

LTAD Concept Learning To Train Stage of Taekwondo Sport: Narrative Study

Nur Styasih, Sugiyanto, Hanik Liskustyawati, Slamet Riyadi

Universitas Sebelas Maret
nurstyasih@student.uns.ac.id

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Abstract

LTAD was initiated by Balyi has stages, one of which is the learning to train stage aged 8-12 years. This stage is entering the golden age and crucial, as coaches need to understand this basic concept. But some previous studies say there is still a need for information and evidence to support this concept. The purpose of this study is to provide information about the concept of LTAD learning to train taekwondo stage through literature review studies as a research method. Based on document analysis in the form of relevant articles and ebooks, the learning to train stage emphasizes self-control, respect, perfecting basic technical skills with a playful approach, developing tactical and practical knowledge and learning basic strategies for defense and attack. Develop special skills, develop speed, agility, balance, eye and hand coordination. It has begun to introduce exercise tools such as medicine balls and other tools. Emphasis on concentration, emotional control, self-confidence. Practice is about 70% and match is 30%. At this stage, the main goal is not to win, but the athlete can integrate the exercises that have been obtained. The author hopes that this study will provide information for taekwondo practitioners and academics related to the LTAD concept of learning to train. This study is only narrative, future research needs to use experimental and longitudinal methods to test the effectiveness of the LTAD concept

Keywords: Long term athlete development, learning to train, taekwondo

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INTRODUCTION

Taekwondo is a martial art born in Korea. Taekwondo is now very popular among children, teenagers and adults. The purpose of taekwondo is as diverse as to protect oneself, to maintain health and to achieve achievements. When discussing achievement sports, especially taekwondo sports, the study is very complex. Internal and external factors need to be considered and must be managed properly so that their achievement can be optimal (Simanjuntak et al., 2022; Yudhistira, 2023; Yudhistira, Siswantoyo, et al., 2021; Yudhistira, Suherman, et al., 2021; Yudhistira & Tomoliyus, 2020). Internal factors include motivation, interest and mental rigidity of the athlete, anthropometric characteristics and physical condition of the athlete (Balyi et al., 2013). In addition, external factors such as human resources include the quality of reliable trainers, good managerial and organizational, training and sponsorship facilities and infrastructure, training programs and a good environment (Balyi et al., 2013). In connection with the above, the concept of coaching achievements for athletes initiated by itsvan balyi has been successful (Balyi et al., 2013).

The concept of athlete coaching is called LTAD long-term athlete development (Balyi & Way, 2014). This concept has been widely applied to sports games and martial arts. The LTAD concept offers age-appropriate coaching chronologically for early childhood athletes to senior athletes (Balyi & Way, 2014). This LTAD managerial has had a positive impact on sports achievements. We can see when this concept has been realized that the exercises applied not only discuss how athletes can master psychomotor aspects, but other aspects such as cognitive and cognitive can be fostered holistically in the LTAD concept. LTAD has several stages including active star, fundamental, learning to train, training to train, learning to complete, training to complete, learning to win, training to win, and active for life. All these aspects must be passed gradually, and of course every stage has a lot to learn based on modern science (Abdelrasoul, 2015). In addition, one of the stages in the very basic LTAD concept is the age of 9-12 years (Apollaro et al., 2022). This age is included in the learning to train category, meaning that this is the golden age period to optimize skills and physical components (Balyi et al., 2013). Studies state that the learning to train stage of exercise that is emphasized is skill-based exercise and coordination. Training at this stage provides a balance between taekwondo training as a fight and taekwondo as a martial art (Grandmaster Kee Ha & President, 2012).

However, information related to long-term athlete development (LTAD) as a whole cannot be said to be evenly distributed, such as in areas with smaller coverage. This can be proven by observational studies that the concept of LTAD is needed for more focused information for taekwondo trainers who do not yet understand the concept of LTAD, especially in training programs. Moreover, at the learning to train stage because this stage is the golden age to optimize aspects of good technique and physical literacy. In addition, scientific evidence states that scientific proof is needed regarding the effectiveness of the LTAD concept in the future (Drid, 2018)

One solution is to hold training, coaching clinics related to coaching taekwondo athletes that emphasize the LTAD concept from the beginning. However, achievement coaching can be realized when all elements from internal and external support each other and are adequate (Hadi et al., 2022). The progress of good sports coaching should get strong support from outside and inside (Akhiruyanto et al., 2022). Although one solution has been described such as conducting special training and coaching clinics and conducting research to test the effectiveness of the LTAD concept. Dissemination efforts through newspapers, journal articles, national and international proceedings are still needed in order to be a reference for practitioners and academics. Based on this urgency, the purpose of this paper is to provide information about the

concept of LTAD specifically in taekwondo at the learning to train stage including how the concept of training is in accordance with the principles of modern sport science

METHODS

This research method is a literature study with a type of narrative review (Yudhistira et al., 2023). The narrative method is a type of research through experience, interviews, photography, biography and through human experience (Basyit et al., 2020). The narrative review research method used uses a review of Library and information Science (LIS) study publications or through document analysis in the form of ebooks, books and journal articles related to the study to be discussed (Basyit et al., 2020). The database used to collect documents is google scholar, scopus.com, semanticsscholar.org, Mdpi.com, lww.com, pubmed.ncbi.nlm.nih.gov and so on. The data collection criteria are ebooks, books and journal articles published from 2013 to 2023 with the keywords "long-term athlete development", "physical coaching of young athletes", "learning to train stage", "taekwondo sports coaching" and those in accordance with the characteristics and related to the study being discussed.

RESULTS AND DISCUSSIONS

Based on the analysis of documents through the screening stage, the author has found articles, ebooks relevant as a result to present discussions and conclusions on this study. To make it clearer, data in the form of relevant articles is presented in the table below as follows:

Table 1. The results of 10 documents in the form of original articles and literature review

No	Nama Penulis	Judul
1	Carvalhinho, L., & Mata, C. Tahun 2019 (Mata & Carvalhinho, 2019)	Modelos de formação desportiva para crianças e jovens—uma análise no taekwondo
2	Reginald, R., Fachrezzy, F., & Hermawan, I. Tahun 2021 (Reggie Reginald et al., 2021)	The effect of balance, concentration, and coordination on dollyo chagi kick skills in popb taekwondo athletes in DKI jakarta
3	Drid, P. Tahun 2018 (Drid, 2018)	Science and medicine in combat sports
4	R. Ropret and B. Jevtić. Tahun 2018 (Ropret & Jevtić, 2019)	Long-term athlete development: From theoretical and practical model to cognitive problem
5	K. Nosworthy. Tahun 2019 (Nosworthy, 2019)	Retired Elite Taekwondo Athletes' Perceptions of the Responsibilities of Their National Sports Organization Towards Reporting, Management, and Prevention of Mental Health Issues
6	I. Balyi, R. Way, and C. Higgs. Tahun 2013 (Balyi et al., 2013)	Long-Term Athlete development
7	M. Varghese, S. Ruparell, and C. LaBella. Tahun 2022 (Varghese et al., 2022)	Youth Athlete Development Models: A Narrative Review
8	Sulistiyono et al. Tahun 2021 (Sulistiyono et al., 2021)	The impact of long-term athlete development-based exercise towards physical ability and academic achievement
9	U. Granacher et al. Tahun 2016 (Granacher et al., 2016)	Effects of resistance training in youth athletes on muscular fitness and athletic

10	Grandmaster Kee Ha and President. Tahun 2012 (Grandmaster Kee Ha & President, 2012)	performance: A conceptual model for long-term athlete development Long-term athlete development taekwondo for life national coaching certification program
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The purpose of this study is to provide information and recommendations for training programs that must be developed at the learning to train stage in taekwondo, relevant articles and ebooks related to this study have been found as a basis for compiling comprehensive discussions and conclusions. The learning to train stage is the chronology of ages. We need to know that training for young and senior athletes has different characteristics and nuances (Mata & Carvalhinho, 2019). This characteristic is distinguished by affective, cognitive, psychological levels associated with phases of growth and development (Mata & Carvalhinho, 2019; Nosworthy, 2019). It is therefore important to specialize training based on the content, goals and training process in young and senior athletes (Mata & Carvalhinho, 2019). This paradigm is not only wishful thinking, but must be clearly oriented from the current age and growth process of children and adolescents, as well as the perspective of long-term coaching and adequate training for trainers, coaches and stakeholders who are engaged in sports (Mata & Carvalhinho, 2019). The description is the basis that training in achievement sports must be adjusted based on the level of training, training age, chronological age and must be adjusted to the principles of exercise that have been as guidelines. Like taekwondo, the movement is physical contact so it needs special attention.

Taekwondo is one of the most important martial arts sports in the world and has officially entered the ranks of Olympic sports (Reggie Reginald et al., 2021). Taekwondo is divided into three numbers: kyupa (breaking hard objects), poomsae (moves) and kyorugi (fighting) (Reggie Reginald et al., 2021). In addition, the biomotor components that must be developed in the sport of taekwondo are technique, coordination, flexibility, strength, balance, power, and endurance (Reggie Reginald et al., 2021). Efforts to optimize biomotor and other supporting aspects, the concept of long-term athlete development (LTAD) has been developed. The LTAD concept was initiated by a scientist named Istvan Balyi from Canada, this concept offers stages of sports coaching achievements that are clear according to the chronological age of athletes including stages, namely: active star (0-6 years), fundamental (women 6-8, men 6-19 years), learning to train (women 8-11, men 9-12 years), training to train (women 11-15 years, men 12-16 years), training to complete (women 15-21, male 16-23 years old), training to win (female +18, male +19 years old), and active for life for all ages (Reggie Reginald et al., 2021). The stages that have been explained, the author is interested in further studying the learning to train stage because that age is the golden age to develop skills and physical aspects through a multilateral approach.

The learning to train stage can be said to be the golden stage (Balyi et al., 2013; Varghese et al., 2022). This is an important concern for long-term athlete coaching, coaches and managers. The learning to train stage of chronological age is men and women aged 8-12 years. Another study states that this stage is a directed training development, semi-specialized, the ratio of exercise and competition is 70:30% and this stage can be said to be a key stage for developing aspects of motion coordination (Ropret & Jevtić, 2019). This stage is the acceleration window stage to develop basic abilities and sports skills at its best. It can be described that athletes at that age are thirsty for experience, curiosity is high so as a good coach and manager must determine appropriate and systematic training (Balyi et al., 2013). Therefore it

becomes difficult when we as coaches and managers do not understand the specifics related to this phase.

The peak of acceleration for women begins at the age of 12 while for men at the age of 14 so athletes start training in a more formal way (Grandmaster Kee Ha & President, 2012). However, it should be underlined that training should focus on skills that correspond to the number of activities rather than sport-specific training or focus on specific branches (Grandmaster Kee Ha & President, 2012). The results of training at the learning stage of training taekwondo athletes must show respect and good mentality in all aspects, emphasizing that training or competition is a learning process not the goal of everything (Grandmaster Kee Ha & President, 2012).

The development of skill training in taekwondo, especially at the learning to train stage, needs to receive deep attention in order to get optimal results (Grandmaster Kee Ha & President, 2012). Exercises at this stage are focused on modified phenomena or events (Grandmaster Kee Ha & President, 2012). In addition, decision-making skills must also be developed, because children must be able to decide when to use basic skills and when to apply technical skills (Grandmaster Kee Ha & President, 2012). Further implementation should develop basic skills, focus on improving the technical skills of taekwondo, apply basic skills to small sided games, develop decision-making skills, emphasize fun physical exercise (Grandmaster Kee Ha & President, 2012).

Other studies state that in the development of young athletes it is necessary to approach intrinsically or principles related to social, moral and physical education, for example in judo which has requirements for the ranking of junior athletes according to curriculum and standards such as proficiency in performing technical movements according to age, level of understanding of terminology and competition structure and personal development (Drid, 2018). A recent study on the application of LTAD-based exercise was found with the results that it had a significant impact on physical aspects between the age group of 10 to 12 years but did not have a significant impact on academic achievement (Sulistiyono et al., 2021). Furthermore, research from Granacher implements the LTAD concept in resistance training with the results that training using external weights, plyometrics and complex exercises provides significant improvements to muscle fitness and athletic performance, then balance training becomes the main capital for training in the early stages (Granacher et al., 2016). Below are presented models and training programs at the learning to train stage as follows:

CONCLUSION

Based on the results and discussion through document analysis in the form of articles and ebooks, the LTAD concept at the learning to train stage emphasizes aspects of self-control, attitude and respect, perfects basic technical skills with a fun approach, develops tactical and practical knowledge and learns basic strategies for defense and attack. Develop special skills, develop speed, agility, balance, eye and hand coordination. It has begun to introduce exercise tools such as medicine balls and other tools. Emphasis on concentration, emotional control, self-confidence. Practice is about 70% and match is 30%. At this stage, the main goal is not to win, but the athlete can integrate the exercises that have been obtained. The author hopes that this study will provide information for taekwondo practitioners and academics related to the LTAD concept of learning to train. However, please note the limitations of this study that this study is only narrative, which provides information using the basis of previous studies. Future research needs to use experimental and longitudinal methods to test the effectiveness of the LTAD concept, especially in taekwondo

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