

Identifying the Components of Effective Coaching-Skills Education for Participants in Level 3 Coaching Courses: A Qualitative Study in Kermanshah Province

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ABSTRACT

Entry-level coaching courses frequently emphasize sport-specific rules and technical instruction, although coaches are also expected to manage relationships, emotions, teams, professional development, and technology. This study identified the components that should be included in effective coaching-skills education for participants in Level 3 coaching courses in Kermanshah Province, Iran. An exploratory qualitative design was used. Fifteen experts in coach education and development were recruited through criterion-based purposive and snowball sampling. Participants included experienced coaches, coach educators and evaluators, sport administrators, university faculty members, and specialists in sport psychology and sport management. Data were collected through in-depth semi-structured interviews lasting 45–60 minutes. Data collection and analysis proceeded concurrently. Thematic saturation was observed after the twelfth interview, and three additional interviews were conducted to confirm the stability of the findings. The data were analyzed inductively using Braun and Clarke's six-phase thematic analysis. Credibility was supported through pilot interviews, participant review of preliminary findings, expert review, field notes, and independent recoding of selected interviews. Intercode agreement was 80%. Eight main themes and 16 subthemes were identified: (1) specialized and scientific coaching knowledge; (2) communication and interpersonal skills; (3) leadership and team-management competencies; (4) emotional intelligence and coach self-regulation; (5) experiential learning and reflective practice; (6) career management and professional development; (7) technology and contemporary instructional approaches; and (8) contextual and environmental factors. Together, the themes contained 80 initial codes. Level 3 coach education should move beyond the transmission of technical knowledge. A competency-based curriculum should integrate scientific literacy, communication, leadership, emotional regulation, reflective learning, career planning, digital competence, ethical practice, and context-sensitive application. The framework provides a basis for revising course content and assessment in Kermanshah and comparable coach-education settings.

Keywords: coach education; coaching competencies; thematic analysis; professional development; Level 3 coaching; Kermanshah

Introduction

Sport coaches influence much more than the technical execution of skills. Their decisions shape athletes' motivation, learning, psychological safety, social development, team identity, and long-term participation. Coaching effectiveness therefore

depends on the interaction of professional knowledge, interpersonal competence, and the capacity for self-reflection rather than on technical expertise alone. Côté and Gilbert (2009) described effective coaching as the consistent application of professional, interpersonal, and intrapersonal knowledge to improve athletes' competence, confidence, connection, and character (1). This multidimensional view is also consistent with relationship-centered accounts of coaching, which place trust, communication, and mutual understanding at the core of performance and development (2).

The demands placed on contemporary coaches have expanded. Coaches are expected to design training, make decisions during competition, manage athletes with different needs, communicate with parents and administrators, respond to psychological distress, and interpret performance information. They must also work under organizational pressure and remain accountable for athlete welfare. Evidence concerning coaches' role in athlete mental health suggests that coaches are often among the first people to observe changes in well-being, yet many lack the training required to respond confidently and appropriately (3). Research on coach stress similarly shows that competitive, administrative, and relational demands can affect coaches' psychological well-being and the quality of their professional behavior (4). These conditions make emotional regulation, boundary management, and reflective decision-making central educational needs.

Technology has added another layer of complexity. Video analysis, digital monitoring, workload data, and training-design software can improve planning and feedback, but only when coaches possess sufficient digital and analytical literacy. Technological tools do not automatically produce better decisions; their value depends on the coach's ability to interpret information within the athlete's physical, psychological, and contextual circumstances. Coach education must therefore develop both practical competence and critical judgment. This requirement is particularly relevant in settings where access to equipment, software, and technical support is uneven.

Formal coach-education programs are intended to prepare coaches for these responsibilities, but certification does not necessarily guarantee professional competence. Short courses may overemphasize lectures, regulations, and sport-specific techniques while providing limited opportunities for practice, mentoring, observation, feedback, or reflection. Lyle and Cushion (2016) argued that coaching knowledge is situated and must be connected to the realities of practice (5). Likewise, Milistetd et al. (2017) emphasized that coach education should be organized through coherent pedagogical practices rather than treated as the simple delivery of disconnected content (6). Mentoring and collaborative learning are especially valuable because they allow coaches to examine authentic problems, compare alternative decisions, and learn from experienced practitioners (7).

Iranian research has reached similar conclusions. Studies of coaching competencies have identified leadership, communication, feedback, planning, professional knowledge, and supportive behavior as major dimensions of effective practice (8,9). Communication training has also been associated with improved coach-athlete relationships (10), while research on career development has highlighted the need for structured progression, continuing education, and long-term professional planning (11). Other Iranian studies have emphasized scientific literacy, information technology, ethical conduct, and sensitivity to organizational and cultural conditions (12).

Despite this growing literature, the educational needs of participants in Level 3 coaching courses have not been adequately examined in Kermanshah Province. Level 3 courses represent an important entry point into formal coaching. Participants may begin working directly with athletes soon after certification, often in environments with restricted resources and limited access to follow-up supervision. In such settings, a curriculum focused mainly on technical content may leave novice coaches unprepared for the relational, emotional, managerial, and ethical demands of practice. Kermanshah also has distinctive organizational and cultural conditions, including differences in sport infrastructure, access to continuing education, language, and community expectations. These conditions justify a context-sensitive investigation rather than the direct adoption of a generic competency model.

The present study therefore sought to identify the components of effective coaching-skills education for participants in Level 3 coaching courses in Kermanshah Province from the perspective of experts. The study addressed the following question: Which knowledge areas, skills, developmental processes, and contextual considerations should be incorporated into these courses to support effective coaching practice? By integrating the perspectives of experienced coaches, educators, administrators, and academics, the study aimed to produce a practical framework for curriculum revision, competency-based instruction, and course evaluation.

Methods and Materials

Study design

This study used an exploratory qualitative design and an inductive thematic-analysis approach. A qualitative design was selected because the study aimed to clarify how experts conceptualized effective coaching-skills education and to identify components grounded in their professional experience. The analysis followed Braun and Clarke's (2006) six phases (13): familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report.

Participants and sampling

The study population consisted of experts familiar with the education, assessment, and professional development of sport coaches in Kermanshah Province. Participants included experienced coaches, coach educators and evaluators, sport-education administrators, sport-science and sport-management academics, a sport-psychology specialist, and technical-development personnel. Criterion-based purposive sampling was used initially to recruit individuals with direct and relevant experience. Snowball sampling was then used to identify additional participants who could provide complementary perspectives.

Eligibility criteria were professional, educational, managerial, or research experience in sport coaching; experience in coach instruction, evaluation, or development; familiarity with the content and structure of coaching courses; the ability to provide experience-based expert views; and willingness to participate. Withdrawal, an incomplete interview, or the absence of direct relevant experience constituted exclusion criteria. Fifteen experts participated. Data saturation was observed after 12 interviews because subsequent interviews did not produce conceptually distinct information. Three additional interviews were completed to confirm the adequacy and stability of the thematic structure.

Data collection

Data were collected through in-depth, face-to-face, semi-structured interviews. The interview guide examined five areas: the strengths and limitations of existing Level 3 coaching courses; competencies required by novice coaches; effective methods for teaching those competencies; barriers to transferring course learning into practice; and contextual factors affecting coach education in Kermanshah. Before formal data collection, three pilot interviews were conducted with specialists in sport management and coach education. Their feedback was used to improve the clarity, relevance, and sequencing of the questions.

Interviews lasted approximately 45–60 minutes. With participants' informed consent, the interviews were audio-recorded and transcribed verbatim. Field notes were used to document contextual information, nonverbal observations, and analytical ideas. Data collection and preliminary analysis occurred concurrently so that emerging concepts could inform subsequent interviews.

Data analysis

The first author repeatedly read the transcripts and listened to the recordings to become familiar with the data. Meaningful units were then coded line by line. Codes were kept close to participants' accounts while also capturing the broader educational meaning of each statement. Eighty initial codes were generated. Conceptually related codes were grouped into candidate subthemes and themes. The research team reviewed the candidate structure against the coded extracts and the complete data set, clarified boundaries between themes, and revised theme labels where necessary. The final structure contained eight main themes and 16 subthemes.

Trustworthiness

Several strategies were used to strengthen trustworthiness. Preliminary codes and themes were shared with selected participants, and their comments were considered during refinement. Experts in sport management and qualitative research reviewed the analytical process, thematic structure, and conceptual distinctions. An audit trail was maintained through transcripts, field notes, coding records, and theme-development notes. To examine coding dependability, a second researcher independently coded three interviews after receiving the study objectives, coding framework, and code definitions. Across the three interviews, 64 of 80 coding decisions were agreements, resulting in an overall agreement of 80%. Disagreements were discussed and resolved through review of the original transcript.

Ethical considerations

Participation was voluntary. Before each interview, participants were informed about the study purpose, audio recording, confidentiality, and their right to withdraw. Informed consent was obtained, and participant codes rather than names were used in the analysis and reporting.

Table 1. Characteristics of the study participants

Code	Degree/field	Professional position	Expert group
P1	MSc in Physical Education	Experienced sport coach	Executive/coaching expert
P2	MSc in Sport Management	Sport coach	Executive/coaching expert
P3	BSc in Physical Education	Active sport coach	Executive/coaching expert
P4	MSc in Physical Education	Coach and coach evaluator	Education/evaluation expert
P5	MSc in Sport Management	Coach-education specialist	Education/management expert
P6	PhD in Sport Management	Coach education and development administrator	Education/management expert
P7	PhD in Physical Education	Faculty member	Academic expert
P8	PhD in Sport Management	Faculty member	Academic expert
P9	MSc in Physical Education	University instructor and coach	Academic/executive expert
P10	MSc in Sport Psychology	Coach and coaching-skills consultant	Psychology/coaching expert
P11	MSc in Sport Management	Technical specialist and coach	Technical/executive expert
P12	BSc in Physical Education	Experienced sport coach	Executive/coaching expert
P13	MSc in Sport Management	Coach-development specialist	Education/development expert
P14	PhD in Educational Management	Faculty member and coach-education specialist	Academic/education expert
P15	MSc in Physical Education	Coach and educational supervisor	Education/evaluation expert

Table 2. Inter-coder agreement for independently coded interviews

No.	Interview	Total codes	Agreements	Disagreements	Agreement (%)
1	First	30	23	7	76.7
2	Ninth	20	16	4	80.0
3	Eleventh	30	25	5	83.3
Total	—	80	64	16	80.0

Findings and Results

The analysis generated 80 initial codes, which were organized into 16 subthemes and eight main themes. The themes were interdependent rather than isolated. Specialized knowledge provided the basis for sound decisions; communication, leadership, and emotional regulation shaped the quality of implementation; reflective learning and career development supported continued growth; technology extended analytical and instructional capacity; and contextual factors determined whether competencies could be applied in practice.

Table 3. Main themes, subthemes, and illustrative codes

Main theme	Subthemes	Illustrative codes
Specialized and scientific coaching knowledge	Technical and tactical knowledge; physical/scientific–analytical literacy	Technical mastery; match analysis; periodization; physiology; training load; recovery
Communication and interpersonal skills	Supportive athlete communication; professional stakeholder interaction	Active listening; constructive feedback; empathy; conflict management; parent and manager communication
Leadership and team-management competencies	Transformational/motivational leadership; training and competition management	Motivation; fairness; team culture; time management; tactical adaptation; support-team coordination
Emotional intelligence and coach self-regulation	Personal emotional awareness/regulation; stress and competitive-pressure management	Anger control; focus; psychological recovery; healthy coping; social support; work–life balance
Experiential learning and reflective practice	Learning from experience/error; mentoring and peer-supported learning	Post-session review; reflective records; athlete feedback; mentor observation; peer-learning groups
Career management and professional development	Career-path planning; continuous and staged education	Long-term goals; progression planning; competency assessment; needs analysis; lifelong-learning portfolio
Technology and contemporary instructional approaches	Technology/data analysis; game-based and perception–action training	Video analysis; training software; digital load monitoring; scenarios; constrained games; problem solving
Contextual and environmental factors	Organizational/multicultural challenges; professional culture, ethics, and values	Facility limitations; organizational support; language and cultural differences; fairness; non-discrimination; social responsibility

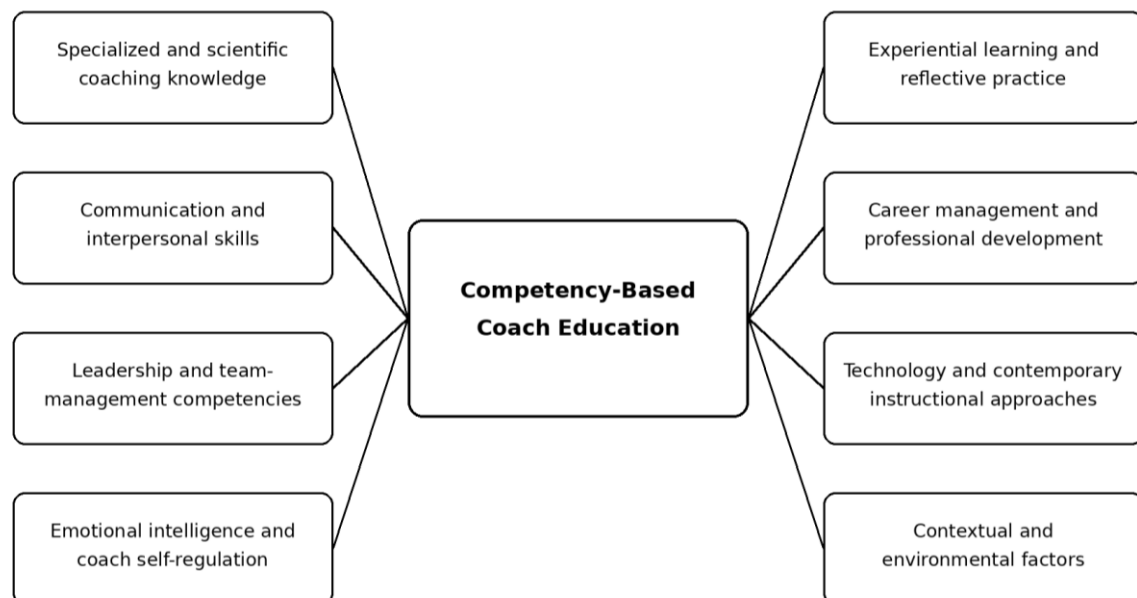


Figure 1. Integrated framework for effective coaching-skills education in Level 3 courses.

Specialized and scientific coaching knowledge

The first theme included technical and tactical knowledge and physical/scientific–analytical literacy. Experts considered mastery of the sport’s fundamental skills, rules, tactics, and teaching progressions a necessary but insufficient starting point. Coaches should be able to analyze competition, periodize training, update technical knowledge, and adapt task difficulty to athletes’ developmental level. One participant explained, “When I understand the technical principles of the sport deeply, I can explain the skill to the athlete simply and step by step” (P2). Another noted the importance of post-competition analysis: “After every match, I review the movements and team organization to understand where my tactical decision was wrong” (P6).

Scientific literacy included basic knowledge of physiology, injury prevention, training load, recovery, athlete readiness, and the use of research evidence. Participants did not expect entry-level coaches to act as medical or laboratory specialists. They did, however, expect them to recognize the limits of their competence, apply basic scientific principles, and make safer training decisions. Technical teaching was therefore viewed as most effective when connected to the athlete’s physical condition, age, previous experience, and recovery status.

Communication and interpersonal skills

The second theme comprised supportive communication with athletes and professional interaction with stakeholders. Participants repeatedly described communication as the mechanism through which coaching knowledge becomes understandable and motivating. Core skills included active listening, empathy, constructive feedback, clear expectations, and conflict management. Communication was expected to be developmentally appropriate and respectful rather than authoritarian or ambiguous.

Effective coaching also required communication beyond the coach–athlete dyad. Participants referred to parents, club and school managers, assistant coaches, sport officials, media representatives, and supporters. Coaches should be able to explain decisions, negotiate resources, manage expectations, and maintain respectful dialogue. This competency was considered particularly important for Level 3 coaches, who may have limited formal authority and must build cooperation through credibility and communication.

Leadership and team-management competencies

The third theme included transformational and motivational leadership and the management of training and competition. Participants described leadership as the ability to create direction, meaning, fairness, and collective identity. Coaches should inspire effort, involve athletes appropriately in decisions, model professional conduct, and develop a team culture in which roles and standards are understood. Fair treatment was considered essential because perceptions of favoritism can weaken trust and cohesion.

Management competencies included structuring training, using time efficiently, monitoring team performance, adapting tactics to opponents, and coordinating assistant and support personnel. These skills connect planning with real-time decision-making. Experts argued that course participants should practice realistic scenarios rather than only learn abstract principles. Simulated selection decisions, time-limited training design, conflict cases, and match-management problems were suggested as educational activities that could expose novice coaches to the complexity of leadership.

Emotional intelligence and coach self-regulation

The fourth theme addressed awareness and regulation of personal emotions and the management of competitive stress. Participants emphasized that coaches' emotions are transmitted through tone, behavior, and decision-making. Entry-level coaches should learn to identify emotional triggers, control anger, regain psychological balance after defeat, maintain concentration, and manage pre-competition anxiety. Emotional regulation was not presented as suppression; it was understood as recognizing emotions and choosing responses that protect learning, relationships, and performance.

The second subtheme concerned healthy coping, social support, organizational pressure, teaching athletes to manage stress, and work–life balance. Coaches may face criticism from parents, managers, or supporters while simultaneously supporting athletes. Without coping skills, these pressures can produce impulsive decisions, exhaustion, or inappropriate communication. Participants therefore recommended that Level 3 courses include basic psychological skills, stress-management exercises, referral boundaries, and discussion of coach well-being.

Experiential learning and reflective practice

The fifth theme included learning from experience and error, mentoring, and peer-supported learning. Experts distinguished experience from learning: repeated practice does not necessarily improve coaching unless experience is reviewed critically. Coaches should examine training and competition, record lessons, identify errors, adapt their style, and use athlete feedback. One participant described the value of structured planning: “When I design training in phases, I can see that the team reaches peak performance more effectively at competition time” (P1).

Mentoring was viewed as a bridge between formal instruction and situated practice. Observing experienced coaches, discussing cases, participating in peer-learning groups, and receiving feedback can make tacit professional knowledge visible. Participants recommended that certification courses establish follow-up mechanisms rather than end with a written examination. Supervised practice, reflective journals, video review, and mentor meetings were identified as feasible methods for supporting the transfer of learning.

Career management and professional development

The sixth theme consisted of career planning and continuous, staged education. Participants argued that novice coaches need a realistic understanding of the coaching pathway, including role transitions, competency requirements, and opportunities for advancement. Career planning involved setting long-term goals, seeking development opportunities, and balancing immediate competitive results with sustainable professional growth.

Continuing education was considered necessary because technical knowledge, athlete needs, and coaching technologies change over time. Experts criticized one-off certification models that provide little follow-up. They proposed staged education based on competency standards, needs assessment before courses, periodic evaluation, and a lifelong learning portfolio. As one participant stated, “Every season I attend several specialist workshops to make sure that the training I provide is consistent with current coaching knowledge” (P5).

Technology and contemporary instructional approaches

The seventh theme combined technology and data analysis with game-based and perception–action training. Participants identified video analysis, training-design software, digital monitoring of training load, and performance data as increasingly relevant to coaching. Digital competence included selecting appropriate tools, interpreting outputs, protecting athlete

information, and recognizing infrastructural limitations. Technology was viewed as a support for judgment rather than a replacement for observation or communication.

Experts also favored learning tasks that reproduce the perceptual and decision demands of competition. Small-sided games, constrained scenarios, variable environments, and problem-solving tasks were considered more transferable than repetitive drills conducted without context. These methods can develop creativity, anticipation, and adaptive decision-making. Participants recommended that course instructors demonstrate how to connect game-based design with technical objectives and athlete level.

Contextual and environmental factors

The eighth theme included organizational and multicultural challenges and professional culture, ethics, and values. Participants reported that infrastructure, access to facilities, organizational support, administrative pressure, and federation procedures can enable or restrict effective coaching. Coaches also work with athletes and families who may differ in language, ethnicity, expectations, and social background. Cultural sensitivity and clear communication were therefore considered practical competencies rather than optional values.

Professional ethics included fairness, honesty, respect for cultural and religious values, avoidance of discrimination and labeling, attention to athletes' character development, and social responsibility. Participants argued that ethical conduct should be taught through cases and observable standards, not merely through a list of rules. The contextual theme also showed that individual competence cannot compensate fully for inadequate systems. Course reform should therefore be accompanied by organizational support, access to continuing education, and opportunities for supervised practice.

Discussion

The findings present coaching effectiveness as an integrated educational construct. The eight themes support the view that coaches require professional, interpersonal, and intrapersonal knowledge (1), but they extend that framework by emphasizing career management, digital competence, contemporary pedagogy, and contextual conditions. For Level 3 courses, this means that technical content should remain central but should no longer dominate the curriculum.

Specialized and scientific knowledge was the foundation of the framework. Participants expected coaches to teach safely, analyze performance, and adapt training to athlete needs. This finding is consistent with Iranian evidence linking coaching competence to professional knowledge, planning, and evaluation (8, 9). It also supports the idea that coach education should connect scientific principles to real coaching problems. Entry-level courses do not need to reproduce university-level sport-science programs; instead, they should teach coaches how to recognize relevant information, apply basic principles, and consult specialists when necessary.

Communication and leadership emerged as distinct but closely connected themes. Jowett (2017) positioned the coach–athlete relationship at the center of effective coaching, and the present findings show how that relationship is enacted through listening, feedback, clarity, empathy, fairness, and conflict management (2). Communication training should therefore involve observed practice. Role-play, difficult-conversation scenarios, and feedback demonstrations are more likely to develop competence than lecture-based descriptions. The inclusion of stakeholder communication is also important because novice coaches often work in youth and community settings where parents and administrators influence participation and training conditions.

The emphasis on emotional intelligence and self-regulation reflects the emotional labor of coaching. Coaches must respond to defeat, criticism, uncertainty, and athlete distress while remaining behaviorally consistent. Potts et al. (2024) showed that

coach stress and well-being fluctuate in relation to daily demands, and Sankey et al. (2023) highlighted coaches' position in athlete mental-health support (3, 4). Level 3 education should therefore include stress recognition, healthy coping, communication under pressure, and clear referral boundaries. These topics protect both athletes and coaches.

Experiential learning and mentoring were identified as mechanisms for turning course content into practice. This finding aligns with the situated character of coaching knowledge described by Lyle and Cushion (2016) (5) and with evidence supporting mentoring as a professional-development strategy (7). A course that ends at certification may produce short-term knowledge without sustained behavioral change. A more effective model would combine workshops with supervised field tasks, mentor observation, reflective journals, and follow-up assessment.

Career management and continuing education were also central. This result parallels Iranian qualitative work showing that coaching careers require purposeful planning and sustained development (11). Participants' concern about static certification suggests that competency should be reviewed over time. A digital or paper learning portfolio could document courses, observations, reflective analyses, and demonstrated competencies. Progression to higher coaching levels could then be linked to evidence of practice rather than attendance alone.

Technology was viewed pragmatically. Participants recognized the value of video, monitoring, and data, but also acknowledged infrastructure and literacy barriers. This balance is important because technology can widen inequalities if tools are required without access or training. The curriculum should introduce low-cost options and teach principles that remain useful across platforms. It should also address privacy, data interpretation, and the risk of allowing numerical outputs to override contextual knowledge.

The final theme showed that coach education cannot be separated from organizational and cultural conditions. Ethical practice, cultural sensitivity, and social responsibility were considered part of coaching competence. This is especially relevant in diverse environments where language and social expectations shape relationships. At the same time, inadequate facilities and organizational support may restrict the use of newly acquired skills. Course reform should therefore involve federations, clubs, and provincial sport authorities, not only instructors and learners.

Based on the findings, a revised Level 3 curriculum could be organized into four connected domains. The first would cover technical and scientific foundations. The second would address communication, leadership, emotional regulation, and ethics. The third would focus on practice-based development through scenarios, mentoring, reflection, and peer learning. The fourth would include digital tools, career planning, and context-sensitive application. Assessment should combine knowledge tests with observed coaching, case analysis, reflective assignments, and feedback from mentors.

This study has limitations. Participants were recruited purposively from one province, and the findings are not intended to represent all sports or regions statistically. The interview format may have encouraged socially desirable responses, particularly concerning ethics and professional behavior. The analysis was interpretive despite the use of participant review, expert review, and intercoder checking. In addition, the study identified perceived curriculum needs but did not test whether instruction based on the framework improves coaching behavior or athlete outcomes. Future research should evaluate the framework across sports, compare novice and advanced coaches, and test competency-based course modules longitudinally.

Practical implications for course design

The framework can be converted into a course blueprint without substantially increasing classroom hours if teaching methods are redesigned. Technical lectures can be paired with short applied tasks in which participants explain a skill, adapt it for different athlete levels, and justify a training decision. Communication and leadership can be assessed through role-play involving an athlete, parent, assistant coach, or club manager. Emotional-regulation content can be integrated into competition

scenarios that require the coach to respond to defeat, conflict, or unexpected performance decline. Technology sessions should prioritize accessible tools, basic data interpretation, and video-based feedback rather than expensive equipment.

A structured practicum is particularly important. Each participant could complete a small number of supervised coaching sessions, receive feedback using a common competency rubric, and submit a reflective account describing what occurred, why decisions were made, and what should change. Mentors should be trained to provide specific behavioral feedback rather than general approval. The same rubric could be used at the beginning and end of the course to document progress.

The framework also has implications for certification policy. Completion should depend on demonstrated competence across several domains rather than success in a single written examination. Course providers could maintain a learning portfolio containing lesson plans, video clips, feedback records, reflective notes, and evidence of continuing education. Provincial authorities and sport federations should ensure that instructors have access to updated materials and that participants from less-resourced areas can use low-cost alternatives. These measures would make the identified themes operational and would reduce the gap between course content and the conditions coaches encounter after certification.

Conclusion

Effective preparation for Level 3 coaches requires more than instruction in sport-specific techniques and regulations. Experts in Kermanshah identified an interconnected set of scientific, relational, managerial, emotional, reflective, professional, technological, ethical, and contextual competencies. The resulting framework supports a shift from attendance-based certification toward competency-based coach education. Courses should combine concise theoretical instruction with observed practice, realistic scenarios, mentoring, reflection, and continued assessment. Although developed in Kermanshah Province, the framework may inform comparable entry-level coach-education systems that seek to connect formal certification with the real demands of coaching practice.

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AI Use Statement

Generative AI tools were used for English translation, language refinement, and manuscript structuring. The authors must review and verify the final text and remain fully responsible for the scientific content.

Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

1. Côté J, Gilbert W. An integrative definition of coaching effectiveness and expertise. *International Journal of Sports Science & Coaching*. 2009;4(3):307-23. doi: 10.1260/174795409789623892.
2. Jowett S. Coaching effectiveness: The coach-athlete relationship at its heart. *Current Opinion in Psychology*. 2017;16:154-8. doi: 10.1016/j.copsyc.2017.05.006.
3. Sankey C, Wallace L, Caperchione CM. Understanding the role of coaches in supporting the mental health of elite athletes. *Journal of Science and Medicine in Sport*. 2023;26(8):399-404. doi: 10.1016/j.jsams.2023.06.012.
4. Potts AJ, Didymus FF, Kaiseler M. Psychological stress and psychological well-being among sports coaches: A close-proximity longitudinal daily-diary study. *Journal of Applied Sport Psychology*. 2024;36(6):925-51. doi: 10.1080/10413200.2024.2344847.
5. Lyle J, Cushion C. *Sport coaching concepts: A framework for coaching practice*: Routledge; 2016.
6. Milistetd M, Galatti LR, Collet C, Tozetto AVB, Nascimento JVD. Sports coach education: Guidelines for the systematization of pedagogical practices in bachelor programs in physical education. *Journal of Physical Education*. 2017;28:e2849. doi: 10.4025/jphyseduc.v28i1.2849.
7. Rodrigues HD, Filho HR, Woodburn AJ, Cundari G. O mentoring como estratégia de desenvolvimento profissional de um treinador de basquetebol de alta performance. *Journal of Physical Education*. 2020;31:e3153. doi: 10.4025/jphyseduc.v31i1.3153.
8. Montazeri A, Talebpour M, Feyzi S. Development and validation of the sport-coaches' competency questionnaire. *Sport Management Studies*. 2017;9(41):147-70. doi: 10.22089/smrj.2017.919.
9. Zamani Nokabad A, Aroufzadeh S, Nazari R, Movahedi AR. A study of sport-coaching competencies in Iran. *Research in Sport Sciences Education*. 2020;1(1):52-88.
10. Mohammadi A, Zolaktaf V, Namazizadeh M, Asgari Gandmani R. The effect of communication-skills training on coach-athlete relationships. *Sport Management Studies*. 2017;9(46):105-24. doi: 10.22089/smrj.2017.4360.1838.
11. Shokri Amlashi S, Elahi A, Akbari Yazdi H. A model for career-path management of Iranian sport coaches: Findings from a qualitative study. *Human Resource Management in Sport*. 2020;8(1):183-203. doi: 10.22044/shm.2021.9828.2238.
12. Mohammadi S, Izadi B, Salehi N. Attitudes of Iranian national-team coaches toward the application of science and information technology in sport. *Sport Management*. 2012;15:123-41. doi: 10.22059/jsm.2013.29835.
13. Braun V, Clarke V. Using thematic analysis in psychology. *Qualitative Research in Psychology*. 2006;3(2):77-101. doi: 10.1191/1478088706qp063oa.