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GAMIFIED DIGITAL SELF-CONTROL IN A 12-MONTH SPEED-STRENGTH PROGRAM FOR 11-14-YEAR-OLD FEMALE BOXERS

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Abstract

This article proposes a gamified digital self-control model for a 12-month speed-strength program in 11-14-year-old female boxers. The focus is not on entertainment, but on pedagogically meaningful motivation, training discipline and reflective participation of the athlete. The model integrates the Boxing Force mobile application with monthly goals, readiness marks, technique quality badges, recovery notes and coach feedback. In contrast to ordinary monitoring, gamified self-control encourages the athlete to understand why a load is increased, maintained or reduced. The article shows that digital self-control can strengthen adherence, support safe progression and connect speed-strength training with personal responsibility in the educational-training stage.

Keywords

gamification, self-control, mobile application, Boxing Force, 12-month program, female boxers, motivation, speed-strength training.

Introduction

The educational-training stage is not only a period of physical development; it is also a period in which the athlete learns discipline, self-observation and responsibility for the training process. For 11-14-year-old female boxers, speed-strength training can be demanding because exercises are short, intensive and technically strict. If the athlete does not understand the purpose of the task, motivation may decrease or the training may turn into mechanical repetition.

Mobile technologies allow the coach to make the training process more visible. However, simple recording of repetitions and results is not enough. Young athletes need understandable feedback, short goals and positive reinforcement that supports the correct behavior. This is where gamified self-control can be useful. Gamification in this article means the pedagogical use of points, badges, levels,

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progress bars and reflection tasks to strengthen training discipline and technique quality, not to replace serious sport preparation with a game.

The purpose of this article is to develop a model of gamified digital self-control within a 12-month speed-strength program for young female boxers. The novelty of the topic is that the Boxing Force mobile application is considered not only as a monitoring tool but also as a motivational and educational platform. The model helps the athlete see progress, understand load correction and participate in feedback with the coach.

Methods

The article uses pedagogical modeling and structural analysis of a 12-month training program. The program is divided into four macro blocks: adaptation and technical base; development of rate of force and rotational power; special intensification; realization and stabilization. For each block, a gamified self-control layer is proposed. The layer includes athlete readiness, technique quality, completion of micro-goals, recovery discipline and coach comments.

The mobile application architecture is based on three feedback channels. The first channel is athlete-to-application: the athlete enters readiness, fatigue, mood and recovery notes. The second channel is application-to-coach: planned and actual load profiles, technical marks and adherence indicators are summarized. The third channel is coach-to-athlete: the coach explains progress, gives a badge or correction and sets the next goal. This three-channel feedback makes the program more transparent.

Table 1. Gamified self-control layer in the 12-month program.

Program block	Main training aim	Gamified element	Pedagogical meaning
Months 1-3	Adaptation, posture, support	Technique base badge	Reward stable stance and correct guard, not maximum force
Months 4-6	Rate of force and rotation	Power transfer level	Show progress from support to punch trajectory
Months 7-9	Special intensification	Consistency streak	Encourage safe completion of intensive stations
Months 10-12	Realization and stabilization	Competition readiness profile	Connect training indicators with controlled performance

To avoid superficial gamification, the model uses only pedagogically justified rewards. A badge is given for correct movement quality, regular recovery notes, stable readiness reporting and improved technical transfer. It is not given for uncontrolled intensity or excessive volume. The coach can remove or postpone a progression if the athlete collects points but violates safety rules. Thus, game elements support sport pedagogy rather than distort it.

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Results

The first result of the model is improved visibility of the training process. The 12-month program becomes easier to understand because each block has a clear goal and a visible progress indicator. A young boxer can see that the first months are not "weak" training; they are the base for later power. The athlete can also see why a session is repeated, why resistance is reduced or why recovery becomes the priority.

The second result is better athlete participation in feedback. Instead of receiving only a coach command, the athlete learns to compare readiness, technical quality and effort. For example, if the application shows high subjective fatigue and the coach observes a drop in guard after punching, the athlete understands why the next session is corrected. This develops responsible self-control, which is especially important for adolescent athletes.

Table 2. Digital feedback rules for gamified self-control.

Digital or visual signal	Badge or warning	Coach message	Training action
Stable technique and good recovery for two weeks	Progress badge	You are ready for one-step progression	Increase only one load parameter
High effort with unstable punch return	Technique warning	Power is useful only with guard recovery	Return to bridge drills and lower resistance
Regular readiness and recovery notes	Self-control badge	Your diary helps planning	Maintain current block and improve consistency
Missed notes and irregular attendance	Adherence warning	Training effect needs rhythm	Simplify goals and restore routine
Left-right asymmetry grows	Balance warning	Both sides must develop safely	Add unilateral correction drills

The third result is a safer progression logic. In ordinary gamification, athletes may try to collect points by doing more. In the proposed model, the highest value is assigned to quality, stability and conscious recovery. This directs motivation toward the correct behavior. The mobile application becomes a digital environment where effort, technique and recovery are interpreted together. Consequently, the 12-month program becomes not only a training plan but also a system of guided self-education.

A fourth result is the formation of a measurable motivational route during the whole year. The athlete does not wait until the end of the program to see success. She receives small pedagogical signals after each microcycle: stable attendance, honest self-reporting, improved technique, better recovery, controlled intensity and

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reduced asymmetry. These signals are not medals; they are educational feedback that teaches the athlete what kind of behavior leads to long-term progress.

Table 3. Monthly motivational indicators used in the mobile application.

Indicator	What is recorded	Positive criterion	Pedagogical message	Risk if ignored
Training rhythm	Attendance and completed sessions	Regular participation during the month	Progress needs continuity	Irregular adaptation
Readiness honesty	Self-reported fatigue and mood	Stable and realistic entries	The athlete learns self-observation	Hidden overload or false confidence
Technique quality	Coach mark after key drills	Guard, stance and trajectory preserved	Quality is more important than points	Bad habits become reinforced
Recovery discipline	Sleep and recovery notes	Improved routine before intense blocks	Recovery is part of training	Higher fatigue and lower motivation
Self-correction	Response to coach feedback	Error is corrected in the next session	Feedback is used actively	Passive execution and poor transfer

The motivational route should be individual. Some athletes need support for confidence, others need reminders about accuracy and patience. For this reason, the application should not rank children only by points. A ranking system may be useful in short tasks, but it can also create unnecessary pressure. A safer solution is a personal progress profile in which each athlete competes primarily with her own previous result. This principle is closer to the educational purpose of youth sport.

The coach can also use the application for short reflection at the end of the session. The athlete answers one practical question: What helped me perform the punch better today? This question directs attention to the cause of progress, not only to the result. Over time, the athlete learns to connect sleep, readiness, warm-up quality, stance, support, rotation and recovery with the final boxing action. Such reflection strengthens both sport performance and general pedagogical development.

For practical implementation, gamified self-control should follow a short weekly algorithm. The athlete receives one goal, performs the training tasks, enters readiness and recovery notes, receives coach feedback and sees a visible progress mark. The number of goals must be limited. When too many badges or indicators are used, attention becomes scattered and the educational effect decreases.

Table 4. Weekly algorithm of gamified digital self-control.

Stage	Digital action	Coach role	Educational result
Goal setting	One weekly goal appears	Explains why this goal	Athlete understands the

	in the application	matters	purpose
Session record	Readiness, effort and completion are entered	Checks honesty and accuracy	Self-observation becomes regular
Technique mark	Coach adds a short quality note	Connects mark with concrete movement	Feedback becomes understandable
Recovery mark	Sleep or recovery note is recorded	Reminds that recovery is part of training	Healthy routine is strengthened
Weekly reflection	Athlete answers one question	Selects one correction for next week	Self-control becomes conscious

A weekly algorithm is more effective than a long list of digital tasks because it respects the age of the athletes. Young boxers need routine, clarity and short feedback. When the athlete understands one goal and receives one correction, the probability of real behavioral change is higher. This makes the 12-month program not only a plan of physical development, but also a school of disciplined sport behavior.

Discussion

Gamification in sport training is sometimes criticized because it may simplify complex preparation. This criticism is valid if points replace coaching judgment. In the proposed model, however, game elements are subordinate to pedagogical goals. The athlete is not rewarded for uncontrolled intensity; she is rewarded for technical accuracy, stable attendance, honest readiness reporting and safe progression. This makes gamification a tool of education, not entertainment.

For 11-14-year-old female boxers, such an approach can be especially useful. At this age, motivation is influenced by visible success, social recognition and a sense of competence. A mobile application can show small achievements that might otherwise remain invisible: better recovery habits, fewer technical errors, improved consistency or more accurate self-assessment. These achievements support confidence and reduce the risk that the athlete evaluates herself only by sparring results.

The model also helps the coach communicate more clearly with parents and athletes. When the program has monthly goals, readiness profiles and feedback notes, load correction becomes understandable. A reduction of intensity is not perceived as punishment; it is explained as a planned pedagogical decision. This is important in young athletes, where safety, health and long-term development must be more important than short-term records.

A limitation of the model is the need for coach discipline. The application will be useful only if data are entered regularly and interpreted correctly. The coach should avoid excessive screen time and keep the main attention on movement

quality. The digital component must serve the training process, not dominate it. Therefore, the recommended practical rule is simple: record only information that can change the next coaching decision.

The gamified model should also include ethical limits. The coach must avoid public comparison that humiliates weaker athletes. The application should emphasize personal progress, effort quality and responsibility. When the athlete sees that honest fatigue reporting is rewarded, she is less likely to hide tiredness in order to look stronger. This is an important safety and educational function.

Parents can be involved in the system only through simple and non-competitive information. For example, they may see attendance, recovery reminders and monthly goals, but they should not pressure the child to collect more points. The pedagogical purpose is to create support around the athlete, not external control that increases anxiety. In this form, digital self-control becomes part of a healthy sport environment.

Conclusion

Gamified digital self-control can be an effective pedagogical addition to a 12-month speed-strength program for 11-14-year-old female boxers. The Boxing Force mobile application can connect training goals, athlete readiness, technical quality, recovery and coach feedback in one system. The practical value of the model is that it strengthens motivation without weakening discipline, supports safe progression and teaches young athletes to participate consciously in their own preparation.

For successful implementation, gamification must remain moderate, transparent and quality-oriented. Its strongest function is to help the athlete understand the meaning of training decisions and develop self-control habits.

REFERENCES:

1. Bompa T., Buzzichelli C. Periodization: Theory and Methodology of Training. Human Kinetics, 2019.

2. Issurin V. Block Periodization: Breakthrough in Sport Training. Ultimate Athlete Concepts, 2008.

3. Lloyd R., Oliver J. Strength and Conditioning for Young Athletes: Science and Application. Routledge, 2014.

4. Faigenbaum A., Myer G. Resistance training among young athletes: safety, efficacy and injury prevention effects. British Journal of Sports Medicine, 2010.

5. Deci E., Ryan R. Intrinsic Motivation and Self-Determination in Human Behavior. Plenum, 1985.

6. Deterding S., Dixon D., Khaled R., Nacke L. From game design elements to gamefulness: defining gamification. Proceedings of MindTrek, 2011.

7. Chaabene H., Tabben M., Mkaouer B. et al. Amateur boxing: physical and physiological attributes. Sports Medicine, 2015.

8. Lenetsky S., Brughelli M., Nates R. et al. Defining the phases of boxing punches. Journal of Strength and Conditioning Research, 2020.