

2022, Volume 9, e8971 ISSN Online: 2333-9721

ISSN Print: 2333-9705

# Assessing the Current Basketball Training Situation in Rwanda Using Secondary Schools as a Case Study

#### Innocent Habimana, Zhongxin Tian

College of Physical Education, Taiyuan University of Technology, Taiyuan, China Email: innocenthabs@yahoo.com, 584068410@qq.com

How to cite this paper: Habimana, I. and Tian, Z.X. (2022) Assessing the Current Basketball Training Situation in Rwanda Using Secondary Schools as a Case Study. *Open Access Library Journal*, **9**: e8971. <a href="https://doi.org/10.4236/oalib.1108971">https://doi.org/10.4236/oalib.1108971</a>

Received: June 6, 2022 Accepted: June 18, 2022 Published: June 21, 2022

Copyright © 2022 by author(s) and Open Access Library Inc. This work is licensed under the Creative

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

http://creativecommons.org/licenses/by/4.0/





#### **Abstract**

Currently, people are paying more attention to their mental health and physical fitness. Basketball is the second sport in Rwanda after football and plays a significant role in peacebuilding and cultivating physical and mental health in the youth. Based on this background, this research aims at evaluating the current basketball situation in Rwanda and proposing appropriate countermeasures to improve its performance and the economy at large. Structured questionnaires were used to collect the data among three prominent stallholders in the basketball training (secondary school students, basketball coaches, and parents). Five hundred questionnaires were sent out randomly and the collected data were analyzed by using the following statistical methods: descriptive statistics and the Likert scale. The study results revealed that: there is a lack of adequate basketball infrastructure (basketball courts, training materials, and other facilities). There is no fixed training system for youth basketball and the training time is insufficient. This has led to significant conflict between sports and academics as indicated by respondents. Additionally, there is a lack of support from the stakeholders, limited social awareness, and a bad attitude toward women's basketball due to cultural beliefs. Notably, the current basketball performance in Rwanda is dissatisfying to the majority of the respondents. Based on the findings of this research, the following measures are recommended: Government funding to sports should be increased and seeking non-governmental organization funding are encouraged; coaches should be trained by the government to improve their basketball skills; strategic and proactive training programs should be enhanced; smooth integration of youth basketball in education curriculum is essential; stakeholders' support is paramount. This study contributes significantly to the emerging body of literature review in sports. The findings of this study are important to policymakers in sports activity and the governments around the globe to review their support.

## **Subject Areas**

Sports Science

## **Keywords**

Basketball, Secondary Schools, Training, Coaches, Parents, Performance

#### 1. Introduction

Currently, youths and secondary school students have been urged to participate in sporting activities, either basketball, football, or athletics. The players are usually grouped into two to encourage competition among the groups and create a teamwork spirit [1]. In Rwanda, sporting activity has played a key role in peacebuilding and health among the participants.

For instance, in Rwanda, different sports have been used to reconcile and unite people after the 1994 genocide against the Tutsi in Rwanda [2]. Basketball is one popular game among others like football. This game adds value to the players like discipline and cultivates teamwork, respect, friendship, and other values found in sports activities. In Rwanda, the development of the International Basketball Foundation (IBF) has helped in addressing the humanitarian, social, educational, and sporting axes in cross-actions according to a support plan for the development of the NFs of the most disadvantaged countries.

Sport has been attributed to enhancing people's lives and organizations. Sport reinforces physical body activity, supports human rights, and is a tool for pursuing development goals in underprivileged communities [3]. This can be achieved by providing access to and involving all people in sports and physical activities for the benefit of individuals, communities, and societies [4]. Sport for Development (SFD) is the intentional "use of sport to exert a positive influence on public health, the socialization of children, youths and adults, the social inclusion of the disadvantaged, the economic development of regions and states, and on fostering intercultural exchange and conflict resolution" [5] [6]. This can be implemented effectively if integrated with educational, humanitarian action, structural reforms, and cultural enrichment activities and support [7] [8] [9].

Basketball is one of Africa's fastest-growing sports; however, it has a long way to go before it reaches the popularity of football. This is attributed to a lack of popularity among the colonial powers in Africa (Britain, France, and Portugal) [10]. Basketball is becoming more popular in African schools, and basketball clubs are being founded in the same way that football clubs were formed in African cities 50 to 60 years ago. With the welcoming sign adopted in Africa, it's likely to see many more outstanding African playing basketballs in the NBA and other top professional leagues soon.

The basketball type of sports has faced numerous challenges like poor man-

agement, few basketball sports infrastructures, the limited financial capacity to carry out basketball activities, the weak link between sports partners and schools, and the shortage of technical staff such as coaches, and referees [11]. Despite the effort made by the Rwanda government to improve the basketball infrastructure that has ultimately improved the performance [12], a lot has to be done to take this sport to the next level [5] [11]. Concurrently, little research has been carried out on Rwanda basketball to determine the factors that affect the performance so has to incorporate the findings in policy-making and educating the people. Based on this background, this study analyzes the current situation of the basketball sport in Rwanda and then proposes suitable countermeasures to boost the growth of the youth basket.

There exists a huge literature gap in understanding the current basketball situation in Rwanda and the appropriate measures to curb the documented deficiencies. Previous research, for instance, [11], just reviewed the history of IBF and the benefits associated with playing basketball in Rwanda. This research did not identify scientific challenges of basketball sport in Rwanda nor did it explore the countermeasure. Another recent study by [13], only sought the relationship between academic performance and basketball. This research didn't consider other factors that influence basketball in the country despite the existence of a significant relationship between the duos. These signify the need for the current research to try and fill in some existing literature gaps about sports in the country.

The main objective of the study is to understand the current situation of the basketball sport in Rwanda and devise appropriate countermeasures to improve the current situation. A sample size population of 500 respondents across basketball coaches, secondary school pupils, and parents was used. The research findings contribute significantly to the body of literature review on the sport field and physical fitness measures. This current research work purposes to respond to the scientific questions below:

- ➤ What is the demographic characteristic of the sampled population?
- ➤ Does the country have adequate basketball infrastructure?
- ➤ Does the parent, teachers, and government support student interest/success in basketball?
- ➤ How integrated is basketball training in the academic curriculum?

The remaining parts of this research will cover the data and methodology in Section 3. The findings of this research are elaborated in Section 3. Section 4 will draw research conclusions and recommendations for policymakers and future researchers.

### 2. Literature Review

#### 2.1. History of Basketball in Rwanda

In 1930, the catholic missionaries brought basketball to Rwanda [11]. In 1962, upon Rwanda's independence, the game developed, and new teams were created

by public institutions with the objective to support the development of Basketball in Rwanda [14]. The Rwanda Basketball Federation (FERWABA) was formed in 1974, National League for men was played by existing teams from the military and secondary schools where the sport penetrated upon entry in Rwanda. Three years later, the Women's League was formed and was played by the school teams and public institutions teams. By the year, 1977, FERWABA became a member of the International Basketball Federation (FIBA) as a recognized national federation of Basketball in Rwanda [15].

The main aim of FERWABA was; to promote and develop basketball policy in Rwanda, Spreadhead capacity building of technical and moral qualities of basketball officials, represent and defend the benefits of its members like the clubs and associations, start developing basketball programs for youth, organize and participate in different competitions both at national and international forums. Nevertheless, Rwanda's national basketball team has not produced the results required to achieve international recognition of Rwanda as a sporting nation [5].

## 2.2. The Current Situation on Youth Basketball Training in Rwanda

Basketball is the second most popular sport in Rwanda after football [5], under the FERWABA. Basketball in Rwanda is mainly played by the youth and is based in schools. Mainly, basketball activities focus on development programs, including capacity-building programs and the game's growth from an early age, especially in schools. Physical and Sports Training Program in Ordinary Level [16]. The Rwanda Basketball Federation is the leading basketball authority, committed to promoting basketball across the country in both categories; men and women. Therefore, it has different activities organized annually and occasionally.

Through the development programs, with the support of the Rwandan government and the Rwanda National Olympic Committee, FERWABA runs annual basketball camps in all provinces to identify and cultivate young talents, both boys and girls. Furthermore, FERWABA works with other national and international non-governmental organizations (NGOs) such as the Rwanda Sports School Federation (FRSS) and Giants of Africa (GOA) to promote the game during the holidays, whereby educational components are included [16]. The participants learn the different sports and moral values which help in their life, such as teamwork, discipline, respect, gender equality, peacebuilding, civil education, and prevention of HIV/AIDS and other diseases [4] [17].

# 2.3. Comparison of Youth Basketball in America, Europe, and Rwanda

Basketball originated in the United States and currently, the country has the highest number of trained basketballers in the world [18] [19]. This is because the United States of America has a broad mass base and an excellent youth training and training system [20]. The youth start practicing basketball at an

early age and basketball is fully integrated into the education system [21]. In North America, all physical education teachers have their own basketball training system and scientific management system. High school basketball is very popular in the USA, where all schools have teams in America, and many even have several teams, unlike in Rwanda, where not each school has a basketball team [22] [23]. Many colleges and universities in the USA send agents to find and equip outstanding players with potential basketball development during state basketball competitions [24]. The basketball sport is well funded and experiences a stiff competition system, and many basketball fans enter society and become loyal supporters of basketball [25]. The cultivation of competitive sports talents in the United States is based on the education system, which has formed a "science and training integration", over the country [26]. The NBA is paid much attention to since is the basketball heaven that all basketball players want to reach and the highest level of personal basketball skills [27] [28].

In Europe, there are many basketball powers, including Spain, Russia, Serbia, and other countries; their basketball levels are high [29] [30]. The governments in European countries make some policies to encourage youth basketball training to ensure the sustainable development of their reserve talents [31]. These factors are quite contrary in Rwanda, which has paid less attention to the sport and its existence discouraging cultural beliefs about the sport and significant conflict between academics and sport. The government of Rwanda is trying to fund the school for adequate infrastructure and create more awareness of the benefits of the players and society.

#### 3. Data and Methodology

#### 3.1. Data Collection

This study distributed randomly 500 structured questionnaires over social media which were filled and returned to the researcher. The first Section (A) covers the demographic characteristics of the population while Section B assesses the current situation of factors that are perceived to influence basketball performance *i.e.* the number of basketball courts in the country, training time, government funding, integration into the academic curriculum, and the basketball coaches' training.

A questionnaire is an important research tool used to collect information. The questionnaire consists of serial questions that address separate issues that address the main objective of the study [32].

#### 3.2. Methodology

#### 3.2.1. Likert Scale

The Likert Scale was developed by Likert in 1932 and thereafter named after him. The scale ranges from 1 to 5 (**Table 1**). Basically, the respondent is asked about their opinion about a certain aspect *i.e.* how they feel satisfied with the current basketball performance in Rwanda [33]. The respondent is not only

**Table 1.** The numerical Likert scale.

Measurement	Numerical
Strongly Disagree	1
Disagree	2
Neutral	3
Agree	4
Strongly agree	5

asked if they agree or disagree with the statement but also to indicate the extent to which they agree by selecting one of the five categories: strongly agree, agree, neutral/fairly, disagree, and strongly disagree. For the purposes of this study analysis, a numerical number is attached to each category.

#### 3.2.2. Descriptive Statistics

As the name suggests, descriptive statistics elaborates on the characteristics of the data. In this current research, sum and percentage were used. They can be expressed mathematically as:

$$\operatorname{sum} = \sum_{i}^{j} x_1 + x_2 + \dots + x_j \tag{1}$$

Percentage = 
$$\frac{x}{N} * 100\%$$
 (2)

whereby,

*X*: Is the item;

N= The total number in the sample population.

#### 4. Results and Discussion

#### 4.1. Questionnaires Outcome

In this research, three categorized questionnaires were used to understand the current basketball situation in Rwanda. The three groups that were interviewed included; secondary school students, parents, and teachers. These questionnaires which were sent randomly to the respondents were recovered although not 100% recovery rate was witnessed.

A total of 100 questionnaires were sent out to basketball coaches and 80 were recovered (Table 2). Among the recovered, ten were invalid respondents that did not match the criteria and hence were eliminated for further analysis. Therefore, a total of 70 valid questionnaires for basketball coaches were used which signified a recovery rate of 80% and an effective recovery rate of 87.5% (Table 2).

A similar number of questionnaires (100) were sent to school parents and 90 were recovered with 5 invalid respondents that were eliminated in the analysis. This indicated a recovery rate of 90% with an effective recovery rate of 94.4%.

**Table 2.** Tabulation of recovery rates of questionnaires among three stakeholders.

Objects	Copies	Recovered	Recovered %	Valid	Effective %
Teaches/coaches	100	80	80	70	87.5
Students/players	300	270	90	248	91.9
Parents/fans	100	90	90	85	94.4
total	500	440	88	403	91.6

The main target of the research was secondary school students. A total of 300 questionnaires were sent out to them, and 270 were recovered, among which 22 were invalid hence a recovery rate of 90.0% and an effective recovery rate of 91.9% were documented. This depicted goodwill to participate in the research to better the basketball training, enrich the economy and enhance peace in Rwanda.

#### 4.2. Demographic Characteristics of the Sampled Population

According to [34], demographic factors significantly influence the level of satisfaction. In this study the following demographic characteristics were considered; Gender of the players, age of the coaches and players, Experience of the coaches, and education level of the coaches (Table 3).

#### 4.2.1. The Age Structure of the Basketball Players and Coaches

Age plays a critical role in the success of basketball due to the high need for flexibility in the game. This is crucial for both coach and the players. The experience of the coach is essential, and this goes in hand with age. It's perceived that the older the coach the more likely experiences the coach is and the young the player the easier to train them. In this analysis, the results show that out of the 70 coaches we interviewed 57.1% are aged between 20 - 34, while 34.28% are aged between 34 - 45 (Table 3). Scientific research has proved that the best age for coaching is between 35 and 45 years old since coaches in this age group have sufficient energy, strong learning ability, stable experience, and flexible adaptability. This indicates the potential for basketball success in Rwanda. The remaining 8.58% of the sampled population were above 45 years of age.

Notably, the age of the players was not analyzed because the targeted group was the secondary school students who are aged between 13 - 20 years, hence no significant difference among age groups could be depicted.

#### 4.2.2. The Educational Background Structure of Basketball Coaches

The coach's ability to deliver has a significant relationship with the education level. Even though there is no absolute causal relationship between a coach's performance and educational level, integrating coaches' experience with education is essential for the success of the sports.

The results show that majority of the coaches had a first degree (54.29%) (**Table 4**). This can be attributed to the fact that; the research was carried out at a secondary school and the basic requirement to be employed as a secondary teacher in Rwanda you need to have a bachelor's degree. This was followed closely by

Table 3. Age structure of basketball coaches in Rwanda.

Age	20 - 34	34 - 45	Above 45
Number of people	40	24	6
Percentage (%)	57.14%	34.28%	8.58%

**Table 4.** Educational level of the coaches from the sampled population.

Educational Level	Master's Degree or above	Bachelor's Degree (A0)	Associate Degree (A1)	High school Diploma (A2)
Number of people	2	38	12	18
Percentage (%)	2.85%	54.29%	17.15%	25.71%

teachers who hold high school diplomas (25.71%) (**Table 4**). The Teachers with Associate degrees occupied 17.15% of the sampled population while the least captures group were teachers with a master's who were only two (2.85%) based on the sampled population (**Table 4**). The educational background reflects a coach's academic level hence a robust basis to measure the coaches' performance level.

Notably, there is no sports university in Rwanda to provide qualified sports teachers and coaches, the country offers physical education majors at the University of Rwanda (UR) and students are also required to combine their sports majors with other subjects like biology.

#### 4.3. Basketball Infrastructure in Rwanda Secondary Schools

In secondary schools where most people begin to play basketball in Rwanda, the result shows that 67.75% of schools have at least one outdoor court, and only less than 25% have more than two basketball courts (**Table 5**). This signifies that, a lack of adequate facilities to train the huge numbers of secondary school students who might be interested in the sport. The secondary schools which had more than 5 basketball courts were the least occupying only 3.22% of the sampled population (8 schools) (**Table 5**). This number may be linked to the presence of national school respondents and private secondary schools which are better equipped as compared to their counterparts (provisional, district, or day schools). Remarkably, 4% of the sampled population of secondary schools did not have a basketball court (**Table 5**). This is worrying since it denies the opportunity to explore professional basketball training to the students in those secondary schools.

Notably, the researcher documented no presence of indoor courts in the sample population. Remarkably, the respondents noted that many school basketball courts are old and sometimes used as temporary volleyball courts, tennis courts, etc.

## 4.4. Level of Satisfaction with the Current Basketball Infrastructure in Rwanda

Based on the previous section on the number of basketball courts in each school.

**Table 5.** The tabulation of basketball available courts in secondary schools in Rwanda.

No. of Outdoor basketball courts	No. of Secondary school	Percentage
0	10	4.0%
1	168	67.8%
2 - 4	62	25.0%
More than 5	8	3.22%
Total	248	100%

It was paramount to assess the level of satisfaction of the respondents with the current basketball infrastructure since they determine the number of players to train and the skills they may acquire. The result reveals that the majority of the sampled population (39.1%) were dissatisfied with the current basketball infrastructures in the schools (Figure 1). This was followed by people who were quite satisfied with the current situation occupying 36.1% of the pie (Figure 1). The people who were satisfied with the current basketball infrastructure were 10.4% while the group that was satisfied occupied only 4% of the sample population (Figure 1). On the contrary, the people who were very dissatisfied with the current basketball infrastructure were 10.4% of the sample population (Figure 1). This signifies the diversity of the view based on the level of secondary schools the respondent was at *i.e.* National, Provincial, District, day school or private schools.

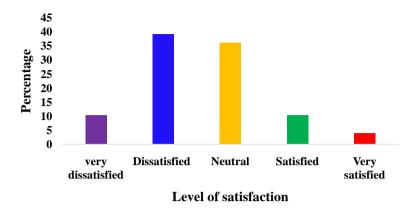
The level of satisfaction significantly influences performance of the sport/job hence the government need to fund the secondary schools and equip the basketball courts which are already present as they purpose to move towards adequacy.

#### 4.5. The Frequency of Playing Basketball in the Secondary Schools

The number of times the students practice the game, the higher the chances of perfecting and engaging at a higher level of competition apart from school competition to national teams and even international arenas. The analysis shows that most of the schools (43.15%) train basketball 3 - 4 hrs within a week (**Table 6**). This was followed by other schools that occupied 27.41% of the sampled population that train for less than 3 hrs per week. The secondary schools that train for 4 - 5 hrs within a week occupied 18.14% of the sampled population. The schools that train for more than 5 hrs were the least as represented by 11.3% of the sampled population (**Table 6**).

# 4.6. Conflicts between Basketball Training and Academic Learning

There exist significant conflicts between sports and academic performance around the globe. It is perceived that the students who excel in academics are less sporty. This can be attributed to the fact that sporting activities are physically involved which may inhibit academic work since the body is already tired. Many factors



**Figure 1.** The level of satisfaction of respondents with the current situation of basketball infrastructure in Rwanda.

**Table 6.** The average time of students participating in basketball activities each week.

Time	Less than 3 hours	3 - 4 hours	4 - 5 hours	Above 5 hours
Number	68	107	45	28
%	27.41%	43.15%	18.14%	11.3%

restrict teenagers' sports activities and theoretical knowledge, such as the coordination of training and learning time, the professional and training experience of the coaches, the support from teachers, and parents.

The results as categorized in three groups shows that 43.55% of the sampled population of secondary school students indicated that, there exist significant conflicts between basketball training times and academic time (Figure 2). Additionally, some teachers use sports time to teach others main courses, especially science-based courses. The 29.03% of the sampled population indicated the existence of fair conflict between academics and basketball training (Figure 2). This can be linked to better streamlining of basketball training time to the academic timetable. The minority of the sample population (27.41%) showed there is less friction between the duos and this can be linked to the integration of scientific arrangement of study and training plan that improves study and training. Conclusively, more attention should be paid to scientific basketball to minimize interferences with the academics' performance. This finding concurs with a study by Regine (2018), that found a significant positive correlation between conflicts between sports and academic performance in Rwanda secondary schools.

#### 4.7. Parents Support Students to Participate in Basketball Games

The support systems of the basketball game should be reinforced for its success. This includes; government, parents, teachers, and societal support. In this case, parents' support in their children to play basketball was assessed. The results show that only 4.7% of sampled parents fully support their children in participle in basketball and 42.35% fairly support their kids (**Figure 3**). This can be attributed to basketball awareness in the country through NBA and FERWABA in



Figure 2. The level of conflict between academics and basketball training.

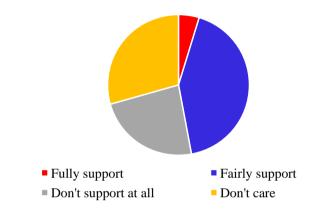


Figure 3. Depiction of parents who support their children in playing basketball.

Rwanda. Recently, the government is supporting IFB which has attracted many people and also non-governmental organizations to sponsor the teams. The parents have become enlightened and appreciated that not only education can open great doors but also sporting activities can create a good lifestyle in the players. Some parents are aware of the healthy benefits of the sport and the creation of teamwork spirit in children since for them to win the game, they have to work as a team.

The researcher noted that 23.52% of the sampled population of parents do not support their children in this matter. This can be linked to the existing conflicts between academics and sporting activities (**Figure 3**). This has made some parents discourage their children not to being involved in sporting activities as they consider them a waste of time. Most parents think nothing great can be achieved in sports but academic success is more rewarding which may be a lie. Additionally, some parents are worried about physical injury to their kinship and maybe the school doesn't have medical cover in case of serious injury, but the school offers only first aid.

The remaining 29.41% of the sampled population of parents are ignorant (do not care about if their kids chose to engage in the sport or not) (**Figure 3**). This can be attributed to a lack of knowledge about the benefits of basketball to children and society.

#### 4.8. Satisfaction of Coaches with Current Remuneration

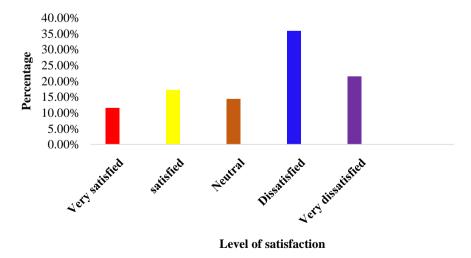
The essence of employees' satisfaction in any given organization can never be underestimated since their performance determines the success of the company. The level of satisfaction of the coaches determines the performance of basketball around the globe.

The results show that at least 11.42% of basketball coaches are very satisfied with the current compensation offered to the coaches while, 17.14% of the sampled population were satisfied, and 14.28% of the sampled population of coaches with a neutral point (neither dissatisfied nor satisfied) with the current compensation measures for their work (Figure 4). Another group of 35.71% was rated as dissatisfied while 21.42% are very dissatisfied with the current compensation mechanism used by the government and schools (Figure 4). This signifies that some schools are trying well to compensate for the teachers who train basketball since they are also allocated other academic work. The dissatisfied group may be linked to the fact that training basketball is quite physically involved, and the schools may not have extra motivation compensation mechanisms for those teachers apart from the normal salaries.

#### 4.9. Basketball Culture in Rwanda

The culture of the people determines the level of satisfaction they are likely to achieve. In Rwanda, the respondent perceived that the culture fairly influences the performance of the basketball in the country (**Figure 5**). The 33.16% of the respondents were dissatisfied with the influence of culture on basketball performance. This can be linked to the fact that most people perceived that basketball players do not perform well in academics. Additionally, there exists a conflict between streamlining sports in the education system.

Few respondents expressed satisfaction (14.35%) with the Rwandese culture of basketball. Notably, only 5.9% of the sampled population were very contended



**Figure 4.** The level of satisfaction of basketball coaches with the current compensation mechanism.

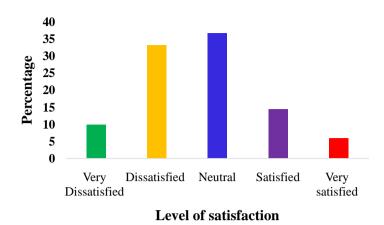


Figure 5. Satisfaction of Basketball culture in Rwanda.

about how Rwandese culture influences the performance of basketball in the country (Figure 5).

# **4.10.** Perceived Basketball Performance Satisfaction by the Respondents

The performance of basketball is influenced by multitudes of factors ranging from the availability and funding of the game to personal/player behavioral intentions. The factors that influence basketball performance include but are not limited to: infrastructure conditions, coaches education level and experience, time spends in training, age of the trainees, and integration of the sporting activities in the education systems. Taking all these factors into consideration, the level of satisfaction with the performance of basketball in secondary school was assessed.

The results show that the majority (54.5%) of the sampled population were dissatisfied with the current performance of basketball in Rwanda secondary schools (Figure 6). There exists a huge gap between the dissatisfied respondents with people who were fairly satisfied with the current performance since they occupied 18.8% of the sampled population (Figure 6). Only 15.8% of the sampled population were satisfied with the current performance and very few respondents (4.0%) were very satisfied with the situation. Notably, despite the fact that the majority of the respondents expressed dissatisfaction, only a few (6.9%) were very dissatisfied with the current performance of the basketball at high school level.

This calls for the government to reinforce measures to improve basketball through more funding and organizing for external donors. The teachers and parents are called upon to support the children to engage in-game and harvest the benefits associated with the sporting activities.

#### 4.11. Professional Training for Basketball Coaches in Rwanda

It was paramount to analyze the level of professional training the coaches obtain since their level of training affects the overall performance of basketball [35]. At

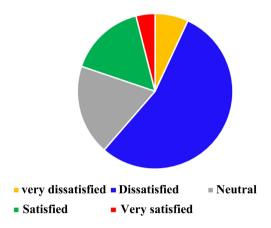


Figure 6. Satisfaction of basketball performance in Rwanda by the respondents.

the same time, basketball is a rapidly developing sport, and various techniques and tactics are growing in a direction suitable for contemporary basketball. Although the general principle will not change, the details of the problem are not always the same. Therefore, the training of basketball coaches is essential and uninterrupted.

The results show that most coaches have received training though not that intensive. The majority of the coaches (35.7%) have received training at the city/district level (Table 7). At the national level, 28.6% of the coaches have received training while at the middle level (Provincial) only 14.3% of the sampled population of coaches have received training (Table 7). The higher the level of training the higher the perceived basketball skills the coach is perceived to obtain. Other coaches have received training outside school like societal clubs which is mostly obtained from experienced personnel and this group occupied only 21.4% of the sample population (Table 7). This calls for the need to improve training workshops for our coaches for better performance of the secondary school basketballers.

#### 4.12. Adoption of Scientific Training in Rwanda

The objective laws and basic regulations summarized in sports training include the principles of systematicity, periodicity, rationality, general training, and special training. Sports with reasonable training principles can ensure that athletes can create better results. Adoption of scientific training is essential to save time and enhances the trainee's skills. The researcher documented that, only 28.6% of coaches adopt scientific training principles and methods and choose reasonable training methods based on youth development law.

Half of the respondents (50%) of coaches have not adopted scientific training methods. Notably, 21.42% of the sampled population perceives that there exist no differences between the traditional methods of training and the scientific type (Table 8). Nevertheless, there are fundamental differences between the training methods of teenagers and the training methods of adults. Conclusively, the training methods of basketball coaches in Rwanda generally lack scientific skills

and do not systematically follow the physical and psychological training laws (Table 8).

**Table 7.** Training situation of coaches in Rwanda.

Level	National level	Provincial-level	District/City level	Non-professional level (Societal Clubs)
Coaches	20	10	25	15
Percentage (%)	28.57%	14.3%	35.71%	21.42%

Table 8. Adoption of scientific training methods in Rwanda basketball.

scientific	Adopt Scientific training	Not adopt scientific training	Think no different
The number of coaches	20	35	15
The percentage (%)	28.57%	50%	21.42%

#### 5. Conclusion and Recommendation

The study aims at assessing the current basketball situation in Rwanda through data collection by using structured questionnaires that were distributed among the coaches, players (secondary school pupils) and parents. Likert scale was used in developing the questionnaires; descriptive statistics, frequency tables, and charts were used to analyze the collected data.

The results show that basketball facilities in Rwanda are underfunded leading to inadequate human resources and few basketball pitches. Rwanda basketball coaches' age structure was basically at the best age. Age is paramount in determining the flexibility of the body that is needed in basketball movements/sports. The study noted that, despite the high education of the coaches, rich knowledge level, and high work enthusiasm, they lacked basketball experience. Most of the schools in Rwanda have a single source of funding and cannot raise funds by themselves, and the government appropriations cannot meet the standard training and competition tasks. Notably, sports activity normally clashes with academic performance leading to low performance since less training is channeled into basketball training.

Based on the findings of the study, the researcher recommends that basketball training needs to improve systematically in order to meet scientific training. Basketball training needs to be streamlined in academic studies in order to take basketball performance to the next level and better the people's livelihood and the Rwandese economy. Government and non-governmental organizations (NGOs) are encouraged to fund the basketball training in Rwanda in order to build the economy and peace among the population. Additionally, basketball awareness is encouraged in order to woo many youths to the activity which they can make a living from if they utilize it. There is a burgeoning need to mobilize the enthusiasm of the teaching and training staff hence increasing the basketball

competition system in Rwanda, the perfect competition system and scientific competition system are the basis for improving basketball at the grassroots level.

The Rwanda sports schools should recruit more in order to avoid some students to join the middle school for the personnel training environment. Increase the investment in basketball through the multi-channel, multi-way method to obtain the investment in youth basketball reserve talent training.

## **Acknowledgements**

The first author is grateful to Taiyuan University of Technology (TYUT), China for sponsoring his master's degree and creating a conducive environment that fosters research.

#### **Conflicts of Interest**

The authors declare no conflicts of interest.

#### References

- [1] Cole, A.R. (2014) Sports Participation and Academic Achievement: Does Self-Efficacy Play a Role? The University of Arizona, Tucson, AZ.
- [2] Eklund, N. (2021) Reconciliation through Football. A Study on the Role of Football in the Reconciliation Process of Rwanda. Lund University, Lund.
- [3] United Nations for Educational Scientific and Cultural Organisations (2013) Annual Report 2013. United Nations, Paris.
- [4] Kidd, B. (2008) A New Social Movement: Sport for Development and Peace. Sport in society, 11, 370-380. https://doi.org/10.1080/17430430802019268
- [5] MoH (2010) Rwanda National Health insurance Policy. Ministry of Health, Kigali.
- [6] Lyras, A. and Welty Peachy, J. (2011) Integrating Sport-for-Development Theory and Praxis. Sport Management Review, 14, 311-326. https://doi.org/10.1016/j.smr.2011.05.006
- [7] Lyras, A. (2003) Doves Olympic Movement: Pilot Study for Interethnic Conflict Management and Cultural Development. University of Connecticut, Storrs, CT,
- [8] Lyras, A. (2007) Characteristics and Psycho-Social Impacts of an Inter-Ethnic Educational Sport Initiative on Greek and Turkish Cypriot Youth. PhD Dissertation, University of Connecticut, Storrs, CT.
- [9] Lyras, A. (2012) The Doves Olympic Movement Project: Integrating Olympism, Development, and Peace. In: Schinke, R. and Hanrahan, S., Eds., Sport for Development, Peace, and Social Justice, Fitness Information Technology, Morgantown, WV, 23-37.
- [10] D'amico, R. (1974) Basketball in Africa. Journal of Health, Physical Education, Recreation, 45, 7-78. https://doi.org/10.1080/00221473.1974.10618729
- [11] Didier, S.M. and Lyras, A. (2018) Basketball for Change and Development: A Case Study of an International Basketball Foundation (IBF) Project in Rwanda. *Sport and Olympic-Paralympic Studies Journal*, November, 71-80.
- [12] Bagabo, P. (2021) Contribution of Good Governance on the Performance of Sports Organizations in Rwanda. Doctoral Dissertation, SNU Open University, Seoul.
- [13] Regine, M. and Andala, H.O. (2021) Sports' Participation and Students' Academic

- Performance in Public Secondary Schools in Rwanda. *Journal of Education*, **4**, 76-97.
- [14] CNOSR (2018) Rwanda National Olympic and Sports Committee. http://www.olympicrwanda.org/
- [15] FIBA (2018) FIBA Basketball. http://www.fiba.basketball/
- [16] Rwandaise, F. and Sport, D.U. (1995) Federation Rwandaise du Sport Scolaire 1.
- [17] Banda, D., Lindsey, I., Jeanes, R. and Kay, T. (2008) Partnerships Involving Sportsfor-Development NGOs and the Fight against HIV/AIDS. York St John University, York.
- [18] Grundy, P., Nelson, M. and Dyreson, M. (2014) The Emergence of Basketball as an American National Pastime: From a Popular Participant Sport to a Spectacle of Nationhood. *The International Journal of the History of Sport*, 31, 134-155. https://doi.org/10.1080/09523367.2013.865016
- [19] Takotra, P. (2022) Past & Present Scenario of Basketball in Relation to Olympics. International Journal of Research Pedagogy and Technology in Education and Movement Sciences, 11, 24-30. https://doi.org/10.55968/uniaca.2022.11.2.5
- [20] Seefeldt, V., Ewing, M. and Walk, S. (1993) Overview of Youth Sports Programs in the United States. *Education*, 133.
- [21] Catalano, R.F., Berglund, M.L., Ryan, J.A., Lonczak, H.S. and Hawkins, J.D. (2004) Positive Youth Development in the United States: Research Findings on Evaluations of Positive Youth Development Programs. *The Annals of the American Academy of Political and Social Science*, 591, 98-124. https://doi.org/10.1177/0002716203260102
- [22] Schinke, R.J., Bloom, G.A. and Salmela, J.H. (1995) The Career Stages of Elite Canadian Basketball Coaches. *Avante*, **1**, 48-62.
- [23] Camiré, M. (2014) Youth Development in North American High School Sport: Review and Recommendations. *Quest*, 66, 495-511. https://doi.org/10.1080/00336297.2014.952448
- [24] Refsland, R.G. (2009) Athletic Recruitment in Wisconsin Public and Non-Public High Schools: The Effect of Inter-District Open Enrollment and outside the Geographic Area on Varsity Basketball Participation. Edgewood College, Madison.
- [25] Borghesi, R. (2018) The Financial and Competitive Value of NCAA Basketball Recruits. *Journal of Sports Economics*, 19, 31-49. <a href="https://doi.org/10.1177/1527002515617510">https://doi.org/10.1177/1527002515617510</a>
- [26] Sampaio, J., McGarry, T., Calleja-González, J., Jiménez Sáiz, S., Schelling i del Alcázar, X. and Balciunas, M. (2015) Exploring Game Performance in the National Basketball Association Using Player Tracking Data. *PLOS ONE*, 10, e0132894. <a href="https://doi.org/10.1371/journal.pone.0132894">https://doi.org/10.1371/journal.pone.0132894</a>
- [27] DiFiori, J.P., Güllich, A., Brenner, J.S., Côté, J., Hainline, B., Ryan, E. and Malina, R.M. (2018) The NBA and Youth Basketball: Recommendations for Promoting a Healthy and Positive Experience. Sports Medicine, 48, 2053-2065. https://doi.org/10.1007/s40279-018-0950-0
- [28] Berri, D.J. (2017) National Basketball Association. In: Fizel, J., Ed., Handbook of Sports Economics Research, Routledge, New York, 21-48. <a href="https://doi.org/10.4324/9781315093178-3">https://doi.org/10.4324/9781315093178-3</a>
- [29] Aksović, N., Kocić, M., Berić, D. and Bubanj, S. (2020) Explosive Power in Basket-ball Players. Facta Universitatis, Series: Physical Education and Sport, 18, 119-134. https://doi.org/10.22190/FUPES200119011A
- [30] Sarlis, V. and Tjortjis, C. (2020) Sports Analytics—Evaluation of Basketball Players

- and Team Performance. *Information Systems*, **93**, Article ID: 101562. https://doi.org/10.1016/j.is.2020.101562
- [31] Ivašković, I. (2019) The Stakeholder-Strategy Relationship in Non-Profit Basketball Clubs. *Economic Research-Ekonomska istraživanja*, **32**, 1457-1475. https://doi.org/10.1080/1331677X.2019.1638283
- [32] Tischler, V., Carone, L. and Mistry J. (2016) The Gallery as Therapeutic Venue: Exploring Visitor Perceptions in a Contemporary Space. *Journal of Applied Arts and Health*, **7**, 37-53. <a href="https://doi.org/10.1386/jaah.7.1.37">https://doi.org/10.1386/jaah.7.1.37</a> 1
- [33] Likert, R. (1932) A Technique for the Measurement of Attitudes. In: *Archives of Psychology*, No. 140, The Science Press, New York, 55 p.
- [34] Ma, M.L. (2005) A Study on Factors Affecting Consumers' Attitude towards Online Shopping and Online Shopping Intention in Bangkok, Thailand. *Proceedings of the 7th International Conference on Innovation & Management*, 1847-1853.
- [35] Xia, X. (2020) Empowerment: The Teacher Training Model in Primary and Secondary Schools. A Case Study of Singapore. *Open Access Library Journal*, 7, e6329. https://doi.org/10.4236/oalib.1106329