Influence of Game Space on the Design of Wheelchair Basketball Tasks

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Abstract: The design and organization of the training tasks in Wheelchair Basketball (WB) determine the load to which the players are exposed. Therefore, the aims of the present study were twofold: (a) to identify the existing associations between the pedagogical variables and the game space that define the training tasks by a coach of a professional WB team using the integral analysis system of training tasks (SIATE) tool, and (b) to analyze the self-defined profile of the two coaches. A total of 46 tasks coded during two months of coaching were analyzed. The following questionnaires were used to determine the coaches’ self-defined profile: (i) Coach Orientation Questionnaire; (ii) Coach Knowledge and Skills Questionnaire; (iii) Coach Decision Questionnaire; and (iv) Coach Planning Style Questionnaire. The results reported a relationship between the playing space and the design of the tasks defined by the pedagogical variables. Positional situations in WB are mainly used for 1 × 0 tasks, during warm-up, by means of simple and unopposed application games. In the same way, 1 × 0 tasks are used in midfield game situations. On the other hand, coaches use the round-trip court in more complex game situations, 4 × 4 and 5 × 5, in which attack and defense contents are worked together, by means of specific complex games of numerical equality for the training of collective technical–tactical attacking schemes. Planning and evaluation of the training sessions provide knowledge regarding the evolution of the physical condition and load to which the players are exposed. The WB coaches should handle a wide repertoire of general and specific contents to improve the quality of training sessions, and consequently, the performance in the game.

Keywords: disability; SIATE; training; planning; performance

1. Introduction

Players’ performance is influenced by multiple variables, such as physical, psychological, or biomechanical factors [1], as well as technical–tactical factors [2], or the injuries suffered during training or official matches [3]. The importance of training should not be forgotten to achieve optimal preparation for competition [4]. Therefore, training must be systematic, planned, organized, and structured in advance by the coaching staff [5,6], with the aim of allowing players to acquire progressive learning [7]. The coaches should plan activities that allow previously programmed objectives to be achieved through sport
practice [8], with different methodological conceptions [9,10], aiming an indirect impact on the planning and selection of training tasks and, consequently, on the athlete’s training process [6,11].

Training planning should be as complete as possible. To this end, tools are used to facilitate the planning and control of training, thus making it possible to save time for the analysis of the sessions [9]. The design of training sessions substantially improved from more traditional methodologies towards new situations in which more specific game situations are prioritized with the aim of producing a technical–tactical improvement in players [12], or decision-making in situations under pressure [13]. The analysis of training tasks will allow the coaching staff to identify their methodological positioning, as well as to analyze and evaluate their training sessions, and to generate new possibilities for action based on practice [14].

This evaluation should be systematically carried out, since it allows for the development of the technical–tactical skills of the athlete, and thus enhanced performance [15]. This process can unfold in different ways, depending on the economic resources [16], or, considering the available material [11]. The integral analysis system of training tasks (SIATE) is a modular, flexible, and adaptable training recording tool for different sports modalities [17], as well as an accessible resource for any sports professional.

The SIATE has been used in the analysis of pedagogical variables in football [7,16,18]. In basketball, it has been used to analyze the relationship between the game phase of the tasks and the pedagogical variables [8,19,20], or, in handball, to understand the training organization [21], the external load to which students are subjected [22], and even to evaluate the influence of groupings in the design of training tasks [23]. In the scientific literature, papers related to the analysis of training tasks in sports for people with disabilities are scarce, with these requiring specific scientific knowledge regarding these sport modalities.

Wheelchair Basketball (WB) is a sport for people with disabilities that is of great interest to the scientific community, namely, to understand the physical demands of the players. To quantify the training load, different objective methods are used, such as heart rate [24], or the rating of perceived exertion (RPE) scale [25], as well as the variability of body temperature [26]. These methods provide knowledge regarding the physical demands of the players before, during, and after different training situations and consider functional classifications (FC). To objectively quantify the external load, inertial devices can be used [27], to analyze the physiological and kinematic demands [28]. These variables are directly influenced by the methodology developed by the coach during training sessions. In contrast, few studies analyze the influence of the coach’s profile on the design of the tasks and players’ load.

The profiles that coaches can present were defined by Ibáñez [29]. In addition, different variables have been defined, affecting or conditioning their intervention in the training process [30]. These profiles have been identified in coaches interacting in handball [31,32], football [33], or basketball [34]. The coach’s profile should be evaluated from a multidimensional perspective, considering the knowledge and skills developed by them [35]. It should be noted that coaches of athletes with disabilities should adapt their interventions to the characteristics and needs of the players [36].

After analyzing the existing literature related to the evaluation of the coach’s profile and the analysis of tasks in sports for people with disabilities, the aim of this study was to analyze the self-defined profile of the coaching staff, and to analyze the tasks performed during training sessions in a professional WB team belonging to the Spanish Division of Honour. The specific objectives of the study were: (a) to determine the self-defined profile of the head coach and assistant coach of a professional WB team, and (b) to identify the associations between the pedagogical variables and the game space that define the training tasks (mode of action).
2. Method

2.1. Design

The design of this study presents a descriptive and associative strategy [37], with the aim of identifying whether there are differences between two or more study variables. For this purpose, a period of competitive training was selected during the months of October and November for a professional WB team. These training sessions were developed and implemented by the first and second coach of the team (head coach and assistant coach).

2.2. Participants

A professional WB team belonging to the Spanish Division of Honour was involved in the study. The first and second coach had previous experience of 5 and 2 years, respectively. The team was composed of nine players, of which two players had a FC of 1 point, one player a FC of 2.5 points, two players a FC of 3 points, one player a FC of 3.5 points, and three players a FC of 4 points. Table 1 shows demographic information about the subjects who made up the sample.

Table 1. Descriptive analysis of the participants.

<table>
<thead>
<tr>
<th>Players</th>
<th>Age (Years)</th>
<th>Weight (kg)</th>
<th>Height (cm)</th>
<th>Experience (Years)</th>
<th>FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>39 ± 0.00</td>
<td>76 ± 4.82</td>
<td>180.6 ± 3.90</td>
<td>4.5 ± 1.15</td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>40</td>
<td>65</td>
<td>179</td>
<td>4.5</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>24 ± 2.82</td>
<td>58.7 ± 19.45</td>
<td>170.4 ± 15.50</td>
<td>3 ± 2.41</td>
<td>3</td>
</tr>
<tr>
<td>1</td>
<td>32</td>
<td>59</td>
<td>156</td>
<td>4.8</td>
<td>3.5</td>
</tr>
<tr>
<td>3</td>
<td>29.4 ± 6.89</td>
<td>74 ± 9.05</td>
<td>180 ± 10.81</td>
<td>4.3 ± 1.54</td>
<td>4</td>
</tr>
</tbody>
</table>

kg: kilograms; cm: centimeters; FC: Functional Classification.

2.3. Sample

All the analyzed tasks were performed during two months of the season, in the first training macrocycle of the sporting season. The sessions took place during the months of October and November, in which a total of 27 and 21 tasks were carried out, respectively. Table 2 shows the time spent on the different tasks planned and implemented by the first and second coach. Time was divided into three specificities: (a) total time spent on the task; (b) explanation time, which is the time devoted to carrying out the instructions and explanations related to the practice of the task; and (c) useful time, which refers to the effective time of the task in which they are carried out. The study was conducted based on the ethical provisions of the Declaration of Helsinki (2013) [38], approved by the Bioethics Committee of the University of Extremadura (registration number 233/2019). This study also considered the ethical premises in sport science research [39].

Table 2. Descriptive analysis of the time spent in the different tasks (minutes).

<table>
<thead>
<tr>
<th>Month</th>
<th>Tasks</th>
<th>Type of Times</th>
<th>Useful Time</th>
<th>Explanation Time</th>
<th>Total Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>October</td>
<td>27</td>
<td>Mean ± SD</td>
<td>11.19 ± 4.79</td>
<td>1.84 ± 1.15</td>
<td>13.03 ± 5.37</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimum</td>
<td>2.50</td>
<td>0.50</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum</td>
<td>21.60</td>
<td>5.00</td>
<td>26.66</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean ± SD</td>
<td>16.37 ± 20.35</td>
<td>1.92 ± 1.19</td>
<td>18.28 ± 20.79</td>
</tr>
<tr>
<td>November</td>
<td>21</td>
<td>Minimum</td>
<td>2.50</td>
<td>0.50</td>
<td>3.33</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum</td>
<td>97.55</td>
<td>5.33</td>
<td>100.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mean ± SD</td>
<td>13.24 ± 13.37</td>
<td>1.87 ± 1.15</td>
<td>15.11 ± 13.76</td>
</tr>
<tr>
<td>Total</td>
<td>48</td>
<td>Minimum</td>
<td>2.50</td>
<td>0.50</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maximum</td>
<td>97.55</td>
<td>5.33</td>
<td>100.5</td>
</tr>
</tbody>
</table>
2.4. Instruments

To the development of the present research, several instruments were used for data collection. The Coach Orientation Questionnaire (COQ), developed by Feu et al. [40], was used to determine the coaches’ self-defined profile. This questionnaire consisted of a total of 46 items, with a scale from 1 to 5, where 1 corresponded to strongly disagree and 5 to strongly agree. In the same way, knowledge and skills, decision-making, and planning style were assessed through the Coach Knowledge and Skills Questionnaire (CKSQ), the Coach Decision Questionnaire (CDQ), and the Coach Planning Style Questionnaire (CPSQ) [41].

For recording the tasks planned and implemented by the two coaches during the training sessions, the SIATE was used, a useful and simple tool for recording and analyzing the different factors that influence sports training [9], particularly in invasive sports, as is the case of WB.

2.5. Variables

Pedagogical variables were used as dependent variables (player relations, game phase, type of content, learning medium, and opposition level) and the game space used in the tasks as an independent variable. These variables were extracted from the SIATE instrument, to find information related to the planning and development of the tasks by the WB coaches in a professional team. The SIATE tool allowed the understanding of the performance mode of the first and second coaches of a professional WB team. To facilitate the recording and subsequent analysis of the data, all the variables were numerically categorized.

2.6. Procedure

To find out the self-defined profile and mode of action of the analyzed coaches, it was necessary to inform the club’s management. Subsequently, permission was requested for this study to be implemented. After acceptance, informed consent was requested from the WB coaches and players. The tasks were planned and executed by both coaches during the analyzed time. When these tasks were known by the researchers, two external evaluators, previously trained and familiar with the tool, categorized the tasks.

Subsequently, inter-observer reliability was analyzed to guarantee the quality and validity of the data collection for subsequent statistical analysis, and to ensure that relevant conclusions could be drawn. This process was already used in the scientific literature in different sport contexts, such as basketball [42] or in grassroots football [6,7,12]. On the other hand, the COQ, CKSQ, CDQ, and CPSQ instruments were applied prior to the data collection, because they are related to the mode of acting, and aim to understand the self-defined profile of the WB coaches. After the data collection, a report was provided to each coach independently, with the aim of providing relevant information about the methodology used by each of them.

2.7. Statistical Analysis

To assess the reliability of the data collected by the external observers, a statistical procedure called Multirater Kappa Free was carried out using the Kappa coefficient [43]. The mean of the data collected by the coders in partial and total form was determined, obtaining a value above 0.89 in all the analyzed variables. This is a value with a high degree of reliability among the coders. Subsequently, the external observers recorded all the WB training tasks. A descriptive and percentual analysis was also performed considering the performance and development of the tasks. In addition, to estimate the relationship between the game space and the pedagogical variables, they were coded by means of the SIATE. The Chi-square ($\chi^2$) was used [44], assessing the level of association between the variables using Cramer’s Phi coefficient ($\phi_c$) [45]. The level of association was interpreted according to Crewson’s [20] proposal: Small (<0.100), Low (0.100–0.299), Moderate (0.300–0.499), and High (>0.500). For the interpretation of the degree of association of the variables studied, the Adjusted Standardized Residuals (ASR) were used [46]. The software used for the
3. Results

3.1. Self-Defined Profile of the WB Coaches

Figure 1a shows the self-defined profile of the two analyzed coaches using the COQ. The first coach presents a predominantly traditional profile, moving away from innovative and technological aspects. On the contrary, the second coach of the team presents a mainly technological/innovative profile, as he is characterized by the inclusion of recently created methods and confirms his worth through technology. In addition, he used technology in training sessions with the aim of quantifying and controlling the loads to which the players are exposed.

Figure 1. (a) Self-determined profile of the coaches. (b) Self-determined profile of the coaches according to knowledge and skills. (c) Self-determined profile of the coaches according to the decision style. (d) Self-determined profile of the coaches according to the planning style.

Figure 1b displays the scores obtained through the CKSQ. The first coach presents an academic profile, which does not consider self-training as a methodology for improvement. On the contrary, the second coach presents a mixed profile of reconverted player/self-training, since he relies on previously acquired knowledge, and carries out continuous training processes to improve methodological aspects.

The results related to the CDQ are shown in Figure 1c. The first coach shows a mixed profile, where authoritarian/democratic styles are intermingled. On the contrary, the second coach is dominated by a democratic style. Finally, in relation to the CPSQ (Figure 1d), it is shown how the second coach presents a preferably flexible profile, opposed to the first coach, since the latter presents a rigid profile.
3.2. Actuation Mode of the Coaches regarding the Game Space

Table 3 shows the results of the associations between the variables of the study: dependent variable (player relations, game phase, type of content, learning medium, and opposition type), and independent variable (game space).

Table 3. Association between the pedagogical variables and the game space.

<table>
<thead>
<tr>
<th>Pedagogical Variables</th>
<th>Game Space</th>
<th>$\chi^2$</th>
<th>gl</th>
<th>$p$</th>
<th>$\phi$</th>
<th>$p$</th>
<th>Association Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Player relations</td>
<td></td>
<td>35.665</td>
<td>12</td>
<td>&lt;0.001</td>
<td>0.862</td>
<td>&lt;0.001</td>
<td>High</td>
</tr>
<tr>
<td>Game phase</td>
<td></td>
<td>32.994</td>
<td>6</td>
<td>&lt;0.000</td>
<td>0.829</td>
<td>&lt;0.000</td>
<td>High</td>
</tr>
<tr>
<td>Type of content</td>
<td></td>
<td>32.994</td>
<td>9</td>
<td>&lt;0.000</td>
<td>0.829</td>
<td>&lt;0.000</td>
<td>High</td>
</tr>
<tr>
<td>Learning medium</td>
<td></td>
<td>22.273</td>
<td>3</td>
<td>&lt;0.000</td>
<td>0.681</td>
<td>&lt;0.000</td>
<td>High</td>
</tr>
<tr>
<td>Opposition type</td>
<td></td>
<td>31.109</td>
<td>3</td>
<td>&lt;0.000</td>
<td>0.805</td>
<td>&lt;0.000</td>
<td>High</td>
</tr>
</tbody>
</table>

Table 4 shows the descriptive and association results of the pedagogical variables with respect to the game space. The ASR for each of the association analyses are shown.

Table 4. Descriptive results and ASR in terms of pedagogical variables and game space.

4. Discussion

The aim of this study was to analyze the self-defined profiles of the coaching staff of a professional WB team belonging to the Spanish Division of Honour, and to evaluate the tasks performed during training sessions, to evaluate the relationship between the pedagogical variables and the game space, aiming to understand the mode of action of the coaching staff. Bearing in mind the self-defined profiles of the coaches according to the different questionnaires, it was observed that they present a mixed profile, with the head coach and assistant coach being complementary considering their characteristics. With respect to the mode of action, the coaches used a wide variety of pedagogical variables to plan their WB training tasks. A relationship was found between the playing space and the design of the tasks defined by the pedagogical variables. Positional situations were mainly used for $1 \times 0$ tasks, during warm-up, by means of simple application and without opposition games. In the same way, $1 \times 0$ tasks were used in $\frac{1}{2}$ court game situations. On the other hand, they used the round-trip court in more complex game situations, $4 \times 4$ and $5 \times 5$, in which attack and defensive contents were worked together, by means of specific
complex games of numerical equality, perceiving the training of collective technical–tactical
attacking gestures.

4.1. Self-Defined Profile of the WB Coaches

In relation to the self-defined profile of the first coach, the head coach, he presented
traditional characteristics, moving away from innovative and technological aspects, and
focusing on traditional training methods, such as the development of individual tasks
and the performance of the full game, without modifications of the game spaces or the
number of players. This coach profile has been identified in previous studies in basketball
training [47]. On the contrary, the second coach, the assistant coach, was characterized by a
technological and innovative profile, since he implemented and developed innovative game
situations with great benefits (small-sided games, SSG). In addition, he was distinguished
by the inclusion of technology in training, to quantify and control the loads to which the
players were exposed. These results are in agreement with those obtained by Urbano-
Arévalo et al. [6], in grassroots football coaches, with coaches presenting a technological,
dialogic, critical, and collaborative profile, moving away from the traditional methodology.

Each coach presents his own characteristics that have been forged due to his experience,
and due to the influence of extrinsic and intrinsic variables, with both coaches presenting
a mixed profile [41]. The evolution of the self-defined profile of each coach in WB can be
influenced by multiple variables such as the team’s results or the players’ own demands as
in grassroots football [7]. The coaches must reach a consensus in relation to the decision-
making process, as well as in the planning of training sessions, to develop a good working
climate, and allow players in WB to perform at their best. In addition, innovative sessions
must be developed, through disadvantageous offensive and defensive game situations,
with the aim of working determinant aspects of the real game.

Based on the CKSQ, it was concluded that the first coach presents a self-defined profile
that is mainly academic. On the other hand, the second coach is characterized by a self-
defined profile of a reconverted player and academic, as he builds on previously acquired
knowledge and carries out continuous training processes to improve methodological
aspects. The experience presented by the second coach is very beneficial and enriching
for the coaching staff, as it empower the construction of mixed work profiles, combining
knowledge acquired as players with situations acquired academically [41]. Therefore, the
experience acquired as a player by the second coach, as well as the interest shown by
the head coach in self-training and acquiring new knowledge, are very important factors
with the aim of generating specific performance profiles [7,16]. In other words, coaches
complement each other, and plan training tasks by consensus. It is recommended that
the coaching staff of conventional sports teams or sports for people with disabilities are
integrated by professionals with different backgrounds and experiences to create training
tasks that are as close as possible to those the players will experience in competition.

Considering the CDQ, the presence of a mixed self-defined profile was observed in
which authoritarian and democratic aspects are interspersed for the first coach, while a
democratic profile was seen for the second coach. In this section, the coaches’ years of
experience have a great influence, since the greater the experience, the more knowledge
they develop when it comes to managing the team [48]. Therefore, the coach must play
a leading role in the construction of knowledge, as well as the discovery of solutions
considering the problems posed or arising during the tasks. The coaches must favor and
develop the cognitive mechanisms of the players [49], with the aim of creating athletes
with problem-solving skills. Taking this into consideration, it is recommended to plan WB
training tasks with cognitive load, aiming at the maximization of potential of each WB
player and the handicap of playing in a wheelchair will often be overcome.

Regarding the CPSQ, we found major differences between the analyzed coaches.
The first coach presented a rigid style in planning his sessions, while the second coach
showed a flexible profile, characterized by the modification of the tasks depending on if
the objectives proposed at the beginning of the session are achieved. These results are
consistent with those obtained by Gamonales et al. [33] in grassroots football. On the contrary, coaches of sports for people with disabilities should mainly present a flexible style, since it will be necessary to adapt the tasks and methodologies to the individual needs and characteristics of the players, aiming to obtain successful results [36]. The training process entails responsibilities by the coaching staff, since the good physical condition of the players depends on it [50]. Our research topic requires few resources, is reliable and valid, as well as being carried out in an ecological manner since it does not intervene in the process planned by the coaches [34], allowing to analyze the point of view of each WB coach. The research methodology should be included by professional teams and training different categories, to understand and highlight which aspects need to be improved, and which factors or elements should be included in the preparation to obtain the best performance by the athletes.

4.2. Actuation Mode of the Coaches regarding the Game Space

The analyzed coaches mainly used $1 \times 0$ game situations in positional situations, while the round-trip court was used for full game situations ($4 \times 4$ or $5 \times 5$). This method of application is characteristic of traditional methodologies, based on technical models [51]. The results have shown the development of polarized tasks, since 35.4% of the developed tasks were $1 \times 0$, and the same occurs with $4 \times 4$ tasks, with 34.8%. It was concluded that the coaching staff presented little variability in the planification of the tasks. These results are in line with those identified in different disciplines such as basketball [51] or handball [52]. On the contrary, these results contrast with those obtained by Gamonales et al. [12] in grassroots football, in which the most frequently used game situations were reduced games, or SSGs, to produce improvements in tactical–technical skills. Modifications or constrains must be implemented to promote the development of the tasks, such as the reduction of the playing field, or the use of jokers, or even the reduction of the number of players depending on the needs and objectives proposed by the coaching staff. WB coaches are recommended to use a wide repertoire of contents to design their training tasks, as well as to have a great decision-making capacity to solve the problems that may occur during the training sessions.

In relation to the phase of play used in each of the tasks, we mainly observed the use of attacking tasks (54.2%); this type of task is developed in the round-trip court, thus resembling the physical demands of the competition. On the contrary, attacking situations are developed only in the $1/2$ court, to work on systems in positional attacking situations, in which there are no numerical superiorities, and each attacker is near a defender. Depending on the objectives proposed by the coaching staff, the tasks should be developed in different playing spaces, considering the technical–tactical and physical demands of the tasks to reduce the number of injuries and impacts on WB players [3]. The modification of the game space depending on the phase developed in each of the tasks will allow working with a different degree of intensity, producing variations in the tactical, physical, and physiological variables [53]. The design of training tasks must consider the physical demands as well as the different pedagogical variables to develop complete players, who reach high performance levels [18]. The coaching staff should consider developing predominantly mixed tasks because the sporting context in WB is characterized by continuous changes of attacking and defensive skills. Hence, players must be physically and cognitively prepared to develop their best performance depending on the phase they are facing.

The type of content will allow to precisely acknowledge what the analyzed coach works on, breaking down specific content for the attacking and defensive phases, as well as for the technical–tactical specific behaviors regarding the analyzed sport [54]. Our results show the great concern for the work of collective attacking technical–tactical gestures and the development of attacking systems in a round-trip court, moving away from the work of individual attacking technical–tactical gestures, as throws from different positions. These results are similar to those obtained by Feu et al. [55] and González-Espinosa et al. [56], in
which the work focused on the contents of the attacking phases which were prioritized over the defensive phase. Knowing and analyzing the percentage of content developed during the training session provides relevant information to coaches to evaluate their training processes [54]. This type of information allows coaches to organize the tasks and the concordance between the type of contents, as well as the spaces used for the achievement of the training objectives.

The analyzed coaches in our study developed simple exercises (54.2%) and specific complex games (45.8%). Therefore, this fact corroborates and supports the methodology and tradition used by the head coach because he does not develop complex application exercises or adapted games. The use of simple application exercises is generally static, centered on warm-up work or physical preparation, whose main purpose is to prepare the athletes physically and cognitively for the development of the session [57], as well as to evaluate and improve the technical–tactical skills. The use of specific complex game situations is mainly carried out with full field plus repetition, with the aim of working on technical–tactical actions closer to real game situations, being able to modify the number of players, increase or decrease the number of simultaneous players, and even modify the rules of the game [58]. To reach improvements in the physical condition of the players and in the technical–tactical actions of the game, complex game situations must be developed, which are close to the competitive reality. Developing tasks that simulate the real game will allow players to develop cognitive aspects of WB, as well as provide a motivating challenge for the players.

In terms of the type of opposition in each of the tasks, a great equality was observed between situations without opposition (45.8%) and situations of equality (54.2%). In our perspective, this was mainly used for static tasks, and tasks developed in the full court plus repetition. The development of tasks with opposition will allow players to seek situations of numerical or height inequality to obtain a better position for the shot [59]; thus, developing game situations with opposition, either in numerical equality or inequality, will allow an improvement in the players’ decision-making [60], since the largest number of shots in a basketball game are produced with opposition [61]. To produce the most complete training, and focus on improving player performance, tasks should be proposed under a high degree of defensive opposition, in which numerical superiority in defense is encouraged, and pairings with players of different heights to the shooter.

One of the main limitations of this study in WB is the small sample of analyzed coaches and tasks. We only had access to two high-level coaches (first and second coach, or head coach and assistant coach, respectively), and a total of 48 tasks for analysis. For future research, the analysis of pedagogical variables using the SIATE tool in different sports modalities for people with disabilities should be deepened, as well as increasing the number of coaches and sessions, to study different methodological aspects related to the training tasks in sports.

5. Conclusions

Analyzing the self-defined profile of the WB coaches allows us to understand the methodological position of each one, and to carry out substantial improvements in the training process by modifying the implemented methodologies. The analyzed coaches presented different profiles depending on the used scale, with complementary characteristics aiming to develop a mixed methodology that is adaptable to the needs and proposed objectives.

The analyzed head coach develops tasks predominantly in the attacking phase of the game as opposed to the defensive phase, encouraging the work of attacking gestures/skills and behaviors in situations of equality or without opposition. It can be concluded that this coach uses a traditional methodology, without focusing on individual technical–tactical development, such as shooting.

This training task analysis methodology opens a possible line of future research in the field of invasive sports training for people with disabilities. The SIATE instrument
presents a low economic cost and offers a great amount of information for the coaching staff considering the design of the training tasks, as well as the methodological positioning and the self-defined profile of the coaches. This promotes the understanding and evaluation of the training sessions’ planification to improve the WB performance. The coaching staff must develop more active and participatory tasks, to increase the interactions between the players.

Knowing the methodology of the training coaches, allows one to analyze and evaluate how they distribute the timing, and which aspect they must improve. For this reason, for future research, it is recommended to analyze the self-determination profile of the coaches in different sports contexts.


**Funding:** This research has been partially funded by the project entitled “Scientific-technological support to analyze the training load in basketball teams according to gender, players’ level and period of the season” (PID2019-106614GBI00), financed by MCIN/AEI/10.13039/501100011033. The author José M. Gamonales is a beneficiary of a grant from the Spanish University System Upgrading Programme, Field of Knowledge: Biomedical (Grant Ref.: MS-18). The author M.C.E. is also supported by the Instituto Politécnico de Setúbal and Portuguese Foundation for Science and Technology, I.P., under project number UIDB/04748/2020.

**Institutional Review Board Statement:** The study was conducted in accordance with the Declaration of Helsinki (2013) and approved by the Ethics Committee, University of Extremadura (registration number 233/2019).

**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

**Data Availability Statement:** The data that support the findings of this study are available from the corresponding author upon reasonable request (martingamonales@unex.es).

**Acknowledgments:** This study has been developed within the Optimisation of Training and Sports Performance Group Research (GOERD) of the Faculty of Sports Sciences of the University of Extremadura. All authors have contributed to the manuscript, and we certify that it has not been published and is not under consideration for publication in another journal.

**Conflicts of Interest:** The authors declare no conflict of interest.

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