DESKTOP RESEARCH AND LITERATURE REVIEW OF

LEADERSHIP EDUCATION FOR ATHLETES

PROLead Erasmus+ project

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PROLead is a collaborative partnership project coordinated by European Elite Athletes Association (EU Athletes). Partnership include German Sport University Cologne and 8 player associations from different countries and sports. Focusing on the topic of dual careers of athletes, the project aims to enhance leadership skills of athletes, as well as volunteers and staff of player associations, by designing and implementing leadership courses at the the European and national level.

For more information: www.euathletes.org

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1. Overarching goals of the work package

The goals of this work package are a) to review, summarize and evaluate existing leadership education courses[1] in the project's partner countries, the wider sports world and non-sport related contexts, b) to review the academic literature on leadership with particular focus on leadership education and c) to develop recommendations for the design and content of the leadership courses that will be developed in the PROLead project.

2. Review of existing leadership courses

2.1 Course selection and procedure

All project partners identified relevant courses in their respective countries and provided the name of the course, short descriptions of the course's background, curriculum details and links to websites or other contact details for further information. The details of courses offered in languages other than English were translated into English by the project member from the respective country. The leading organization of the work package (German Sport University Cologne (GSU)) added further courses to the sample. The selection of the additional courses was guided by the goal to complement the list of courses provided by the project members. More specifically, all courses provided by the project members are directly related to sport / athlete environments. Therefore, the selection of additional courses focused on non-sport contexts, such as universities and consultancy firms to provide a complementary perspective. The courses were sampled from highly prestigious academic institutions (e.g. Stanford University, Oxford University, Harvard University) and leading consultancy firms (e.g. Pricewaterhouse-Coopers). The principle of theoretical saturation was applied to decide when to stop the addition of further courses to the sample. Theoretical saturation is reached when the addition of more examples or cases provides no or only minimal new insights.

The information obtained about the courses primarily stems from materials published on the courses' websites. The level of detail provided in the materials regarding descriptions of curricula and other aspects varied considerably across the courses. In some cases, personal communications with people involved in the courses were used to get further information.

2.2 Overview of the analyzed courses

The final sample consisted of a total of 30 leadership courses. Of these, 19 courses have a sport / athlete background, while 11 cases are general leadership courses. In terms of the

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[1] This report refers to a number of leadership education opportunities that use different terms, including "course", "program", "workshop" and "session". For consistency reasons, the term "course" is used throughout this report.

hosting countries, 10 courses are based in the UK, six courses in Ireland, four in the USA, three courses in Spain, one course in the Netherlands, one in Germany, one in Australia and four courses are cross-national offers with no specific hosting country. Table 1 provides an overview of all courses, the hosting countries and curriculum details.

Table 1: Overview of leadership courses included in the analysis

Course name	Country	Curriculum content
Jim Madden Leadership Programme	Ireland	Develop Personal Leadership Skills - Group Leadership Skills - Leadership Behavior and Styles - Real business world problems
Master in Coaching Johan Cruyff Institute	The Netherlands	Principles of Leadership - Develop Personal Leadership Skills - Group Leadership Skills - Leadership and situational factors (e.g. conflict management) - Communication Skills - Coaching and mentoring
Women Leaders in Sport - Sport Australia	Australia	Leadership styles and functions - Leadership and culture - Leadership and performance - Communication Skills - Coaching and mentoring -Leadership challenges - Emotional Intelligence - Driving vision, change management
FIFA female leadership development program	International	Develop Personal Leadership Skills - Real business world problems - Coaching and Mentoring
Universidad de Navarra (Working Athletes)	Spain	Leadership Behavior and Styles - Develop Personal Leadership Skills - Coaching and mentoring - Real business world problems
The Navarro Employment Service (SNE) and The Navarro Sports Institute (IND)	Spain	Develop Personal Business Skills - Finance and Strategy - Leadership, Marketing, Communication, Sponsoring - CSR - Practical exercises
UEFA - Women in Football Leadership Program (WFLP)	International	Develop Personal Leadership Skills – Self-awareness -Coaching and mentoring -Practical exercises
UEFA - Executive Master in Sport Governance (MESGO)	International	Global Sport Governance - Competition design and financial sustainability - Legal framework - Ethics and Integrity - Events and participations (e.g. hosting + increasing participation) - Strategic marketing and communication - Future of Sports (e.g. challenges) - Leadership and Innovations - The North American Model (Structure, Issues, Regulations)
Johan Cruyff Institute - Course in Leadership in Sport Organizations	Spain	Definition of Leadership (Styles, Behavior, etc.) - Leadership Styles - Personal Leadership Skills - Psychology of Leadership - Group Leadership Skills - Conflict Management
Youth Sports Trust	UK	Coaching and Mentoring - Group Leadership Skills - Communication Skills - Improve Teamwork - Improve Decision Making and Problem Solving Skills
Dame Kelley Holmes Trust	UK	Coaching and Mentoring - Develop first basic leadership skills
Dublin Business School Eleven Program (launched by Rob Kearney)	Ireland	Leadership and organizational culture- Leadership Styles (i.e. dynamic leadership style) - Develop Personal Leadership Skills (self-awareness) - Communication Skills
IOD Leadership Programmes	Ireland	Definition of Leadership - Self-awareness - Leadership and organizational culture - Group Leadership Skills

Programme	Country	Curriculum
UCD Smurfit Leadership Programme	Ireland	Understanding change in the business environment - Identify firm growth strategies - Understand personal contribution to developing strategy - Develop team and organization effectiveness (understand organizational culture) - Understand your personality and your role as a leader - Develop Techniques for Strategy Development (e.g. Market Analysis, Design Thinking)
Stuart Lancaster	UK/Ireland	No specific curriculum but delivers workshops on a range of key leadership areas
Lane 4	UK	Skills developed through their programs include leading a team, leading leaders and strategic leadership
IMI Professional Diploma in Leadeship	Ireland	Definition of Leadership - Psychology of Leadership - Group Leadership Skills - Leadership and change (Change management) - Leadership ethics
High Impact Leadership	Ireland	Develop Personal Leadership Skills - Group Leadership Skills
Dale Carnegie 1-day leadership session	UK	Leadership Organizational Culture - Conflict Management - Leadership Style and Behavior - Group Leadership Skills - Emotional Intelligence
LMA Institute of Leadership and High Performance	UK	Leadership Style and Behavior - Group Leadership Skills - Emotional Intelligence - Communication Skills
Sports Leaders	UK	Develop Personal Leadership Skills - Communication Skills - Group Leadership Skills
Athlete Assessment	USA	Self-awareness - Effective Communication - Interpersonal Skills - Leadership Styles and Behavior - Goal Management
MIT Student-Athlete Leadership Program	USA	Self-awareness - Communication Skills - Interpersonal Skills - Goal Management – Real business world problems
Führungsakadmie (Workshop "in Führung gehen")	Germany	Self-awareness - Communication Skills - Leadership Behavior - Leadership Challenges – Real business world problems
Stanford Senior Leadership Program	USA	Critical Analysis - Self-awareness - Interpersonal Skills - Communication Skills - Situation awareness - Leadership and Organizational Culture - Leadership and change (Change management)
Havard Program for Leadership Development	USA	Foundational Skill Building - Self-awareness - Communication Skills - Leadership and change (Change management) - Strategy Formulation and Implementation
Oxford Executive Leadership Program	UK	Self-awareness - Leadership and change (Change management) - Interpersonal Skills/Group Leadership Skills - Effective Leadership - Leadership and Power - The Job of the Leader
PwC Leadership Development Program	International	Leadership Behavior - Goal Management - Emotional Intelligence - Leadership Styles - Leadership and Power - Leadership and change (Change management) - Interpersonal Skills
Boston Business School Junior Leadership Program	UK	Definition Leadership Skills - Everyday Leadership, the Importance of Managing the Situation - Self-awareness - Communication and Conflict Management - Leadership Challenges - Interpersonal Leadership Skills - Self-Organization and Intrapreneurship - Goal Management - Evaluating Performance - Leadership and Corporate Culture - Leadership and Change Management
London Business School Essentials of Leadership Program	UK	Personal Leadership Skills - Group Leadership Skills - Leadership and Organizational Change - Communication Skills - Self-awareness

2.3   Analysis of the courses

The initial analytical approach was a quantitative content analysis of the curriculum details of all courses. For four courses (Dame Kelley Holmes Trust, IOD Leadership Programmes, Stuart Lancaster, Lane 4) detailed information about the curriculum was not available. Table 2 displays the results of the quantitative content analysis. The far left column of the table lists all topics that are included in at least one of the courses. The remaining columns show the number of courses that include the topics (total numbers and percentages). The analysis distinguishes between three categories of content. The first and most important category is labeled "specific leadership topics". This category includes aspects that can be classified as typical and, in some cases, unique topics of leadership education, such as the development of personal skills, leadership styles or conflict management techniques. The second category includes broader topics that are relevant for leaders but represent general business content. Finally, the third category includes further aspects that were considered as potentially interesting / relevant. The table also displays a comparison of sport-related (n = 19) and non-sport related (n = 11) courses.

Table 2: Results of the quantitative content analysis

	Total number and percentage of courses including the topic		
	All (N = 30)	Sport-related (n = 19)	Non-sport related (n = 11)
Specific leadership topics			
Personal skills / self-awareness	23 (77%)	14 (63%)	9 (82%)
Interpersonal / communication skills	18 (60%)	10 (53%)	8 (73%)
Leadership of groups / teamwork	14 (47%)	7 (37%)	7 (64%)
Leadership styles and behavior	11 (37%)	7 (37%)	4 (36%)
Change Management	8 (27%)	1 (5%)	7 (64%)
Coaching / Training / Mentoring	7 (23%)	7 (37%)	0 (0%)
Leadership & organizational culture	7 (23%)	2 (11%)	5 (45%)
Real-world business problems	6 (20%)	6 (32%)	0 (0%)
Emotional intelligence	4 (13%)	3 (16%)	1 (9%)
Leadership challenges	4 (13%)	3 (16%)	1 (9%)
Goal management	4 (13%)	2 (11%)	2 (18%)
Leaderships principals	3 (10%)	2 (11%)	1 (9%)
Conflict management	3 (10%)	2 (11%)	1 (9%)
Leadership & ethics	2 (7%)	1 (5%)	1 (9%)
Leadership & power	2 (7%)	0 (0%)	2 (18%)
Leadership & performance	1 (3%)	1 (5%)	0 (0%)

Decision making & problem solving	1 (3%)	1 (5%)	0 (0%)
Self-organization	1 (3%)	0 (0%)	1 (9%)
Broader topics			
Strategy	4 (13%)	1 (5%)	3 (27%)
Finance	1 (3%)	1 (5%)	0 (0%)
Marketing & Sponsoring	1 (3%)	1 (5%)	0 (0%)
Governance	1 (3%)	0 (0%)	1 (9%)
Evaluation / quality management	1 (3%)	0 (0%)	1 (9%)
CSR	1 (3%)	1 (5%)	0 (0%)
Miscellaneous			
Programs specifically designed for women	3 (10%)	3 (16%)	0 (0%)
Focus on application and cases	2 (7%)	1 (5%)	0 (0%)
Focus on team sport markets	1 (3%)	1 (5%)	0 (0%)

Note that some overlap among the topics listed in table 2 is very likely. Such overlap is difficult to avoid because the majority of courses do not define the concepts and topics included in their curricula in full detail. Thus, leadership styles and leadership principles, for instance, might represent similar or even identical content. That being said, some conclusions can be drawn regarding the most frequently occurring topics.

Among the top five topics in both sport- and non-sport related courses are personal skills and self-awareness, interpersonal skills and communication as well as leadership of groups and teamwork. While these topics are dominant in both types of courses, the dominance is even slightly higher in non-sport related courses. Notable differences occur for the topics change management and leadership / organizational culture, which are included in over 60% and almost 50%, respectively, of the non-sport courses, but only 5% (n = 1) and 11% (n = 2), respectively, of the sport-related courses. A dominant area in sport-related courses is coaching and mentoring.

However, such quantitative comparisons should be interpreted with caution, because the total number of courses included in the analysis is relatively small.

Overall, a relatively high degree of consistency can be observed both across all courses and between sport- and non-sport related courses, especially regarding the most frequently occurring topics.

3. Review of academic literature

3.1 Procedure

The review of academic work on leadership included two streams of literature: sport-related leadership research and leadership research in the general management and psychology literature. Since both streams represent large bodies of literature, boundaries for the review were defined. Specifically, as far as the sport-related work is concerned, the review centered on work published in one of the three top-notch sport management journals (Journal of Sport Management, European Sport Management Quarterly, Sport Management Review). Articles published in other outlets were only included in the review when they were considered as particularly relevant for the project. Work on leadership in the general management and psychology literatures is extremely abundant. Therefore, the review was limited to topical journals that focus exclusively on leadership or leadership education. This selection appears legitimate considering the goals of the PROLead project. The four journals that fall into this category are Leadership Quarterly, Journal of Leadership & Educational Studies, International Journal of Leadership Education and Journal of Leadership Education.

A total of 35 articles from the sport-related literature and a total of 12 articles from the generic leadership literature were considered relevant for the analysis. Table 3 (sport-related literature) and table 4 (general literature) in the appendix provide an overview of all articles. For each article, the tables display the authors, research goals, key findings and implications.

3.2 Analysis and findings

The 35 sport-related articles can be grouped into the following broad content categories: literature reviews, leadership behavior (e.g. skills, traits), transformational/transactional leadership, gender and ethical issues, governance, servant leadership/ emotional intelligence. The articles from the generic leadership literature include contributions relating to relevant leadership development topics, leadership skills, frameworks for leadership education and, importantly, pedagogical aspects.

4. Overall evaluation and recommendations

Based on the analysis of existing leadership courses and relevant academic literature, the following recommendations can be made regarding course content and pedagogical aspects.

Topics recommended for inclusion in the courses:

- Personal skills/self-awareness
- Decision-making/problem-solving
- Communication skills

- Inter/intrapersonal Skills/ Human Resource Management
- Finance
- Flexibility and adaption to specific situations
- Leadership styles & behavior (emphasis on transformational leadership style)
- Goal management
- Organizational culture

Pedagogical recommendations:

- Creating a positive learning environment
- Provide feedback
- Mentoring, coaching and action learning as ways of teaching
- Provide networking opportunities
- Student-centered learning (e.g. reflection of activities, application in meetings, meaningful discussions)
- Realistic examples/cases: linking (job) tasks with content learned

The review of the academic literature further reveals that several timely topics are not or only insufficiently covered by the existing leadership courses. These topics might be relevant for the development of a new course and include the following:

- Unique characteristics of leadership in non-for-profit organizations, especially in members' associations
- Leadership in governing bodies
- Leadership and management of volunteers (e.g. alignment of interests between volunteers and paid staff)
- Personnel management in sport
- Crisis management in sport
- Leadership in small businesses
- Uniqueness of stakeholder management in sport
- Sustainability management in sport
- New leadership concepts and styles, including digital leadership, servant leadership, authentic leadership, supportive leadership
- Leadership and management of innovation processes in sport (e.g. open innovation concepts in clubs)
- Leadership under conditions of VUCA (volatility, uncertainty, complexity, ambiguity)
- Diversity management
- Good governance in sport
- Leadership and organizational change

Appendix

Table 3: Overview of sport-related academic literature on leadership

Study	Research goal	Key findings and implications
Chelladurai & Saleh (1980)	Develop a leadership measurement scale for sports	The five most important dimensions that should be measures are training and instruction, democratic behavior, autocratic behavior, social support, and positive feedback.
Branch (1990)	Evaluate perceptions of leader behavior by athletic administrators and how such perceptions are related to organizational effectiveness	Indicates that leaders in effective athletics organizations should be more goal- and task- oriented.
Chelladurai (1990)	Review of sport leadership literature	Sport leadership research before 1990 strongly focused on coaching behaviors and the normative model (on-the-field context). Coaches and athletes prefer autonomy of decision making. Leadership styles should enable autonomic decision-making.
Sourcie (1994)	Review of leadership work with a focus on leadership behavior	Managerial leadership is complex and a general form of effective managerial leadership in sport organizations is nonexistent.
Weese (1995)	Investigate the concepts of transformational leadership and organizational culture	Indicates that transformational leadership is advantageous compared to other leadership styles (e.g. transactional). Transformational leaders possessed significantly stronger, more positive cultures than ones administered by low transformational leaders. Transformational leaders were more effective in transmitting the culture throughout the organization.
Wallace & Weese (1995)	Investigate the links between transformational leadership, organizational culture, and employee job satisfaction	Indicates that transformational leadership is advantageous compared to other leadership styles (e.g. transactional). Leaders with a highly transformational style engaged in more culture-building activities, handled change better and had a greater degree of coordinated teamwork than leaders low in transformational leadership.

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Doherty (1997)	Examine the effect of various leader characteristics on the transformational/ transactional leader behavior	Differences in transformational/transactional leader behavior were observed for the leader characteristics of gender and age (female and younger athletic administrators were found to exhibit transformational leader behavior more often). Gender and age also were associated with the coaches' perception of leader effectiveness and their frequency of extra effort.
Quarterman (1998)	Examine evaluations of intercollegiate athletics conference commissioners regarding the importance of skills associated with management and leadership	Management and leadership skills are both important, but commissioners rate skills associated with management (e.g. conceptual, human relations, negotiating, technical, analytical skills) as more important than those related to leadership (e.g. empowerment, visioning, self-understanding, value congruence, anticipatory, intuitive skills).
Danylchuk & Chelladurai (1999)	Describe the managerial work in Canadian intercollegiate athletics	Indicates that leadership is an important task of managers besides e.g. financial management, policy-making, revenue-generation, etc.
Knoppers & Anthonissen (2001)	Examine the intersection of gender and race on leadership perceptions in management of Dutch football clubs	Indicates that women and minority men are perceived as less successful than white men. Any effect on the perceptions of women and minority men in sport leadership requires a change in discourse around perceptions of successful leaders.
Hoye (2004)	Discuss the dyadic relationship between leaders (board chairs and paid executives) and members (volunteer board members) within the boards of Australian voluntary sport organizations	Indicates that higher quality leader-member exchanges among all three possible pairings of executives, board chairs, and board members were positively related to higher levels of board performance.
	Review of leadership work and considering its implications for football managers	*Important traits/skills:* adaptability, self-confidence, persistence, intelligence, creativity, knowledge of the group, stress tolerance, rebound from adversity, and seek out new practices. *Important behaviors:* consideration (including communication and building rapport), initiating structure (processes, and goals), positive reinforcement and providing clear instructions. *Interactional aspects:* flexibility in terms of leadership approach depending on situational and group variables.

Crust & Lawrence (2006)	Review of leadership work and considering its implications for football managers	*Important traits/skills:* adaptability, self-confidence, persistence, intelligence, creativity, knowledge of the group, stress tolerance, rebound from adversity, and seek out new practices. *Important behaviors:* consideration (including communication and building rapport), initiating structure (processes, and goals), positive reinforcement and providing clear instructions. *Interactional aspects:* flexibility in terms of leadership approach depending on situational and group variables.
Parent et al. (2009a)	Examine specific leadership qualities identified as important by stakeholders of large-scale sporting events	Indicates that networking and human resource management are important key leadership skills in event management.
Parent et al. (2009b)	Examine leadership within a major sporting event	In the case of event management, multiple-linkage leadership style is advantageous compared to transformational or charismatic leadership styles. It allows to integrate a multi-stakeholder perspective and best describes the core elements of leadership in events. *Core elements include*: task commitment, ability and role clarity, work organization, cooperation and mutual trust, resources and support, and external coordination.
Burton & Welty Peachey (2009)	Examine whether leadership style (transactional, transformational) led to more positive perceptions of organizational outcomes in intercollegiate athletic administration and whether gender of the leader influenced these perceptions of leaders	Findings indicated transformational leadership was related to more positive organizational outcomes, specifically extra effort and satisfaction. However, gender of the leader did not influence these perceived outcomes.
Ferkins et al. (2009)	Investigate how boards of national sport organizations might enhance their strategic capability	Indicates that shared leadership between the board members and the CEO can enhance the overall organization's performance.

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Hovden (2010)	Discuss the dominant leadership discourses in sport organizations and focuses on the conceptualization of female leadership.	Sports federations' executive board members have stereotyped views of appropriate gender roles, women are blocked from leadership positions because those positions are stereotyped as masculine and therefore appropriate only for men.
Bang (2011)	Examine the influences of LMX (leader-member-exchange-theory) dimensions (Affect, Loyalty, Contribution, and Professional Respect) of volunteer leaders and followers on job satisfaction and retention.	Indicates that positive reciprocal relationships between leaders and followers enhance job satisfaction and retention. Leader-Membership-Theory should be taught.
Burton et al. (2011)	Examine the unequal representation of men and women in athletic administration positions.	Male and female candidates were perceived as similar in potential and likely success in all positions. But female candidates are seen as less likely to be offered the athletic director position when compared with male candidates.
Fletcher & Arnold (2011)	Examine performance leadership and management in elite sport	*Four main areas of leadership*: vision, operations, people, and culture *Vision*: vision development, influences on the vision, and sharing the vision *Operations*: financial management, strategic competition and training planning, athlete selection for competition, and upholding rules and regulations *People*: staff management, lines of communication, and feedback mechanisms *Culture*: establishing role awareness, and organizational and team atmosphere
Welty Peachey et al. (2011)	Investigate the influence of transformational leadership style, organizational culture and process on employee and student-athlete responses to change	During a change process, transformational leadership aids in the acceptance of change by various stakeholders because these stakeholders were involved in the change process.

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Kim et al. (2012)	Examine the direct effects of transformational leadership on sport employee job satisfaction and levels of commitment (to the athletic department and athletic director).	Results indicated support for transformational leadership directly influencing organizational- and individual-level commitment.
Arnold et al. (2012)	Elicit recommendations, advice and suggestions that can be used to enhance performance leadership and management in elite sport	*5 most important dimensions for leaders (that should be measures):* establishing an approach, understanding roles within the team, developing contextual awareness, enhancing personal skills and strengthening relationships. *5 most important dimensions for sports organizations (that should be measures)*: employing the most appropriate individual, creating the optimal environment, implementing systems and structures, developing an inclusive culture and providing appropriate support.
Bradbury (2013)	Examine the extent and ways in which practices of institutional racism have impact on limiting minorities access to the senior organizational tiers of organizations.	Indicates that practices of institutional racism are underpinned by patterns of white hegemonic privileges embedded in the already existing core structures of decision-making bodies at the highest levels of football.
Burton & Welty Peachey (2013)	Propose that athletic directors demonstrating servant leadership will provide the leadership necessary to create a good organizational culture	Servant leadership is proffered as form of leadership that could help rectify the ethical imbalance prevalent in sports organizations through its. moral component and focus on followers
Swanson & Kent (2014)	Propose that employees in sport organizations expect managers to possess domain-specific expertise which is separate from the functional area requirement	Sport domain knowledge and expertise play important roles in the perception of leaders within this context. Indicates that context specific knowledge is required from leaders.

Burton (2015)	Provide a multilevel examination of available scholarship that contributes to understanding why there are so few women in leadership positions within sport	Women are underrepresented in leadership positions at all levels of sports.
Molan et al. (2016)	Explore the manager's off the pitch leadership role	*Important dimensions for leaders dealing with players*: team vision, setting performance expectations, establishing behavioral expectations, effective communication, individual consideration, and use of archetypes. *Important dimensions for leaders dealing with other stakeholders*: cooperation with the board, leadership through support staff, and influencing through the media.
Burton et al. (2017)	Explore the influence of servant leadership on perceptions of an ethical climate in intercollegiate athletic departments.	Indicates that servant leadership can lead to more trust in leadership and better perceptions of an ethical climate.
Billsberry et al. (2018)	Demonstrate how the social construction of leadership (observer-centric perspective) can reframe and invigorate the understanding of leadership in sport management	Including an observer-centric perspective places the emphasis on how the traditional elements (traits, styles, behaviors) are actually perceived by observers. *Elements of the curriculum that naturally flow from a socially constructed approach include*: sensation and perception (i.e., the leadership stimuli that observers receive), implicit leadership theories (i.e., how observers make sense of these sensory inputs in leadership terms), and impression management (i.e., how to influence how observers perceive you). In addition, natural extensions include persuasion and argument, self-awareness, emotional intelligence, critical thinking, networking, influence, and a range of communication and interpersonal skills.
Arnold et al. (2018)	Examine perceptions of negatively valanced and socially undesirable characteristics of managers and leaders and their effects	Indicates that leaders should be aware of dark leadership characteristics as well, like being self-focused, haughty self-belief, inauthentic, manipulative, and success-obsessed. These characteristics can have negative effects (e.g. performance and career threats, affected confidence, pressure and anxiety, and a lack of support).

Frawley et al. (2018)	Examine the nature of experience-based leadership development practices	*4 dimensions should be integrated in experience-based learning:* the importance of experience-based opportunities for leadership development; leadership development through involvement and exposure to experiences; networking opportunities gained from experienced-based exposure; and the relationship between on-the-job experience and formal leadership education.
Takos et al. (2018)	Explore board member interactions in nonprofit sport boards and specifically the construct of authentic leadership and its impact on board functioning.	*3 key components of authenticity emerged as highly influential on board effectiveness:* relational orientation, self-awareness, and balanced processing. The nature of relationships between board members is more positively influential on board functionality if characterized by authenticity and likely to lead to higher levels of trust, reduced disharmony, and limiting the formation of harmful subgroups.
O'Boyle et al. (2018)	Explore leadership within nonprofit sport governance	*The four most important dimensions that should be measures are:* Leadership ambiguity, distribution of leadership, leadership skills and development, and leadership and volunteerism.
Lee (2018)	Examine the relationships between emotional intelligence, servant leadership, and development goal orientation among high school athletic directors.	Indicates that emotional intelligence is positively associated with servant leadership, which in turn is positively associated with developing goal orientation. Emotional Intelligence and servant leadership should be taught to enhance goal orientation and development by the leader.

Table 4: Overview of non-sport related academic literature on leadership and leadership education

Study	Research goal	Key findings and implications
Scandura & Lankau (1996)	Examine current perspectives on diversity by integrating LMX (leader-member-exchange) theory to extend the framework for the investigation of social psychological processes in diverse leader-member dyads.	Indicates that the creation of positive learning environments in which education about other groups occurs, innovation is supported, and cultural communication competence is encouraged, facilitates high quality relationships in diverse leader–member dyads.
Day (2000)	Examine the practice and science of leadership development by showing the importance of building both human and social capital in organizations.	Orientation toward human capital emphasizes the development of individual capabilities such as those related to self-awareness, self-regulation, and self-motivation that serve as the foundation of intrapersonal competence. Orientation toward social capital emphasizes the development of reciprocal obligations and commitments built on a foundation of mutual trust and respect; The practices of 360-degree feedback and executive coaching, mentoring and networking, and job assignment and action learning have all been lauded as beneficial for leadership development in one application or another.
Mumford et al. (2000)	Assess differences in leadership skills across multiple organizational levels to propose an organization-based model of skill development	A conceptual model of leader development is developed and tested (see article): Not only does the skills-based model of leader development imply development in skills, it implies that this development occurs in a progressive, systematic fashion. Leaders must initially acquire basic concepts and principles. These concepts and principles make it possible for leaders to apply and begin to develop creative problem-solving skills which are subsequently integrated with the practical demands of implementing problem solutions within a complex organizational system.
Ricketts & Rudd (2002)	Construct a conceptual model for teaching, training, and developing leadership in youth	*The five dimensions that should be integrated into the training of leadership are*: (1) Leadership Knowledge and Information, (2) Leadership Attitude, Will, and Desire, (3) Decision Making, Reasoning, and Critical Thinking, (4) Oral and Written Communication Skills, and (5) Intra and Interpersonal Relations.

Eich (2008)	Identify the attributes of leadership programs—including the specific actions associated with these attributes —that contribute significantly to undergraduate student leadership development	*16 attributes in overall 3 dimensions that should be integrated into leadership development are*: (a) participants engaged in building and sustaining a learning community (Diverse Students, Experienced Practitioners, Modeling Educators, Small Groups, Supportive Culture, One-on-One Relationships); (b) student-centered experiential learning experiences (Leadership Practice, Reflection Activities, Application in Meetings, Meaningful Discussions, Episodes of Difference, Civic Service, Discovery Retreats); and (c) research-grounded continuous program development (Flexible Design, Values Content, Systems Thinking)
Galli & Müller-Stewens (2012)	Explore how leadership development practices may contribute to social capital development.	Leadership development practices (such as networking, mentoring, leadership training, and job assignments) can shape social capital development. Indicates that developing such leadership practices is important for the leader to develop social capital.
O'Connell (2013)	Examine the simplified framework for leader development, structured into webs of belief as a starting point for learning to lead in complex contexts and environments	*The five webs of belief proposed for 21st century leader development are:* learning, reverence, service, authenticity, and flaneur. The five constructs are cognitive schemas for the developing leader to use as guiding principles, then adapt with new information, new experiences, new levels of complexity and new contexts over the course of the life and career spans
Day et al. (2014)	Examine intra- and interpersonal issues related to the phenomena that develop during the pursuit of effective leadership, describe how development emerges with an emphasis on multi-source or 360-degree feedback processes, review longitudinal studies of leadership development, and investigate methodological and analytical	Indicates that leadership development is a dynamic process involving multiple interactions and factors (e.g. experience, skills, personality, self-development, social mechanisms, 360-degree feedback, self-other agreement, and self-narratives). The leadership development process tends to start at a young age and is partly influenced by parental modeling. It involves the development and application of a variety of skills (e.g., wisdom, intelligence, and creativity) and is shaped by factors such as personality and relationships with others.

	issues in leader and leadership development research	The overall developmental process can be informed by different theories, such as constructive-developmental theory and authentic leadership, and can be measured in a variety of ways including multisource ratings. Wherever possible, developmental practices should be carefully tailored to current developmental needs of the leader.
Grunberg et al. (2018)	Develop a conceptual framework for leader and leadership education and development	Establish a leadership conceptual framework that includes four 'C' elements (FourCe) – Character, Competence, Context, and Communication – across four levels of psychosocial interaction – Personal, Interpersonal, Team, and Organizational (PITO). This FourCe-PITO framework delineates elements of leadership, considers interactions of these elements, guides curriculum content, and is the basis for assessments.
Newstead et al. (2019)	Articulate a clear conceptualization of how virtue informs good leadership in multiple domains	Indicates that the future-focused, generative processes of leadership and leadership development can most benefit by adopting a virtue perspective.
Reyes et al. (2019)	Meta-analytic review to identify the state of leadership development programs for students in higher education	Programs within the student (i.e., undergraduate and graduate) context are effective at producing learning and transfer outcomes. Voluntary programs improve trainee learning more than non-voluntary programs. Learning is not differentially affected by temporal design. The delivery method (practical or theoretical learning) does not affect learning and transfer. Programs incorporating the use of feedback can be more effective than those that did not.
Rupnel et al. (2019)	Propose a theoretical review of leadership and presents three proven development programs: coaching, mentoring and action learning	Coaching, mentoring, or action learning are three examples of programs that enable leaders to reflect collectively on the various problem-solving options available to them. These three programs are far from standing independently of one another and should, instead, be implemented in a complementary manner so as to embrace all the opportunities available for learning, engaging in self-reflection, and improving an individual's personal and interpersonal capacity