

Exploring Pathways: Constraints, Initiatives, and Alternatives for Introducing Tennis in Primary Education

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Published online: 28 April 2024

To cite this article (APA): Abdul Rahman, M. N. A., Mohd Shariff, A. R., & Mohd Hizan, H. (2024). Exploring Pathways: Constraints, Initiatives, and Alternatives for Introducing Tennis in Primary Education. *Jurnal Sains Sukan & Pendidikan Jasmani*, 13(1), 68–74. <https://doi.org/10.37134/jsspj.vol13.1.8.2024>

To link to this article: <https://doi.org/10.37134/jsspj.vol13.1.8.2024>

ABSTRACT

This study aims to examine the constraints, initiatives, and alternatives of teachers in training primary school tennis players. This study also seeks expert consensus on tennis abilities and suitable equipment for training students to play tennis without a court at school. Information was gathered through surveys and interviews. The study participants included three (3) primary school teachers who coached school tennis players, along with 20 experts in sports science, sports psychology, physical education, module development, and tennis coaching. The interview revealed that teachers have difficulties in training their players, such as no tennis court facilities and limited equipment, inadequate support systems, and a lack of dedication. The teacher's goal is to prepare a team by utilising creativity and available resources as a training platform. Experts' appraisal indicates that the abilities requiring training off the tennis court are sending and receiving for the tactical aspect, and forehand, backhand, volley, and serve for the technical aspect. The equipment needed to play tennis without an actual court is a racket, a net, a level 1 tennis ball (red), a cone, a marker, and a marker line. Ultimately, this study suggests that basic tennis skills can be practiced without an actual court by utilising approved equipment recommended by experts. A tennis sports readiness module should be created for primary school students in Malaysia, based on the study's findings on street tennis, to enhance the competitiveness of tennis sports in the country.

Keywords: Tennis constraints, Tennis initiatives, Tennis alternatives

INTRODUCTION

Sports facilities play a pivotal role in shaping the development of youth athletes, providing them with opportunities for physical, mental, and social growth. These facilities serve as breeding grounds for talent, fostering a culture of discipline, teamwork, and resilience. As underscored by Jones (2018), "Access to quality sports facilities is essential for nurturing the next generation of athletes." From sprawling stadiums to local courts, each facility serves as a cornerstone in the journey of aspiring athletes, offering them a platform to hone their skills and pursue their dreams.

Transitioning from the general realm of sports facilities to a specific domain like tennis, the significance of tailored infrastructure becomes even more pronounced. Tennis, a sport renowned for its precision and finesse, demands facilities that cater to the unique needs of players. Courts with meticulously maintained surfaces, adequate lighting, and seating arrangements not only enhance the playing experience but also mitigate the risk of injuries. Furthermore, the availability of amenities

such as locker rooms, coaching clinics, and equipment rentals can significantly augment the development of budding tennis enthusiasts (Smith, 2019).

However, despite the evident benefits of sports facilities, disparities in accessibility persist, particularly in regions like Malaysia. In Malaysia, the dearth of tennis facilities tailored for children stands as a pressing issue, impeding the holistic development of young talents. As highlighted by Lee (2021), "The lack of child-friendly tennis facilities in Malaysia poses a significant barrier to nurturing talent at a grassroots level." Limited access to courts equipped with scaled-down equipment and specialized coaching programs hampers the participation of children in tennis, thereby stunting the growth of the sport at its grassroots.

The ramifications of this deficiency extend beyond the realm of sports, permeating into various facets of societal development. By depriving children of opportunities to engage in sports like tennis, Malaysia risks depriving them of the numerous benefits associated with athletic pursuits. Research by Tan et al. (2020) emphasizes the positive correlation between sports participation in childhood and academic performance, highlighting the integral role of sports facilities in fostering holistic development. Thus, the inadequacy of tennis facilities for children not only impedes athletic progress but also undermines efforts to cultivate well-rounded individuals equipped for success in diverse spheres of life.

Addressing the lacuna in tennis facilities for children in Malaysia necessitates a multifaceted approach encompassing infrastructure development, community engagement, and policy interventions. Investing in the construction of child-friendly courts equipped with appropriate equipment and amenities represents a crucial step towards democratizing access to tennis. Moreover, forging partnerships with schools, local clubs, and governmental bodies can facilitate the implementation of grassroots development programs aimed at nurturing talent from a young age (Chong & Lim, 2019).

Sports facilities serve as the bedrock of youth athlete development, providing a nurturing environment for aspiring talents to flourish. Within the realm of tennis, tailored facilities play an indispensable role in honing the skills of young players and fostering a culture of sportsmanship. However, disparities in facility accessibility, as exemplified by the case of Malaysia, underscore the need for concerted efforts to bridge the gap. By investing in child-friendly infrastructure and fostering a conducive ecosystem for sports participation, nations can empower their youth to realize their full potential on and off the field.

Since 2017, the Lawn Tennis Association of Malaysia (LTAM) and state tennis development organisations have arranged mini tennis programmes and competitions for children aged 4 to 10. This initiative aims to introduce the sport of tennis to young children and spark their interest in pursuing it. The initiative to introduce and promote tennis among youngsters nationwide aims to boost the sport's appeal in Malaysia, positioning it as a recreational activity and a platform for discovering talent (Lawn Tennis Association of Malaysia, 2022). The sport of tennis in Malaysia will experience enhanced development and competitiveness at the district, state, or national level.

The growth of tennis in Malaysia is sluggish and not very popular among children. Evidence of this may be found through involvement in the MSSD tennis event in Perak, which is unfortunate.

Tennis competitions at the primary school level in Malaysia have become unexciting, and the goal of generating world-class tennis players as desired by LTAM is unattainable. If children in Malaysia are given the chance to participate in tennis, it will enhance the competitiveness of primary school tennis competitions at different levels in Malaysia. This could lead to the discovery of talented Malaysian tennis players and potentially make tennis a popular recreational sport in the Malaysian community. Tennis is considered a sport suitable for all ages and can be enjoyed throughout one's life (Reynolds, 2018).

This study aims to examine the constraints, initiatives, and alternatives of teachers in training primary school tennis players. This study also seeks expert consensus on tennis abilities and suitable equipment for training students to play tennis without a court at school. Information was gathered through surveys and interviews.

METHODOLOGY

The study aims to explore the boundaries, endeavours, and options available to instructors for preparing primary school tennis players to participate in district-level School Sports Council (MSSD) tennis championships. This study also aims to establish expert consensus on tennis skills and appropriate equipment for educating students to play tennis in primary schools where there is no court available.

In order to determine the limitations and efforts related to the implementation of tennis in primary schools, a semi-structured questionnaire was used to collect data through interviews with three primary school teachers (N=3) who had expertise in training school tennis players. The researchers conducted interviews with teachers from three distinct districts in Perak state: Muallim, Kerian, and Larut Matang and Selama. Each interview lasted between 30 to 45 minutes. The interview transcript was analyzed using thematic analysis.

While to identify the alternative of tennis sport at school, experts utilized the Fuzzy Delphi Method (FDM) questionnaire, which was developed by a researcher. The purpose of the questionnaire was to identify the necessary equipment and skills required to play tennis without a tennis court. The researchers had a group meeting at The Malacca Club, Rotunda Melaka on December 21, 2022, with a total of 20 participants, consisting of 19 tennis coaches and one specialist in school curriculum modules, namely in the field of FDM. The collected data was analyzed using the Triangular Fuzzy Number and Defuzzification Process.

RESULTS

Table 1: Barriers and Initiatives based on Interview

Interview Theme	Interview Code
Barries	<ol style="list-style-type: none"> 1. Tennis court and insufficient equipment 2. Support System 3. Student commitment
Initiatives	<ol style="list-style-type: none"> 1. Organising a school tennis team 2. Utilises creativity to train a tennis team

The interview with three informants revealed that the constraint is the absence of a tennis court and insufficient equipment at their school. Furthermore, the second limitation pertains to the support structure for tennis in primary schools. The final limitation is the commitment of the students.

However, the informant implemented other measures to address those limits. The initial step involves teachers organising a school tennis team. The second idea utilises creativity to train a tennis team for participation in the District School Sports Council (MSSD).

According to Table 2, 20 FDM experts have agreed that tennis may be played without a typical court. They also concur that the necessary equipment for playing tennis without an actual court includes a racket, net, level 1 tennis ball (red), code, marker, and marker line.

Table 2: Module equipment/materials based on Fuzzy Delphi analysis (FDM)

No.	Item / Element	Term of Triangular Fuzzy Numbers		Term of Fuzzy Evaluation Process				Experts agreement	Elements Accepted
		Threshold, d values	Percentage of Experts Agreement, %	m1	m2	m3	Fuzzy (A) score		
1	Racket	0.098	90.0%	0.820	0.950	0.990	0.920	ACCEPTED	0.920
2	Net	0.117	100.0%	0.790	0.930	0.985	0.902	ACCEPTED	0.902
3	Cone	0.194	85.0%	0.700	0.860	0.945	0.835	ACCEPTED	0.835
4	Line marker	0.133	95.00%	0.720	0.885	0.970	0.858	ACCEPTED	0.858
5	Marker	0.190	90.00%	0.690	0.855	0.945	0.830	ACCEPTED	0.830
6	Level 1 tennis ball (merah)	0.118	95.00%	0.770	0.920	0.980	0.890	ACCEPTED	0.890
7	Soccer ball	0.256	60.00%	0.560	0.745	0.880	0.728	REJECTED	
8	Basketball ball	0.272	55.00%	0.550	0.735	0.870	0.718	REJECTED	

Based on Table 3, the NGT experts (N = 20) have agreed that the skills that can be trained without using the actual tennis court are sending and receiving for the tactical component, and forehand, backhand, volley, and serve for the technical component.

Table 3: Tactical and technical skills based on Fuzzy Delphi (FDM) analysis

No	Item / Element	Term of Triangular Fuzzy Numbers		Term of Fuzzy Evaluation Process				Experts agreement	Elements Accepted
		Threshold, d values	Percentage of Experts Agreement, %	m1	m2	m3	Fuzzy (A) score		
TACTICAL									
1	sending	0.081	95.0%	0.830	0.960	0.995	0.928	ACCEPTED	0.928
2	receiving	0.106	95.0%	0.800	0.940	0.985	0.908	ACCEPTED	0.908
TECHNICAL									
1	Forehand	0.057	100.0%	0.850	0.975	1.000	0.942	ACCEPTED	0.942
2	Backhand	0.057	100.0%	0.850	0.975	1.000	0.942	ACCEPTED	0.942
3	Volly	0.093	90.0%	0.830	0.955	0.990	0.925	ACCEPTED	0.925
4	Serve	0.039	100.00%	0.870	0.985	1.000	0.952	ACCEPTED	0.952

DISCUSSION

Constraints of tennis in primary school

The study's analysis revealed that the biggest constraint on tennis in primary schools is the absence of a tennis court and limited equipment. Tennis requires a specific court for play, unlike football and badminton, which may be played in many locations such in front of a house. The informant's school has tennis equipment including balls and rackets, but the number is insufficient for all children in the class. Adelman (1986) stated that the quality of tennis facilities has a significant impact on the level of

tennis participation in a region. Despite certain parties aiming to promote tennis in a specific location, the limitations of the tennis court make it difficult to achieve success.

Furthermore, the second limitation is to the absence of a tennis support system in primary schools, including the lack of a tennis club, financial constraints, insufficient modules and exposure, and a shortage of teaching staff. All informants indicated that if they transfer to another school, tennis at their current school will cease to exist. This is due to the lack of tennis-playing teachers in schools, resulting in a lack of exposure to the sport among students. The informant's perspective on financial variables differs. The initial source said that the school could not afford court facilities and did not budget for tennis equipment as there was no tennis club at the school. The second source stressed that the majority of pupils belong to the B40 demographic, and their parents are unable to purchase tennis equipment such as shoes and bags. The third informant likewise discussed the students' origins at his school, noting that many are offspring of farmers and fishermen. The parents believed their children were unable to play tennis due to the high cost of tennis equipment. Calvo et al. (2020) emphasise the need of organising talent development programmes to support children in developing their tennis skills. A poorly trained teacher for an extracurricular club at school can hinder the club's functioning and may even lead to its discontinuation. Inadequate management of the club in an irregular and unsystematic manner can result in failure to achieve the club's goals and objectives, as well as a lack of student interest in participating in the sports offered by the club (Desai & Johnson, 2024).

The final limitation is the commitment of students, which includes their interest, training time, and the quantity of pupils. Each of the three sources has provided varying perspectives on this element. The planned commitment involves interest, training duration, and the quantity of students. Various factors influence this commitment component, leading each informant to have a unique perspective. The researcher discovered that the first, second, and third informants had time constraints when attempting to provide the training. This diminishes kids' enthusiasm for continuing to engage in tennis. Furthermore, the initial informant stated that the issue of a restricted number of school students leading to the formation of the new club is unnecessary. These characteristics discourage certain students from continuing to practise tennis as their motivation declines (Deelen, Ettema & Kamphuis, 2018).

Initiative on tennis in primary schools

The study's analysis revealed that all participants have taken action to address the highlighted restrictions. The initial step was teachers organising a school tennis team. Teachers coach and select athletes for the school tennis team to compete in the District School Sports Council (MSSD) tennis championship. The researcher discovered that the initial informant did not establish a tennis introduction programme at his school. Instead, he identified and coached children with inherent talent in tennis sports. The second informant mentioned conducting a tennis clinic to identify talented individuals who may serve as backup for the current tennis squad. The third informant piqued students' interest in tennis by routinely organising tennis programmes and then choosing athletes based on student accomplishments.

Furthermore, employing creativity to train the tennis team for participation in the District School Sports Council (MSSD) is the second effort focusing on tennis in primary schools. The pupils chosen to represent the school at the MSSD were seen by the researcher to mostly use the sepak takraw court instead of the actual tennis court during training sessions led by the three informants. Students visited an actual courtroom shortly before the start of the MSSD tennis tournament. Abdullah, Rizky & Lusianti (2021) stated that adapting sports equipment for children can enhance their cognitive, affective, and psychomotor abilities in the sport.

An alternative to tennis sport in primary school

The investigation demonstrates experts' consensus on the necessary equipment and abilities to introduce tennis in primary schools, even in the absence of a court. The necessary equipment to train students in tennis without utilising the court includes rackets, netting, cones, marker lines, markers, and level 1 tennis balls (red). By utilising tennis level 1 (red) and expert-approved equipment, the

tennis court no longer poses a barrier to introducing tennis in primary schools. Tennis balls like level 1 (red) tennis balls have been modified to allow tennis to be played in various locations without the need for a certain floor surface, such as grass, cement floors, soil, or tar road (Buszard et al., 2014).

This finding is consistent with the International Tennis Federation's (ITF) suggestion that utilising low-pressure level 1 tennis balls (red) can assist novice tennis players in extending their rallies, thereby enabling them to grasp the fundamental tactical and technical aspects of the sport more effectively.

The research specialists concurred that fundamental tennis abilities appropriate for teaching pupils off the court include sending and receiving skills for the tactical aspect, and forehands, backhands, volleys, and serves for the technical aspect. It can provide primary school pupils with early exposure and increase the competitiveness of tennis at the primary school level indirectly (Krik, 2005).

CONCLUSION

The study revealed limits on tennis in primary schools, including lack of infrastructure (tennis court), inadequate equipment, support systems, and student commitment. The teachers successfully prepared the school tennis team for the District School Sports Council (MSSD) tennis competition by utilising their creativity and available resources. The experts have determined that tennis can be played without a court by employing appropriate equipment such rackets, nets, red level 1 tennis balls, cones, markers, and marker lines. Experts concur that fundamental tennis abilities that can be practiced off the court include sending and receiving for the technical aspect, and forehands, backhands, volleys, and serves for the technical component. This study aims to create a tennis readiness module that does not require a tennis court. The goal is to introduce all primary school students in Malaysia to the sport of tennis, sparking their interest and making tennis more competitive at the primary school level in Malaysia.

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