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Making the Best Use of Time: Analysis of Practice Structure in Maltese Football Coaching

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Abstract: Practice design is an important part of the coach's role and can influence player development. Yet, we have little analysis of how football sessions in Malta are structured and what types of activities take place within sessions. Sport coaches in Malta are therefore confronted with a gap in the literature that may limit their ability to design effective, efficient, and evidence-based coaching sessions. To address this gap, football sessions from the Maltese talent development pathway (n = 20) were analysed during the period of January 2023 to April 2023. The analysis recorded the proportion of time players spent in drill-based activities (non-active decision making, e.g., unopposed technical or tactical skills practices, fitness training), game-based activities (active decision-making, e.g., small-sided games, skills practice with opposition), and transition periods (moving between exercise, coaches' intervention, and water breaks). The results demonstrated that, on average, players spent more time in transitions than game-based or drill-based activities. Transition activities are also significantly more frequent than game-based and drill-based activities. Suggestions for reducing transition periods and increasing time spent on games-based activities are provided to support football coaches in Malta and beyond with their practice design.

Introduction

Planning football practices is a complex process because the demands of the sport include a variety of concurrent technical, tactical, physical, and perceptual-cognitive skills (Sgrò et al. 2018; Williams et al. 2020). Additionally, players within any given team can have a range of dynamic and personalised needs that a coach seeks to meet (Cronin and Armour 2018). Furthermore, depending on the coaching context (e.g., participation vs. performance), the coach may need to satisfy the expectations of a variety of social actors within the football environment [e.g., parents, performance directors, club officials, and supporters] (Partington and Cushion 2013; Stodter and Cushion 2017). Faced with this complexity, many coaches will draw upon both declarative and procedural knowledge, pedagogical knowledge, and personal beliefs when designing practice sessions to develop and refine players' skills (Kinnerk et al. 2021). Typically, such practices will contain either drill-based (i.e. training form) and / or games-based (i.e. playing form) activities (Ford and Whelan 2016), the use of which can have implications for player development.

Drill-based practices often have no opposition and tend to involve individuals or groups practicing motor skills with decisions predetermined to the activity (e.g., passing routines,

or physical movements). In contrast, game-based activities typically involve modified game-like practices that, to greater and lesser extents, dynamically represent the full game (e.g., 1 vs. 1, 2 vs. 1, *4 vs. 4 + GKs, 6 vs. 6). The efficacy of game-based versus drill-based activity has been the subject of much research (e.g., Harvey and Jarrett 2014; Kinnerk et al. 2018; Richardson et al. 2023), with some indications that while game-based activities may provide a slower learning curve, learning acquired via such practices are retained more effectively and transfer better to competition. Indeed, game-based activities are often utilised to develop 'game intelligence' (i.e., contextualised decision-making capabilities) concomitantly with physical and technical skills (Ford et al. 2010; Miller et al. 2017; Roca and Ford 2020). This is not to say that there is no value in drill-based activities. On the contrary, participants may, for example, develop a sense of confidence from practicing motor skills in a single domain (e.g., technical passing) (Low et al. 2013). Thus, over time, the judicious, effective, and efficient use of *both* drill-based and game-based practices can lead to positive sporting outcomes for participants (Roberts et al. 2019). Conversely, ineffective and inefficient practice design may inhibit sporting development. Consequently, practice design is an important area of study.

Extant research has documented practice design in youth football across European countries. Specifically, Roca and Ford (2020) reported that 62% of sessions (*n* = 83) at professional club youth academies in England, Germany, Portugal, and Spain consisted of games-based activities. In contrast, only 20% of session time was spent in drill-based activities. Subsequently, the authors encourage youth coaches to include significant periods of game-based activities in their sessions. Additionally, via a novel methodological contribution, Roca and Ford (2020) examined the transition periods (i.e., non-football related activities such as drinks breaks) within the youth coaching sessions. They reported that across the 83 sessions in the four countries, 17% of total session duration was spent in transitions. This manifests as an average of 18-minutes per coaching session in which players were neither participating in drill nor games-based activity. This period of time was viewed as unproductive by the authors who argued for more efficient and effective use of time. Critically, Roca and Ford did not report a breakdown of the transition activities. It is therefore difficult, if not impossible, to determine how long the players transitioned between the activities, taking breaks, or listening to the coach prior to starting or after the activity. Furthermore, while Roca and Ford studied youth coaching practices in England, Germany, Portugal, and Spain, there is an absence of data on Maltese football coaching. Thus, the existing evidence base may lack contextual relevance to football coaches in Malta. This is a barrier for those Maltese coaches who wish to provide evidence-based practice. Hence there is a need for applied studies as a means of informing coaching practice in Malta.

In response to the above, this exploratory study evaluates the extent to which coaches in Malta are implementing drill-based activities, game-based activities, and transition periods during coaching sessions. To this end, the study is guided by the following research questions:
1. What proportion of coaching sessions are spent in a) drill-based, b) game-based, and c) transition activities?
2. What proportion of transition time is spent in a) moving between exercises, b) coaches' intervention, and c) water breaks?

In raising these questions, the analysis is undertaken not to castigate nor valorise coaches in Malta. Rather, the intention is to provide an evidence-based analysis that supports coaches in Malta and beyond to reflect upon their applied practice for the benefit young footballers.

Theoretical Perspective: Practice Theory

It is well established that football coaches plan and implement drill-based activities within sessions (Cushion and Jones 2001; Cushion, Ford, and Williams 2012; Ford et al. 2010). Such activities are typically associated as coach-led practices where instruction and demonstration are dominant coach behaviours (Miller et al. 2017). For coaches, this pedagogical approach can be experienced as controlled and consistent with their own prior experiences (Stonebridge and Cushion 2018). For athletes, these activities can involve limited or no opposition, and at times with no teammates, leaving only the player and the ball as part of a technical practice (Ford et al. 2010). Here skills are broken down into small components for the player to practice, rather than the whole skill. These drill-based activities, coupled with direct and specific instructional behaviours (e.g., augmented feedback) from the coach, may provide a scaffold for skill development by gradually introducing the athlete to opponents as the athlete develops (Williams and Hodges 2005).

An important factor which coaches must take into consideration is that drill-based practices may not emphasise athlete decision-making and therefore techniques learned in isolation may not transfer into competitive decision-making situations (Ford 2016; Ford and O'Connor 2019; Ford and Whelan 2016). Additionally, drill-based activities may hinder the development of creativity (Bowers et al. 2014). This is because decisions are often made prior to activities and by the coach (i.e., pass here and run here). This contrasts with game situations when players need to consistently execute appropriate decisions (Williams and Ford 2008; Williams and Hodges 2005). Finally, poorly implemented drill-based activities can result in players waiting for their turn to start/continue practice, and thus not meet either physical activity or learning aims (Harvey et al. 2016). In such scenarios, players may not be using practice time effectively, nor efficiently.

Game-based activities, which contrast with drill-based activities, have been examined using a range of theoretical concepts and pedagogical perspectives [e.g., non-linear pedagogy, deliberate play, teaching games for understanding, constraints led approach, game sense, and ecological dynamics] (Richardson et al. 2023). While different and nuanced perspectives exist across this literature, a general consensus suggests that athletes have much to gain from activities that, to greater and lesser extents, replicate the game conditions for players (Harvey and Jarrett 2014; Kinnerk et al. 2018). Indeed, contemporary research (e.g., Ford and O'Connor 2019; O'Connor et al. 2018) suggests that more time should be spent in game-based activities because they will enhance athlete decision-making. Indeed, through game-like activities, coaches may ask questions about positioning and movement of opponents, teammates, the ball, and space available as a means of developing game competency (García-González et al. 2014; Light and Evans 2013; Pill 2013; 2015). Additionally, modifying tasks, constraints, and the environment can lead to improvements in decision making (Roberts et al. 2019). Thus, game-based activities are often advocated as a means of supporting player development in sports such as football.

The game-based activities such as those described above do, however, require coaches to design the environment, modify tasks, and plan questions. For many coaches this can be a challenge and they may need to draw upon their experience and coach education resources (Richardson et al. 2023). Indeed, many coaches struggle to adopt a games-based approach because coaches tend to emulate other coaches (Wright et al. 2007), base decisions on their prior experiences, and adopt the existing traditions of the sports and organisations they inhabit (Harvey et al. 2010; Partington and Cushion 2013; Stodter and Cushion 2017). Here, cultural norms and expectations from individuals such as athletes, other coaches, and parents can lead coaches to reproduce traditional drill-based activities (Roberts 2011; Stodter and Cushion 2017; Stonebridge and Cushion 2018). Additionally, some research has questioned the efficacy of game-based practices to develop technical

proficiency (e.g., Pradexes 2017; Richardson et al. 2023). Alternative research (e.g., Harvey and Jarrett 2014) does however suggests that skill development is similar in both game-based and drill-based activities and thus once more advocates for game-based practices.

While both drill and game-based approaches have strengths and weaknesses, Roca and Ford (2020) suggest that elite youth academies at professional teams tend to favour a predominantly game-based approach. However, a key point for effective practice, whether a drill or game-based activity, is time management. Specifically, coaches need to ensure that the preparation of practice and the flow from one exercise is such that inefficient use of time is limited, and effective use of time is maximised. Without this consideration, practices can be characterized by periods of inactivity with little engagement from athletes (O'Connor et al. 2018; Roca and Ford 2020). With this in mind, there is not only a need to consider the balance between game-based and drill-based activities, but also to explore the efficiency of such activities within Maltese football sessions. After all, inefficient practices are unlikely to support player development regardless of whether activities have a drill or game-based character.

Methodology

The post-positivist paradigm guided the methodology. This paradigm strives for contextual understanding through objective methods whilst recognising the complexity of research, inherent subjectivity, and pluralistic ways of knowing (Panhwar et al. 2017). Specifically, the study utilised a practice design notational analysis framework (Roca and Ford 2020) to analyse a cross-section of youth football sessions in Malta. These sessions were naturally occurring as part of a football environment which focused on talent development. Consistent with the post-positivist paradigm the methods detailed below moved towards an objective exploration of practice design, *in this context* (Phillips and Burbules 2000).

Sample

Football sessions (n = 20) within Malta were purposively sampled as representative of the Malta youth male development pathway. Sessions included male players ($n \approx 50$) which were previously identified and invited to talent development sessions as part of naturally occurring talent development pathway. Players were part of under-12 and under-13 age groups involved in a season-long football activity aimed at preparing them for future opportunities such as international youth football and ultimately football careers. Sessions sampled occurred from January 2023-May 2023. Practices had a duration of (mean ± standard deviation) 90 ± 3.78 minutes and adopted a 'station' style programme. This typically involved a warm-up phase, during which the group was split into four smaller groups of 10-13 players. In this small-group setting, players undertook different activities and rotated through six different stations consisting of fitness, small-sided games, an unopposed drill, positional game, a conditioned game, and a free game. Stations generally had an equal amount of time allocated and typically players engaged in around eight minutes of activity per station. Such a structure is common in sport when working with large groups and is akin to the structure of 'circuit training'. During the activities, players were supported by coaches (n = 6). All the coaches who delivered the sessions were male and Maltese nationals. The mean age of the coaches was 41 ± 10 years. Coaches held a variety of Union of European Football Associations coaching licenses, including UEFA Pro (n = 1), UEFA A (n = 3), UEFA B (n = 1), UEFA C (n = 1), UEFA B GK course (n = 2), Fitness level 2 by the MFA (n = 2).

Data Collection Procedure

Recording of the sessions occurred as part of naturally occurring activity. Video was recorded from an elevated position by a trained performance analyst. Video captured the session from players entering to leaving the field of play. Subsequent to institutional ethical approval, the videos were accessed via a server and analysed. Consistent with ethical approval, the videos were not downloaded, stored, nor transferred.

Data Analysis

Data analysis identified the age group, date of session, and session duration for each coaching session. No personal identifying information was recorded. To analyse practice design, Roca and Ford's (2020) notation analysis framework was adapted and utilised. This framework is appropriate as a means of supporting valid assessment of practice design and provides the following definitions:
- Drill-based activities - exercises practiced in isolation or in small groups that did not have a game play context (e.g., warm-up, conditioning, individual technical practice, and cool-down).
- Game-based activities - exercises with a game-related focus (e.g., phase of play activity, conditioned games, and small-sided games)
- Transition activities - the gaps between practice activities (e.g., moving between activities, undertaking drinks breaks, or interaction with coaches before/after exercises).

Further definitions are provided in Table 1.

Category	Component	Definition
Drill-based activities	Fitness	Improving fitness aspects of the game without a ball (e.g. warm-up, cool down, conditioning).
	Technical/Skills	Isolated technical skills, unopposed, alone or in a group (e.g., dribbling through cones).
Game-based activities	Small-sided games	Match-play with reduced number of players and two goals (e.g. 5 v 5).
	Conditioned game	Small-sided games, but with variations to rules, goals, or areas of play (e.g. possession/ball retention only games, or teams scoring by dribbling ball across end-line).
	Phase of play	Uni-directional match-play towards one goal (e.g., playing out from the back).
Transition activities	Moving between Activities Drink breaks Coach intervention	Players travelling to the next station or activity. Rest periods between activities e.g., break for water. Coach behaviour prior to or post activity (e.g., instruction). N.B. not during the activity.

Table 1: *Categories, components, and definitions of football practice activities*

Using these definitions, observer training took place between the lead author (a qualified youth coach holding a UEFA C qualification), and the fourth author (a trained observer). The coding framework, the nature of the practices to be analysed, and the activity types were discussed. Two sessions were independently analysed and inter-observer agreement was reached (> 90%). Disagreements were resolved through conversation and consensus. Subsequent to the training, notation of hours, minutes and seconds were recorded when each activity stopped/started across the sessions. This data was recorded in Microsoft Excel. This data, but not the videos, were stored on a password-protected server.

Intra-observer Reliability

Intra-observer reliability of six sessions (30%) was conducted using Roca and Ford (2020) guidelines, four weeks after the initial coding session, which constituted sufficient time for memory lapses to occur (Baumgartner et al. 2007). To ensure that such analysis is reliable, Rushall (1977) and van der Mars (1989) encourage an 85% or above agreement. In this study, the intra-observer reliability score was 98.61% for training form activities, 95.13% for playing form activities, and 93.91% for transition activities.

Statistical Analysis

Descriptive statistics were used to summarise the data of the training activities. Data is presented as means and standard deviations ($\pm$ SD) and were checked for normality. A one-way analysis of variance (ANOVA), with post-hoc analysis using Bonferroni correction where appropriate, was used to analyse the effect of type of activity (i.e., drill-based, game-based, or transition) on the duration, frequency, and proportion. Statistical significance was set at $p < .05$. Statistical procedures were carried out in *IBM SPSS* (version 29.0.1.0, IBM Corp., Armonk, N.Y, USA).

Results

Twenty Maltese under-12/13 practice sessions with an average duration of 90 minutes per session were analysed. Figure 1 presents the duration and frequency of activity types, including game-based, drill-based, and transition activities.
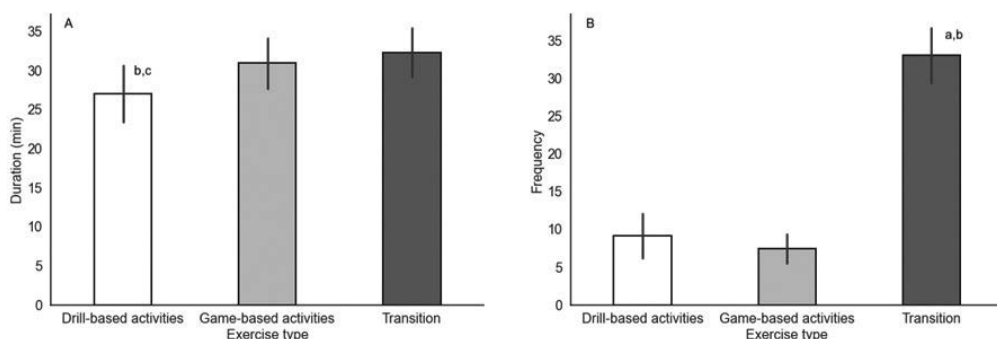

Figure 1: *Duration (A) and frequency (B) per activity type in Maltese training sessions (M ± SD).* a *means significantly different from drill-based activities;* b *means significantly different from game-based activities;* c *means significantly different from transition activities*

An average of 31 minutes (34.7% ± 3.26 of the total practice time) was spent on game-based activities, 27 minutes (29.77% ± 3.38) on drill-based activities, and 33 minutes (36.15% ± 2.35) on transition activities (i.e., moving between exercises, coaches' interventions, and water breaks). Results of the ANOVA analysis revealed that there was a significant effect of type of activity on time spent in activities ($p < .001$), the occurrence of activities ($p < .001$), and the proportion of the practice session ($p < .001$). Post-hoc analysis demonstrated that players spent significantly more time in total and in proportion of the total session in game-based and transition activities than in drill-based activities ($p < .001$). The transition period was the highest recorded activity type, which was significantly more than game-based and drill-based activities ($p < .001$).

Sessions were further analysed to understand each component of drill-based, game-based, and transition activities (see Fig. 2).
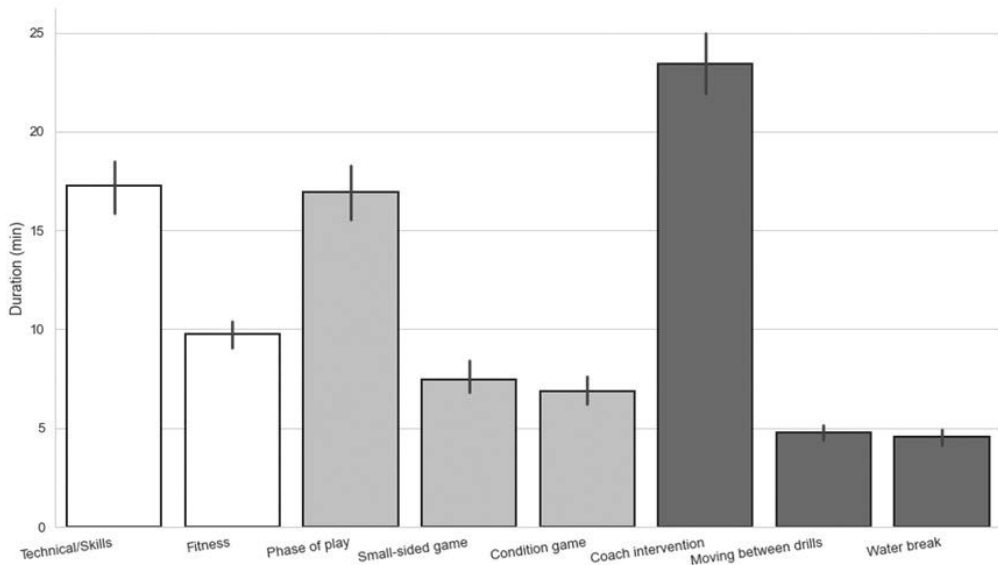

Figure 2: *Average component duration of drill-based activity (white), game-based activities (light grey) and transition activities (dark grey) per session (M ± SD)*

Transition

An average of 23 minutes per session (25.81% ± 3.03) was afforded to coaches' intervention. Time moving between exercises amounted to an average of 5 minutes (5.30% ± 1.10), and water breaks averaged 5 minutes (5.04% ± 1.09) per session (see Table 2).

Game-based Activity

Figure 2 demonstrates the three components of game-based activities. Across the sessions, these amounted to an average of 7 minutes (8.33% ± 2.36) in small-sided games. Phase of play activities averaged 17 minutes (18.73 ± 3.60) per session. Conditioned games meanwhile averaged 7 minutes (7.64% ± 2.16) per session (see Table 2.).

Drill-based Activity

Table 2 also shows the two components of drill-based activities. These consisted of fitness, averaging 10 minutes (10.74% ± 1.53) per session, and technical practice, which averaged 17 minutes (19.03% ± 3.33) per session.

Component	Duration (min)	Frequency	Proportion of Session (%)
Coach intervention	23.41 ± 3.44	21.15 ± 3.22	25.81 ± 3.03
Conditioned game	6.86 ± 1.72	2.95 ± 0.91	7.64 ± 2.16
Fitness	9.74 ± 1.60	1.50 ± 0.51	10.74 ± 1.53
Moving between drills	4.78 ± 0.93	9.30 ± 0.73	5.30 ± 1.10
Phase of play	16.94 ± 3.18	2.55 ± 1.47	18.73 ± 3.60
Small-sided game	7.47 ± 1.81	2.05 ± 1.10	8.33 ± 2.36
Technical/Skills	17.24 ± 3.22	7.65 ± 2.92	19.03 ± 3.33
Drink break	4.56 ± 0.95	2.89 ± 0.47	5.04 ± 1.09

Table 2: *Duration, Frequency, and Proportion of Session per activity component (M ± SD)*

Discussion

The purpose of this exploratory study was to evaluate the extent to which football coaches in Malta implement drill-based, game-based, and transition activities within coaching sessions. To do so, the study explored coaching sessions (n = 20) as part of the Maltese youth development pathway. Reflecting the pathway, these sessions typically had a large number of players ($n \approx 50$) and coaches (n = 6). In response to this, sessions adopted a 'station' methodology involving smaller groups rotating through activities. The findings show the largest proportion of session was spent on transition (36.15% ± 2.35), followed by game-based (34.7% ± 3.26) and drill-based activities (29.77% ± 3.38).

Transition Periods

Transition periods, which accounted for the largest proportion of the sessions, were categorised into three sub-activities (see Table 2). These consisted of coaches' intervention such as organising and providing feedback, players moving from one exercise to another, and water breaks. This analysis of transition time is an important consideration because previous studies have not always identified the proportion of inactivity per session. For instance, Ford et al. (2010) report activity in practice sessions, including 65% training form

and 35% playing form activities. Similarly, Partington and Cushion (2013) report 53% training form and 47% playing form activities in sessions. While these studies report the practice design of sessions, there is a danger that session design could become an exaggerated proxy for player's activity. This misinterpretation could occur if studies do not analyse the time players spend in transition periods. Moreover, to fully analyse the effectiveness and efficiency of coaching practices, much value can be gained from analysing transitional time. Indeed, coaches frequently cite a lack of time allocated for practice sessions as a barrier to effective practice (O'Connor 2018). Of course, resource implications including access to practice facility, access to players, coaches' availability, and player fatigue may be a barrier to more practice time. Thus, in the absence of additional training time, coaches should look to effectively and efficiently use the existing time allocated to their practice sessions.

To address the effectiveness and efficiency of transition periods within sessions, it is worth considering coach interventions. These accounted for an average of 25.81% of session time (see Table 2) Coach interventions are undoubtedly important for player development and learning (Stonebridge and Cushion 2018) and can be an opportunity for contact time with the players, group discussion, and social interaction (Ford et al. 2010). However, during this study, coaches in Malta intervened an average of 21.15 times per 90-minute session (see Table 2). Consistent with previous research (O'Connor et al. 2017; O'Connor 2018), these interventions often involved coaches providing instructions or demonstrations by either stopping a player in their current position or in a team huddle. The frequency of such behaviour could be considered 'over-coaching', which O'Connor (2017) suggests can inhibit problem-solving and decision-making by players. In contrast, via a study of in-game coach behaviours, Smith and Cushion (2006) argue for the use of on-task silence by coaches, whereby coaches observe, notice and plan fewer but more impactful interventions. Supporting coaches to assess their own behaviours and educating coaches about the benefits of on-task silence may therefore be a useful action to support coaches in Malta.

Beyond coach interventions, moving between activities provided 5.3% (see Table 2) of session time. These periods reflected the 'station' approach of the session, whereby players in small groups complete an activity for a given time. At that given time point, the players then move to the next 'station' to engage with another activity, akin to circuit training. This structure is a common methodology and is frequently used when working with a substantial number of participants. Specifically, the sessions observed typically included a warm-up to prepare players for subsequent exercises, followed by six stations which include fitness, a small-sided game, a drill-based activity, a possession game, a conditioned game, and a large-sided game. Across the 20 sessions analysed, an average time of 5.21 minutes was spent moving between exercises per 90-minute session. While moving between exercises can be used as an active recovery for players, slow transitions between activities often inhibited coaches who sought to provide instructions and start the next exercise.

A final transition period concerned players' drinks or water breaks. Undoubtedly, such breaks are important for players' hydration and recovery, especially in hot and humid conditions. The present study, however, examined sessions between January and April in Malta, which are typically the colder months of the year. During these sessions, findings show that an average of 4.09 minutes per session were spent on three water breaks. The first break typically occurred after the warm-up phase. From finishing the warm-up, it took an average of 4.52 minutes per session to restart the following exercise. This time included the first water break, team huddle to split teams, and coaches' instruction to start the exercise. This water break could be removed during the winter months because often players had only been engaged in a warm-up consisting of circa 12 minutes of light to moderate practice. Additionally, groups could be split before the sessions starts to reduce

the transition time further. For the second and third breaks, water bottles should be located closer to the exercises. Together, these simple strategies would enable a quicker moving to the next exercise and maximise practice time.

Game-based Activities versus Drill-based Activities

Findings in this study show that there is a slightly higher percentage of game-based activities (34.70%), than drill-based activities (29.77%) in the Maltese youth sessions. This shows a small preference for contextualised game-based approaches. Some studies have suggested a 'shift' from the traditional training structure based on drills and no opponents to a more playing form practice consisting of random and variable skill attempts, can encourage players to develop their decision-making skills and skills in a game realistic environment (Harvey and Jarrett, 2014). This notwithstanding, it is important to note that the Maltese sessions analysed have less game-based activities when compared to other studies in youth football in other countries such as England, Germany, Portugal, and Spain. For instance, the study conducted by Roca and Ford (2020) reported 62% of time spent in game-based activities. This time in game-based activities can be justified because active decision-making situations such as game-like environments, can encouraging participant decision-making based on their understanding of team-mates, opponents, and their own capabilities (Ford and O'Connor 2019; O'Connor and Larkin 2015; Renshaw et al. 2010). Indeed, studies show that playing form activities develop players' visual scanning and awareness in the game-related context (Ford 2016; Ford and Whelan 2016; Low et al. 2013). This is crucial in a programme for player development which aims to transfer learning from practice into dynamic and competitive environments such as football matches. Therefore, practice designers in Malta and elsewhere, may wish to consider how game-based activities can be further included in football practice sessions.

A Proposed Alternative Session Structure

In response to the findings above, this section tentatively and constructively proposes alternative structures for sessions. It does so, not to prescribe, but to prompt coaches to reflect on their existing sessions. To begin, it is necessary to note that the 'station' structure used in the sessions observed is a common organisational approach, particularly for contexts like this study, which have a large number of participants ($n \approx 50$) and coaches ($n = 6$). In such circumstances, a station approach can provide a simple and clear structure for all involved. Nonetheless as demonstrated in this study, the efficiency and effectiveness of the approach can be improved. Specifically, for coaches in Malta and beyond, reducing transition time in sessions and allocating more time to game-based practices could be beneficial for player development. To support this, we recommend coaches to consider:

1. Splitting players into 'teams' with coloured bibs prior to sessions so that coaches do not use on pitch time to do this.
2. The warm-up phase can be conducted with groups staying in their respective area. Here coaches can change the exercise when needed rather than having groups change 'station'. This will reduce time moving from one exercise to another.
3. Drill and fitness components can be combined, such that both physical and technical components are practiced.
4. Water bottles should be as close as possible for the players, whilst off the field of play, so that they can be more accessible. Nutrition staff can support players to hydrate prior to and during sessions.
5. Autonomy supportive coaching, which involves coaches providing problems for players to solve, may reduce coach interventions (e.g., demonstrations, instructions) and lead to more creativity by players.
6. Longer activity times and game periods with optimal training variability (e.g., size of pitch, rules) can be used to reduce the number of rotations between stations. For

instance, a constraint led approach could enable players to experience different forms of the game while at the same station.

7. Technology (video) can be used to provide group and individual feedback post training so that on-field coach interventions can be reduced.

Based on the above, Table 3 provides a tentative guideline to reduce transition time and increase games-based activities in Maltese youth football sessions. Using this template, games-based activities will amount to 56 minutes (62.2%) of the typical 90-minute session. At 26 minutes per session (28.8%) in the template, drill-based activities will remain close to the practices observed in this study. In contrast to existing practice reported in this study, transition time is reduced. Specifically, an allocation of 6 minutes (6.69%) per session for transitions and water breaks is planned. This structure could enable increased activity time for players to develop and bring practices in line with Roca and Ford's (2020) study of professional youth academies Portugal, Spain, Germany, and England. Of course, with any change in practice structure, a gradual introduction is recommended, as is re-testing. In addition, there are some useful football specific resources with components to support practice which could be considered: *Skills4Genius* (Santos et al. 2016; 2017) and *The Creative Soccer Platform* (Ramussen and Østergaard 2016).

Component	Duration	Activity	Proportion of session
Warm-up	10 minutes	Drill-based	11.11%
Drill/Fitness	16 minutes	Drill-based	17.77%
1st Water break	1 minute		1.11%
Small- sided games	14 minutes	Game-based	15.55%
Positional game	14 minutes	Game-based	15.55%
2nd Water break	1 minute		1.11%
Game	12 minutes (conditioned game) 16 minutes (free game)	Game-based	31.11%

Table 3: *Proposed structure for effective and efficient youth development sessions*

Limitations

The current study was not without some limitations. First, this was a descriptive study and therefore the findings are presented as exploratory rather than confirmatory. Second, the utilisation of retrospective video records resulted in some data loss, such as when the camera was not aimed at the exercise analysed. Here it was assumed that coaches started the practice when the head coach whistled to start the exercise. This was also applicable when the exercise finished. Third, actual timing of players' activity might not reflect time spent training as players were waiting for their turn. Stoppages also occurred due to balls going out of play. Fourth, this study was conducted on player development practices in a talent development context with a high number of players and coaches, and without the priority of a formal competition structure. The training programme might differ if players are prepared specifically for a team competition. Finally, the period of the year might influence practice design and subsequent findings.

Conclusion

This exploratory study evaluates the extent to which coaches in Malta implemented drill-based activities, game-based activities, and transition periods within coaching sessions. The study focused on youth (under-12 and under-13) male sessions (n = 20) as part of a naturally occurring talent development process. Informed by Roca and Ford (2020), these sessions were analysed for practice type with the intention not to criticise, but to prompt reflective analysis for coaches in Malta and beyond. The findings show that sessions comprised of transition (M = 35.68%), game-based (M = 34.59%), and drill-based activities (M = 29.9%). In doing so, this study adds to the literature by providing the first Malta specific analysis of practice design. The study also details transition time as a means of providing a more realistic account of youth player activity in youth football sessions than much existing literature.

Subsequent to the analysis, it appears that there is a need to reduce transition time in these Maltese football sessions. To do so, a series of recommendations are provided to prompt fewer stoppages (e.g., pre-session instructions from coaching and splitting teams should be done before the session starts). If successful, an increased duration of time can be allocated to game-based activities that may support skill acquisition and player development (Côté, Baker, and Abernethy 2007; Harvey and Jarrett 2014; Kinnerk et al. 2018). To support coaches in this endeavour, a tentative outline is proposed. This is provided to aid coaches intentionally plan their approach to game-based activities (Kinnerk et al. 2021). That said, it is also recognised that a myriad of social, physical, psychological, economic, and political factors can influence session design. Accordingly, the aim of this article is not to prescribe, but to support coaches to reflect, plan, implement, and continue to evaluate their practice design as a means of supporting young players on talent pathways.

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