

Week 13 — Reflection & research culture

Does the field’s reward system support good practice, and is a reform culture taking hold?

Objective evidence review · companion to Week 13 (finale) · prepared July 2026

Scope & method. Rapid narrative review, not a systematic review. Structured search of the sport-science and metascience literature (PubMed, Sports Medicine, Communications in Kinesiology, R. Soc. Open Sci.), including Sports Science Replication Centre (SSRC) work. Findings reported as the cited studies state them; foundational metascience sources are flagged as adjacent.

The principle under review

WEEK 13 · INCENTIVES AND RESEARCH CULTURE

Week 13 argues that the main obstacle to good science is not ignorance of methods but the incentive structure — that a system rewarding publication volume and novelty selects for weaker practice even among well-intentioned researchers — and that change comes from many individuals and from reforming the environment. The empirical questions are whether the field’s incentives work against good practice, whether researchers recognise the problem, and whether a reform culture is measurably taking hold.

1 · How well is it currently applied?

THE EVIDENCE

42% of 511 sport-science researchers perceive a significant reproducibility crisis (78% at least a slight one) — Murphy et al. 2023	incentives the barrier most cited: careers and journal novelty, not lack of knowledge — Murphy et al. 2023	emerging sports metaresearch is now a recognised sub-discipline — Warmenhoven et al. 2025
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The problem is structural, and the field knows it

The theoretical account — that reward systems can select for lower-quality work regardless of individual intent (Smaldino & McElreath, 2016) — is matched by the field’s own self-assessment. In a survey of 511 sport and exercise science researchers, Murphy, Mesquida and Warne (2023) found 42% perceived a significant reproducibility crisis and a further 36% a slight one, and — crucially — that the barriers respondents identified were structural: engaging in open science was seen as potentially detrimental to careers for lack of incentives, and journals were seen as a barrier through publication charges and a focus on novelty. Researchers also identified better statistical education, especially for early-career researchers, as a key lever.

A reform culture is measurably taking hold

The corrective is not only aspirational; it is visible in the field’s behaviour over roughly a decade. Sport and exercise science now has an explicit call to action for transparent practices (Caldwell et al., 2020), a first collaborative replication project (Week 12), rising — if still low — preregistration measured year on year (Bennett et al., 2026), and repeated meta-research audits of its own open-science practices (Bullock et al., 2023). Most tellingly, metaresearch — the study of research itself — has been formalised as an emerging sub-discipline of sport science and medicine (Warmenhoven et al., 2025). The infrastructure of the wider reform movement (the reproducibility manifesto; the TOP guidelines) is being adopted into the field (Munafò et al., 2017; Nosek et al., 2015).

But incentives have not yet realigned

The reforms remain ahead of the reward system. The low uptake of preregistration and data sharing (Weeks 6, 9), and the persistence of publication bias and positive-result rates (Weeks 1, 4, 10), indicate that individual awareness and available tools have not yet been matched by changes in what is rewarded. As the survey shows, researchers frequently perceive good practice as personally costly, which is the defining feature of an incentive problem rather than a knowledge problem.

Source	Finding	Implication
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Smaldino & McElreath (2016) <i>R. Soc. Open Sci. (adjacent)</i>	Reward systems can select for lower-quality methods without any misconduct	The problem is structural, not individual
Murphy, Mesquida & Warne (2023) <i>Comms. in Kinesiology</i>	42% perceive a significant crisis, 36% a slight one; barriers are career incentives and journal norms	The field recognises an incentive-driven problem
Warmenhoven et al. (2025) <i>Sports Medicine</i>	Sports meta-research established as an emerging sub-discipline	The field is now systematically studying itself
Caldwell et al. (2020) <i>Sports Medicine</i>	Formal call to action for transparent research practices (COTES)	Organised reform is underway
Bennett et al. (2026); Bullock et al. (2023) <i>Sports Medicine; JOSPT</i>	Preregistration and open-science practices are measured and (slowly) rising	Change is real but incomplete
Nosek et al. (2015); Munafò et al. (2017) <i>Science; Nat. Hum. Behav. (adjacent)</i>	TOP guidelines and reproducibility manifesto provide the reform framework	Infrastructure exists to realign incentives

2 • Is there cause for concern?

OBJECTIVE ASSESSMENT

ASSESSMENT **Structural concern; reform active and measurable**

The concern is real and foundational: the field's own researchers predominantly perceive a reproducibility crisis, and identify the reward system — careers and journals — rather than ignorance as the cause. Because incentives shape every practice covered in this course, an unreformed reward structure will continue to pull against preregistration, adequate power, complete reporting and replication, which is consistent with the low uptake documented throughout these reviews.

Uniquely among the thirteen topics, however, this is where the trajectory is clearest and most organised. In roughly a decade the field has moved from having essentially no metascience to a formal sub-discipline, a call to action, a collaborative replication project, and year-on-year measurement of its own practices. The tools and the will exist; the remaining task is to align incentives — journal policy, funding, hiring and training — with the practices already known to work. On current evidence the direction is positive even though the destination is far off.

3 • Immediate steps to improve

ACTIONABLE

1. **Practise the reforms visibly** — preregister, report nulls, share data and code, replicate — since each instance normalises the behaviour for others.
2. **Use the leverage of your role:** supervisors can model quality over quantity and praise a rigorous null; reviewers and editors can reward transparency and judge the question and method, not the excitement.
3. **Prioritise statistical and methodological education**, especially for early-career researchers, as the field's own survey identifies this as a key lever.
4. **Support structural reform** — Registered Reports, data-deposit requirements, replication networks, and meta-research — that change what is rewarded rather than relying on individual virtue.
5. **Make one concrete change in your next study** and commit to it, recognising that culture shifts through many people each doing one more thing right.

References

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Improving Research Practices in Sport & Exercise Science — a free short course for the Sports Science Replication Centre. Current State Review, Week 13 (course finale). Figures are reported as stated in the cited sources; adjacent-field sources flagged. For education.