Feasibility of Parkour-style training in team sport practice: A Delphi study

STRAFFORD, Ben <http://orcid.org/0000-0003-4506-9370>, DAVIDS, Keith <http://orcid.org/0000-0003-1398-6123>, NORTH, Jamie and STONE, Joseph <http://orcid.org/0000-0002-9861-4443>

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Feasibility of Parkour-style training in team sport practice: A Delphi study.

Strafford, B.W[1], Davids, K.[1], North, J.S.[2], & Stone, J.A.[1]

[1]Sport and Physical Activity Research Centre, Department of Sport and Physical Activity, Sheffield Hallam University, Collegiate Hall, Collegiate Crescent, Sheffield, S10 2BP. Corresponding Author: Dr. Ben William Strafford, b.strafford@shu.ac.uk

[2]Expert Performance and Skill Acquisition Research Group, Faculty of Sport, Allied Health, and Performance Science, St Mary's University, Twickenham, TW1 4SX.

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Introduction

- Recently researchers have addressed ***how*** Parkour-style training might be integrated as a donor sport using coaches' experiential knowledge (Strafford et al., 2020; Strafford et al., 2021). However, these initial insights cannot serve to provide consensus on recommendations for practice design alone.
- The aim of this study was to **acquire expert opinion** on the **feasibility of integrating Parkour-style training into team sport practice** routines and to **establish a framework and set of design principles for integrating Parkour-style training in team sport settings.**

Panel Selection

- Talent development specialists and strength and conditioning coaches with expertise in team sports were specifically targeted for inclusion in the study. The sample demographics are outlined in Table 1.
- Participants had to possess accreditation from a relevant governing body and/or university degrees in related subject areas, and a minimum of three years' experience working in applied team sport settings at the time of recruitment.
- Institutional ethical approval was granted by the university ethics committee of the lead author, with all participants providing informed written consent prior to the commencement of the online-Delphi study.

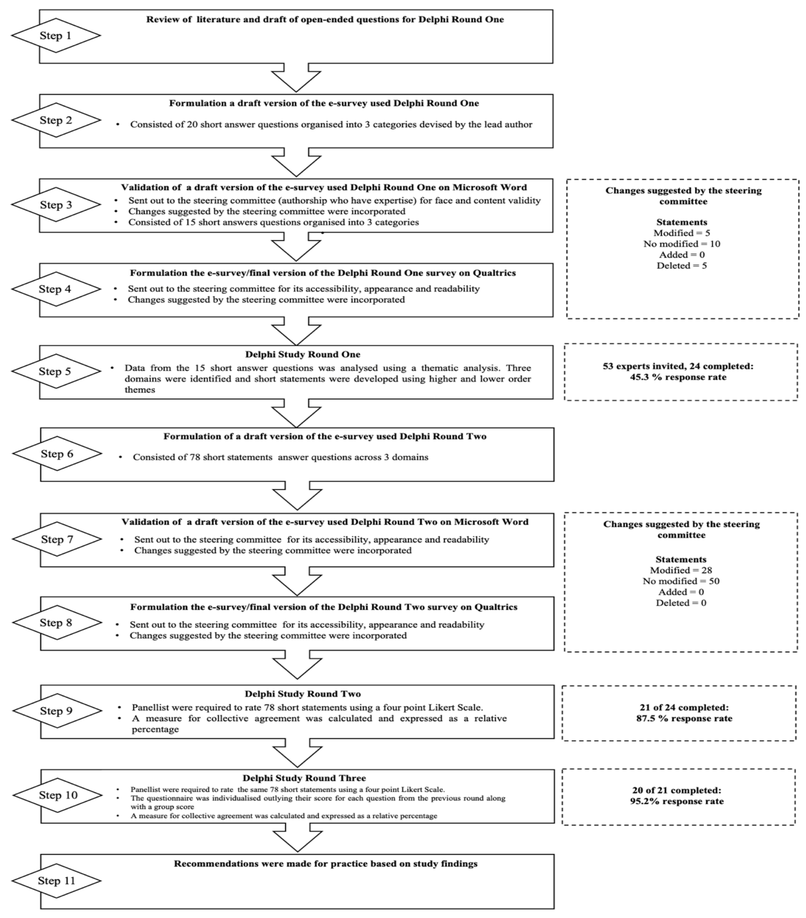
Table 1. Sample Demographics.

	Round 1 (n=24)	Round 2 (n=21)	Round 3 (n=20)
Descriptives:			
Age (Years) (Mean ± SD)	34.1±9.4	33.2±8.8	32.8±8.8
Experience (Years) (Mean ± SD)	13.4±7.1	13.4±7.1	11.9±6.4
Current Role:			
Talent Development Coach	41.7% (10)	38.1% (8)	38.1% (8)
Strength and Conditioning Coach	41.7% (10)	42.9% (9)	38.1% (8)
Both	16.7% (4)	19.0% (4)	19.0% (4)
Sports currently working with:			
American Football	4.2% (1)	4.8% (1)	5.0% (1)
Basketball	4.2% (1)	4.8% (1)	5.0% (1)
Gaelic Football	4.2% (1)	4.8% (1)	5.0% (1)
Ice Hockey	4.2% (1)	4.8% (1)	5.0% (1)
Multi-Sport	33.3% (8)	28.6% (6)	35.0% (7)
Rugby League	8.3% (2)	9.5% (2)	10.0% (2)
Rugby Union	4.2% (1)	4.8% (1)	5.0% (1)
Soccer	33.3% (8)	38.1% (8)	40.0% (8)
Team Athletic Sports	4.2% (1)	0.0% (0)	0.0% (0)
Academic Qualifications:			
Undergraduate Degree	79.2% (19)	81.0% (17)	80.0% (16)
Master's degree	54.2% (13)	57.1% (12)	55.0% (11)
Doctorate Degree	12.5% (3)	9.5% (2)	10.0% (2)
Professional Qualification:			
Strength and Conditioning Accreditation	45.8% (11)	38.1% (8)	35.0% (7)
Sport Coaching Qualification	45.8% (11)	47.6% (10)	50.0% (10)
Country of Employment:			
Finland	4.2% (1)	4.8% (1)	5.0% (1)
Ireland	8.3% (2)	9.5% (2)	10.0% (2)
Morocco	4.2% (1)	4.8% (1)	5.0% (1)
Netherlands	4.2% (1)	4.8% (1)	5.0% (1)
Portugal	4.2% (1)	4.8% (1)	5.0% (1)
Singapore	4.2% (1)	0.0% (0)	0.0% (0)
United Kingdom	62.5% (15)	61.9% (13)	60.0%(12)
United States	8.3% (2)	9.5% (2)	10.0% (2)

Delphi Procedure

- Figure 1 outlines the online-Delphi procedure which consisted of three iterative rounds using ad-hoc Qualtrics questionnaires.
- In **Round One**, coaches answered **15 open-ended questions across four categories**: (1) General Perceptions of Parkour-style training; (2) Potential Applications of Parkour-style training; (3) Designing and Implementing Parkour-style training Environments; and (4), Creating an Inclusive Learning Environment.
- Responses from Round One were **analysed using reflexive thematic analysis with deductive and inductive coding resulting in 78 statements across three dimensions** (Application of Parkour Style Training in Team Sports; Designing and Implementing Parkour-style training Environments; Overcoming Potential Barriers when Integrating Parkour-style training).
- In **Rounds Two and Three, coaches rated these statements using a four-point Likert scale and measures of collective agreement or disagreement were calculated.**

Figure 1. Delphi procedure.



Criteria for Consensus

- Based on previous work, **consensus was defined as ≥ 70% of the panel agreeing/strongly agreeing or disagreeing/strongly disagreeing with a statement in Round Three (Vogel et al., 2019).**
- All '**don't know'** responses were excluded to ensure that the reported percentage agreement or disagreement for each statement represented the consensus among only those who believed they held a firm view.
- The **stability of consensus was considered reached if the between round group responses (between Round 2 and Round 3 in this instance) varied by ≤ 10% (Duffield, 1993).**

Results and Implications

- Informed by the findings from the study, a set of design principles for integrating Parkour-style training into team sport practice routines has been established.
- **Figure 2 provides a coaching resource which outlines principles for integrating and delivering Parkour-style training in team sport settings, across four pillars: equipment, session structure, creating variability, and session delivery and feedback.** Before integrating Parkour-style training in team sport settings it is recommended that coaches engage with this resource and relevant coach education material to aid the development and delivery of a Parkour-style learning environment as a platform for athlete development.
- **Figure 3 and 4 provides principles for supporting the successful integration of Parkour-style training via education opportunities. Whilst these recommendations are provided, future work is required to develop parent and coach education materials and examine the feasibility of these developmental activities in team sport settings.**

Figure 2. Principles framework for integrating and delivering Parkour-style training in team sport settings.

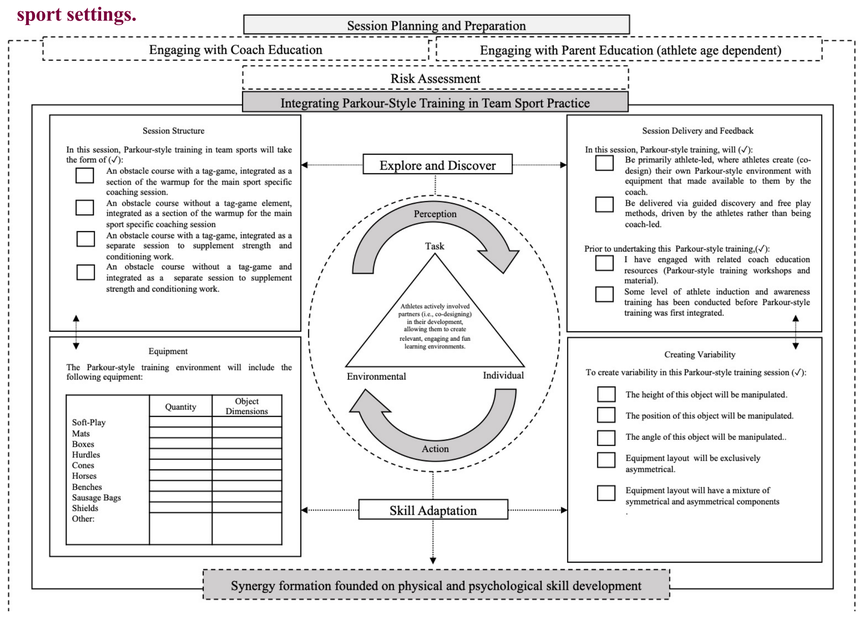


Figure 3. Principles for supporting the successful integration of Parkour-style training via coach education opportunities.

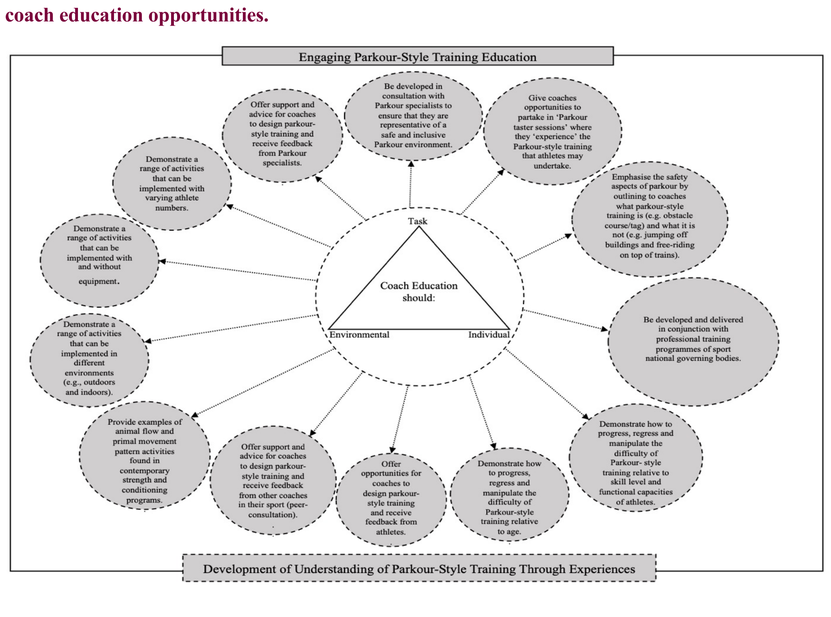
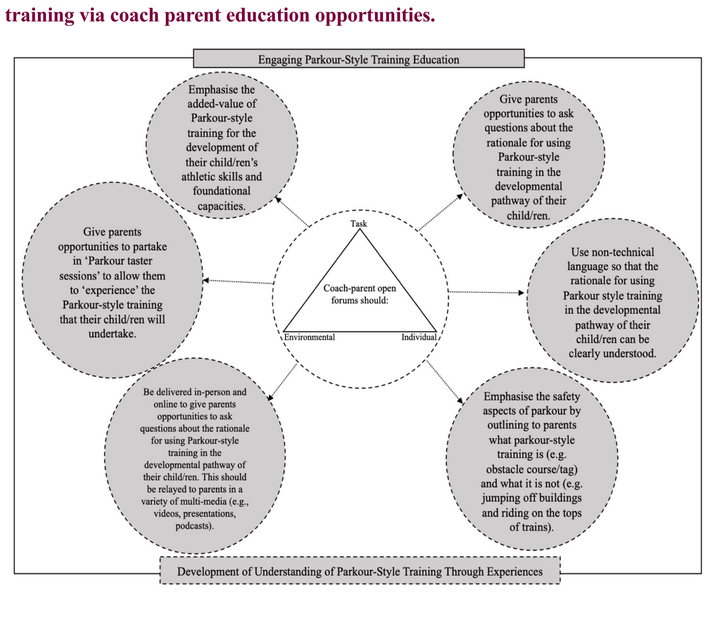


Figure 4. Principles for supporting the successful integration of Parkour-style training via coach parent education opportunities.



References

Duffield, C. (1993). The Delphi technique: a comparison of results obtained using two expert panels. *International Journal of Nursing Studies,30*(3), 227–237. https://doi.org/10.1016/0020-7489(93)90033-Q

Strafford, B.W., Davids, K., North., J. S., & Stone, J. A. (2020). Designing Parkour-style training environments for athlete development: Insights from experienced Parkour Traceurs. *Qualitative Research in Sport, Exercise and Health*, *13*(3), 390-406. https://doi.org/10.1080/2159676X.2020.1720275

Strafford, B.W., Davids, K., North., J. S., & Stone, J. A. (2021). Exploring coach perceptions of Parkour-style training for athlete learning and development in team sports. *Journal of Motor Learning and Development, 9*(3). https://doi.org/10.1123/jmld.2021-0005

Vogel, C., Zwolinsky, S., Griffiths, C., Hobbs, M., Henderson, E., & Wilkins, E. (2019). A Delphi study to build consensus on the definition and use of big data in obesity research. *International Journal of Obesity,43*(12), 2573–2586. https://doi.org/10.1038/s41366-018-0313-9

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