physical education: A systematic review. *Perceptual and Motor Skills*, 130(3), 1286-1323. <https://doi.org/10.1177/00315125231165162>
- Saniyah, U. (2019). Peningkatan Hasil Belajar Lempar Turbo Dengan Metode Bermain Lempar Bola. *Jurnal Penelitian Pendidikan Indonesia (JPPI)*, 4(1), 2477–3921. <https://i-rpp.com/index.php/jpp/article/view/980>
- Schunk, D. H., & DiBenedetto, M. K. (2021). Self-efficacy and human motivation. In *Advances in motivation science* (Vol. 8, pp. 153-179). Elsevier. <https://doi.org/10.1016/bs.adms.2020.10.001>

- Suwardi., Saleh, M. S., & Arga. (2024). Keterampilan Kids Athletics Siswa UPTD SD Negeri 164 Barru Kecamatan Pujananting Kabupaten Barru. *Journal Physical Health Recreation (JPHR)*, 4(2), 532-538.
- Suwardi., Hudain, M., A., Fahrizal, Adil, A., Rachmat Kasmad, M., & Arga. (2025). Pelatihan Terstruktur Di SDN Paccinangan Tentang Dribbling Bola Basket. *LITERA ABDI: Jurnal Pengabdian Masyarakat*, 2(1), 88-95. <https://doi.org/10.59734>
- Thompson, F., Rongen, F., Cowburn, I., & Till, K. (2022). The impacts of sports schools on holistic athlete development: a mixed methods systematic review. *Sports medicine*, 52(8), 1879-1917. <https://doi.org/10.1007/s40279-022-01664-5>
- Vanhala, A., Haapala, E. A., Sääkslahti, A., Hakkarainen, A., Widlund, A., & Aunio, P. (2023). Associations between physical activity, motor skills, executive functions and early numeracy in preschoolers. *European journal of sport science*, 23(7), 1385-1393.
- Wang, J., Yang, Y., Liu, H., & Jiang, L. (2024). Enhancing the college and university physical education teaching and learning experience using virtual reality and particle swarm optimization. *Soft Computing-A Fusion of Foundations, Methodologies & Applications*, 28(2).