PROTECT INTEGRITY ONLINE REPORT ON MAPPING AND RECOMMENDATIONS FOR DEVELOPING EDUCATION TOOLS AGAINST THE MANIPULATION OF SPORT COMPETITIONS

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Preamble

The PROtect Integrity Erasmus + project

The PROtect Integrity Online project focuses on promoting integrity and values in sport, particularly combating match fixing and corruption in sport. It seeks to develop and implement the most effective ways to deliver integrity education to professional and elite level athletes, particularly focusing on online tools and methods. During the two-year project (2023-2024), anti-match fixing education is being delivered by player associations to at least 3,050 athletes in Europe every year, through the blended face-to-face/online approach.

The project consortium is composed of 10 partners, including EU Athletes as the coordinator, Université Rennes 2 as the research institution and 8 player associations from 5 different countries (Denmark, France, Italy, Ireland, Spain) and 5 major team sports (basketball, futsal, handball, rugby, volleyball).

The project has 4 main phases:

1) Research concluded with the present *Report on mapping and recommendations for education*
2) Creation of online education materials, according to the recommendations and partners´ input
3) Implementation of the education via team visits, supported by online materials and social media
4) Evaluation of the education and collection of good practices into a best-practice booklet

Objectives and methodology of the report

The present report closes the first phase of the PROtect Integrity project, during which the consortium focused on research tasks regarding anti-match-fixing education. The objective was to map and review existing practices and knowledge on education programmes towards athletes.

The data collection included a desk-research, a scientific literature review, the distribution of a questionnaire and interviews with project partners, EU Athletes members and outside organisations known for interesting initiatives. In total, 5 written answers to the questionnaire have been received, and 9 interviews have been conducted.

DATA COLLECTION

WRITTEN ANSWERS (5)
 French Rugby Players Association (PROVALE)
 Greek National Platform against the manipulation of sports competitions
 Rugby Players Ireland (RPI)
 Slovak Football Federation (SFZ)
 Spanish Football Federation (RFEF)
INTERVIEWS (9)
 Athletics Integrity Unit (AIU)
 Council of Europe
 Danish Handball Player Association (DHPA)
 Fair Play Code Austria
 French Basketball Players Association (SNB)
 French Handball Player Association (AJPH)
 International Tennis Integrity Agency (ITIA)
 Spanish Futsal Female Players Association (AJFSF)
 UEFA

The report is intended to provide sound basis and recommendations for creating and implementing the education programme that is being designed in the second phase of the project. However, the results of the research could be useful for any entity working on match-fixing education for athletes.

The report preparation and writing has been coordinated by the University of Rennes 2, with the support of the project partners.

The author would like to thank all the project partners and interviewees. They provided invaluable input and guidance and greatly contributed to this report.

Introduction

Education and awareness-raising programmes are an essential pillar of the various strategies implemented to prevent the manipulation of sports competitions.

Given the pervasive, insidious and systemic nature of the manipulation issue, all stakeholders, and athletes in particular, need to be made aware of the level and nature of the corruption risks. Who are those persons that seek to alter the natural course of sport competitions? And why do they do so? How do they approach players, coaches or referees? Which competitions are targeted?

Given the risks associated to manipulation networks, especially when they originate from organised crime, all stakeholders, and athletes in particular, need to be made aware of the behaviour to follow when they are targeted or when they witness or suspect manipulation strategies around them. Whom to contact? How? What information to provide? How can I protect myself while reporting sensitive information?

Given the constant changes of applicable regulations, all stakeholders, and athletes in particular, need to be made aware of the applying rules. Which organisations and regulatory frameworks have authority with regards to anti-manipulation and betting on my competitions? To what extent can I, or my entourage, engage in betting behaviour? To what extent can I disclose inside information of competitions?

Given the need to protect the well-being and integrity of all sport participants, it is important that education and awareness-raising programmes help stakeholders, and athletes in particular, to understand the societal responsibilities and ethics related to their decisions and behaviours. What are my ethical values? What does it mean to have and follow ethical values? Which impact do I want to have for my sport, for my community and my entourage? How can I promote and defend the vision I want for my sport?

Since the end of the 2000s and the advent of the modern phenomenon of sport manipulation, especially linked to betting interests, sport authorities have multiplied channels and programmes to raise-awareness across athletes and players. The most popular forms are: physical booth at competition sites; face-to-face sessions behind closed doors; distant e-learning modules; social media campaigns; regular advice through contact points or integrity officers; guides and leaflets.

Interestingly, in contrast with the high density of such initiatives for the last 20 years, no operational report or scientific publication has taken the step of synthesizing the knowledge and reviewing the practices in the field of anti-manipulation education and awareness-raising.

The present report intends to provide a first overlook. It starts with a review of practices (I), before engaging in a scientific literature review (II) and a presentation of the anti-doping education framework (III). It concludes with a set of recommendations (IV) regarding the design, implementation and evaluation of education and awareness-raising strategies on the fight against the manipulation of sport competitions.

I.   Review of practices

Given the number and diversity of organisational stakeholders engaged in providing education programmes towards athletes, and the number and diversity of programmes themselves, it would have been impossible to synthesize all initiatives in a single document. In tune with the remit of the PROtect Integrity project, the review will provide a focus on some programmes provided for athletes by athlete player associations. Other relevant types of initiatives, from various organisations, will also be presented.

Programmes from player associations

The data from questionnaires and interviews were mostly related to programmes self-administered by player associations to their own jurisdiction. European-wide education programmes from the player associations under the PROtect Integrity campaign have been running already since 2010[1], with player associations also working nationally on this. Typically, player associations tour all main clubs each year (one or two national male and female divisions) and deliver a presentation on a variety of subjects, including issues related to manipulation, which takes between 5 and 15mn approximatively.

In terms of scope, they mostly comprise updates and reminders on regulation, as more lengthy sessions on manipulation often have already been conducted in the past. Players betting on their own sport or competitions is reported to be one of the main issues addressed during these sessions. In general, risks of competition manipulation seem limited, according to the recorded answers, although perceptions vary across disciplines and countries.

Player Association	Types of intervention	Coverage	Length	Modalities
French Rugby Player Association	Yearly club visit	N/A	N/A	Not compulsory
French Basketball Player Association	Yearly club visit	Two first male and female divisions + elite preparatory centers	5-15mn out of 1h presentation	Two player association employees cover all the clubs
Danish Handball Player Association	Yearly club visit	Two first male and female divisions	5-10mn out of 1h session.	Not compulsory
French handball Player Association	Yearly club visit	2 first male national divisions.	15-20mn on manipulation/betting out of 1h30 session in total.	Compulsory for all clubs (the federation pays and mandates the player association for this education work).

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[1] https://www.protect-integrity.com/about-the-campaign/

		First female national division		Two player association employees cover all the clubs.
Spanish Futsal Women Player Association	Yearly club visit	Two first national divisions.	Varies. Approx. 30mn in the first year, then it's just an update.	Intervening persons are active players.

Table 1. Examples of stand-alone player association programmes

The sessions outlined in the written answers and the interviews are filled with basic information, videos, case studies and narratives. Intervening persons are also relying on online tools and role games to favor interactions and physically involve the audience. Most lead speakers are player association employees. They may have a legal background or be former players. In the case of the Spanish Futsal Women Player Association (AJFSF) they are even active players. Some player associations may even use former players implicated in manipulation cases as ambassadors to testify on their experience during face-to-face sessions[2]. Although it is seldom used, it has been reported to be particularly effective in catching the attention of the audience.

Another key question of these player associations programmes mentioned in Table 1 is how they are articulated at national level with other similar efforts from the corresponding federation or professional league. In these examples, the official sport authority often lets the player associations conduct the awareness-raising among players, sometimes through an official and paid mandate. In some cases, the player association does not know if the federation or the league run similar programmes in parallel.

Programmes from federations

Another model of education work is when the national federation or professional league itself travels to clubs to deliver information sessions on manipulation. One specific elaborated campaign is coordinated by the Slovak Football Federation, covering all national first and second division male players, first division woman players, youth U15-U19 players and national referees. These face-to-face sessions are dedicated to manipulation issues, are mandatory and last for one hour[3]. Other sessions are run in parallel on other issues such as doping or mental health. Another similar example identified by our research is the Royal Spanish Football Federation (RFEF), which runs compulsory face-to-face training sessions in national clubs every year[4].

In addition to on-site visits, some federations also run online platforms and e-learning tools where stakeholders can follow specific courses or access pertinent information on manipulation issues. For instance, the German professional football league, Bundesliga, has created such a tool[5]. The e-learning modules are only accessible by registered individuals (players and staff). Some international sport organisations have also decided to create similar platforms. Noteworthy examples are the Keep Rugby

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[2] https://fifpro.org/en/supporting-players/safe-working-environments/anti-match-fixing/festo-omukoto-we-made-a-plan-to-get-three-match-fixers-arrested/

[3] Educational material and news items can be found here: https://futbalsfz.sk/sfz-rozhodcovia-a-delegati-na-skoleniach-o-etickom-kodexe/; https://futbalsfz.sk/sfz-profesionalni-hraci-uz-mozu-nahlasovat-cez-aplikaciu-red-button-ovplyvnovanie-zapasov/; https://futbalsfz.sk/integrita/.

[4] Example of news coverage of those sessions: https://rfef.es/es/noticias/arranca-una-nueva-temporada-del-programa-global-de-formacion-para-la-proteccion-de-la; https://rfef.es/es/noticias/el-area-de-integridad-de-la-rfef-crece-y-se-desarrolla-pasos-agigantados

[5] Accessible here: https://www.gemeinsam-gegen-spielmanipulation.de/en/.

Onside platform by the World Rugby Union[6], the UEFA strategy combining in-person training sessions, virtual training opportunities, and an e-learning anti-match-fixing module on the *UEFA App for Players*[7], or the International Olympic Committee (IOC) Athlete 365 Platform[8]. Social media campaigns, in which key messages are repeated, are orchestrated by some federations. One leading example is from the Athletics Integrity Unit (AIU), which regularly engages with its audience. They also promote a proactive stance such as recalling the applicable rules[9], support services[10] or engaging dialogues and debates around integrity at large[11].

National cooperation initiatives

The case of the Greek national platform against the manipulation of sport competitions is emblematic of some countries in which federations and player associations are cooperating and merging their education programmes. The Greek platform (called "Epathla") regroups the General secretariat for Sports, the police department concerned by manipulation investigation, the Hellenic gambling regulation entity, the National Transparency Authority and the Football Federation. It has created a specific working group ("Task Force 1") dedicated to education and awareness-raising on match manipulation at the national level. It is composed of the Football, basketball, volleyball, handball and Water polo players' Player associations, the General Secretariat for Sports, the Hellenic Olympic Committee and the manipulation-relevant police department. The General Secretariat coordinates the whole action, aiming at covering as many stakeholders as possible and making synergies and harmonizing the quality of information delivered to them[12].

Another interesting practice model comes from Austria, where several federations (football, volleyball, table-tennis, handball, basketball, ice-hockey, tennis, skiing) have mandated a specialised external organisation, Play Fair Code Austria[13], to conduct all education campaigns regarding the fight against manipulation. Approximatively 45 minutes of face-to-face visits, specifically on manipulation issues, are organised with the clubs, and depending on contracts with the concerned federation. The rich Play-Fair Code experience (they started intervening in 2012), allow them to be an authoritative voice on anti-manipulation education at international level, and build a database for educational resources and regulations[14].

Another form of national cooperation comes from Australia, where the national public agency named "Sport Integrity Australia" (SIA) coordinates all work, including education, regarding sport integrity. It covers match-fixing as well as doping, governance issues, harassment or violence. It created an educational portal[15] to harmonise the education approach across Australian sport, as recommended by a national review[16], which proposed that a single identifiable education and outreach platform be established to develop and coordinate education, training and outreach courses. SIA also publishes a

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[6] https://passport.world.rugby/login?ReturnUrl=%2fprotect-the-game%2fkeep-rugby-onside
[7] https://www.uefa.com/insideuefa/protecting-the-game/integrity/
[8] https://olympics.com/athlete365/believe-in-sport/make-the-right-decision-campaign-toolkit/
[9] One example: https://twitter.com/aiu_athletics/status/1626276047393067009
[10] One example: https://twitter.com/aiu_athletics/status/1622892463470923776
[11] One example: https://twitter.com/aiu_athletics/status/1651623232150093824
[12] Educational material used by the Greek national platform can be accessed here: https://epathla.gov.gr/el/educational-material/videos/; https://epathla.gov.gr/el/educational-material/presentations/; https://epathla.gov.gr/el/educational-material/other-texts/.
[13] https://www.playfaircode.at/en
[14] https://www.playfaircode.at/en/service/educational-material
[15] https://elearning.sportintegrity.gov.au/login/index.php
[16] The Wood review, accessible here: https://www.sportintegrity.gov.au/about-us/who-we-are/how-we-came-be

"lesson guides" to assist any education officer with the provision of materials towards a secondary school-level audience[17].

EU projects: educational material and activities at the benefit of sport organisations or player associations

Financed and coordinated by the EU Commission, the successive Erasmus+ programmes have sustained numerous and various projects in which educational activities and resources have been developed for athletes, clubs, player associations or sport organisations. A list of those projects has been published in a report from the BITEFIX project[18]. In the table below are only showcased the projects in which materials are still accessible, with the corresponding link to download them.

Name of project	Years of implementation	Link
Don't fix it	2013-2014	https://fifpro.org/en/supporting-players/safe-working-environments/anti-match-fixing/match-fixing-don-t-fix-it/
FIX the FIXING: Proactive quelling of sports events manipulation	2016-2017	https://fixthefixing.eu/ftftool/
PROTECT INTEGRITY	2012-2019	https://www.protect-integrity.com/downloads/
SEE-I	2018-2019	https://seecountries-footballintegrity.com/edutoolkit
Development of a course for educating Coaches on Sports Integrity	2018-2019	http://csi.phed.auth.gr/educational-material/english/long-course-modules/
COMBATING MATCH FIXING IN CLUB FOOTBALL NON-COMPETITIVE MATCHES	2019-2021	https://www.unrf.ac.cy/projects-item/combating/
BITEFIX	2022-2023	https://www.bitefix.eu/e-learning/

Table 2. List of EU Erasmus+ projects with accessible material for education programmes

In addition to the resources already proposed by the IOC and downloadable from their Athlete365 Platform (see link above), the educational material developed by these Erasmus+ projects have been tested and implemented by each project partner. They remain at the disposal of any sport organisation

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[17]
https://www.sportintegrity.gov.au/sites/default/files/Sport%20Integrity%20Australia_Secondary%20School%20Lesson%20Guides_Integrity%20and%20Anti-Doping%20in%20Sport_Version%202.0_October%202020.pdf
[18] Accessible here: https://bitefix.eu/wp-content/uploads/2021/09/W2-BITEFIX-Report-ENG-v.4.pdf

willing to use or inspire from them. They can be used as e-learning tools or background or supplementary material for face-to-face visits.

Conclusion: The ambivalent maturity of educational work against manipulation

On the one hand, the review identifies numerous programmes that have been implemented for several years, and a notable level of expertise and material has been developed across organisations. Yearly anti-manipulation reminders and updates by player associations or federations follow common patterns. During the interviews, player association or federation representatives also stressed that when they start new face-to-face sessions, they feel some fatigue from players who have already been informed in the past.

On the other hand, several aspects indicate a high level of perfectibility for the existing programmes. First, our review has not identified any thorough initiative or mechanism to monitor, assess and review the performance of the education campaigns[19]. How does one ensure that the campaigns are well designed and delivered? To what extent are the messages understood by the audiences? To what extent do the education campaigns alter the decision-making and behaviour of the audience? Few organisations seem to have engaged in strategic thinking about how to assess and improve their anti-manipulation education and awareness-raising programmes. Actually, the PROtect Integrity project, through this review, is seemingly one of the first attempts to benchmark and reflect on existing practices.

A second way in which there is room for improvement lies in how bodies cooperate at the national or international level. Only in few countries did sport organisations, public authorities and player associations gather to discuss, exchange, cooperate, pool their resources and/or collectively reflect on the performance of education campaigns. Such ties would surely help organisations better understand their respective responsibilities, exchange good practices, adapt their education framework and interventions to the audience needs and save financial and human resources through synergies. National platforms against the manipulation of sports competitions, already created in close to 40 countries in the framework of the Council of Europe "Macolin" Convention, represent an ideal setting to allow such cooperation, as exemplified by the Greek example mentioned above. Nevertheless, other collaborative governance models can foster links between federations, player associations and public organisations, such as the Play Fair Code external agency in Austria, the Swiss Sport Integrity Foundation example[20], or FINCIS in Finland[21]. Switzerland, Finland, Estonia or Denmark are countries where all integrity functions (anti-doping, anti-manipulation anti-violence in particular) are increasingly being pooled together to develop synergies, notably on education campaigns. It seems to be a growing trend that could concern a majority of EU countries in the near future.

In any case, by bringing strategic management to the education campaigns, by seeking to review other practices and engage in national and international cooperation, organisations could upgrade the quality of the anti-manipulation education and, hereby, address the fatigue expressed by some players in current educational models.

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[19] During the PROtect Integrity Plus Project, run in 2018-2019, a report had been produced following the administration of a collectively-design integrity campaign. It stressed that the most important part of the athlete education programme is that it is delivered through face-to-face sessions by the player associations who are known and trusted by the players. According to this report, this form of education delivery to athletes across Europe is labour intensive but has proven to be "the best way" to get messages to players.
[20] https://www.sportintegrity.ch/en
[21] https://suek.fi/en/fincis/fincis/

II.   Scientific literature review on integrity education

In order to build sound operational recommendations, it is important to review the existing scientific literature beforehand. Empirical evidence, based on confirmed theoretical underpinnings, can provide solid perceptions of the needs and the realities of educational work towards athletes on integrity issues.

Scientific research on education programmes against the manipulation of sports competitions

A systematic review has been conducted on the analysis of education programmes on the subject of competition manipulation. All scientific articles (i.e. based on empiric research and published in scientific, peer-review, journals or books) on the subject have been selected and reviewed. The Google Scholar database has been used for the data collection, as it represents arguably the most complete and easily accessible database for scientific references on this research topic. The researcher used a combination of key words "education" and "awareness-raising" with either "manipulation" or "match-fixing", for a total of 4 searches. Five scientific sources appeared through the search. They are listed below (Table 3).

Authors	Title	Journal or book	Year	Methodology	Main findings
De Cima & M. Moriconi	Assessing Public and Sports Policies to Tackle Match-Fixing	Understanding Match-Fixing in Sport	2022	Qualitative method. Critical analysis of UEFA's "Zero-Tolerance Policy" implementation in Portugal, through the Taxonomic Model (Mitchell, Crosset and Barr, 1999)	Education programmes are implemented out of obligation. They lack substantial content, and are implemented in a top-down manner, and only to players. Players don't pay attention and don't believe the authorities to be credible or trustworthy.
Marcelo Moriconi & J. P. Almeida	Portuguese Fight Against Match-Fixing: Which Policies and What Ethic?	Journal of Global Sport Management	2019	Qualitative method. Interpretative analysis of policy documents, prevention campaign materials, and stakeholders' public statements	Prevention campaigns have often been created in a top-down approach where players, referees and coaches are guided to undertake attitudes and behaviours that are institutionally shaped, often determined by stakeholders out of the sports industry. Moreover, the problem tends to be confined as an exclusive issue of the sports industry.
Minhyeok Tak, M. P Sam & S. J Jackson	The politics of countermeasures against match-fixing in sport: A political sociology approach to policy instruments	International Review for the Sociology of Sport	2018	Qualitative, interpretive multi-method approach Case study of the 2011 South Korean 'K-League' football	The education programme redefines sports ethics by delivering new codes of conduct that are aligned to the demands of betting.

					match-fixing scandal.	
Marcelo Moriconi	The official football match-fixing prevention discourse as a cognitive limitation (the cases of Iberian countries)	Soccer & Society	2018	Qualitative method. Interviews to key informants and media clipping	Preventive and educational messages produced by international institutions and sport organizations are not useful in Portugal or Spain because they don't show the reality about this phenomenon
Young Ryuel Chung, J. Won Jun & J. Kook Kim	A study of professional players' perceptions of match-fixing and prevention education strategies in Korea	Match-fixing in sport (book)	2017	Quantitative method. Questionnaires were sent to 274 active pro-athletes in South Korea.	Most pro-athletes have received match-fixing prevention education since joining pro-sports teams. Most athletes were generally satisfied with that education, but pro-football athletes' satisfaction in relation to prevention education was less when compared to other pro-sports athletes. The number and period of time of prevention education was constrained to once a year and for an hour or two in most pro-sports. Problems such as monotony, one-time education and lack of interest were evidenced. Third, most pro-athletes expected better prevention education

Table 3. List of sources on education and the fight against the manipulation of sports competitions.

Although scientific work on the subject is scarce, the available findings of empirical research paint an explicitly critical view of anti-match fixing education initiatives. Research in Spain and Portugal criticize the top-down approach, in which prevention messages are unilaterally provided, with a lack of involvement of players in the process and insufficient understanding from national sport organisations on the realities and needs of local stakeholders. The prevention narrative also tends to focus on individual responsibilities ("don't fix games"; "don't bet"; "do report") instead of addressing the collective and cultural dimensions of manipulation (Moriconi, 2019; Moriconi & Almeida, 2018). The ubiquity of corruption, conflicts of interest and manipulative schemes in some countries or some disciplines can explain the lack of effectiveness of unilaterally-provided education programmes.

Tak et al. (2018) also label the South Korean education programmes as "paternalist", as the measures are targeting individual instead of collective interests. Such shortcomings can contribute to explain the lack of effectiveness of education strategies that the authors identified. When institutional messages are perceived as disconnected from reality, they can favor cognitive dissonance and distrust from the audience, a factor that recent anti-doping research also identified (Martinelli et al. 2023). The credibility and trustworthiness of the authorities providing education programmes are at stake (de Cima & Moriconi, 2022).

Figure 1. Illustration of the negative effect of discourse/reality decoupling.

Research in South Korea also highlighted how the prevention frameworks (including education initiatives with manipulation detection mechanisms) normalise betting and instrumentalise the concept of fairness to ultimately favor the betting industry (Tak et al., 2018). This concern can apply to European programmes as they follow similar patterns. Athletes and teams are required to always perform at their maximum level, although this remains impossible, in particular with overcrowded sporting calendars. The betting market is legitimized through the education market, in which betting operators are involved and where the messages are focussed on being prudent in betting (e.g. don't bet on your sport, instead of discouraging betting altogether). Besides, sport governing bodies have embraced betting through various forms, be it sponsorship, detection agreements or data sales, and therefore participate to the normalization and legitimation of betting throughout contemporary sport.

Enlarging the scope: Scientific research on education programmes against doping

Given the lack of scientific work on the performance and implementation of anti-match-fixing initiatives, a review has been conducted specifically on the anti-doping field. There are clear differences between the prevention of manipulation and the work done in the anti-doping field. In particular, the two problems do not affect sport in a similar and comparable way. Doping risks seem widely spread across Olympic sports. Betting-related forms of manipulation, in contrast, are more likely to reach disciplines that are most offered on the betting markets (football, tennis, cricket, etc.), even if all major disciplines have been concerned and that bets are nowadays available on a large array of competitions. It was underlined across our interviews that athletes often react differently in front of anti-manipulation or anti-doping programmes. In contexts where no manipulation cases have been publicised, the audience seem less receptive to the subject, while doping-related subjects are perceived as more universal. Issues such as whereabouts failures or inadvertent doping may affect any sport participant. Despite these divergences in the nature and perceptions of the risks, one can be inspired by some improvements in anti-doping education over the last few years, and for which pedagogical approaches seem more efficient across the field.

An "education and anti-doping" search on Google Scholar leads to a very high number of scientific sources. Therefore, only a selection of them will be addressed here. The findings of this prolific field of research are summarized through a sample of sources, that were selected via several criteria: the number of citations, the year of publication (most recent works having been preferred) and the breadth of their scope (preferably covering anti-doping prevention in general). The list of selected references is presented in Table 4 (below).

Authors	Title	Journal or book	Year	Main findings and recommendations
Katharina Pöppel	Efficient Ways to Combat Doping in a Sports Education Context. A Systematic Review on Doping Prevention Measures Focusing on Young Age Groups	Frontiers in Sports and Active Living	2021	Heterogeneous results regarding content, implementation, target groups, or outcome variables considered relevant. Two-thirds of the studies related to the competitive sports context. Nevertheless, there has been a growing interest in studying doping prevention and its effects on non-elite athlete target groups in recent years. In terms of effectiveness, many measures did not achieve long-term changes or did not collect any follow-up data. This contrasts with understanding learning as sustained change and reduces the intended long-term protection of prevention measures, especially for adolescent target groups. Even young age groups from 10 years upwards benefited from doping prevention measures, and almost all doping prevention measures enabled their participants to increase their physical and health literacy. No conclusion can be drawn as to whether doping prevention measures based on constructivist ideas are superior to cognitivist approaches or a combination of both. Nevertheless, programs that actively engage their participants appear superior to lecture-based knowledge transfer. Most of the prevention measures offered a benefit-orientation so that participants can achieve added value, besides trying to initiate health-promoting change through rejection. Because of the lack of sustained changes, a further modification in doping prevention seems necessary. The review results support the value of primary prevention. Doping prevention measures should enable tailored learning and development options in the sense of more meaningful differentiation to individual needs.
Julian Woolf	An examination of anti-doping education initiatives from an educational perspective: Insights and recommendations for improved educational design	Performance Enhancement & Health	2020	Historically the efficacy of anti-doping educational programs to increase athletes' knowledge of doping has been very poor. The design of education programs has been criticized and even when they meet many of the current recommendations for program design, the results are not favorable. A partial explanation for this is that the design of past education programs has not been informed by principles from education and other related disciplines. This includes a lack of alignment between learning outcomes desired, the education activities performed, and the assessment of learning outcomes. It challenges athletes to practice retrieving this information from memory. Engaging in interleaving practices, where topics to be learned are tested in different configurations rather than in sequence also improves learning. A baseline level of information is not only desirable, it is necessary for developing mental models.
Gatterer et al.	An evaluation of prevention initiatives by 53 national anti-doping organizations:	Journal of Sport and Health Science	2020	Overall, 58% of the NADOs ($n = 37$) reported offering activities including elements of all 5 approaches. Results of the raters' assessments indicated that the knowledge-focused approach was best implemented; the implementation of the other 4 approaches was largely unsatisfactory. The most common barriers to implementing doping prevention programs reported by the NADOs were lack of resources ($n = 26$) and difficulties in collaborating with sports organizations ($n = 8$).

	Achievements and limitations			Results show a discrepancy between NADOs' self-report data and the implementation assessment. Even though the NADOs indicated otherwise, most of their education-based approaches did not address aspects of the visual analogue scale (e.g., resisting peer pressure) and only a few programs were ongoing. Concrete guidelines defining multifaceted, values-based education, and best practice examples should be developed to indicate how to include all 5 approaches in prevention.
Backhouse, SH and Mc Kenna, J and Patterson, L	Prevention through Education: A Review of Current International Social Science Literature	Project Report. World Anti-Doping Agency	2009	Universal, school-based interventions are the most frequently studied prevention approach. This single setting offers the most systematic and efficient way of reaching the greatest number of young people each year. Although these interventions demonstrate immediate impact, their long-term effects are questionable. When school-based programmes are integrated in to multi-level strategies involving school, family and community approaches, effectiveness is enhanced. However, community-based prevention alone appears to be ineffective in changing the behaviours considered. Prevention programmes should be: 1/ Targeted at young people and adolescents when attitudes and values are being formed. 2/ Tailored to fit the target population (e.g., risk factors, developmental). 3/ Interactive and emphasising of active participation (e.g., role-plays, discussions). 4/ Derived from social influence approaches and focused on developing core life skills (e.g., communication, decision-making, refusal skills) as knowledge dissemination alone is ineffective in changing behaviour. 5/ Monitored and delivered with high degrees of fidelity, ensuring that programme implementation is as directed. 6/ Delivered by well-trained individuals who, demonstrably, deliver the programme with high fidelity. 7/ Based on booster sessions delivered over a number of years. This reinforces and builds on intervention messages.
Andrea Petróczi, Paul Norman & Sebastian Brueckner	Can we better integrate the role of anti-doping in sports and society? A psychological approach to contemporary values-based prevention	Acute topics in anti-doping (book)	2017	Today, doping is the epitome of conflicting normative expectations about the goal (performance enhancement) and the means by which the goal is achieved (use of drugs). Owing to this moral-functional duality, addressing motivations for doping avoidance at the community level is necessary, but not sufficient, for effective doping prevention. Relevant and meaningful anti-doping must also recognise and respect the values of those affected, and consolidate them with the values underpinning structural community-level anti-doping preventive interventions. Effective anti-doping efforts are pragmatic, positive, preventive and proactive. They acknowledge the progressive nature of how a 'performance mindset' forms in parallel with the career transition to the elite level, encompassing all levels and abilities, and directly address the reasons behind doping use with tangible solutions. For genuine integration into sport and society, anti-doping should consistently engage athletes and other stakeholders in developing positive preventive strategies to ensure that anti-doping education not only focuses on the intrinsic values associated with the spirit of sport but also recognises the values attached to performance enhancement, addresses the pressures athletes are under and meets their needs for practical solutions to avoid doping. Organisations involved in anti-doping should avoid the image of 'controlling' but, instead, work in partnerships with all 3 stakeholders to involve and ensure integration of the targeted individuals in global community-based preventive interventions.

Mc Lean et al.	From Anti-doping-I to Anti-doping-II: Toward a paradigm shift for doping prevention in sport	International Journal of Drug Policy	2023	Anti-doping activities should move beyond reducing the problem of doping to a single actor, action, or piece of legislation and consider the role of the broader doping prevention system, its interrelated components, and resulting emergent properties (Houlihan & Vidar Hanstad, 2019). The control structure identified that education is a key strategy for anti-doping agencies. For example, education, education requirements, education audits, substance information, education attendance data and statistics, ADAMs (Anti-doping Administration & management System), and smart phone applications (Apps) were identified in the model and passed throughout multiple levels of the system. Education programmes are required under the WADC, and there is evidence that athletes that have received anti-doping education are supportive of anti-doping policy (Barkoukis et al., 2022). Moreover, athletes that live in countries with comprehensive anti-doping education are more supportive compared to countries with less focus on anti-doping education (Barkoukis et al., 2022). There is no appropriate measure of what an effective anti-doping system is. Recommendations: broaden the scope and provide education to stakeholders other than those directly involved in sport and doping prevention, identified within the STAMP model. On the premise that the entire system shares responsibility for its performance, education could be targeted at actors indirectly involved, such as, media, sponsors, supplement retailers, pharmacies, police, and youth sport participants, among others. Further, education could be targeted at amateur and recreational athletes, as they have been shown to be frequent purchasers of performance enhancing substances (WADA, 2022; McLean, Desmond, & Salmon, 2023). Moreover, the STAMP model itself could be useful as an education tool, as it identifies who shares responsibility for anti-doping. A key characteristic of poor system performance is inadequate feedback mechanisms which results in poor vertical integration across the system hierarchy (Leveson, 2004; Rasmussen, 1997). In the current STAMP model, notable missing feedback mechanisms include information regarding the effectiveness and reach of the education. Though education is the predominant approach for anti-doping, the model suggests that there are no feedback mechanisms designed to give key stakeholders an indication of the effectiveness and reach of the education. Without such feedback, it will be difficult to optimise anti-doping education programs or to identify when other interventions are required. Benchmarking of testing frequency and prevalence statistics between different sports is another feedback mechanism which could provide stakeholders with improved information regarding anti-doping activities.
Pia-Maria Wippert and Michael Fließer	National doping prevention guidelines: Intent, efficacy and lessons learned - A 4-year evaluation	Substance Abuse Treatment, Prevention, and Policy	2016	4 years after the introduction of the National Doping Prevention Plan (NDPP), there have been limited structural changes with regard to the frequency, type, and scope of doping prevention in elite sport schools. On the other hand, in study II, elite sport school students who received further NADA anti-doping activities performed better on an anti-doping knowledge test than students who did not take part. The integration of doping-prevention in elite sport schools as part of the NDPP was only partially successful. The results of the evaluation indicate that the introduction of the NDPP has contributed more to a change in the content of doping prevention activities than to a structural transformation in anti-doping education in elite sport schools. Moreover, while students who did receive additional education in the

				form of the NDPP "booster sessions" had significantly more knowledge about doping than students who did not receive such education, this difference was only small and may not translate to actual behavior.
Susan Backhouse	Anti-doping education for athletes	Routledge Handbook of Drugs and Sport	2015	Anti-doping education lacks research, strategic thinking and evaluation. They are information-focused and universally school-based. They are framed to intervene before doping has occurred. Coaches are insufficiently taken into account. We should apply a constructivist learning approach. Focus on activity-oriented learning and participant interaction. We need to accept that doping is multifaceted. We need to move away from anti-doping to clean sport.

Table 4. List of selected sources on education and the fight against doping.

Responding to the enhanced focus of the anti-doping organisations on prevention and education, the research field on the subject has recently developed, with the goal of better understanding the effectiveness and implementation of various initiatives. A number of take-aways can be underlined.

1. The complexity of measuring the performance of anti-doping education programs

The emerging findings on the performance of anti-doping educative interventions paint a mixed and unconclusive panorama. First of all, the methodologies are heterogenous, varying from qualitative to quantitative methods, with differing research timespans. Then, the doping interventions under scrutiny are not always comparable as they range from e-learning, face-to-face, public communication to mixed programmes. Most research takes place in a national setting, encompassing different authorities, targets and aims. As summarised by Backhouse (2014, p.53), the effectiveness of prevention mechanisms covers six dimensions:

- Knowledge focused (side effects or sanctions for ex.)
- Affective focused (feelings of value and self-worth)
- Social skills training (assertiveness, decision making, and resistance to peer pressure, etc.)
- Life skills training (multicomponent: social skills, personal skills, etc.)
- Ethic and value based (against the rules, fair play, honesty etc.)

Any generalisation attempt should therefore be taken with caution. In general terms, evaluations tend to underline that studied programmes can more easily increase knowledge in participants (although this may vary and be ephemeral) than changing attitudes and actual behaviour. For the impact on attitudes and doping likelihood, results remain highly controversial (Nichols et al., 2020)[22]. Varying degrees of influence could nonetheless be measured between disciplines, type of athletes or socio-demographic variables. A systematic review also indicates that programs that actively engage their participants collect better results than lecture-based interventions (Pöppel, 2021). In any case, longitudinal studies are lacking to survey long-term effects of anti-doping education, whether on knowledge, attitude or behaviour of audiences.

2. Recommendations expressed by the literature regarding education design and implementation

a) Content, targets and modes of delivery

A major recommendation expressed by literature is the need to complete information-based messages with behavioural education. While it remains necessary to make athletes aware and knowledgeable about for example the regulation, the testing methods, the rights and duties towards authorities or where to report incidents, prevention should also seek to influence individual decision-making and the relationship with social norms and peer pressure. Athletes need to understand the meaning and importance of upholding "clean sport", even if the definition of clean sport and values may vary (see Woolway et al., 2021[23]), and that the reality of anti-doping may not always be perceived by athletes as based on fairness or ethical principles, but rather on the respect of the anti-doping rules (Petroczi and Boardley, 2022). In some countries, anti-doping curricula are starting to integrate social skills and life skills training as well as ethical reasoning. Scientific research promotes such educative models on empirically-supported theoretical grounds such as social learning theory, education theory or planned behaviour theory (Ajzen, 1985). The benefit of basing interventions on such theories is that they

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provide an explanatory model and hypotheses for program outcomes and effectiveness, which facilitates evaluation.

Programmes should specifically target young people and adolescents, when attitudes and values are being formed. It is also important to move beyond the athlete population, but to influence decision-making from support personnel (coaches in particular) and wider stakeholders (media, managers or political leaders) as well.

Anti-doping education research has, for some time now, insisted on the need for interventions to foster interaction and active learning (through role-plays or discussions). Lead speakers have to be specifically trained and skilled for running face-to-face sessions.

b) Strategic planning

Programmes (design, target, content) should stem from strategic planning, based on risk-assessments and a long-term view on athlete careers and national sporting contexts development. Programmes should also be strategically designed in order to acknowledge the systemic and multifaceted nature of doping behaviours. In many regards, doping is correlated to the predominance of physical performance in every aspect of our sporting systems. For athletes, anti-doping messages could even appear at odds with their direct environment and culture, leading to possible cognitive dissonance and moral disengagement. Education strategies should therefore seek to be pragmatic and, as much as possible, understand the perceptions and situation of the audience.

In order to feed-in to this continuous strategic planning, interventions should be monitored and assessed on a longitudinal basis.

III.   The anti-doping education framework: lessons for the prevention of manipulation

In correlation to the recommendations expressed by researchers, the anti-doping community has modified its vision on anti-doping education and prevention over the last few years. Through the creation of an International Standard for Education[24], along with published guidelines for education programs[25], education has become a priority. WADA also proposes its own e-learning platform (ADEL[26]) and a Global Learning Development Framework[27] to support and train anti-doping organisations and practitioners worldwide. National antidoping organisations are also developing their own strategies. For example, The Canadian Center for Ethics in Sport, as the national anti-doping agency, articulates various education and awareness-raising initiatives: social media campaigns, an ambassador programme or online education[28]. Likewise, the French national anti-doping agency (AFLD) promotes its own "train-the-trainers programme" as well as several guidebooks for anti-doping officers[29].

There are a number of differences between doping and manipulation subjects. Also, some criticism within the scientific field and by player/athlete associations has been formulated regarding the effectiveness, legitimacy and the governance of WADA policies. In particular, the disconnection between the values-based model of education and aspects of the implementation of anti-doping policy (such as inadvertent doping, or leadership responsibilities) can be problematic. Without overlooking such issues, a trend of improvements in how the antidoping community approaches education could be notified at global level, and serve as general guideline for improvements in the anti-manipulation field.

The WADA International Standard for Education was first adopted in 2019 (effective in 2021) and is mandatory for all anti-doping organisations bound by the WADA Code. It defines education as "The process of learning to instill values and develop behaviors that foster and protect the spirit of sport, and to prevent intentional and unintentional doping". In tune with this broad definition, the Standard imposes that education programmes contain four components:

- **Information provision** (providing accurate, up-to-date content related to clean sport)

- **Awareness-raising** (highlighting topics and issues related to clean sport)

- **Values-based education** (developing personal values and principles, and ethical decision-making)

- **Anti-doping education** (anti-doping information building competencies in clean sport behaviours and informed decision-making).

When it comes to delivery, the standards impose that **education programmes be planned.** The plan should first include an assessment of the current situation, with a description of the system (the

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[24] https://www.wada-ama.org/en/resources/world-anti-doping-program/international-standard-education-ise
[25] https://www.wada-ama.org/en/resources/guidelines-2021-international-standard-education-ise
[26] https://www.wada-ama.org/en/what-we-do/education-and-training/adel.wada-ama.org
[27] https://www.wada-ama.org/en/what-we-do/education-and-training/global-learning-development-framework
[28] https://truesportpur.ca/
[29] https://ressources.afld.fr/

environment, the sport system/structure and the context), an identification of the target groups (athletes and support personnel in priority), an identification of available resources and the current activities. An education pool should then be established, as broad as possible, with athlete personnel also included in priority. In a third step, the plan should set the (measurable and time-specific) objectives and activities. Athletes should be included in the planning and development of the plan. Finally, the plan should include provisions for monitoring reporting, evaluating, and fostering improvement.

The **implementation of education programmes** should be tailored to the target groups, and contain values-based focus. Modes of teaching may include face-to-face sessions, eLearning, brochures, outreach booths or websites. Educators have to be specifically assigned and skilled for the delivery of activities.

The evaluation of the programme should be conducted annually and inform the following years' education plan. It should explain to what extent the objectives have been met. Partnerships with the academic field or research institutions are advocated.

The WADA Education guidelines, published in 2021, when the Standard became effective, assists organisations for each of the steps.


Figure 2. Summary of the WADA Education Guidelines. Source: WADA Guidelines.

Interestingly, organisations are pushed to recognise the athlete environment (see the figure 2 example). This can help to understand their situation, but also identify resources and build partnerships or synergies on educative and prevention work.
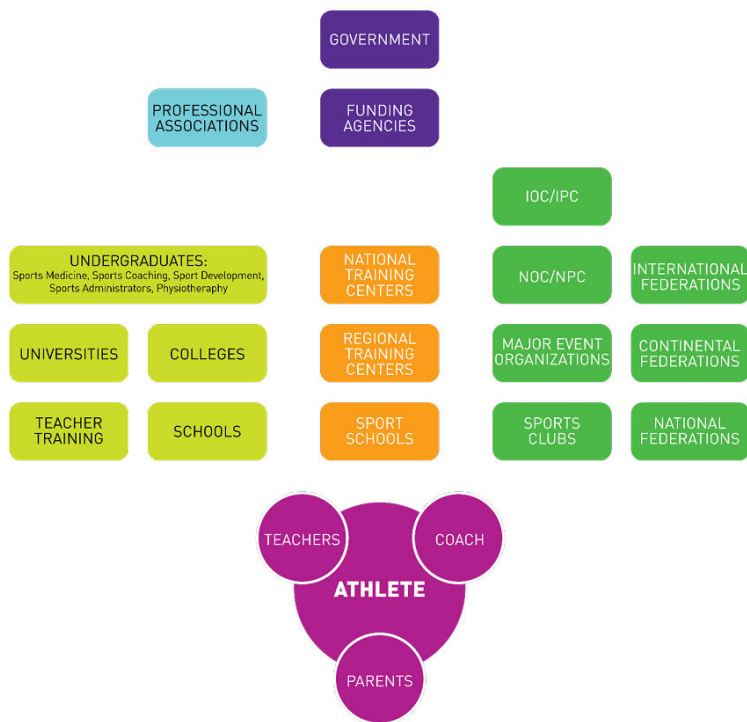
Figure 3. Example of sporting system mapping (from a NADO point of view). Source: WADA Guidelines.

Likewise, the vision of the athlete career pathways helps to plan education on the long-term and identify corresponding responsibilities. It should also help to decide when should education intervention start.
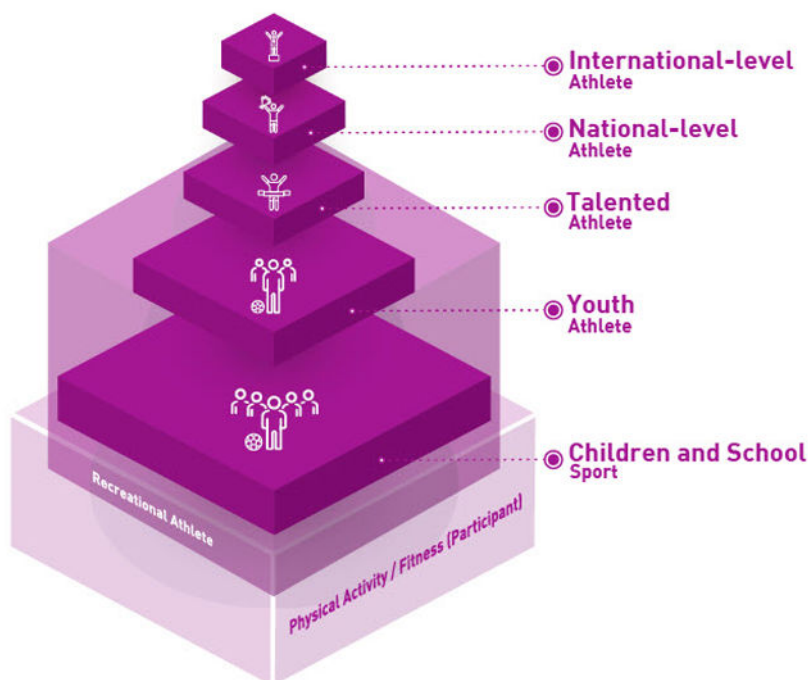
Figure 4. Athlete career pathway. Source: WADA Guidelines.

Another key recommendation is to determine education modes according to the context. For example, when local geography or politics make travel and face-to-face intervention prohibitive, rely instead on webinars, e-learning courses, social media campaigns or communication campaigns.

Activities should also be selected according to different variables such as the components of education that are targeted (see figure 4), the target groups or the education mode (physical or online for example).
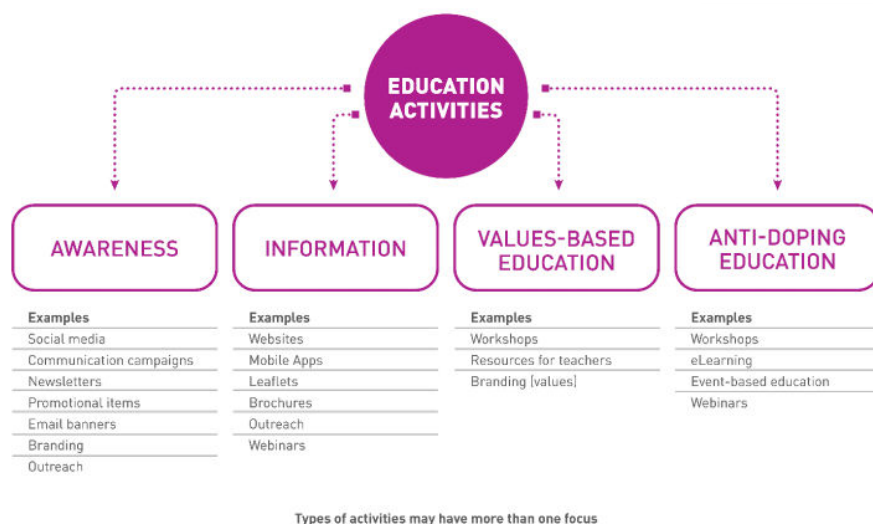
Figure 5. education activities and components. Source: WADA Guidelines.

When it comes to monitoring, it involves collecting data regularly and over time to see whether and to what extent any progress towards the programme objectives has been made. Then, evaluation includes:

> **1/ Evaluating learning**, which involves determining whether and what participants have learned and gathering feedback to determine the quality of the learning experience or interaction. Evaluating learning will happen during and at the end of your education activities.
> **2/ Programme evaluation**, which focuses on asking the questions – Was it worth it? Did you meet your programme objectives? This phase will happen at the end, annually, once all of the education activities have been completed.
> **3/ Determining impact**, which measures if the programme has made a difference. Has it affected the behavior of targeted groups? Has it made any impact beyond the programme objectives?

When it comes to evaluating the impact of an anti-doping education programme, a specific report from Houlihan & Melville (2011) goes into details on the rationale and concrete guidelines to design and stage the process[30].

Throughout the WADA Education Standard and the Guidelines, the overall aim is to manage education programme strategically, from the risk-assessment to the design, implementation and evaluation phases.

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[30] Houlihan, B., & Melville, S. (2011). Improving and proving: A handbook for the evaluation of anti-doping education programmes. *Canada: World Anti-Doping Agency*. https://www.wada-ama.org/sites/default/files/resources/files/houlihan_final_report.pdf

Target group	Program objectives	Topics	Learning objectives	Education activities	Monitoring and evaluation procedures
	Overall aim: To prepare all athletes within the education pool to train and compete clean in sport				
RTP	100% of athletes will complete an introduction to clean sport course once they enter a Registered Testing Pool (RTP)	Requirements of the RTP, including whereabouts and the use of ADAMS	• By the end of the education activity 100% of RTP athletes will be aware of ADAMS • By the end of the education activity 100% of RTP athletes will understand the whereabouts requirements • By the end of the education activity 100% of RTP athletes will be able to file their first quarter whereabouts information	eLearning (anti-doping education)	• Monitor who has accessed the course, what modules were completed and how well they performed on each module using the administrative function of the eLearning course. • Evaluate learning by giving a quiz before and after the eLearning course • Collect feedback after the education activity using a feedback form • Administer an end-of-year survey • Conduct interviews with 5 key stakeholders (e.g. educator, NF, 2 RTP athletes, ASP)

Figure 6. Example of education plan for Registered Testing Pool Athletes. Source: WADA Guidelines.

IV. Recommendations for the design, implementation and evaluation of education strategies to prevent the manipulation of sport competitions.

The benchmark of the practices, the interviews with key representatives and experts, the review of scientific literature and the experience of the anti-doping framework provide rich recommendations for the development, implementation, delivery and evaluation of effective anti-manipulation education frameworks. This section presents a step-by-step guide and supporting good practices for organisations or individuals interested in implementing and improving such frameworks. Readers who would like to go into more details could consult the WADA Education Guidelines[31], where the recommendations, albeit directed at anti-doping work, can be used a source of inspiration for anti-manipulation education. An important dimension, if not the most important one, is the level of strategic planification and oversight over the programme implementation.

Preliminary settings and assessments

Why do you want to implement or improve education sessions?

As a forerunner, organisations should reflect on the reasons they engage into educative and awareness-raising activities. The reasoning should be two-fold: why do you want to prevent manipulation of sports competitions in the first place? And then, how can prevention or awareness-raising work contribute to this aim? Responding to these questions will help you to recall your needs and what you ultimately want to achieve. It is important to share these reflections in order to align views and perceptions of stakeholders within your organisations and also external partners towards the implementation and success of the programmes.

> "*We want to protect athletes, prevent doping and maintain the integrity of Australian sport. To do this, we need to educate people about the benefits of keeping our sports clean.*" Sport Integrity Australia website[32]

> "*We need, as a nation, to show that we care as much about athlete welfare as we do about the medal table*" Mike Darcey, Chair of British Gymnastics [33]

Interviewed experts on integrity education stressed that protecting the well-being of athletes (and other sport stakeholders) should be considered a fundamental duty by sport authorities. Before undermining the integrity of competitions, manipulation networks and criminal approaches undermine the integrity and well-being of athletes. Threats, intimidations and extortion are regular tactics employed by match-fixers, whether they come from outside the sport world or from inside. Therefore, through awareness-raising and education programmes, sport authorities fulfil their responsibilities of protecting physical and psychological integrity, protecting individual careers and reputations. Authorities need to acknowledge, assume and showcase their safeguarding role.

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[31] https://www.wada-ama.org/sites/default/files/resources/files/guidelinesforeducation_final.pdf
[32] https://www.sportintegrity.gov.au/what-we-do/education
[33] https://www.theguardian.com/sport/2023/may/16/uk-sport-needs-independent-welfare-body-insists-british-gymnastics-chair

Assessing the governance and network of responsibilities and engaging stakeholders

The sport regulation ecosystem includes various public and private organisations, that act as potential stakeholders in the design, implementation and evaluation of education strategies. At national levels, sport governance models are particularly heterogenous. Even the national platforms against manipulations of sport competitions follow various structures, as some are coordinated by gambling regulators (France), some by ministerial institutions (Greece) or some by independent structures (Cyprus). Federations, Olympic Committees, professional leagues, Player associations, academic or non-academic experts, integrity-dedicated or education associations, public agencies against corruption, transparency institutions, can all provide input and participate to the anti-manipulation education framework. The example of the Education department within the Greek National Platform is a good practice of national cooperation in which organisations share expertise and cooperate in the running of a nation-wide education programme.

At the international level, sports also have to adapt to specific regulatory models. Tennis for example is mostly organised via an international circuit of individual tournaments, while football or athletics depend largely on national competitions and federations. Each model has its own features, possibilities and constraints. Most important is to adapt the educational framework to the particularities of the regulatory model and involve all relevant stakeholders in the education process. Player associations, federations, clubs, ministries of law-enforcement have a stake in the well-being and education of athletes (or any sport personnel).

Effective education strategies require a substantial amount of skilled human resources and revenues. Since these organisations share the duty of care, they all have an interest in connecting to: exchange good practices, fine tune their interventions to ensure there is no overlap (nor any gaps between the sets of curriculums) and create synergies and common programmes.

For example, discussions are regularly held between the ITIA, the AIU, UEFA and other international federations to exchange good practices. Some international fora such as the Council of Europe Macolin Secretariat or the Anti-doping Committee stage such conversation. At national level, the national platforms to fight the manipulation of sport competition represent ideal settings for such cooperation, as exemplified in the above-mentioned Greek example. Another example is the bilateral agreement between the French Handball Federation and the French Handball Player Associations, in which the federation delegates the education work to the Player Association and provides funding. The Player Association also receives input from the national anti-doping agency (AFLD) which it can use for anti-match-fixing education. Such ties are important to support the education programme. As shown in this case, and elsewhere in the review, the relevance of player associations and their importance in the running of the education programmes has been underlined in our review. Conversely, the Austrian example of the Play Fair Code (see above) shows that to reach elite athletes, leagues and federations need to back up the programme. Even though the face-to-face sessions are not compulsory for clubs and players, the direct support from governing bodies has solved the problem of access.

Manipulation risk-assessments

Another important preliminary step is the assessment of the nature and extent of manipulation risks in the jurisdiction remit. How many cases or rumours have been notified in recent years? What type of manipulation are we talking about (betting-related or not)? What is the level of risk for players and staff? How do stakeholders (and athletes in particular) perceive the risk of manipulation? How many of them suspect or know they have witnessed a manipulated game? How many of them have been directly approached for a manipulation? To what extent do stakeholders engage in betting? More broadly, what is the (perceived) level of institutional corruption within the sport institutions? Do

stakeholders trust their direct and indirect hierarchy (club management, federation, etc.) or public institutions such as law-enforcement in their ability to refuse manipulation or corruption? What is the level of awareness of applicable regulation and remedy or assistance mechanisms? How are athletes and other stakeholders' rights and well-being concerns been taken into account? Are salaries paid on time? Such background information is essential to tailor the educative approach and make sure that the messages do not appear out-of-touch with the local contexts.

Risk-assessment also includes assessing the level of knowledge of potential target groups on basic information related to the programme. Are future participants aware of existing tools to report manipulation and contact points? Do they know the main rules regarding betting, inside information or manipulation?

For instance, the AIU representative stated that they identified a difference of perception on the implementation of the anti-doping code and whereabouts rules in particular, between North America and Europe. This difference had to be taken into account by educative interventions, to try to correct misperceptions.

What do we want from the education programme?

> *"We don't want them to see us only as policing the sport". ITIA Representative*

On the basis of these assessments, a strategic vision should be collectively defined for the overall education approach. Do we want to influence the level of knowledge, the attitudes and/or likelihood of manipulation acceptance/tolerance/instigation? The choice of objectives should then be assumed. For example, by focusing on the level of knowledge, organisations should understand that they may never influence the actual behaviours towards manipulation issues. If they want to reduce the likelihood of manipulation, they need to seek, through education, to create an environment where cheating and fraud are not accepted. Assuming such an ambitious vision requires the organisation to allocate sufficient resources (human and financial) to the task.

The review of practices and interviews with key experts highlighted the potential of education programmes to even go beyond the framework of the fight against manipulation. By engaging with audiences, by adopting a protective and caring stance, by underlining its openness and reliability, the organisation (and its representative(s)) can gradually build trust with its audience. The AIU, the Danish Handball players' Player Association or the French Basketball Player Association explained how overtime, through their face-to-face sessions, they managed to increase their connection with athletes who then can more easily, and in confidence, reach out to report issues, seek support or ask questions. Education programmes can contribute to enhanced engagement and trustworthiness between organisations and their stakeholders and foster multiple positive consequences. The ITIA notified that through prevention work they want to switch from a policing image to a supportive and protecting image. The AIU notified an increased number of informants on cheating and fraudulent behaviour, which is likely a consequence of their long-term proactive approach.

> *"You can't ask them to behave with integrity if the system is rigged"* (AIU).

Through the assessment, responsible organisations need to understand the peripheral issues that contribute to the flourishing of manipulation schemes. For example, the AIU holds discussions with stakeholder representatives beforehand through online integrity sessions to identify the deep causes of moral disengagement. Research in manipulation of sport competitions stresses how the financial precarity of players or referees, how the conflicts of interest at club levels, how the governance corruption within sport governing bodies contribute to the omerta, if not to the acceptance of remunerative manipulation approaches. Education programme designers need to be aware of such conditions.

The PROtect Integrity report (2017) stressed that formal education as such was not enough:

> *"…education and awareness training can play a role though it must be perceived as likely to be effective only as part of a package of measures to encourage athletes to say 'no' to invitations to supply a fix. For example, players in some sports leagues are treated badly, are paid little and sometimes irregularly, and may be intimidated to participate in fixes by corrupt owners. The risk that they will collaborate in fixing is elevated. Ensuring a high standard of governance in sport to stop ownership by criminals and to ensure fair treatment of athletes is therefore an essential component of a systematic approach to prevention. The importance of effective and trusted whistleblowing mechanisms was also noted…"* (pp. 2-3)[34]

This is also why it can be recommended to seek partnerships and synergies between all types of integrity education. Another requisite is to target other stakeholders than just elite athletes. As international bodies such as the ITIA or UEFA are starting to do, referees and younger generations of players can also be included in education target pools. Furthermore, it is important to target the influencers and those around the athletes such as coaches, agents and support staff, as well as those with access to athletes by educating event staff and others covered by the rules.

More generally, sport governing bodies need to assess how their policies, such as the recognition and partnership with betting industry representatives, can also appear as conflicts of interest and hereby undermine their betting and manipulation prevention efforts. The example of French professional basketball, where the first national male championship is named after a major betting operator has raised legitimacy concerns by players during educative face-to-face visits.

Designing and implementing an education strategy

Make it explicit

The European anti-manipulation education field count numerous education initiatives, but few explicit education strategies. An education strategy includes:

- The target groups
- Overall programme objectives
- Education topics/content

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[34] https://euathletes.org/wp-content/uploads/2018/02/2017-EU-Athletes-Evaluation-of-the-effectiveness-of-the-PROtect-Integrity-player-education-programme.pdf

- Education activities and corresponding (measurable and time-specific) learning objectives
- Implementation modalities (setting, resources, audience access, calendar, etc.)
- Monitoring and evaluation procedures

The preparation of this education strategy should include relevant internal and external stakeholders, but also, as much as possible, involved the end-users, i.e. representatives of the audience. It should be based on available resources (internal and external) and on the risk and need assessments made in the preliminary phase. The mode of education (face-to-face, social media, e-learning, etc.), the activities (lectures, games, etc.) and all implementation modalities such as setting, language, speakers, etc. should be, as much as possible, adapted.

For example, in the two last years, ITIA chose to adopt a more flexible approach, with a blended learning formula (online and offline) and by adapting the content of the education modules to each face-to-face session. This responded to the fact that some players have already been extensively covered by classical education modules and needed new topics. While the compulsory e-learning modules touch upon hard knowledge (such as regulation updates and new risks), physical sessions can address broader behavioural issues and ethical reasoning.

For an example of written-down anti-doping education strategy on doping, see Figure 5 or the WADA Education guidelines (pp. 54-57).
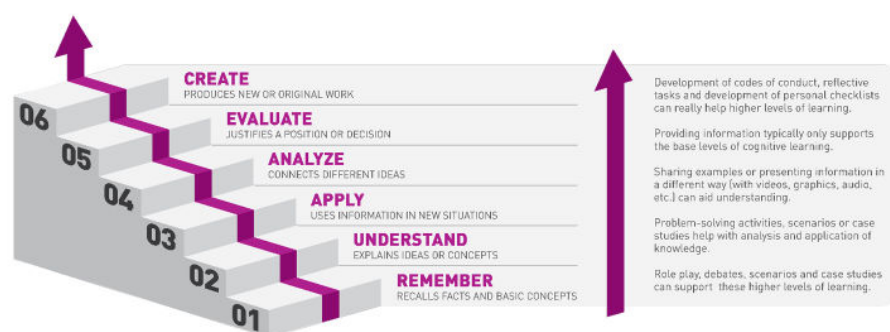
Figure 6: Cognitive domain hierarchy[35].

An education programme can follow many different learning strategies, as exemplified in the above figure. It is important to recall that the method should respond to the strategy, which is itself based on the education context, the target groups and the available resources.

Anti-manipulation education experts insist on the heterogeneity of the learners' profiles. Sometimes the learners may be fed up with the topic of manipulation; sometimes there are high-profile cases which raise the attention of everyone; some learners cannot be reached as they do not want to be informed or made aware of any subject; some are themselves involved in the type of manipulation that needs to be addressed; and sometimes the delivery modalities (the timing, the setting, the available resources) are not optimal. One should accept the fact that it is not possible to control all types of audiences (be it online or offline), and that not all mentalities and behaviour can be changed. In the EU PROtect Integrity project, a questionnaire administered to the education recipients identified that 27% of the athletes surveyed had not previously received match fixing education whilst 42% had received education several times in the past. The nature of the learning expected from the audience

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[35] Source: Adapted from Vanderbilt University Center for Teaching, https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/ (cited in the WADA Education Guidelines, p. 62).

may therefore vary to a great extent, making it challenging to find a common thread that would please everyone during a given intervention.

Different modes of education implementation

The potential modes, or format, of education are varied (see a list below and corresponding examples).

- Communication campaigns (example of the World Rugby Keep Rugby Clean campaign[36])
- Branding and promotional activities (example of the EU Sport Integrity Day[37])
- Social media campaigns (example of the EU Athletes online communication on anti-manipulation messages[38])
- eLearning (example of the ITIA eLearning programme[39], compulsory for all professional tennis players and internationally registered juniors, or the IOC e-learning programme[40])
- Face-to-face education
  - Event-based education (example of the Anti-manipulation activities conducted at the Olympic village around the Olympic Games[41])
  - In-person workshops (example of the UEFA integrity officers workshops[42])
  - Webinars (example of the ITA anti-doping webinars[43])

Face-to-face interventions are praised as they are more likely to raise attention of the audience and build connections. They nonetheless require heavy human and financial investments. Each education format has its own pros and cons. Organisations should consider alternating or combining formats to ensure that their messages are better received or reach more recipients. The ITIA draws inspiration from the "ICE" (Information, Communication, Education) pedagogical model to structure their blended educative approach. The model originates in public health prevention[44]. Clear and brief information should be provided through e-learning for example, before engaging the audience (seek feedback, see what they want to know) and bringing in educative activities in face-to-face sessions (using scenarios and interaction to challenge their attitudes and decisions). Such an approach requires that all interventions be prepared well in advance through the strategic planning phase.

Content and delivery

"Tell a story" Play-Fair Code

The recommendations to improve the quality of the content and the delivery of the education programme are well identified throughout research findings and expert testimonies.

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[36] https://www.world.rugby/keep-rugby-clean
[37] https://eusportintegrityday.eu/#:~:text=On%2015th%20of%20April,to%20fighting%20against%20match%2Dfixing
[38] For example: https://twitter.com/theRPA/status/1156576996497010690;
https://twitter.com/EUAthletes/status/1176014530289315840;
https://twitter.com/AJFSFemenino/status/1164617707586826240;
Conduct https://twitter.com/SNBasket1/status/1046716848740478976
[39] https://www.itia.tennis/learn/tipp/
[40] https://olympics.com/ioc/integrity
[41] https://olympics.com/ioc/news/talking-clean-sport-and-play-fair-at-ioc-space-in-olympic-village
[42] https://www.uefa.com/insideuefa/news/0250-0f8e6a533513-b6ef8806ef0e-1000--uefa-integrity-officers-meet-in-vienna/
[43] https://www.youtube.com/results?search_query=ita+webinar
[44] https://apps.who.int/iris/bitstream/handle/10665/67127/WHO_RHR_01.22.pdf?sequence=1

For any education format, it is particularly important to:

- Use clear, concise and powerful messages
- Use illustrative material (photos, videos, etc.)
- Use an informal tone
- Appeal to audience emotions

When it comes to face-to-face sessions, one of the principal vectors of anti-manipulation education in European sports, specific advice has been shared by interviewed experts. Many insisted on the importance of building a narrative and using entertaining and illustrative case studies or pedagogical material. Interactive tools (such as apps with quizzes), role games or group discussions are recommended to engage and catch attention. Such activities require skilled speakers and thorough preparation.

> *"I hear & I forget, I see & I remember, I do & I understand"* (Confucius)

In general terms, it is important to avoid talking to the athlete in a vertical and unilateral manner, but engage in flat conversations. Players, staff or managers have their own opinions and experiences on issues related to manipulation or betting. Each of them has their own ethical reasoning and vision of sport integrity. Their feedback, their instinct should therefore be sought. To do so, topics should not only be interesting, but they should also target their feelings and instinct. Human and emotional touches are more likely to arouse interest and interaction from the audience.

Moreover, while it remains important to repeat messages to favor understanding, new subjects, items, examples or activities should always be included in order to sustain attention.

The speaker should also appear sufficiently close to them (through her or his outfit and body language, through the speaking tone, through the physical setting) to incite the unformal conversation. Some organisations, such as the Spanish women futsal player player association, use ambassadors (active or ex-players) to run the sessions as they are more likely to know how to approach players and would therefore appear more credible and trustworthy. Audiences are always more prone to listen to speakers to whom they can personally refer (speakers using the language and who are more likely to understand their personal situations and opinions). Speaker credibility is a crucial aspect for the delivery of such sessions.

In some sensitive contexts, organisations ask the authorities (club managers or federation staff) not to be in the room in order to create a confidential atmosphere.

Monitoring, evaluation and research

Although broadly untapped by the current European anti-manipulation framework, this phase is essential to the strategic management of an education programme. Without it, responsible organisations cannot be held accountable for the implemented activities, nor can they certify they had any influence on the knowledge, attitudes and behaviours regarding manipulation through their jurisdiction. This phase invokes three main actions.

Monitoring

This is the easiest and most common action. Most often, organisations record statistics on the investment (list of material used, human and financial resources, overall allocated budget), on education activities (e.g. number of sessions, number of social media messages or list of material used)

or on the audience (number and demographics of persons in attendance, number of e-learning completions or app downloads, number of retweets or website traffic).

Learning process evaluation.

To what extent did the programme achieve its immediate learning objectives? For example, was delivery of the programme successful in terms of raising understanding amongst its participants on manipulation approaches? Do they know on which competition they are allowed to bet or not? Organisations often use short feedback questionnaires at the end of sessions to collect such data. For instance, Rugby Players Ireland carried out a survey in 2021, through which they recognised that 91% of their members were aware of applicable betting restrictions. Interviews or focus groups could also be useful in measuring the immediate impact of education interventions and tools.

> *"For the subsequent training to players, we took a sample of more than 1,500 athletes (out of 14,700 people who were targeted by the education project in its second year) and asked them to complete a confidential questionnaire, variously on paper or online and translated into the local language as appropriate, to assess how much they had learned." (PROtect Integrity Report, 2017, p. 4)*

Programme evaluation

This phase will indicate the effectiveness of the education programme and feed the strategic planning for the following education plan. If the strategic objective was to influence attitudes or behaviours, the collected data on education activities and on the learning process needs to be combined with thorough research investigations. Scientific institutions could be mobilised at this stage (or preferably from the strategic planning phase) to apply one or several of the methods that can be useful in determining education goal achievement such as longitudinal surveys, or qualitative research, through focus groups, interviews, case studies or discourse analysis. Ideally, both qualitative and quantitative methods should be combined and triangulated with documentary research to provide richer insight. In what seems to be a rare move within international and national sport, the AIU has partnered with an academic institution to assess their whole education approach.

Different outcomes are pertinent with regard to measuring the ultimate impact of anti-manipulation education:

- Integrity behaviour (number of reported/detected manipulation cases, number of betting cases, etc.)
- Individual psychosocial aspects (moral disengagement, attitude to manipulation, intentions to accept manipulation offers, etc.)
- Perceived social norms (perceived prevalence of manipulation, ethical climate index, perceived legitimacy of the anti-manipulation system, etc.)

Conclusion - Running effective education programmes: a challenging responsibility

As put by an interviewed Player association representative: "It's a constant fight". Running education programmes that manage to catch the attention of audiences, engage them in the conversation, gain their trust, and influence their attitudes and behaviours in a meaningful way requires considerable financial and human investment. Rarely do single sport organisations possess such resources, or the capacity to acquire them. It therefore obliges them to build bridges with partners, regulators, members, sponsors or any stakeholder that could help them in such an ambitious and long-term process. The present report has presented solutions and good practices to assess, gather and collectively employ such resources.

But beyond financial and human capacities, the most challenging step for these organisations is to recognise that they all share a fundamental responsibility, a duty of care to protect athletes and their entourage from the corruptive and violent hazards that too often target them. It goes beyond the mere administration of information-filled campaigns. By enlightening and raising awareness, by promoting ethical reasoning, by influencing social norms, by showcasing avenues of support, remedy and help, education programmes serve that caring purpose. New manipulation cases, scandals and rumours constantly emerge and now reach minor or amateur women championships. This pervasive threat obliges sport governing bodies and their stakeholders to assume and fulfil their responsibilities, and also look beyond the issue of manipulation.

Reflecting on the quality and effectiveness of the prevention campaigns is a first step towards that end, and the present report has sought to help them in this regard. By taking stock of the experiences in awareness-raising and education that have multiplied across worldwide sport over the last 15 years, as well as the research that has accompanied them, it has sought to provide managers and educators with a first overview and a set of recommendations to fine tune their interventions.

The anti-manipulation field will only reap the benefits of strategically planned education programmes after it invests substantial resources and patience in the process. In many contexts, it will also need to address some intertwined governance issues that can participate to the sustaining and impunity of the manipulation phenomenon: the political conflicts of interest, the omerta silencing potential reporting persons, the overall focus on performance instead of on participant well-being and the financial precarity of parts of the sporting world. As much as effective education campaigns can participate to improve the ethical climate, a caring and trustworthy environment is needed to develop effective education programmes. In this context, only strong political impetus and collective mobilisation can lead anti-manipulation education endeavours to decisive long-term results.

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