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EXPLORATION OF ELITE COACHES IN MALAYSIAN SPORTS SCHOOLS IN STUDENT ATHLETE DEVELOPMENT: EVOLVED GROUNDED THEORY APPROACH

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Abstract:

The Malaysian Sports School (MSS) was founded to unite promising studentathletes from various regions of the country, aiming to cultivate and enhance their athletic abilities with aspirations of reaching the international stage. The Ministry of Education Malaysia (KPM) selects coaches with expertise in sports to offer structured guidance and training to chosen MSS student-athletes in order to achieve this goal. To guarantee that the performance of MSS studentathletes stays at its best, the dedication and efforts of KPM and MSS coaches in athlete development are consistently prioritized. Additionally, the enhancement of their professionalism and competence as high-performance coaches is highly demanded by KPM. Therefore, this study aims to explore the aspects and needs of elite MSS coaches in developing student-athletes to reach the highest levels in their respective sports. A qualitative method was used in this study through the Evolved Grounded Theory approach by Strauss and Corbin (1990, 1998, 2008) and The Coaching Model (Côté et al., 1995). The study involves ten selected elite coaches from five MSS. Data was collected through in-depth, semi-structured interviews with open-ended questions, observations, and document analysis. The study identifies two main themes discussing the aspects and needs of coaches in developing student-athletes at MSS, namely knowledge and management. The final findings of this study aim to offer valuable insights to the ministry, school administrators, and coaches, enhancing the development of coaches and student-athletes at MSS and enriching the existing literature in the domain of sports coaching.

Keywords:

Elite Coach, Malaysian Sports School, Sports Development, Sports Coaching

Introduction

The Sports Excellence Centre of the Ministry of Education Malaysia is an institution designated by the ministry to function as a sports hub aimed at identifying and honing the talents of gifted student athletes under the supervision of qualified or competitive coaches (KPM, 2023). Educational institutions function as collective groups of individuals who systematically engage in tasks to achieve shared goals (Deraman et al., 2017; Nadarajan & Ishak, 2023). As a result, changes in the external educational environment greatly affect and bring about various significant shifts in education, posing challenges for teachers (Nadarajan & Ishak, 2023). The rapid progress makes the duties of school directors more complex and demanding (Mohammad et al., 2022). Effective coaches play a vital role in human resource management, driven by two key behaviors: learning and performance. A notable correlation is present between the expertise of coaches in creating sports programs and their organisational management skills, which impacts the recruitment, planning, and strategic approach of effective coaches (Rosalejos & Lubos, 2019). Five MSS were established under the KPM, starting with Bukit Jalil Sports School (BJSS) in 1996 and Tunku Mahkota Ismail Sports School (TMISS) in 1998, as detailed in the Fifth Malaysia Plan (RMKe-5; 1991-1995). The Malaysian Sports School Pahang (MSSP) was established in 2012, followed by the Malaysian Sports School Sabah (MSSS) in 2013, and the Malaysian Sports School Terengganu (MSST) in 2014.

The policy for the Malaysian Sports School (MSS) was created to improve the effectiveness of the Sports Policy, which gained Cabinet approval for the National Sports Policy on 20 January 1988. This policy includes both high-performance sports and leisure activities. KPM plays a crucial role in implementing the National Sports Policy. This policy highlights that sport not only develops competitive and productive individuals but also promotes holistic human development, in line with the goals of the National Education Philosophy (Mohamed et al., 2023). MSS coaches are crucial in cultivating high-potential student-athletes. Through a methodical and planned methodology, they train athletes physically while also cultivating their mental and emotional resilience to confront obstacles at both national and international levels. The role of schools in identifying talents that subsequently evolve into icons is crucial, as the advancement of sports in Malaysia should commence within educational institutions, coinciding with the academic journey from ages 6 to 17 (Deraman et al. 2017; Gopinathan & Charles, 2021). Ahmad (1999) asserted that school sports coaches are pivotal in the formulation of sports development programs and serve as key figures in cultivating and nurturing exceptional student athletes. Coaches serve as initiators or strategists who guarantee that student athletes and their teams can excel in competition, hence attaining achievement (Ismail et al. 2020).

This study highlights several important issues related to the attributes of coaches in Malaysian Sports Schools (MSS). Interviews with principals and administrators of MSS indicated a clear need for coaches to deepen their understanding of coaching knowledge, especially in sports and coaching science, to effectively apply new insights in training. The MSS Monitoring Report from 2018 and 2019 emphasises the significance of coaches understanding

psychological factors and sports management to improve their effectiveness in managing athlete discipline (KPM, 2018, 2019). According to Noor (2014) and Ismail et al. (2020), negative coaching behavior can weaken the bond between the athlete and coach while also reducing the athlete's enthusiasm and drive. Unprofessional or indifferent behavior from coaches can cause athletes to feel undervalued and unmotivated in their pursuit of peak performances. As a result, coaches play an essential role in cultivating a constructive and transparent atmosphere in every interaction with athletes. Din et al. (2015) and Mohamed et al. (2023) suggested that elements such as leadership style, coach job satisfaction, and the administration of effective training programs influence athlete satisfaction. Previous studies have shown that the coaching behaviors assessed by athletes can affect their performance results (Black & Weiss, 1992; Allen & Howe, 1998; Amorose & Horn, 2001; Amorose & Smith, 2003; Govindan, 2019; Puddin, 2023;).

This study aims to explore and evaluate elite coaches at the Malaysian Sports School (MSS) in alignment with The Coaching Model (Coté et al., 1995) for the effective management of an athlete development program. This study is in accordance with the advancement of the national education system, recognizing athletics as an important element and a career opportunity for student athletes (Ismail, 2021). MSS currently has a workforce of 90 full-time qualified trainers (MoE, 2021). Previous studies regarding sports coaching in Malaysian Sports Schools (MSS) have focused on various aspects, such as coaching style, motivation, and goal orientation (Mohd Rasyid, 2009; Noor, 2014), coach leadership style (Anuar et al., 2012), the effectiveness of MSS (Seman et al., 2021), athletes' physical fitness levels (Ahmad, 2021), along with social support and mental health status (Basri, 2018). This study does not provide a comprehensive insight into the role and experiences of elite coaches in MSS, overlooking the challenges, tensions, pressures, and dilemmas they face. Therefore, analyzing elite MSS coaches is essential for understanding their needs and the conditions they face while implementing sports training program designs. This study provides guidance for stakeholders in improving coaching components at MSS and contributes to the development of more effective and competitive sports.

Literature Review

Coaching research, particularly in sports coaching, has expanded dramatically over the previous few decades. Horino (2020) emphasises that coaching entails numerous factors such as behaviour, knowledge, psychology, and interactions between coaches and athletes. Coaching is more than just teaching and training; it also requires a thorough awareness of psychological factors and social dynamics (Szedlak et al., 2015; Embregts et al., 2018). Since the 1970s, coaching research has expanded to include the coaching method, coach behaviour, and skill development (Gilbert & Trudel, 2004; Palumbo, 2023). Awareness of the critical role of coaches in boosting athlete performance has fuelled this surge in study (Rekalde et al., 2015).

The "Multidimensional Model" by Chelladurai (1990) is one of the key models proposed, explaining coach leadership behaviour based on situational elements, leader qualities, and athlete preferences (Mey et al., 2023). This model provides a framework for studying coaches' adaptive approaches in specific circumstances (La Placa & Schempp, 2020). Furthermore, Côté et al. (1995) "Coaching Model" divides coaches' expertise into three categories: competition, training, and organisation. This approach aids in understanding the integration of numerous components in coaching planning (Nugent et al., 2017). While Nash et al. (2011) recognised four major elements in expert coaching: a long-term approach, an authentic learning

environment, training session quality, and the construction of a learning environment. This holistic approach emphasises the importance of developing players physically, psychologically, and emotionally (Newman et al., 2021; Butler, 2024). Recent research has also focused on the creation of realistic models that may effectively meet the needs of coaches and athletes. This incorporates a triangulation strategy to improve data validity and criteria for recognising expert coaches (Patterson & Backhouse, 2018).

With an emphasis on behaviour, skill development, and decision-making processes, coaching research has expanded quickly since the 1970s (Gilbert & Trudel, 2004; Kalashnik et al., 2023). Following 2000, focus turned to coaches' cognitive thinking, which included concepts like knowledge and expertise (Scarvaglieri et al., 2024). Effective coaching is crucial for the development of athletes in a range of sports, according to studies (Hagen et al., 2017). Training efficacy is also influenced by interactions between coaches and athletes. Judo coaches, for instance, employ techniques like giving athletes unfavourable criticism to enhance their performance (d'Arripe-Longueville, 1998). Despite variations in competition levels, Koga and Horino (2012) discovered that coaching concepts, such as skill development and performance, are universal. These findings highlight the significance of a holistic approach to coaching that includes physical, mental, and emotional factors in order to achieve healthy and effective athlete development (Lascu et al., 2021).

However, there is a void in research on the use of Côté et al. (1995) coaching model, which is limited to gymnastics instructors and does not consider the needs of other sports. Furthermore, data gathering and analysis procedures were less methodical back then. In this context, a study of outstanding coaches at the Malaysian Sports School (SSM) is required. This study will not only expand on the features previously included in Côté et al. (1995) conceptual model of coaching but will also provide in-depth insights into the demands, challenges, and issues that coaches confront when shaping professional athletes.

In this regard, a study of elite SSM coaches can assist in understanding how coaches develop the talents of young athletes with the potential to represent the state and country. This will create prospects for a more systematic and complete approach to coaching, empowering Malaysian players and sports development. In-depth and systematic research in this area is required to improve the effectiveness of coaching in the future.

Methodology

The study employed a qualitative methodology, integrating evolved grounded theory (Strauss & Corbin, 1990, 1998, 2008) alongside the coaching model (Coté et al., 1995) to fulfill its aims. To explore complex and contextual social processes that numerical data may not effectively capture, qualitative research is suitable (Merriam & Grenier, 2019). Qualitative research allows for the generation of novel ideas and theories based on data collected directly from participants rather than relying on pre-existing assumptions or hypotheses (Hennink et. al., 2020). This study employs the Evolved Grounded Theory approach, as proposed by Strauss and Corbin (Strauss & Corbin, 1990, 1998, 2008; Karim, 2016), which serves as its qualitative research framework. Strauss and Corbin (1990) developed the Evolved Grounded Theory methodology to create a theory or model by means of careful evidence gathering and analysis. This approach is suitable for analyzing and evaluating top coaches within MSS, emphasizing their roles and involvement in training and developing student athletes' skills to reach higher performance levels.

Participants

This study explores ten distinguished coaches presently involved in the sports development program at MSS. These coaches exhibit exceptional proficiency and extensive experience in their respective sports. The principal responsibility entails equipping prospective student-athletes for competition at both national and international tiers, thereby representing their nation (Karim, 2016). The participant selection was carried out from five distinct MSS: BJSS, TMISS, MPSS, MSSS, and MTSS. The selected participants include individuals engaging in athletics and badminton, as well as those participating in team sports such as football, rugby, and hockey. Participants were recruited using purposive sampling, based on factors relevant to the study's objectives, in accordance with the parameters set forth by Strauss and Corbin (1990). The selection criteria require that candidates hold at least a Level 2 National Coaching Certificate or a similar qualification, in addition to a minimum of five years of experience coaching MSS student-athletes. A demonstrated track record of cultivating outstanding student-athletes at both national and international levels is vital, as is a willingness to completely dedicate oneself to the position.

Sampling

The selected approach of purposeful sampling, as suggested by Lebar (2018), is particularly suitable for qualitative studies. Noor & Fuzi (2024) describe purposive sampling as the process of choosing subjects according to particular traits that are relevant to the goals of the study. This method facilitates the identification of individuals who can provide in-depth and thorough perspectives on the subject under study. Creswell (2022) notes that qualitative studies often employ purposive sampling to identify and select cases that provide rich information pertinent to the phenomenon under investigation. Merriam and Grenier (2019) demonstrate that qualitative evidence synthesis studies can integrate new viewpoints and enrich theoretical diversity by employing purposive sampling. Purposive sampling guarantees that the chosen subjects have the essential traits to effectively and thoroughly tackle the research questions, thus improving the accuracy and validity of the findings.

Data Collection and Analysis

The data for this study were gathered by face-to-face interviews with a semi-structured questionnaire comprising both open and closed questions (Spradley, 1979; Strauss & Corbin, 1990, 1998, 2008; Patton, 2002; Lebar, 2018; Howitt, 2019). Open-ended questions aim to elicit participants' viewpoints and experiences concerning the development of student-athletes, while closed-ended questions concentrate on obtaining demographic and background data from participants. Interviews occur in environments that emphasise comfort and convenience for participants, such as meeting rooms, workplaces, or sports courts. We recorded each interview, with the participants' consent, using a voice recording device for a duration of one hour to one and a half. We transcribed and analyzed the interview records using grounded theory data analysis methods, specifically applying open codes, axial codes, and selective codes (Strauss & Corbin, 1990, 1998, 2008). We methodically develop emerging ideas from fundamental data by coding diverse phenomena and topics (Karim, 2016). We have followed the Standard Operating Procedures (SOP) set forth by the MOE via BPPDP and UPSI, along with participating in ethics training (Creswell & Creswell, 2018). Five experts validated the interview instrument using the Cohen Kappa Coefficient method (Darusalam & Hussin, 2016). The obtained Cohen Kappa value is 0.891, classified as excellent. Triangulation techniques and pilot studies were utilised to guarantee the quality and dependability of the data (Merriam & Grenier, 2019).

This study encompassed a data analysis process that followed the seven steps of Evolved Grounded Theory as detailed by Strauss and Corbin (1990, 1998, 2008), open coding, theoretical sensitivity, axial coding, choice coding, process, visual observation, and sampling theory. A variety of experts in the domain of sports coaching science have integrated these guidelines into their research, including Bloom et al. (1997), d'Arripe-Longueville et al. (1998), Côte & Sedgwick (2003), Irwin et al. (2004), Kitamura et al. (2005), Abraham et al. (2006), Côte & Gilbert (2009), Bennie & O'Connor (2010, 2011), Nash et al. (2011), Karim (2016), Horino (2020) and Ramalu et al. (2021). In conclusion, evolved grounded theory signifies a conceptual or theoretical analysis that emerges from inductive reasoning rooted in data produced during the investigation of a specific context. Employing the Evolved Grounded Theory methodology as described by Strauss and Corbin (1990, 1998, 2008), the examination of the gathered data will facilitate a comprehensive and effective investigation of the research aims and enquiries. The team employed Atlas TI 8.0 software as an additional resource to analyse qualitative data collected from open, semi-structured, and in-depth interviews with MSS elite trainers. This software facilitates organised and adaptable management, coding, linking, mapping, and interpretation of data in alignment with the Evolved Grounded Theory (Friese, 2019).

Result

The findings indicate that the mean age of the participants in the study is 45 years. The age range of participants spans from 35 to 57 years old. Every participant is a male coach with more than five years of service in MSS. Every participant possesses outstanding coaching credentials, featuring a minimum of a level two sports science certificate and a level two sports-specific certificate. This study presents findings that address the objectives concerning the exploration of elite coaches in the development of student athletes. The qualitative data analysis revealed three primary themes: management, support system, and knowledge. This study reveals that the management theme identified through the findings at MSS encompasses the sub-theme of program planning, monitoring and evaluation reporting, alongside sports administration, which plays a crucial role in the development of student athletes. The knowledge theme encompasses three sub-themes that elucidate various aspects of knowledge: coaching knowledge, training modules, and periodisation.

This theme aligns with the research purpose and considers the importance of addressing research objectives related to the exploration of elite MSS coaches in developing student athletes. In this study, open coding yielded 542 codes. The primary objective of open coding was to explore the thoughts, experiences, knowledge, and perceptions of elite coaches throughout their coaching careers to train and refine student athletes. During axial coding, elite MSS coaches elaborate on subcategories in greater detail using the codes they obtained from open coding, identifying the main aspects they undertake and encounter. Consequently, all codes derived from open coding are categorised by identifying causes, effects, and relationships of similarity. The axial codes obtained from re-categorisation are conceptualised as program planning, monitoring and evaluation reporting, sports administration, coaching knowledge, training modules, and periodisation. These codes are structured and classified through an iterative process that can provide meaning, influence one another, and guide the researcher towards the development of core codes. Based on the findings from open and axial coding related to elite coaches in their coaching roles, these codes have been refined more meaningfully, ultimately leading to the emergence of themes that guide the researcher towards core codes.

Knowledge

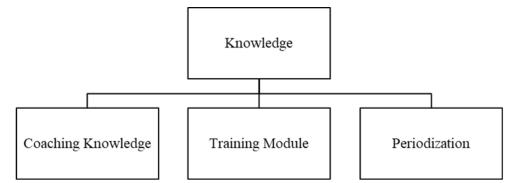


Figure 1: The Main Theme Related To The Knowledge Of Elite Coaches In Developing MSS Student Athletes

The findings of this study reveal that a central theme emerging from the final data analysis is the theme of knowledge. This study explores the theme of knowledge, specifically focussing on the coaching expertise held and applied by MSS elite coaches in the development of MSS student athletes across their respective sports. This theme encompasses various sub-themes, including coaching knowledge, training modules, and periodisation.

This study reveals that, within the overarching theme of knowledge, one significant sub-theme identified through the data analysis process is coaching knowledge. Understanding coaching principles is crucial for becoming an effective and trustworthy coach. This is evident in the feedback provided by several coaches regarding this issue, as outlined below:

"I am currently pleased with the information I possess and consistently remain informed." In this vicinity, I find myself among coaches who possess their own areas of expertise, allowing us to access information more swiftly. The landscape of hockey coaching is constantly evolving over time. It is essential to remain current with developments like this". (Coach J1).

"In the realm of football, we submit proposals annually; however, an attachment program has yet to be established." Currently, AMD holds the top position. Please arrange for a coach to be present at AMD for a duration of two weeks. Even if we don't receive acknowledgement in terms of credentials, we still acquire valuable knowledge. We enhance understanding. An additional attachment will be provided to support the strong teams in the competition. That can also serve as a method to enhance understanding". (Coach J4).

This study examines the training module sub-theme, which encompasses the activities, processes, and systems devised and executed by MSS elite coaches to instruct, develop, and evaluate the skills, abilities, and performance of MSS student athletes. This is evident from the insights provided by certain trainers concerning the sub-theme of the training module. The following individuals provided feedback:

"Currently, the training modules are primarily developed in collaboration with the Sports Division to ensure the quality of the modules." However, concurrently, the coach offers a personalised training module aimed at meeting the KPI". (Coach J3)

"Modules are available, and coaches are motivated to develop their own modules. The modules developed by the coaches are tailored to their specific sports". (Coach J5)

This study also revealed a sub-theme of periodisation, which pertains to elite coaches employing this method to craft training plans that ensure athletes achieve optimal performance levels at the right moment. This study outlines a training plan developed by the MSS coach over the course of one year, focussing on the systematic organisation of training into specific phases tailored to meet the objectives and needs of the athletes. This is evident in the feedback provided by several trainers regarding the periodisation sub-theme. The following are the perspectives shared by various coaches:

"As an MSS coach, it is essential to possess expertise in training planning. Similar to MSS, all coaches are required to structure training periods for athletes or teams. We were provided with the necessary knowledge and training to effectively implement this periodisation. A workshop is typically conducted at the school level. A workshop on periodisation was conducted by the department, featuring experts who provided insights on implementing periodisation strategies for both teams and individuals. The MSS coaches demonstrate a strong understanding of effective periodisation tailored to their specific sports". Coach J10

This study concludes that MSS coaches must enhance and expand their coaching knowledge to deliver optimal service in their roles. While challenges and constraints persist for coaches in their pursuit of knowledge, these should not deter them from continuing to seek out information essential for their professional development, as they remain central to the interests of stakeholders and broader expectations. Furthermore, it is essential for coaches to receive ongoing knowledge, training, and skills to effectively empower and enhance their periodisation plans. The recent achievements of MSS teams and athletes, particularly among juniors, highlight the effectiveness of the widely implemented training programs. This success underscores the positive impact these programs have on the overall development of MSS student-athletes.

Management

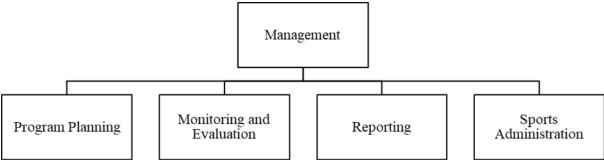


Figure 2: The Main Theme Related To The Management Of Elite Coaches In Developing MSS Student-Athletes

This study reveals that the management theme identified through the findings at MSS encompasses sub-themes such as program planning, monitoring and evaluation, reporting, and sports administration, all of which play a crucial role in the development of student-athletes. This study examines the sub-theme of program planning, focusing on the involvement of MSS elite coaches in the development of sports programs related to their specific sports at MSS. At MSS, top coaches are required to develop annual plans for their specific sports, establishing targets to meet each year. It is essential to communicate all the planning that has been conducted to the school, ensuring that all requirements are adequately prepared and addressed in alignment with the planning necessities, including competition, transport, finance, and other relevant aspects. The coaches who provided feedback pertaining to this sub-theme include the following:

"I will adhere to every strategy I have developed to guarantee the success of the training program we have designed." Program planning at MSS holds significant importance for me. If that's not the case, achieving the target becomes quite challenging, as the expectations for MSS coaches are generally set very high. Typically, we ensure that we reach at least the semi-final, final, or championship stage. It is essential that our team is fully prepared to accomplish our objectives". (Coach J6)

As a result of data analysis in this study, one of the sub-themes identified under the theme of management is monitoring and evaluation. The study revealed that the oversight and asseMSSent conducted by school administrators on coaches is focused on guaranteeing the effectiveness of coaches in creating training programs, executing training, and mentoring student-athletes in Malaysian sports schools (MSS). This study involves trainers who provide explanations regarding monitoring and evaluation. The trainers who provided feedback pertaining to this sub-theme include the following:

"We conduct weekly monitoring sessions. For instance, from Monday to Friday, every Friday, all coaches are required to submit a report and lesson plan for the week. It is a standard practice for our team, and it is frequently overseen by more experienced colleagues. Leader in the field, experienced sports assistant, and primary authority. The evaluation will encompass the coach's overall work, considering not just the training and program aspects but also the performance and achievements of the athletes. Typically, if the team meets its targets, there are no issues to address". (J7 coach)

In the context of MSS, reporting plays a crucial role in documenting, assessing, and overseeing the execution and impact of sports training programs. This investigation reveals that the identification of the reporting sub-theme as a significant finding indicates that, at MSS, issues concerning the report generated by the trainer have emerged as a crucial priority for the entire organisation. The coach's reporting allows for a comprehensive view of the athlete's performance, training effectiveness, and adherence to current guidelines, particularly regarding the safety and health of student athletes. Concerning the sub-theme of this report, multiple trainers have offered insights related to the following points during the interview session. The following are the coaches who have provided their comments:

"At MSS, every coach is required to submit a daily report, similar to regular teachers, but our reports focus on the training sessions we conduct. A coach's reporting file is available, which will encompass all aspects of training planning, competitions, and

details concerning athletes. We will ensure that everything is documented in this file. The school, particularly the head of the field and PK Sukan, will review our file. Sometimes they will call us to discuss the state of the team and so on. At this point, we need to prepare a report to submit to the administrator". (J8 coach)

The research conducted revealed that one of the findings related to management is sports administration. The findings derived from the interviews conducted and the observations made reveal clear insights into the sub-theme of sports administration, highlighting how administrators prioritise providing support to coaches in managing their respective sports. This is evident from the feedback provided by several coaches regarding this issue, as outlined below:

"The school provides substantial support for hockey." Similar to us, nearly all significant tournaments are located close to the peninsula, particularly in Kuala Lumpur. It is indeed the case that in the context of allocation, all the schools that provide significant assistance are also affiliated with the association, particularly if the tournament falls under the association's jurisdiction. However, the majority of them are schools that receive assistance. Similar to hockey equipment, the school provides assistance as well. The school's support significantly enhances the management of hockey operations. It is indeed the case that sports schools offer sports provisions. So there is no problem, because we have planned to go to a tournament that we have agreed with the school, like the youth hockey league". (J9 coach)

In conclusion, in the context of the development of student athletes at MSS, aspects of management such as sports administration, monitoring and evaluation, reporting, and program planning play a major role in supporting and assisting coaches in empowering and strengthening the process of progress and development of student athletes. Coaches, serving as pivotal figures in athlete development, require robust support and a well-organised framework in sports management. The effectiveness in this area will significantly contribute to the overall development and excellence of the athlete. It is important to outline and understand how aspects of management can act as a catalyst for success and provide a solid foundation for coaches in developing and producing MSS student athletes who excel in the field of sports.

Discussions

This study concludes that the elite coaches at MSS play a crucial role in developing the talent of selected student athletes, aligning with MSS's vision to serve as a platform for producing athletes on the world stage (Noor, 2014; Ahmad, 2021). Their involvement is essential to ensuring the successful realisation of all plans and goals. It is essential for stakeholders, including schools and ministries, to furnish coaches with all necessary requirements. This will enable them to execute training planning in a systematic and efficient manner, aligning with the school's role as a training centre capable of developing high-performance athletes. This study aims to explore the aspects and needs of elite coaches at MSS in the development of student athletes. It has identified two main themes: management and knowledge. Each of these themes encompasses multiple sub-themes that are crucial for comprehending the role of elite coaches in the development of student athletes.

Management

This study reveals that management plays a crucial role in the development of student athletes, as highlighted by the research findings. This theme encompasses several critical sub-themes, such as meticulous program planning, ongoing monitoring and evaluation, structured reporting, and effective sports administration. Every one of these sub-themes is crucial in effectively managing all facets of training and athlete development, encompassing the preparation of training schedules and the coordination of logistics and resources. This thorough management strategy allows coaches to concentrate entirely on enhancing athletes' skills and performance, guaranteeing they achieve their utmost potential at the highest level.

This study highlights the significance of program planning as a crucial component in managing athlete development. Mohd Rasyid (2009) and Crimmins (2023) emphasise that systematic and detailed planning is essential for achieving both long-term and short-term goals for athletes. This planning encompasses the development of training schedules, the selection of competitions, and the formulation of recovery strategies. Through meticulous planning, coaches can guarantee that each element of training is handled with precision and efficiency. It is crucial to ensure that the training program operates effectively in terms of continuous monitoring and evaluation (Bird et al., 2024). A study conducted by Yasim et al. (2022) demonstrated that effective monitoring incorporates technology and assessment tools to objectively evaluate athlete performance. This enables the coach to implement essential modifications in the training regimen, guaranteeing that the athlete remains in optimal condition for competition (Suchomel et al., 2021). In terms of systematic reporting, it aids in the documentation of athlete development. Research indicates that effective reporting enhances communication among coaches, athletes, and management (Davis et. al., 2022). This contributes to decision-making grounded in precise data, guaranteeing that each action is informed by reliable and current information (Davis et al., 2019). The aspect of sports administration pertains to the effective management that guarantees all components operate seamlessly. This encompasses the management of resources, logistics, and coordination among the different stakeholders engaged in the development of athletes. Effective administration allows coaches to concentrate entirely on training and the growth of athletes, freeing them from concerns about administrative matters (Hebard et. al., 2021).

Knowledge

This study explores the theme of knowledge as it pertains to the coaching expertise utilised by elite coaches at the MSS to foster the development of student athletes in their respective sports. This theme encompasses several significant sub-themes that are essential for enabling trainers to deliver effective and systematic training. The sub-theme encompasses coaching knowledge, training modules, and periodisation. By comprehending and implementing these components, coaches can assist athletes in achieving their utmost potential and competing at the pinnacle of their abilities.

This study reveals various dimensions of coaching knowledge, encompassing understanding of technique, tactics, and sports psychology. Rasyid and Abd Aziz (2012) highlight that coaches possessing deep knowledge are capable of delivering more effective training and inspiring athletes to reach their peak performance. A comprehensive understanding of the sport being taught enables the coach to provide training that is both more effective and meaningful (Purnomo, 2024). Furthermore, regarding the training module component, it pertains to the delivery of a well-organised training module designed to systematically enhance the skills of

athletes. An effective training module must be adaptable and tailored to meet the unique requirements of each athlete. This encompasses physical, technical, and mental training (Rasyid, 2009;). A well-structured training module allows the coach to maximise the effectiveness of each training session for the athlete's growth. The periodisation aspect pertains to the systematic planning of training across specific phases aimed at enhancing an athlete's performance at the optimal moment (Bompa & Buzzichelli, 2019). Research indicates that effective periodisation plays a crucial role in injury prevention and maintaining athletes' optimal performance during competitions (Phillips et. al., 2016). By implementing effective periodisation, coaches can manage training intensity and load more efficiently, guaranteeing that athletes remain in optimal condition (Haff, 2021).

The findings of this study indicate that elite coaches at MSS significantly contribute to the development of student athletes. By implementing meticulous program planning, ongoing monitoring and evaluation, structured reporting, and effective sports administration, coaches can guarantee that all facets of training are thoroughly managed. Furthermore, comprehensive understanding of coaching, well-organised training modules, and precise periodisation play significant roles in the effective development of athletes. Through a comprehensive understanding and application of these elements, coaches are positioned to assist athletes in achieving their utmost potential and excelling in competition.

Conclusions

This study explores how MSS elite coaches implement sports development programs in an effort to polish and produce successful student athletes in the field of sports at MSS. Previous studies have focused mainly on specific coaching aspects, such as coaching style, motivation, and goal orientation, while looking at the broader experiences and difficulties faced by MSS elite coaches (Yasim et al., 2022). This research aims to explore the experiences, perspectives, and thoughts of elite coaches in developing student athletes at MSS while also offering insights that could enhance coaching practices at MSS. This study emphasises that there are several aspects that need to be paid attention to, especially those related to coaching management and the need to improve aspects of coaching knowledge and skills for coaches at MSS. Improving aspects of sports coaching for these coaches requires a collaborative effort involving schools, ministries, and other stakeholders (Desa & Salamuddin, 2022). Obstacles and constraints faced by coaches can have a significant impact on the planning and implementation of training programs, potentially hindering the long-term development and achievement of student athletes (Desa & Salamuddin, 2022).

The results of this study hold significant relevance for coaches, educational institutions, and ministries engaged in the management of MSS. Enhancing and refining coaching elements in MSS is crucial for optimising strategies, boosting athlete performance, and guaranteeing a favourable return on investment. While this study concentrated on elite MSS coaches, it is anticipated that future investigations will expand their focus to include the athlete's viewpoint and additional elements that impact comprehensive athlete development. Overcoming these limitations could enhance the depth and relevance of forthcoming studies. By thoroughly examining this issue, elements of coaching at MSS can be enhanced, ultimately fostering the comprehensive development of young athletes and ensuring the steady emergence of world-class talent.

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