

## **Coach's perceptions of life skill development in badminton sport: A preliminary study**

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### **Abstract**

The development of life skills through sport has become an interesting issue in research studies over the last few decades. Life skills are one of the variables that are the focus of the Positive Youth Development (PYD) program through sports activities, with the hope that youth sports involvement can lead to results that are classified into 3Ps: performance, participation, and personal development. This research aims to examine coaches' perceptions of developing life skills in coaching badminton. A total of 47 coaches consisting of 10 badminton clubs in the West Java region were used as participants in this research, consisting of 30 male coaches and 17 female coaches with an average length of training (M=5.7 years; SD=3.3), and average age. (M=25.4 years; SD=6.2). The data were obtained through a survey related to the cognitive level of the low-level thinking skills (LOTS) category, namely knowledge, understanding and application of basic life skills concepts, as well as perceptions regarding the need for life skill components in badminton regarding the eight dimensions developed by Cronin & Allen (2017) consisting of 1) timework, 2) goal setting, 3) social skills, 4) problem-solving, 5) emotional skills, 6) leadership, 7) time management, 8) interpersonal communication. The data measurement results were analyzed using percentage analysis and multiple regression to see the contribution of the life skill dimensions in badminton. The results of the analysis proved that the coaches' perceptions of developing life skills in badminton were still not comprehensive. There were still coaches who did not know, understand, and integrate life skills in coaching badminton. In addition, the results of the regression model analysis showed that all the dimensional constructs assessed had different contributions. However, the eight dimensions referred to were considered dimensions needed in coaching badminton. Thus, it can be concluded that life skills are perceived as important by coaches to be integrated with badminton sports development. Therefore, the results of this preliminary study provide a very important picture regarding the need to develop a badminton sports development program by integrating life skills in the training process, with the hope of having a positive impact on youth development, especially through badminton sports development.

**Keywords: Life Skills, Coach Perception, Badminton Sport, Positive Youth Development, FTEM**

### **Introduction**

Life skills are some of the skills that enable individuals to succeed in the different environments in which they live, such as school, home, and their environment, for example communicating effectively with peers and adults, making effective decisions, being assertive, and setting goals in life (S. Danish et al., 2004). Therefore, life skills are one of the variables that are the focus of the Positive Youth Development (PYD) program through sports activities, with the hope that the aspects acquired in sports skills can be transferred and applied outside of sports activities so that they can be considered as life skills (Pierce et al., 2017). At a practical level, the development of life skills can be obtained through a planned transfer process that is applied to different dimensions of life (de Subijana et al., 2022). This is in line with the PYD concept which prioritizes youth development through sports, and focuses on the process of teaching life skills along with their physical competence, by hope it can be a provision and applied in real life (Hambali et al., 2022).

The results of research related to life skills have been carried out a lot. Even in the last two decades, researchers have reported that youth who participate in life skills programs through a sports approach have a positive and significant impact on life skills outcomes (Williams et al., 2020). Several research results prove that young people develop a series of life skills through sports (L. D. Cronin & Allen, 2017; Papacharisis et al., 2005; Rohmanasari et al., 2018; Trotter & Robitaille, 2014; Whitley et al., 2013). Danish, Forneris, & Wallace, (2005) stated that life skills are behavioral, cognitive, interpersonal, and intrapersonal competencies that can be learned, developed, and perfected (Danish et al., 2005). Therefore, it is appropriate that the life skills program is one of the programs that can be integrated into a training program or curriculum in education, especially in the context of the physical and sports education curriculum (Papacharisis et al., 2005) as well as sports coaching (Kendellen et al., 2017). This is assumed because basically, integration of life skills programs in the process of physical education and sports coaching is positively related to other aspects, such as thinking skills, decision making, timework, goal setting, social skills, problem solving, emotional skills, leadership, time management, and

interpersonal communication (L. Cronin et al., 2021; L. D. Cronin & Allen, 2017; Gulhane, 2014). Thus, the involvement of youth sports can lead to outcomes that are classified as 3P: performance, participation, and personal development, where the 3Ps are at the heart of the youth sports system aimed at providing quality experiences to the participants who are involved in it (Côté & Hancock, 2016). Therefore, the coaching process should be directed towards personal development, one of which is the development of life skills in coaching badminton.

Badminton sport is a simple game sport that aims for recreation or competition. This sport is one of the sports included in education and coaching (Michele et al., 2018), both in the formal school curriculum and sports clubs so that at a practical level, badminton sports become one sport that has special attention in the coaching process. As far as the researchers know, badminton is a racquet sport that is popular and much-loved by people in the world (Hussain, Saleem Ahmed, Mohd Arshad Bari, 2011; Kwan et al., 2010; Singh et al., 2011; Subarjah, 2010), one of which is in various Asian countries (Feng et al., 2017). Even in Indonesia, badminton is one of the most successful sports, uphold the good name of Indonesia (Meiyanto & Pramono, 2019).

Obviously, the coaching process is carried out in stages starting from an early age, children, beginners, teenagers, cadets and adults, this is assumed because basically to achieve achievements in badminton sports, early childhood training must be carried out consistently, continuously, systematically, efficiently and integrated (Meiyanto & Pramono, 2019). Therefore, many clubs or educational centers and badminton schools have been established to carry out the coaching process under the auspices of Pengcab and Pengrov in all regions in Indonesia, with the aim that students or athletes are expected to have basic skills in playing badminton and be able to demonstrate after going through the learning process or exercise (Subarjah, 2010). In fact, apart from having skills in aspects of playing skills (hard skills), aspects of soft skills are part of the goals in implementing badminton coaching such as emotional intelligence, motivation and inspiration, conflict management (J. Chan & Mallett, 2011), developing self-confidence (Hidayat & Budiman, 2014a), and developing life skills (Gulhane, 2014; Kendellen et al., 2017; Papacharisis et al., 2005).

Theoretically, the framework for the development of sports and athlete development which is one of the current global issues is the FTEM framework, which this framework combines theoretical research perspectives with empirical observations (Gulbin et al., 2013; Smyth et al., 2019). FTEM consists of four macro stages of skill development and performance of sports participants, namely 1) Foundations, 2) Talent, 3) Elite, 4) Mastery, further divided into 10 micro phases, namely Foundations (F1, F2 and F3); Talents (T1, T2, T3 and T4); Elite (E1 and E2); and Mastery (M) (Gulbin et al., 2013, 2014; MacNamara & Collins, 2014). The FTEM framework describes the holistic integration of 3 main goals in sports development, namely an active lifestyle, sports participation, and sports excellence as a potential outcome of sports development itself (Bailey et al., 2010). Thus, FTEM becomes one of the coaching developments which is carried out in stages in 4 phases, where each phase has different goals and achievements.

Based on the studies and global issues that have been explained in the previous discussion, it is only appropriate that sports coaching, especially in badminton, have a clear and planned coaching framework, especially in the foundations (F) phase which focuses on the development of fundamental movement skills (Booth et al., 1999) and physical literacy (Whitehead, 2001). Thus, apart from developing basic technical skills in playing badminton, physical literacy must be an aspect to be developed, one of which is the development of life skills. Therefore, this preliminary research tried to look at coaches' perceptions of the development of life skills in coaching badminton sports, to what extent coaches understand, understand and integrate the concept of life skills into badminton training, especially in the Foundations phase, so the results of this study will become the basis for the next research process on the integration of life skills into the badminton sports coaching curriculum.

## Materials & Methods

The survey method was used in this study to examine coaches' perceptions of the development of life skills in badminton (D. K. C. Chan et al., 2015; Crowther et al., 2017). A total of 47 trainers consisting of 10 badminton clubs in the West Java region were used as participants in this study, consisting of 30 male coaches and 17 female coaches with an average length of training ( $M = 5.7$  years;  $SD = 3.3$ ), and an average age ( $M = 25.4$  years;  $SD = 6.2$ ). The selection of participants was determined through a purposive sampling technique (Campbell et al., 2020; Hendrayana et al., 2022). It was assumed that the researchers' knowledge of a population is used to assess the suitability of the subject for the specific objectives of the study (Fraenkel et al., 2011). Data were obtained through a survey related to (1) cognitive level in the lower order thinking skills (LOTS) category, namely knowledge, understanding and application (Abduljabbar & Omar, 2015; Assaly & Smadi, 2015; E. Adams, 2015). The trainers were asked to answer questions that had been prepared by researchers regarding the level of basic concept knowledge, understanding, and application of life skills development in coaching badminton sports. Five question items were given to the trainer with dichotomous answer choices of "Yes" and "No" (Byrne et al., 2008; Capik & Gozum, 2015; Crowther et al., 2017). The following five items given to trainers are presented in Table 1.

Table 1. Question items given to coaches

Cognitive Level	Items	Yes	No
Knowledge	Did you know about the concept of Life Skills before?		
Understanding	Do you understand the development of life skills in badminton?		
Application	Have you ever provided a life skills program in badminton training to athletes?		
Application	In addition to technical, physical and tactical training, do you provide training on mental aspects such as motivation, self-confidence or other training to athletes?		
Application	Have you created a training program by integrating the Life Skills program into the training program?		

Apart from a survey of knowledge and understanding of the basic concepts of life skills, a survey was also carried out on the needs of the dimensions of life skills in coaching badminton sports. Eight dimensions were given to coaches to choose from based on needs in coaching badminton sports using a modified Thurstone scale with a range of 1-9 (Arons et al., 2012; Guffey et al., 2007). The life skills dimension referred to Cronin & Allen, (2017) consisting of 1) timework, 2) goal setting, 3) social skills, 4) problem-solving, 5) emotional skills, 6) leadership, 7) time management, 8) interpersonal communication (L. D. Cronin & Allen, 2017). The following is a perception survey sheet related to the need for life skills dimensions in badminton sports, presented in table 2.

Table 2. Life skill dimension needs a survey sheet in badminton

Dimension	Need Assessment									
	1	2	3	4	5	6	7	8	9	10
Timework										
Goal Setting										
Social Skills										
Problem-Solving										
Emotional Skills										
Leadership										
Time Management										
Interpersonal Communication										

The data obtained from a survey of trainers were analyzed by using statistical analysis techniques, namely descriptive statistics (Mean, Standard Deviation and Percentage) and inferential statistics (Multiple Regression), with the aim of analyzing the dimensions of life skills that were most needed in coaching badminton sports, and formulating a regression equation model (Chandra, 2019; Lavrova & Pechenkin, 2015; Shahin & Janatyan, 2011). All statistical analysis in the study was assisted by using IBM SPSS software for Windows version 25.

## Result & Discussion

### Result

To be able to provide a general description of the results of the survey of coaches, the survey data were analyzed through descriptive statistics (Mean, Standard Deviation and Percentage), as well as multiple regression analysis of each dimension that has been given an assessment related to the need for badminton.

Table 3. Descriptive Statistics Survey Results on the Basic Concepts of Life Skills in Badminton

Cognitive Level	Mean	SD
Knowledge (C1)	0,60	0,49
Understanding (C2)	0,54	0,50
Application (C3)	0,42	0,50
Application (C3)	0,78	0,42
Application (C3)	0,78	0,42

Table 4. Descriptive Statistics Survey results

Items	N	Yes		No	
		N	%	N	%
Knowing the Concept of Life Skills (C1)	47	27	57%	20	43%
Understanding the Concept of Life Skills (C2)	47	23	49%	24	51%
Implementing the Life Skills Program in Practice (C3)	47	20	43%	27	57%
Providing Psychological Exercise in Practice (C3)	47	21	45%	26	55%
Creating a life skills-based training program (C3)	47	17	36%	30	64%

Tables 3 and 4 present the results of the analysis related to the trainer's perception of the development of life skills in coaching badminton sports, the coach's perceptions are seen from 3 aspects of the cognitive domain namely knowledge, understanding, and application of life skills programs in coaching badminton sports. The results of the analysis showed that in the knowledge aspect 57 % of coaches knew, and 43% of trainers did not know about the basic concept of life skills in coaching badminton sports. Then, in the aspect of understanding the results of the survey showed that 49% of coaches understood, and 51% did not understand related to the concept and integration of life skills programs in coaching badminton sports. Meanwhile, in the application aspect, the survey results showed that 43% of trainers had provided life skills programs in coaching badminton sports, while the remaining 57% of coaches had never provided life skills programs to athletes. In addition, at the application level, 45% of trainers had provided psychological training, and 55% of trainers have not implemented psychological training, and in application in creating life skills-based training programs, survey results show 36% of coaches have created life skills programs that are integrated into badminton training, and 64% of coaches have not made life skills programs that are integrated into training programs badminton. The results of a survey of trainers are generally depicted in graph 1.

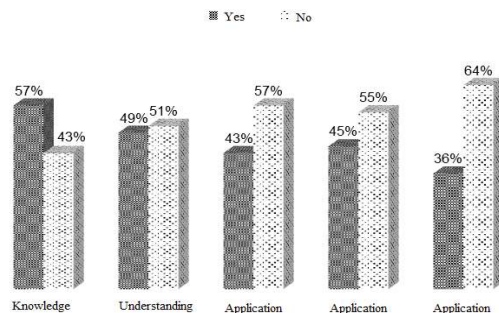


Figure 1. Results of a survey of badminton coaches

The data from the second survey were the trainer's perception related to the assessment of the needs of the dimensions of life skills in coaching badminton sports, the coach determines the choice of answers to the eight dimensions most needed in badminton sports with a rating range of 1 to 9, namely 1) timework, 2) goal setting, 3) social skills, 4) problem-solving, 5) emotional skills, 6) leadership, 7) time management, 8) interpersonal communication. The data from the assessment results were analyzed using descriptive analysis, including the mean and standard deviation (SD). In addition, to determine which dimension was the most dominant, the analysis was continued using regression analysis, so that one regression model of the life skills dimension was found which was the most dominant according to the choice assessment. The results of the analysis are presented in Tables 5 and 6.

Table 5. The results of the survey on the perception of the need for life skills dimensions for badminton

Dimension	Mean	SD	N	Percentage
Timework	6,4	2,3	47	73%
Goalsetting	7,4	2,3	47	84%
Social skills	6,7	2,1	47	81%
Problem-solving	6,6	2,0	47	74%
Emotion skills	6,9	2,2	47	80%
Leadership	6,8	2,2	47	77%
Time Management	7,3	2,3	47	82%
Communication	7,4	2,2	47	84%
Total	55,4	16,6	47	77%

Table 6. Results of Correlation Matrix Analysis between Dimensions

Dimension	Time Work	Goal Setting	Social Skills	Problem-Solving	Emotion Skills	Leadership	Management	Communication
Time Work	1,00	0,78	0,84	0,66	0,68	0,85	0,76	0,77
Goal Setting	0,78	1,00	0,93	0,92	0,92	0,85	0,97	0,98
Social Skills	0,84	0,93	1,00	0,90	0,95	0,91	0,96	0,95
Problem solving	0,66	0,92	0,90	1,00	0,95	0,85	0,91	0,90
Emotion Skills	0,68	0,92	0,95	0,95	1,00	0,84	0,94	0,93
Leadership	0,85	0,85	0,91	0,85	0,84	1,00	0,85	0,85
Time Management	0,76	0,97	0,96	0,91	0,94	0,85	1,00	0,99
Communication	0,77	0,98	0,95	0,90	0,93	0,85	0,99	1,00

Based on the results of the analysis in table 5, the measured average value is obtained between 6.6 to 7.6, the highest average value is found in the Goal Setting dimension (Mean=7.6; SD=2.3) and the Communication dimension (Mean=7.6; SD=2.2), while the average value the lowest is in the Timework dimension (Mean=6.6; SD=2.4). In addition, the achievement of the percentage of coaches' perceptions related to the need for life skills in badminton sports. The goal setting dimension provides the highest percentage, namely 84%, communication 84%, time management 82%, social skills 81%, emotional skills 80%, leadership 77%, problem solving 74%, and time work 73%. The following is the percentage distribution of the life skills dimension needed in badminton sports, presented in Figure 2.

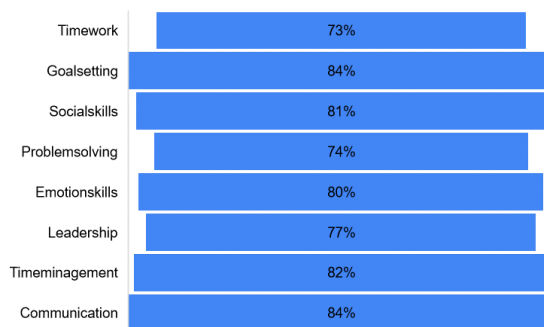


Figure 2. Percentage of survey results on the need for dimensions of life skills in badminton

In addition to percentage analysis, survey data were analyzed through multiple regression analysis. The purpose of this analysis was to look at the inter-dimensional correlation matrices from the trainers' assessment results, and find a regression equation model based on the analysis results. Table 6 provides information related to the correlation matrix between dimensions of life skills, the results of the analysis prove that in general there is a correlation between dimensions of life skills, this shows that based on the needs assessment of the dimensions of life skills, the eight dimensions of life skills are interconnected with one another. Then, the analysis continued on the regression model equation used to see the correlation matrix between dimensions from the results of the coaches' assessment, and found a regression equation model based on the results of the analysis. The following results of the correlation matrix analysis are presented in table 7.

Table 7. Results of the Coefficients Beta analysis

Model	Unstandardized Coefficients		Standardized Coefficients
	B	Std. Error	Beta
(Constant)	2,04	0,00	
Timework	1,00	0,00	0,14
Goalsetting	1,00	0,00	0,14
Socialskills	1,00	0,00	0,13
Problem solving	1,00	0,00	0,12
Emotionskills	1,00	0,00	0,14
Leadership	1,00	0,00	0,13
Timeminagement	1,00	0,00	0,14
Communication	1,00	0,00	0,13

The results of the coefficients analysis in table 7 obtained the regression model equation  $Y = 2.04 + 0.14 \text{ Timework} + 0.14 \text{ Goal Setting} + 0.13 \text{ Social Skills} + 0.12 \text{ Problem Solving} + 0.14 \text{ Emotional Skills} + 0.13 \text{ Leadership} + 0.14 \text{ Time Management} + 0.13 \text{ Communication}$ .

## Discussion

This study aims to examine the coaches' perceptions related to the development of life skills in coaching badminton sports. The results of the research presented focused on looking at the level of knowledge, understanding, and application of life skills in sports coaching, according to the FTEM concept, especially in badminton sports. In addition, for the benefit of further research, trainers were asked to assess which dimensions were the most dominant and had a contribution to the sport of badminton. The survey results showed that in general the trainers who were used as participants already knew about life skills in the context of basic conceptual knowledge, but in the context of understanding, the results of the analysis proved that 51% (24 trainers) did not fully understand the basic concepts of life skills so that it had an impact on application in developing and manufacturing training programs that have not integrated life skills. This showed that the life skills development program had not been fully socialized to trainers. This is one of the interesting findings because trainers should be able to try to integrate life skills programs into sports training, this is assumed because the transfer of life skills in the training process is an important ongoing process in the personal development of

athletes so that they can internalize the skills they have learned in sports and apply them in various areas of life (Pierce et al., 2018), such as levels of self-confidence (Hidayat et al., 2023), pleasure in sports (Sucipto et al., 2021), and social, emotional (Schleicher, 2018), where trainers can facilitate the development and transfer of life skills in the process of sports training and coaching (Bean et al., 2018). This finding supported the results of research conducted by Gould, Collins, Lauer & Chung (2007) which highlights that most trainers view life skills development as a separate part of sports coaching strategy, improving the performance and personal development of athletes is one of the top priorities (Gould et al., 2007).

The survey findings were related to the perception of the most dominant dimension in badminton, indicating that the dimensions of goal setting, communication, time management, social skills, and emotional skills were selected as the top five dimensions in the context of coaching badminton sports. This is one of the interesting findings because badminton is a game sport that is played individually, both single and doubles (Ghosh et al., 2018), the coaches perceive that the existence of goal setting in the coaching process will have an impact on clearer, planned goals, and affect performance and athlete personality (L. Cronin et al., 2022; Healy et al., 2018; Hidayat, 2011; Kolovelonis et al., 2012), these findings support one of Hidayat studies which proves that goal setting interventions can affect the motor skills of novice athletes in badminton (Hidayat et al., 2020; Hidayat, 2011).

The next dimension, which was considered the most dominant dimension in badminton was the communication dimension. At the application level, communication is one of the variables that contribute to supporting interaction between coaches and players and can increase maximum results in sports performance (Nenko et al., 2022), with good communication between coaches and athletes is expected to create a structured and planned pattern of coaching and be able to have an impact on positive youth development in the future (Artha et al., 2020; Fraser-Thomas et al., 2005). These findings supported the results of Sari, Soyer & Yigiter's (2012) study which proved that positive feedback, social support training behavior, and trainer instructions were found to be positively and significantly correlated with athlete's communication skills (Artha et al., 2020). In addition, the results of Nerissa & Puspita research (2022) proved that interpersonal communication of badminton coaches has a role in fostering the confidence of women's doubles athletes to increase motivation in training activities (Nerissa & Puspita Tutiasri, 2022). Therefore, the role of the coach related to communication is an indicator of successful coaching in badminton (Choi et al., 2020; Jowett & Carpenter, 2015).

The analysis of the regression model equation obtained the result  $Y = 2.04 + 0.14 \text{ Timework} + 0.14 \text{ Goal Setting} + 0.13 \text{ Social Skills} + 0.12 \text{ Problem Solving} + 0.14 \text{ Emotional Skills} + 0.13 \text{ Leadership} + 0.14 \text{ Time Management} + 0.13 \text{ Communication}$ . Based on the results of the analysis of standardized coefficients beta in the regression model equation, the values ranged from 0.12 to 0.14. This proved that all dimensions of life skills were considered to have the same contribution in coaching badminton sports. Therefore, life skills should be integrated into training programs. in coaching badminton sports, so, the coaching process does not only have an impact on the aspects of basic motion skills or skills to play badminton, but also the aspects of life skills (time work, goal setting, social skills, problem-solving, emotional skills, leadership, time management, and communication) becomes an aspect that must be developed in the coaching process (Booth et al., 1999; Whitehead, 2001). Thus, it enables athletes to succeed in different environments, such as communicating effectively with peers and adults, making effective decisions, being assertive, and setting goals in life (S. Danish et al., 2004). These findings support research that has been carried out by Gold (Gould & Carson, 2008), Gulhane (Gulhane, 2014), Subijana, (de Subijana et al., 2022), Kendelen (Kendellen et al., 2017), Pierce (Pierce et al., 2018), Hayden, (Hayden et al., 2015), as well as several studies related to life skills instruments to measure eight dimensions such Cronin (L. Cronin et al., 2021), Sabourin (Sabourin et al., 2020), Mossman (Mossman et al., 2021a), Jones (Jones & Lavallee, 2016) and Mossman (Mossman et al., 2021b).

## Conclusion

Based on the results of the analysis, it can be concluded that conceptually not all coaches know, understand, and integrate life skills programs into badminton sports coaching. However, they have the same perception of the eight dimensions of life skills as dimensions that must be integrated in a structured and planned badminton training program. It means that life skills are perceived as important by the coaches to be integrated in coaching the sport of badminton, apart from that the coaches believe that development Life skills are one of the important programs to be implemented in coaching badminton. The results of this preliminary study provided a very important picture regarding the need to develop a badminton sports development program by integrating life skills in the training process so that it can have an impact on positive youth development that leads to the 3P achievements (performance, participation, and personal development), especially through badminton coaching.

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