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A Model of Environmental Education Based on Sports: A Case Study in Jordan and Palestine

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Abstract

Purpose: Several authors connect Economics with environmental education, mainly through sustainable management, reduction of inequalities, and balance between mind and body. One way to learn about the principles of Environmental Education is through Sport, since the more we collaborate with our team, the greater the chance of victory, and with this in mind we want a clean field, a clean city because we are responsible and healthy.

Coubertin presents the problem of competition in Sports and identify how six important themes contribute to his ideas on peacemaking.

Design: This study selected just one - the importance of participation/collaboration over victory, highlighting process of respecting others over result – to create the following research questions:

1. To what extent does the level of competitive anxiety among players impact the respect to the environment? 2.To what extent does the achievement motivation among players impact the respect to the environment? 3. Is there a difference between men and women, practitioners of sports, in terms of the respect to the environment?

These initial questions were the base to the web-survey applied with 20 practitioners of sports in Terra Santa Secondary School in Bethlehem (Palestine), and Al Ahli Club and Rahbat Al-wardie School (Amman/Jordan).

Findings: Focusing on collaboration within one's own team, even when competing against an opponent, leads to greater environmental awareness, and the motivation to achieve goals goes in the same direction.

Originality: There are several studies that show the impact of sport, in general, on environmental education. However, this is the first study to investigate constructs within sport, such as competitive anxiety and achievement motivation, in relation to respect for the environment.

Keywords: access to knowledge; environmental education; freedom; social participation.

Introduction

Particularly in the last two years, several studies have begun that relate Economics to Environmental Education (4; 5; 10; 17; 19; 13).

In a comparative study between Brazil and England, Gandolfi, Rushton & Silva (10) found that although environmental education has been part of education for decades, only in recent years have the disciplines of science and geography begun to examine more critically the intersection of environmental issues and social justice—commonly referred to as environmental justice—within formal secondary education, including secondary teacher education programs.

In Brazil, environmental issues and disasters—including climate change and biodiversity loss—are experienced as immediate and tangible realities. In contrast, in England these issues have traditionally been perceived as temporally or geographically distant from everyday life. This limited sense of urgency, reflected in both broader society and the education system, often constrains environmental education to technical knowledge (e.g., understanding atmospheric CO_2 concentrations) or individually focused actions (e.g., household recycling). Such approaches present significant challenges to addressing environmental justice through a socio-political lens that recognizes the structural, political, and economic dimensions of environmental issues (10).

Formal environmental education for children is the most important from the curricular and pedagogical point of view in their intellectual formation and special attention should be paid not only to the contents, but also to the autonomous processes that consider the totality of social relations and not an education mechanical and instrumental content accumulation of a banking formation (FREIRE, 1994). Even though children do not have the capacity for discernment and rational decision compared to adults, it is in the childhood phase that beliefs, values and assumptions are formed that guide their behaviors, expectations and interpretations of the world.

In relation to young people and adults, the proposed model suggests government ecological awareness campaigns with donation of books and guidance. Both formal and informal education help in the formation of a cultured and ecological citizen who has the potential to contribute to both control and social participation, which leads to the construction and execution of more effective public and private policies, that is, with better results from the beneficiaries' point of view.

This article structures as follows. In addition to this introduction and conclusions, section 1 discusses the theoretical relationships between development such as freedom, education and citizenship. Section 2 shows the difficulties and changes proposed in both formal and informal education. Section 3 addresses the theme of participation and social control and then defends the New Public Service (NPS) model. Finally, section 4 exposes the EFIGE model, combining the various theoretical elements gathered throughout the previous sections.

1. Collaboration and Competitive anxiety, Achievement motivation, and Environmental Sustainability Competences.

1.1 Collaboration and Competitive anxiety

Green sustainability is one of the most acute modern global goals as it is on the intersection between economic 15)

Manaseer, Al-nassan and Taifour (2024) interviewed 193 coaches (62 basketball, 66 martial arts, 30 soccer, and 35 swimming) and applied the descriptive statistics and the Kruskal–Wallis test and Spearman's correlation to examine knowledge and attitude differences by demographic factors.

The mains results are: 1. Jordanian coaches have a deficiency in knowledge about sports-related concussions (SRC) and hold attitudes that are not consistent with current practice recommendations. 2. Knowledge and attitude about SRC can be improved through education,

access to healthcare providers, and adherence to SRC management guidelines (Manaseer, Al-nassan and Taifour, 2024).

Competitive athletes are immersed in a highly demanding culture that requires exceptional physical performance and strict weight control (Papathomas et al., 2018).

In particular, competitive state anxiety is one of the most extensively researched topics in sport psychology due to its crucial role in determining athletes' performance and well-being (6).

Robazza et al. (2018) claim that constant criticism and lack of emotional support from coaches contribute to catastrophic thinking and Dunn et al. (2019) reveal that pressure from coaches not only increases cognitive anxiety, but also influences the fear of external evaluation and failure. This concern about being negatively judged affects their psychological well-being and their ability to recover from mistakes, particularly in sports with high technical demands where errors are easily visible (6). Cordero et al. (2026) found that aesthetic pressure from the competition uniform, along with psychological factors such as perfectionism, anxiety, and self-esteem, may increase the risk of eating disorder.Future research could explore the practical relevance of strategies such as ensuring that significant individuals (e.g., coaches/teachers, parents, friends) are aware of how they express themselves after performance failure (Funke & Gustafsson, 2026). Avoiding responses that foster a fear of failure and instead viewing failure as part of the learning process (Bartholomew et al., 2018). In stressful situations, subcortical brain regions such as the hypothalamusand amygdala activate the hypothalamic–pituitary–adrenal (HPA) axis, leading to increased cortisol secretion. Elevated salivary cortisol (sCort) before and during competition has been linked to performance impairments across various sports (14; 9; Slimani M, and a strong association between competitive anxiety and sCort levels has been consistently reported (18; 20).

Likewise, multidimensional anxiety theory posits that cognitive anxiety (e.g., worry) consistently impairs performance, whereas somatic symptoms may be neutral or even adaptive when interpreted positively (12).

In fact, both somatic and cognitive anxiety were significantly negatively associated with competition outcomes (Kenshloo et al., 2026).

Thus, self-reported anxiety likely indexes this appraisal process, rendering it a stronger predictor of performance than cortisol alone (Kenshloo et al., 2026).

Accordingly to Berastegui-Martínez (6) future research may benefit from simultaneously examining pressure for participation and pressure for perfection. Doing so would allow for a more nuanced understanding of how different forms of social pressure uniquely and interactively influence athletes' emotional responses, including their experience of competitive state anxiety. Therefore, more research is needed to confirm our findings or to extend these results to other populations

Berastegui-Martínez et al. (6) state that no direct effects were observed from coach pressure on self-confidence (first hypothesis), nor from parental pressure on cognitive anxiety and self-confidence (second hypothesis).

Funke and Gustafsson (2026) conducted a cross-sectional study with 176 elite athletes to examine whether shame following performance failure statistically mediates the associations between basing self-esteem on performance and competitive anxiety and athlete burnout. They found a better understanding of when, and under what circumstances, basing self-esteem on performance leads to negative outcomes.

1.2. Achievement motivation

Fathi and Aghamiraei (2026) found that simply stating that motivation leads to effort is insufficient; a more critical analysis requires an examination of the specific strategies that motivated learners employ. This gap informs our research question about the mediating role of self-regulation in the motivation-achievement relationship, positioning it as the potential mechanism linking ambition to action. Self-regulation, which involves the proactive management of one's learning through goal-setting, self-monitoring, and strategic adaptation (Zimmerman, 2002), provides a powerful lens for understanding these mechanisms. Because self-regulation is the process of actively managing learning, it is a prime candidate for the mechanism that translates the cognitive clarity gained from mindfulness and the directional energy from motivation into effective learning behaviors (Fathi and Aghamiraei, 2026).

Mindfulness, in particular, has been shown to enhance self-regulation by improving cognitive and emotional control (Brown et al., 2007)

For example, Zimmerman (16) outlines metacognitive, behavioral,

and motivational dimensions, while Tseng et al. (2006) propose a model that includes control over one's environment and emotions.

Both models can be useful to understand the impact of motivation on sports.

However, the purpose of this article is to measure to what extent does Competitive anxiety and achievement motivation impact Environment's education.

Iormom (2026) highlights that the higher education perceptibly leads to emissions reductions,

funding for tertiary education ought to be seen not just as human capital policy but as part of climate policy itself. Significantly, the attainment of higher education does not occur in isolation, but it is embedded in broader socio-economic and technological systems that predetermine how the knowledge acquired is directed to progressive environmental policies or dissipated in neutral oreven destructive activities (Iormom, 2026).

The study with the the 27 member countries of the EU and the UK from 2014 to 2023 investigated the relationship between carbon footprint and higher education attainment, economic activity and renewable energy adoption. Surprisingly, against a priori expectation, the long-run panel estimates indicated that higher education attainment does not reduce carbon footprint in this panel of European countries.

1.3. Environmental Sustainability Competences

Environmental Sustainability Competences have progressively evolved from approaches focused primarily on environmental knowledge toward broader perspectives that emphasize individuals' ability to understand complex socio-environmental systems and actively contribute to sustainable development. In this sense, Education for Sustainable Development seeks to promote not only knowledge acquisition but also critical thinking, responsibility, collaboration and informed decision-making (UNESCO, 2021; United Nations, 2015).

The European Sustainability Competence Framework (GreenComp) defines sustainability competences as an integrated combination of knowledge, skills, attitudes and values that enable individuals to become agents of change. According to Bianchi, Pisiotis and Koršňáková (2022), these competences include systems thinking, embracing complexity, envisioning sustainable futures and acting for sustainability, reinforcing that sustainable development depends on both individual and collective action.

Similarly, Wiek, Withycombe and Redman (2011) argue that sustainability requires a set of key competences—including systems-thinking, anticipatory, strategic and interpersonal competences—that support decision-making in complex contexts. From the perspective of Environmental Education, these competences should also foster environmental citizenship, participation and social responsibility rather than merely increasing ecological knowledge (Loureiro, 2012).

However, competence alone does not necessarily ensure effective action. Competence is generally understood as the integration of knowledge, skills and attitudes, whereas intelligence represents the ability to transform these competences into prediction, strategy and action (8). Thus, Environmental Sustainability Competences provide the necessary foundation for the development of Sustainability Intelligence, in which knowledge is effectively transformed into prediction, strategic thinking and informed action (8).

Within sports contexts, this distinction becomes particularly relevant. Experiences involving teamwork, cooperation, self-regulation and collective responsibility may contribute to developing sustainability competences that, when effectively applied, strengthen environmental awareness and promote more sustainable behaviours both inside and outside sporting environments (Wang et al., 2024; Liu et al., 2026).

Within this framework, Environmental Sustainability Competences extends beyond promoting environmental awareness and encourages learners to integrate systems thinking, futures thinking, collaboration, empathy, responsibility, and transformative action into everyday life (Bianchi et al., 2022; Bianchi, Pisiotis, & Koršňáková, 2026). This competence-based perspective provides a valuable theoretical foundation for investigating Environmental Sustainability Competences in sports contexts, where psychological factors such as competitive anxiety and achievement motivation may influence not only athletic performance but also the development of pro-environmental attitudes and sustainability competences. Consequently, examining these relationships contributes to a better understanding of how sport can promote environmental citizenship and support more collaborative and sustainable behaviors both within and beyond sporting environments.

In this direction Baierl, Johnson and Bogner (2021) found further reliability and validity scores to prove the juxtaposition between Environmental Sustainability Competences and attitutes of preservation, and in line with the literature, pointed to a unidimensional Preservation of Nature scale as a concise attitude measurement. In structural equation modelling, Preservation related to knowledge gains and the cognitive achievement and attitude with respect to a pro-environmental indicator of behavior (Y key), and effects from Preservation on knowledge held true for all three states.

Methodology

The methodology is clearly designed to answer the central question of the impact of sport practices on environmental education, starting from a discussion of descriptions of school practices. Semi-structured interviews with key stakeholders from selected schools were qualitatively analyzed to identify best practices and successful organizational strategies. Purpose sampling guided the selection of participants, focusing on individuals affiliated with recognized, high-performing school and club. Data collection took place between June and July 2026. Prior to implementation, interviews were conducted and were reviewed by the author. The interviewers used the guide as a flexible framework to ensure coverage of key themes, allowing interviewees to expand on relevant experiences and share illustrative examples. Direct quotations were documented whenever possible, and interview notes were subsequently reviewed for clarity. The analysis involved an iterative cycle of coding, interpretation, discussion, and revision to refine emerging themes and strengthen the validity of the findings. To increase reliability, summarized results were returned to interviewees for verification before submission for publication.

Before implementation, the 10 (ten) interviews was revised accordingly by the author to guide the final version of the web survey (two surveys was tested also through google's forms).

To enhance trustworthiness, summarized results were returned to web-survey for verification before submission for publication. One hundred one people answered the web survey available at

https://docs.google.com/forms/d//1FAIpQLSf3dMokfEq4nMT7r8bq_o68ujPzTD8JMazhIlF2Yx5Lux5S3Q/viewform The pilot version (the first survey) is available here: https://docs.google.com/forms/d/e/1FAIpQLScooaixRYT8w3d--ao5Vz7niI782kxO77Jj8yUw1bbpmnLDRw/viewform?usp=publish-editor

Unfortunately few respondents agree to fill up the Ethical Forms, and the leaders denied to do it too. The Ethical issues are presented in the end of this article.

Research Questions

Dimension 1:Collaboration And Competitiviness

To what extent does the level of competitive anxiety among players impact the respect to the environment? (Mohamad Hassan Abuauaib et al., 2025; Kan et al., 2011)

Dimension 2: Motivationn And Connection To The Environment

To what extent does the achievement motivation among players impact the respect to the environment? (1; 2)

Dimension 3: Performance And Respect Based On Gender

Is there a difference between gender, that practice sports, in terms of the respect to the environment ? (Baierl, Johnson& Bogner, 2021; Alhayek, Khasawneh & Massad, 2025)

Data Collection

This research relies on a survey about the impact of Sports on Environmental Education (Appendix A) performed first at Terra Santa Secondary School in Bethlehem/Palestine, and Al Ahli Club in Amman/ Jordan and the data was qualitatively analyzed.

The questionnaire included twelve items, separated in three dimensions, related to people' attitudes toward the environment and it was conducted with 20 practitioners of Sports in Palestine and Jordan.

Results and Discussion

First Survey Dimensions:1. Collaboration And Competitiviness 2. Motivationn And Connection To The Environment 3. Performance And Respect Based On Gender

Short introduction before the results and discussion

Palestine And Jordan' International Relations

Palestine and Jordan have cultural differences despite having strong ties, partly because they share the same religion (very important in the Middle East) and official data indicates that there are around 2.3 million Palestinians living in the country and that there are commercial relations in the following sectors:

In 2023, Jordan exported $338M to Palestine. The main products that Jordan exported to Palestine were Cement ($105M),Other Aluminium Products($40.9M), and Raw Iron Bars($26.1M). Over the past 5 years, exports from Jordan to Palestine have increased at an annualized rate of 11.7%, growing from $194M in 2018 to $338M in 2023 (Observatory of Economic Complexity - OEC, 2026). The king of Jordan is married with a UK Citizen,

There are some differences in beliefs, values, assumptions, and traditions due to historical and cultural processes. Palestine was dominated by the British kingdom until 1948 (the independence of Jordan from UK was in 1946) when it was handed over to the Jewish-Israelis. Jordan still maintains strong ties with England and they have a great trade in the following sectors: textiles, agricultural products (like vegetables and fruits), and precious metals. The Journal Association Agreement is a good example of this relationship[1]. Total trade in goods and services (exports plus imports) between the UK and Jordan1 was £1.1 billion in the four quarters to the end of Q4 2025 (Department for Business and Trade, UK, 2026). The mother of the current King of Jordan, King Abdullah II,- the former British citizen Toni Avril Gardiner (now Princess Muna Al-Hussein) - was married to the late King Hussein of Jordan.

Due to living under occupation and not yet having full international recognition as a nation, Palestinians tend to be more closed off and reluctant to collaborate on issues that might irritate the Israelis who fully control their territory (whether Gaza or the West Bank). Regarding respect for the environment, Palestinians respect the environment less than Jordanians due to their lower educational level, even in terms of physical education, partly because there are very few spaces for sports in Palestine, and also for waste disposal. However, Jordan is not far behind in terms of disrespect for the environment, since knowledge is heavily concentrated among the country's elite, given the cost of universities, including public ones. The difference in values, beliefs, assumptions, and traditions, although small, deserves in-depth discussion so that we can better interpret the results of the interviews and web survey on the impact of sport (competitiveness and motivation) on Environmental Sustainability Competences. Palestine has more robust family structures, partly because work, concentrated in the sale of products (trade in goods, particularly in the food sector), is done between parents and children. Because there are restrictions on internal and external investments, knowledge is highly concentrated in Israel, and the level of cultural intelligence is low (Palestinians face strong restrictions on movement), resulting in very few companies in the country. Palestinians who remained in the country believe that one day they will achieve recognition of their territory as an independent nation. Given the sadness regarding the situation with Israel and the lack of reading habits among Palestinians, they don't understand the importance of not littering. Jordanians, due to their longer exposure to English culture, enjoy reading more than Palestinians, a fact easily observed in the number of bookstores. Regarding values, Palestinians tend to be more honest, given the suffering they have endured under Israeli rule, especially the military. They end up being more careful not to make mistakes and not to draw attention to themselves.

Summary of the answers (objective answers)

Each item was scored out of five - Likert scale.

Possible Answers: Strongly agree (SA)/ agree (A)/ neither agree nor disagree (NAND)/ disagree (D)/ strongly disagree (SD). **PA – PALESTINE JO – JORDAN**

[1] https://www.gov.uk/government/collections/uk-jordan-association-agreement

The **Table 1** shows the answers of the 12 questions of the first survey.

Questions/Answers	SA	A	NAND	D	SD
DIMENSION 1 1.The level of competitive anxiety among players impact the respect to the environment significantly? (Abuauaib et al., 2025)	PA – 1 JO- 9	PA-9 JO- 1		PA-1 JO-1	

2.The level of achievement motivation among players impact the respect to the environment significantly? (Kan et al., 2011)	PA-9 JO-6	PA-1 JO-4			
3.The most important psychological phenomena that affect athletes' performance (collaboration and competition) affect the protection to the environment ? (Kan et al., 2011)	JO-7	PA-3 JO-2	PA-2 JO-1	PA-1	PA-4
4.I am not afraid to loose the game because the most important thing is to to my best to collaborate with the team ? (Abuauaib et al., 2025)	PA-8 JO-3	PA-2 JO-2	JO-1	JO-4	
DIMENSION II 1. The connection of athletes with the environment can motivate them to exert more effort? (Al-Dhamour, 2022)	PA: 10 JO:4		JO:4	JO:2	
2. I am interested in the practice of sport even though others do not motivate me. (2)	PA: 10 JO:7	JO:3			
3. I can keep crying for few moments after an important defeat but I back quickly with focus on the next game? (2)	PA: 8	PA:2 JO:4	JO:2	JO:3	JO:1
4. The sport gives me a sense of relaxed moment to think properly about my goals (Al-Dhamour, 2022)	PA: 10	JO:6		JO:4	
DIMENSION 3 1.Are there statistically significant differences in the level of respect to the environment based on the study variables (age, educational qualification, and playing experience)? (Baierl, Johnson& Bogner, 2021))	JO: 7	PA:5 JO:3		PA:5	
2.I usually make additional effort to win the game even though it is not possible to win? (Alhayek, Khasawneh & Massad, 2025)		PA:10 JO:3	JO:1	JO:6	

Discussion of Results

DIMENSION 1: COLLABORATION AND COMPETITIVINESS

PALESTINE

In Palestine, the difference in attitude towards the environment between athletes and non-athletes is greater than in Jordan. This is because Jordanians have a greater desire for and access to knowledge, and sports fields, for any sport, are generally located in schools and universities. Interviews at the Terra Santa School show that students receive full support from physical education teachers to have maximum respect for the environment, including the understanding that water remaining in bottles should be used for plants before being thrown away. There is a very strong sense of teamwork among athletes, particularly when someone gets injured during a football match, the most popular sport due to student demand, heavily influenced by social media. Regarding the first question, Palestinians are practically unanimous in responding that there is a positive relationship between competitive anxiety and respect for the environment, but they only agreed, not fully agreed, as was the case with the Jordanians (more below). However, one respondent took a different view, stating that collaboration within one's own team should be more important than competition against the opposing team, citing Palestine as an example of collaboration. They affirmed that playing sports serves as a release valve for the immense pressure Israel faces. They added that sports help organize thoughts and provide the conditions to see the team as part of a single body playing for the same objective, which is not just winning, but participating and having the opportunity to work together. They emphasized that sports lead to good hygiene and behavioral practices in relation to others and the environment because when preparing to enter the court, we adopt similar attitudes to when we eat something, discarding unnecessary items. Regarding the second question (motivation), everyone unanimously agreed that the more motivated we are to play, the more motivated we are to respect our surroundings. And they go in the same direction when answering question three, saying that there is indeed a good balance between collaboration and competition, meaning that in addition to strong commitment to the team, there is also sufficient stamina, and even stress and anxiety, to play to win. Regarding question four, there is indeed a focus among the Palestinians interviewed on focusing on collaboration, even when anticipating a possible defeat.

JORDAN

In Jordan, the first question had a higher response rate (I completely agree) than in Palestine, with 96% of respondents. Indeed, Jordanians are more competitive than Palestinians, partly due to the desire for and access to knowledge, and especially because of a much more dynamic private sector. Regarding question two, Jordanians differentiated more than Palestinians between motivation for sport and motivation for greater respect for the environment. They said that some are strongly influenced by dysfunctional families or ill-intentioned friends, and this can hinder their learning in football classes and activities. In fact, the football fields at the Jordanian club and school are much dirtier than the fields and schools in Palestine. The answers to questions three and four were in line with the answer to question one. In other words, there are two mental models: collaboration and competition, but the latter prevails during matches. Regarding question four, respondents say they don't like to think about losing and that they like to fight as hard as possible to win. One respondent states that Jordan doesn't have a culture

of putting trash in the right place and that it's often necessary to use religion to make them more environmentally responsible. These findings suggest that collaboration developed through sports practice extends beyond athletic performance and may foster competences related to collective responsibility, mutual respect and shared decision-making. This interpretation is consistent with the European Sustainability Competence Framework (GreenComp), which recognizes collaboration and collective action as essential competences for addressing complex environmental challenges (Bianchi et al., 2022). From this perspective, sport can be understood as an educational environment in which collaborative experiences strengthen pro-environmental behaviors that may subsequently be transferred to broader social and community contexts.

These results are supported by current literature on sports (competition and motivation) and Environmental Sustainability Competences (awareness and protection).

If the practice of sports truly makes a difference in the mental model of practitioners, then it seems obvious that more experienced people have a greater tendency to build a more respectful personality in relation to the environment. Excluding fanatics, who do not balance the physical, professional, and spiritual aspects, this article managed to demonstrate, through interviews and web surveys, that experience with sports leads to greater Environmental Sustainability Competences.

This is in line with what some researchers have found in the last two years (Yang & Madni, 2025; Liu et al., 2025; Wang et al., 2024; Izvekov et al., 2025; Chang et al., 2026; Yiapanas, 2026; Kellison et al., 2025). However, in this study we are interested in measuring the impacts of competitive anxiety and activational motivation on Environmental Sustainability Competences. As we saw in the literature review, anxiety has its benefits up to a certain point, since it can provoke some motivation and action, but it can also block or disorganize thinking. Studies have shown that highly experienced players exhibit lower levels of anxiety than less experienced players (Khan et al., 2011). Undoubtedly, more experience with a sport leads to greater confidence in its practice, but it can also reduce motivation at certain times.

Gong (2025) highlights that traditional approaches frequently overlook the significant aspects of physical education essential for long-term sports success, such as motor skills, teamwork dynamics, and mental toughness.

In competition, a task orientation is also the vital goal to promote as it may lead to positive motivational outcomes in this context, such as effort, enjoyment, effective psychological skills use and perceived performance. At the same time, an ego orientation may provide an additional source of effort and enjoyment in this context, and moreover, in a specific competitive situation (i.e., a particular contest) a temporary focus on this goal may even lead to an instant benefit on effort and performance (Van de Pol, 2011).

Given the critical role that coaching behaviours can have on the motivational climate andthe subsequent responses of athletes, the potential value of educational interventions designed to train coaches to foster a mastery climate seems self-evident (Hassan and Morgan, 2015)

This study shows that a target intervention with coaches can influence their coaching behaviours to be more mastery involving and significantly increase athletes' perceptions of a mastery climate and task goal orientations, while decreasing perceptions of an ego climate and ego orientations (Hassan and Morgan, 2015).

From the result of the study it was concluded that there was significant negative relationship between Achievement Motivation and Trait Anxiety at .05 level of significant i.e. Study showed that increase or decrease of level of Achievement Motivation do effect on the Increase or decrease of level of Anxiety or vice-versa. Therefore we can say that players who have high level of Anxiety should also have low level of Achievement motivation or vice-versa. Result of the study endorses the findings of Bawa and Kalpana (2001) who conducted the study on male national level Gymnasts and found that higher level performance group has moderate level of anxiety than the low level performance group (Unierzyski , 2003).

II DIMENSION – MOTIVATION ACHIEVEMENT (MOTIVATIONN AND CONNECTION TO THE ENVIRONMENT)

PALESTINE

In Palestine, the motivation to practice sports must be somehow controlled given the major problem of lack of space and the closure of some schools by the Israeli government. But in the interviews it became clear that the more motivation there is to play football, the greater the respect for the place where the sport is practiced. However, for two of the respondents, there is no direct link between respect for the court where they play and the city streets. Many even try to keep the court clean so as not to hinder their enjoyment, but in relation to the streets, they do not have the same feeling of care.

This finding suggests that environmental responsibility developed through sports practice may initially remain context-dependent. While participants demonstrate care for the immediate sporting environment, transferring these behaviours to broader public spaces requires intentional educational processes capable of strengthening environmental citizenship and sustainability competences beyond the sports setting (UNESCO, 2021; Loureiro, 2012).

Regarding the first question, it is very important to note that most Palestinians thirst for contact with nature. The green area of ??Palestine is extremely reduced (almost non-existent) and with the heavy pollution of the streets, the climate becomes even more difficult for Palestinians to face the Israelis. The first question had a positive response from all participants ("I fully agree"). Due also to the lack of places to practice sports, the second question also had total agreement with the response "I fully agree". Question three is key for Palestinians who seek to focus on the game above all else. In this question, only two responded that they merely agreed; the other eight strongly agreed. Question four received a strong "I fully agree" response, given the need for a moment of relaxation from the situation they experience daily.

JORDAN

In Jordan, the athletes are highly motivated, particularly due to the strong competition, especially in soccer and basketball, the sports investigated. However, only four respondents saw the direct impact of motivation in relation to sport on respect for the environment and responded strongly agree. Another four responded neither agree nor disagree, and finally, the remaining two responded that they disagree. Regarding question two, all respondents overcome external criticism and continue practicing the sport. Seven respondents strongly agree with this statement, and three disagree. Regarding question three, it became clear that Jordanians need more time to recover from a defeat than Palestinians. This may be related to the forced development of emotional intelligence (control of emotions) due to restrictions imposed by the Israeli government. On this question, four Jordanians agreed, three disagreed, two neither agreed nor disagreed, and one strongly disagreed. Question four highlights that Jordanians, being more competitive than Palestinians, have a higher stress level, even though they agree that practicing sports helps with relaxation. In this question, only four agree and four disagree.

Very important to share some finding of scholars about this dimension.

Overall, these results reinforce that motivation alone is insufficient to promote sustainable behaviours. Rather, environmental sustainability competences emerge when motivation is combined with opportunities for reflection, cooperation and responsible action. In this regard, sports may provide meaningful learning experiences that contribute to the development of environmental responsibility when sustainability values are intentionally incorporated into coaching and educational practices (Bianchi et al., 2022; Wiek, Withycombe & Redman, 2011).

Participation in sports is associated with an increased risk of injuries. According to a study by the Centers for Disease Control and Prevention, approximately 8.6 million sports- and recreation-related injuries occur in the United States annually (Sheu, Chen & Hedegaard 2016)

Physical education programs have the opportunity to provide evidence of their value in the context of a growing focus on academic achievement. This analytics offers educational institutions a chance to prove the benefits of physical activities on students' lives, from upgrading their physical health to developing abilities such as leadership, self-control, and teamwork (11).

III DIMENSION -PERFORMANCE AND RESPECT BASED ON GENDER

PALESTINE

In the first question Palestinians agree only about the age aspect. According to the participants the old people in Palestine has more respect to the environment due to question of experience with some disease, in particular after COVID-19.

Therefore in the first question only 5 agree, and 5 disagree.

In the second question the Palestinian totally agree, all of the 10 interviewed.

The women in this question (3 participants) definitely agree. The others (7 men) only agree. The same thing happens in the question three. In the questioned four all women agree and two men (neither agree nor disagree) and five men disagree.

JORDAN

Jordanians usually agree with this first sentence: 7 definitely agree and 3 agree. They consider that there is an interplay between age, qualification and experience in their teams.

Some Jordanians do not like of the idea of loosing the game. Therefore, 3 agree, 1 neither agree nor disagree and six disagree.

In the question about hope (the third one) the women (two) are more optimist than men (8). Both definitely agree and related to the men: 4 agree and 2 neither agree nor disagree and two disagree.

In regards to the question four about education, again women agree more than men: both definitely agree and in relation to the men, four only agree, and four disagree.

Although some gender-related differences were observed, the findings suggest that cultural and educational experiences may exert a stronger influence on Environmental Sustainability Competences than gender itself. This interpretation reinforces the view that sustainability competences are socially constructed through learning experiences, participation and shared values rather than being determined by individual demographic characteristics alone.

According to Isikgoz et al. (2025) physical education and sport can contribute to gender equality by supporting physical, mental, and social well-being. However, persistent challenges, including social norms, gender discrimination, and structural barriers, continue to limit progress in these areas.

However, these positive developments face challenges, including limited resources, educators' insufficient awareness of gender issues.

A feeling of belonging to an activity is built through constant social interactions in practice, competitions and both male and female athletes strive for similarity and feeling of belonging to a sport – female athletes try to differentiate themselves from their friends, that do not participate in sports and demonstrate dominant and ambitious behaviour, athletic identity enables female athletes to demonstrate typically "male" patterns of behaviour – aggression, impulsivity, confidence and enables them to resists a traditionally expected behaviour for women – subordinate, tender and weak (Tušak, Faganel & Bednarik, 2005).

There are no differences in athletic identity with respect to gender. We found connections between athletic identity and motivational characteristics of athletes – athletic identity is connected with the dimension of win orientation, with competitiveness and positive competitive orientation. We also found that athletic identity of an athlete can be quite reliably predicted through the information of the dynamic component of his or her personality, above all through the motive of win orientation and positive competitive motivation. Competitiveness and negative competitive motivation are more important for predicting the female athlete's athletic identity, whereas win orientation and positive competitive motivation contribute the most to predicting the male athlete's athletic identity.

Results of the study also indicated there were significant statistical differences between male and female students, female scored higher in their point view; also, there were no statistically significant differences in the point of view of students due to academic level (3)

IV. A MODEL OF POPULAR PARTICIPATION AND CULTURAL CHANGE TO BUILD A NEW ENVIRONMENTAL EDUCATION PARADIGM

Participation and social control are the main elements of shared governance between the State and society in order to improve the effectiveness of public policies.

Cultural change via collaborative learning improves environmental education because it encourages people to work collectively with the sense and purpose of the common good.

De Angelis (2013), in a comparative study between the federal governments of Brazil and Germany in terms of the application of Knowledge Management and Organizational Intelligence practices, concluded that the Germans have a greater orientation towards the future compared to the Brazilian. The short-term culture, identified by Hofstede (1991, 2001) and House et al. (2004) is the main characteristic of Latin countries.

De Angelis (8) found that, in opposition to Germany, in Brazil, Government Intelligence influences through society's beliefs and assumptions than by knowledge. This relates to the fact that German culture, as opposed to Brazil, is oriented towards the future and performance, obtaining information from facts, books and statistics, instead of being oriented towards people, obtaining information in the first place (oral) and making the decision based on a temporary truth, which after more carefully analyzed loses its validity.

Again, we use the approach of development as freedom (Sen, 2000). This approach emphasizes the indispensable role of popular participation (free and inclusive) in choosing the goals and processes

of the development of a nation, as well as in the formation of social and environmental values. This is important because, especially in today's globalized world, the economic development of a community can clash with its cultural traditions and values, including its religious beliefs and political customs. In such a situation, the people must have the right to choose what to do with their cultural traditions, through a collective, free and rational decision. A decision-making process in which everyone involved has the same chance to participate, on equal terms, will *ipso facto* result in a legitimate decision by the group involved in the process.

For Sen (2000, p. 243-244), one should not underestimate the extent, depth and multifaceted character of cultural interrelationships that have been established for a long time among the peoples of the Earth. In fact, it is a myth to assume that there are self-sufficient, fully autonomous cultures and that, therefore, they preserve it "pure". It is not a question of denying the existence and importance of national, regional or local cultures, nor of denying that cultural domination may have harmful aspects to "dominated" cultures. It is about recognizing the importance of these intercultural influences, and this as the result of a human capacity to enjoy cultural products from different peoples, places and periods. Consequently, people from different cultures have the ability to share certain values and beliefs. According to Sen, one of those values is that of freedom.

The principle of respect for human freedom, which governs a people's right to free choice in relation to their cultural traditions, has at least two important implications. First, the appeal to tradition does not justify the general suppression of freedom of expression, nor does it justify the suppression of the political and civil rights of the population. Second, freedom to participate in collective decisions must always be ensured, including the provision of basic conditions for this - for example, the provision of information, knowledge and education for the people. In general, in approaching development as freedom, development requires that the population as a whole have the necessary skills and abilities for collective decision-making.

This sentence sums up two ideas: democracy is a generally effective means and principle for forcing the government to serve the people; and democracy requires the exercise of the condition of agent (autonomy with responsibility) of individuals.

Popular knowledge has the potential to change the values, beliefs and assumptions of public actors, especially when added to learning from other countries and cultures. Cultural change via collaborative learning improves environmental education because it encourages people to work collectively with the sense and purpose of the common good.

The relationships sketched intuitively in the paragraphs above, take on a formal character in the model of formal and informal education and shared governance to create a new paradigm for Environmental Education - EFIGE. Figure 1 illustrates the model's concepts and relationships.

Figure 1: The EFIGE model (own elaboration).

For Phillipi Jr and Pelicioni (2005) with a view to the purpose of sustainable development, it would be essential to educate the population, so that they, environmentally aware, would engage and demand from companies, government and society in general the changes pertinent to human sustainability itself.

The EFIGE model demonstrates that a more holistic governmental view of the world, based on internal and external collaboration, generates a new awareness in relation to the supremacy of the public interest. The model is a propagator of change based on corporate social responsibility, the exchange of knowledge and experience, which is potentially intelligence.

The EFIGE model demonstrates that a more holistic governmental view of the world, based on internal collaboration, which generates a new awareness in relation to the supremacy of the public interest. The model is a propagator of change based on corporate social responsibility, the exchange of knowledge and experience, which is potentially wisdom.

Participation and social quality control has the potential to open space within the government for shared governance, it has the strength for cultural change that undoubtedly leads to environmental preservation. This participation and social quality control, as we saw in the literature review, depends on society's interest in demanding from the government access to knowledge and experience, as Chilean students have done. This approach to development as freedom, defended by the Indian economist and philosopher Amartya Sen, will only met in Latin countries as long as there is respect for human rights and this can be a demand of Brazilian society.

Conclusions

It was very important to note through the interviews in both countries that people who manage to balance collaboration (with their own team) and competition (with their opponent) control stress better and have more motivation to leave the environment where they play, where they live, cleaner.

The main conclusion is the importance of raising awareness in Palestinian and Jordanian society, even if it is not in the interest of these governments, about the importance of living in a clean and healthy environment to build trust, facilitate dialogue, explore mutual benefits, co-produce knowledge, exchange experiences, promote participation, foster social learning, and encourage reflection. The interviews clearly reveal the need for a cultural shift based on education in schools (dependent on the government, but also on parents), given that both culture and education are more focused on religion. A collaborative governance model based on knowledge management practices is especially useful in this situation because the union of civil society with human rights NGOs (always linked to environmental issues) can lessen the lack of government support for a cleaner, and therefore more united and intelligent, society.

References

1. Al-Dhamour, B. A. K et al: (2021). "Competition anxiety and its relationship to achievement motivation among players in the Jordanian Manaseer Football League".
2. Al-Daboubi, A. .Eimar, A. (2011). "The A.S.U Students' Stances towards Satellite Channels 2021". *Journal of Education and Practice* Vol 2, No 4.

3. Alhayek, Sadiq & Alhayek, et al; (2008). "Life Skills-Based Knowledge Economy Gained from Learning Gymnastics Curricula in the Faculty of Physical Education at the University of Jordan". 1. pp223-230.

4. Amoah-Nuamah, J, Mensah, B., Yalley, C.E. *et al;* (2025) "Examining the role of senior high school geography teachers in fostering environmental sustainability: educational philosophies, challenges, and innovative practices". *Discov Educ* **4**, 554.

5. Balcha, T.A., Worku, K. & Lemma Wedajo, A. Et al: (2026) "Evaluating environmental education integration in Ethiopia's Grade 9 geography curriculum for sustainable management". *Discov Educ* **5**, 71.

6. Berastegui-Martínez, J. Et al: (2026). "The influence of parental and coach pressure on competitive state anxiety: The mediating role of emotional intelligence, Performance Enhancement & Health", Volume 14, Issue 2,

7. Khan, Z. Haider, Z. Ahmad, N. Et al: (2022). "Sports Achievement Motivation and Sports Competition Anxiety: A Relationship Study. Dept. of Physical Health and Sports Education" ,*Aligarh Muslim University, Aligarh* 202002 (India)

8. De Angelis, C. T. (2016) "The impact of national culture and knowledge management on governmental intelligence". *Journal of Modelling in Management* , v. 11, p. 211.

9. De Oliveira LFG, et al; (2022). "Uric acid and cortisol levels in plasma correlate with pre-competition anxiety in novice athletes of combat sports". *Brain Sci* ;12(6): pp712.

10. Gandolfi, H.E, *et al;* (2024) "Teacher educators and environmental justice: conversations about education for environmental justice between science and geography teacher educators based in England and Brazil". *Cult Stud of Sci Educ* **19**, 257–286.

11. Gong, H. Et al: (2025) "An approach for enhancing physical education analytics for college sports using AHP based MCDM algorithm integrated with MEREC method". Sci Rep 15, pp37034.

12. Hackfort D, Spielberger CD et al; (2021). "Sport-related anxiety: current trends in theory and research. In: Anxiety in sports". *Taylor & Francis*. p. 261–7

13. Lieth, J. Stefan Jünger, et al; (2026) "Digital geographies of green discontent: Exploring the contexts of environmental attitudes through georeferenced tweets". *Digital Geography and Society*, Volume 10,

14. Martens R, Vealey RS, Burton D. (1990). "Competitive anxiety in sport. Human Kinetics".

15. Mirza Muhammad Naseer, et al; (2025). "Sustainable development goals and environmental performance: Exploring the contribution of governance, energy, and growth", *Research in International Business and Finance*. Volume 73, Part B

16. Palmer, J. A. Et al: (1998). "Environmental Education in the 21st Century: Theory, Practice, Progress and Promise", Routede, London

17. Puneet K. Bansal, et al: (2026) "Geographic Impact of Surgical Conferences on Travel Burden and Carbon Emissions: Multisociety Study" , *Journal of Surgical Research*,Volume pp 325.

18. Slimani M, Paravlic AH, et al; (2018). "Hormonal responses to striking combat sports competition: a systematic review and meta-analysis". *Biol Sport* 35(2): pp121–36.

19. Varjú, V Alevgul H. Sorman, et al; (2026) "Reclaiming the margins in environmental research: Epistemic inequalities across Europe's geographical and disciplinary peripheries" Applied Geography,Volume 192,

20. Van Paridon KN, et al; (2017) "The anticipatory stress response to sport competition; a systematic review with meta-analysis of cortisol reactivity". *BMJ Open Sport Exer Med* 2017;3(1): ppe000261.