Unveiling Ineffectiveness: Exploring Indicators of Failed Coaching Education Systems

Lawrence W. Judge and Adam Smith

Effective coaching education (CE) systems are paramount for producing competent coaches, yet not all CE systems achieve this goal. This article examines signs of CE system failure. We establish CE's importance, outline a theoretical framework for a successful CE system, and identify indicators of inefficiency. These indicators include limited skill transfer, low engagement, outdated content, cultural insensitivity, insufficient practical training, absence of professional development, and inadequate feedback mechanisms. Recognizing these signs is crucial for early intervention. Recommendations stress the need for practical, inclusive, and regularly evaluated CE programs, highlighting trends in CE enhancement. This article offers a comprehensive exploration of potential CE system failures, charting a course for improved coaching education, benefiting coaches, athletes, and the sports field. As the coaching landscape evolves, a forward-looking perspective presents anticipated trends in enhancing CE systems, ensuring that coaches are equipped to succeed in the dynamic world of sports.

Keywords: coaching education, professional development, skill transfer

Introduction

In recent years, there has been a notable effort by prominent sport organizations and national governing bodies to develop and refine coaching education programs, with the primary goal of preparing coaches to effectively mentor and guide athletes. Many universities around the world offer undergraduate and graduate degree programs in coaching, providing students with comprehensive education and training in the field of sports coaching. These programs encompass

Lawrence Judge, PhD, is a professor, interim chair of the Department of Social Work, and coordinator of the online master's in Athletic Coaching Education at Ball State University. He served two terms as national chair of USATF coaching education. His research interests include the use of evidence-based practices in coaches. Email: lwjudge@bsu.edu

Adam Smith is a graduate student in the School of Kinesiology at Ball State University. His research interests include disability in sport and social inclusion within Special Olympics sports. Email: adam.smith2@bsu.edu

a range of coaching facets, including adherence to national standards, specialized subject matter training, and addressing coaches' needs for skill enhancement (Judge et al., 2012). Coaching education (CE) holds a pivotal role in shaping proficient coaches who can effectively guide athletes toward excellence. CE programs serve as a comprehensive framework that encapsulates the knowledge, skills, and strategies necessary for successful coaching endeavors. Emphasizing the significance of technology in education, Chen et al. (2010) highlight the importance of engaging learners through web-based platforms, a principle that translates to CE. By harnessing the potential of digital tools, CE equips coaches with the necessary tools to foster athlete development, thus promoting optimal performance and sustained success (Robinson & Hullinger, 2008).

Enhancing competence of coaches through CE is a primary objective. However, the process does not end at imparting knowledge; it extends to evaluating the outcomes and effectiveness of CE systems. Kim et al. (2017) accentuate the importance of constraining user freedom to mitigate dropout rates in online learning, underscoring the need for a guided and structured approach in education. In the context of coaching, evaluating CE's efficacy becomes crucial to ensure coaches acquire the essential skills and knowledge that can elevate their coaching practices. The act of evaluation plays a pivotal role in identifying the strengths and weaknesses inherent in CE program designs, thereby facilitating a continuous cycle of improvement (Cho & Cho, 2014).

As the technological landscape rapidly evolves, the coaching domain has experienced a significant shift toward virtual platforms. The surge in the number of Zoom and online CE programs has ushered in a new era of accessibility, convenience, and substantial cost saving to participants (Carson et al., 2021; Chen et al., 2010; Driska, 2018; Passmore & Woodward, 2023; Robinson & Hullinger, 2008; Szedlak et al., 2023). As coaches and learners alike embrace the digital realm, the once formidable barriers of physical distance and financial constraints are diminishing, giving rise to a dynamic and inclusive coaching landscape (Cho & Cho, 2014; Kim et al., 2017).

The fundamental purpose of this article is to embark on an in-depth exploration of the telltale signs and symptoms of a failing CE system. This endeavor encompasses an investigation into a range of indicators, including but not limited to, the lack of skill transfer, low engagement rates, outdated content, and limited cultural sensitivity. Through this investigative lens, the article aims to provide valuable insights into the multifaceted dimensions of ineffective CE systems. This exploration, substantiated by case studies and analytical examinations, seeks not only to identify the signs of ineffective CE but also to extrapolate lessons that can catalyze improvements in future CE programs and enhance the efficacy of CE systems, ensuring that coaches receive comprehensive and impactful training.

Theoretical Framework

A theoretical framework in CE offers a systematic approach to curriculum development, instructional design, and program evaluation. It draws on established educational theories and coaching models to inform the structure and content of CE programs (Jones & Turner, 2006; Smith et al., 2023). By grounding CE in a theoretical framework, educators can ensure that the learning experiences provided are evidence-based, aligned with industry standards, and designed to meet the unique needs of coaches and athletes (Smith & Cushion, 2006).

A crucial theoretical framework in CE is the transformational learning theory. This theory, developed by Mezirow, focuses on how adults learn and transform their perspectives through reflective experiences (Mezirow, 1991). Applied to CE, the transformational learning theory emphasizes the importance of critical self-reflection, dialogue, and open-mindedness in fostering meaningful learning experiences for coaches (Fazio-Griffith & Ballard, 2016). Incorporating this theoretical framework into CE programs brings several benefits. First, it encourages coaches to examine their existing beliefs and assumptions about coaching, allowing them to adapt their practices based on new insights and perspectives (Sammut, 2014). Second, the theory promotes active engagement with diverse viewpoints by engaging coaches in active and critical reflection of self and others (Merriam, 2004). Last, the transformational learning theory highlights the significance of real-world application, urging coaches to translate theoretical knowledge into practical coaching strategies that benefit athletes (Cox, 2006; Sammut, 2014). By adopting the transformational learning theory as a foundational framework, CE programs can enhance the depth and quality of learning experiences. Coaches are empowered to become reflective practitioners, capable of continuous self-improvement, adapting to evolving coaching dynamics, and effectively guiding athletes toward success (Sammut, 2014).

1. **Pedagogical Principles.** A theoretical framework outlines fundamental pedagogical principles that guide the design of CE. These principles include learner-centered approaches, experiential learning, scaffolding, and the use of active teaching strategies that promote engagement, critical thinking, and skill development (Light, 2008; Martens, 2012).

2. **Curriculum Design.** The framework defines the scope and sequence of CE content, highlighting core competencies, learning outcomes, and progression across different levels of expertise (Côté et al., 2010; Cushion et al., 2003). It addresses topics such as coaching philosophy, communication skills, sport science, ethics, and athlete development.

3. **Instructional Methods.** Based on educational theories, the framework suggests instructional methods that align with different

learning styles and preferences (Lave & Wenger, 1991). These methods encompass lectures, case studies, simulations, practical exercises, role playing, and real-world applications to bridge the gap between theory and practice.

4. **Assessment and Feedback.** This framework proposes assessment strategies that evaluate coaches' understanding, skills, and competencies (Griffin & Butler, 2005; Metzler, 2017). It includes formative and summative assessments, self-assessment, peer evaluation, and expert feedback to enhance learning and provide coaches with insights into their progress.

5. **Continuing Professional Development.** An effective framework emphasizes the importance of ongoing learning beyond initial certification (Gilbert & Trudel, 2001). It promotes continuous improvement by encouraging coaches to engage in professional development activities, attend workshops and conferences, and seek out resources to stay current with the latest coaching trends and research.

6. **Cultural Sensitivity and Inclusivity.** A comprehensive framework recognizes the diverse coaching contexts and cultural nuances (Burden & Lambie, 2011; Stewart, 2013). It emphasizes the importance of cultural sensitivity, inclusion, and adapting coaching practices to suit the needs of athletes from various backgrounds.

Implementing the Theoretical Framework

To operationalize the theoretical framework, CE programs must integrate its key elements into the curriculum, instructional methods, assessment strategies, and overall program structure (Griffin & Butler, 2005; Smith & Cushion, 2006). This comprehensive integration ensures that these programs are in alignment with well-established theories, models, and best practices, creating an educational environment that is tailored to empower coaches and enhance their proficiency in their roles. It is within this enriched learning environment that coaches gain the tools and knowledge to significantly contribute to the holistic development of athletes, fostering their physical, mental, and emotional growth. Furthermore, programs not only cultivate coaches who can maximize athletes' potential but also contribute to the overall achievement of optimal performance in the sporting arena.

A successful CE system is founded on a comprehensive framework encompassing essential components that contribute to effective coaching pedagogy. These components constitute the bedrock for cultivating proficient coaches capable of guiding athletes toward optimal performance and growth (Chen et al., 2010; Robinson & Hullinger, 2008). Key elements of such a system encompass a holistic blend of instructional strategies, curriculum design, assessment mechanisms, and continuous learning opportunities, which collectively shape

the trajectory of coaching competence. It could prove beneficial to first examine existing CE programs, specifically an examination of how those systems fail, to better inform the implementation of successful CE systems for future coaches.

Signs and Symptoms of Ineffective CE

The journey of coaching, marked by both successes and failures, is replete with valuable insights and introspection serving as a catalyst for profound personal and professional growth. It is during these moments of contemplation that coaches uncover the concealed pearls of wisdom that illuminate the path to excellence. Successes offer affirmation, validating the efficacy of one's coaching techniques, while failures bestow priceless lessons, often surpassing the profundity of triumphs themselves. By embracing these cues, coaches continually hone their skills, adapt their strategies, and cultivate an environment of perpetual improvement (Weinberg, Freysinger, Vealy, & Block, 2022). In the ever-evolving terrain of coaching, the ability to glean wisdom from both achievements and setbacks emerges to not only shape the coach but also the destinies of those they guide (Weinberg et al., 2022).

Lack of Skill Transfer

The absence of skill transfer from theoretical knowledge to practical coaching application and performance of athletes on the field could be an indicator of an ineffective CE system (Stewart, 2013). Despite coaches acquiring a theoretical understanding of coaching concepts, the inability to effectively translate this understanding into actionable strategies during real coaching scenarios is a major cause for concern. A deficiency in skill transfer raises questions about the comprehensiveness and practicality of CE curriculum. Coaches struggling to bridge the gap between theoretical concepts and their practical utilization brings the CE system under scrutiny (Stewart, 2013). This impedes the coaches' ability to provide effective guidance to athletes and diminishes the overall quality of coaching they deliver. A failure to facilitate skill transfer undermines the core purpose of CE—to equip coaches with the tools and competencies required to enhance athletes' performance and development. Thus, a lack of skill transfer serves as a clear indication of an ineffective CE system, prompting the need for comprehensive improvements.

Coaches Unable to Apply Learned Concepts in Practice
The struggle among coaches to seamlessly integrate theoretical concepts into their coaching strategies can be attributed to various factors (Stewart, 2013). It may indicate gaps in the curriculum's practical applicability or a lack of adequate

hands-on training opportunities. The disparity between theoretical knowledge and practical application impedes coaches from effectively guiding athletes toward improved performance outcomes. To address this issue, programs should prioritize the conversion of theoretical insights into actionable coaching strategies. Aligning curriculum with the demands of coaching practice and providing coaches with ample opportunities to apply these concepts within authentic coaching settings could bridge this gap, and stands to enhance the overall effectiveness of CE. In doing so, coaches are better prepared to navigate the challenges presented by real-world coaching scenarios (Stewart, 2013).

Discrepancy Between Training Content and On-Field Performance
An indicator of an ineffective CE system is the disconnect between the content taught during training and athlete performance witnessed on the field. When coaches and athletes struggle to execute strategies or tactics that were covered during their education, or when athletes' performances fail to align with the expected outcomes, it signals a significant breakdown in the learning process (Stewart, 2013). Such disparities may arise from curriculum materials that do not adequately reflect the dynamic nature of sports or evolving coaching strategies. Misalignment between education and application underscores the importance of a CE system that facilitates a seamless transition from theory to practical implementation. By equipping coaches with the requisite skills to effectively do so, CE programs allow coaches to guide athletes' growth and success (Stewart, 2013).

Low Engagement and Retention Rates

The engagement and retention of coaches within a CE program are pivotal indicators of the program's effectiveness (Stewart, 2013). An educational system's ultimate success lies in actively engaging participants in the content and retaining them throughout their learning journey. The CE process should consider the expectations, needs, and learning preferences of diverse coaches, equipping them with the knowledge and skills that inspire them to continue refining their coaching skills through engaging content and delivery methods (Cho & Cho, 2014). Coaches who perceive the CE program as relevant and tailored to their coaching context are more likely to actively engage and remain committed to the learning process.

Low engagement and retention rates are indicative of coaches' sustained interest or disinterest and investment in the program (Stewart, 2013). If coaches drop out prematurely, it could signal that the program lacks the necessary elements to maintain their attention and motivation. Coaches might withdraw due to an absence of interactive and practical learning experiences, insufficient

relevance to their coaching needs, or a lack of engaging instructional strategies (Chen et al., 2010). A well-designed CE system should prioritize creating an environment that sustains coaches' enthusiasm, encourages active participation, and effectively addresses their coaching challenges.

Coaches Showing Disinterest During Training Sessions
When coaches exhibit signs of disinterest in the program, it reflects a disconnect between the content being delivered and the coaches' needs or expectations (Stewart, 2013). Coaches who appear unengaged might signal that the program's content is not relevant, lacks practical application, or fails to effectively address their coaching challenges. A CE system should be designed to captivate coaches' attention, maintain their curiosity, and provide valuable insights applicable to their coaching contexts. Disinterest among coaches during training sessions could be an early indicator of the CE program's inability to deliver meaningful and impactful learning experiences.

High Dropout Rates Among Participants
High dropout rates among participants enrolled in CE programs are another clear sign of an ineffective system (Stewart, 2013). A CE program's success depends on coaches completing the program and gaining the intended knowledge and skills. If a significant number of coaches drop out before completing the program, it suggests dissatisfaction, perceived irrelevance, or frustration with the content, format, or delivery of the program (Chen et al., 2010). High dropout rates could result from various factors, such as the absence of engaging instructional methods, lack of personalized support, or inadequate consideration of coaches' diverse needs and preferences. Effective CE programs should cater to coaches' learning preferences and provide the necessary support to ensure their successful completion of the program.

Limited, Outdated, or Irrelevant Content

CE programs that lack the necessary content for coaches to remain current with the changing landscape of sport provides a disservice to coaches who engage in such programs (Carson et al., 2021). Ineffective CE programs ignore and under-prepare coaches for the culturally diverse contexts they encounter (Stewart, 2013). In other cases, ineffective CE programs may contain information that is either outdated compared to current coaching trends or altogether irrelevant to those trends. By not incorporating evidence-based coaching practices, ineffective CE programs do not ensure coaches have the skills and knowledge to connect with their athletes and the dynamic sport context.

Ignoring and Under-Preparing for Diverse Coaching Contexts
Ineffective CE systems may demonstrate a lack of cultural sensitivity by disregarding the diversity of coaching contexts and cultural nuances that coaches encounter (Stewart, 2013). In doing so, they inadequately prepare coaches to navigate coaching environments characterized by cultural diversity (Stewart, 2013). Sports are played and coached in a wide array of cultural environments, each with its own values, norms, and communication styles. If CE materials fail to acknowledge these differences, coaches may struggle to connect with athletes from various backgrounds, resulting in ineffective communication and compromised athlete development.

For instance, coaching methods that are effective in one cultural context might not yield the same outcomes in another. The limitation of an education system to address these variations and complexities can hinder coaches from forming meaningful relationships with their athletes and understanding the unique challenges they face (Falcão et al., 2020). Without the necessary cultural competence, coaches might unintentionally perpetuate cultural misunderstandings or biases that hinder effective coaching relationships and athlete growth (Burden & Lambie, 2011). To address this concern, CE programs should incorporate cultural competency training that helps coaches understand and appreciate the cultural backgrounds of their athletes to establish rapport and create inclusive and supportive sport environments (Burden & Lambie, 2011).

CE Materials not Aligned with Trends or Sport Dynamics
An ineffective CE system may exhibit signs of outdated or irrelevant content; that is, materials provided to coaches do not reflect the latest developments in coaching theories, practices, and trends (Stewart, 2013). For example, the disconnect between pre-activity warm-up and stretching practices in some sports serves as a pertinent illustration. While traditional beliefs in static stretching before activity were once prevalent, modern sports science has highlighted the potential drawbacks of this approach. Evidence-based research, as exemplified by studies in various sports (Judge et al., 2011, 2012, 2013), now suggests that dynamic warm-up routines can better prepare athletes for performance.

In instances where CE fails to stay updated with coaching methodologies, coaches may struggle to apply archaic strategies to modern coaching contexts or are undermined in their ability to effectively lead athletes (e.g., warm-up routines). Coaches rely on CE programs to gain contemporary knowledge that resonates with the current state of their respective sports. A misalignment between education content in CE programs and current coaching trends could hinder coaches' ability to adapt and excel in their coaching roles (Judge et al., 2020). If a CE program fails to incorporate these contemporary findings and still

promotes outdated practices, coaches might inadvertently hinder their athletes' growth and performance.

Lack of Practical Application

An ineffective CE system may fall short in providing coaches with sufficient hands-on training opportunities, a deficiency that can hinder their ability to excel in real-world coaching scenarios (Stewart, 2013). While theoretical knowledge forms the foundation of CE, practical application is the catalyst that transforms theoretical concepts into tangible coaching strategies. Coaches require more than just theoretical understanding; they need opportunities to immerse themselves in practical experiences, actively applying what they have learned and honing their coaching skills (Gilbert & Trudel, 2001).

Experiential learning serves as a cornerstone for effective CE, enabling coaches to bridge the gap between theory and practice. Through guided hands-on activities, coaches can gain insights into the intricacies of athlete-coach interactions, tactical decision-making, and adapting strategies to suit diverse contexts. By interacting directly with athletes and engaging in role-play exercises, coaches develop a deeper understanding of the challenges they might encounter in real coaching scenarios (Chen et al., 2010). Regular and constructive feedback is also essential in hands-on training. By allowing coaches to identify strengths or areas for improvement, they can refine their coaching approaches (Chen et al., 2010; Gilbert & Trudel, 2001). These experiences not only build competence, but also boost their confidence in applying coaching techniques on the field.

Inability to Bridge the Gap Between Theory and Real-World Coaching Scenarios

A significant shortcoming of an ineffective CE system is its failure to bridge the gap between theoretical concepts and their practical application in real-world coaching scenarios (Stewart, 2013). Theoretical knowledge alone cannot fully prepare coaches to effectively respond to the dynamic and unpredictable nature of actual coaching environments (Chen et al., 2010). Coaches who receive extensive theoretical training without opportunities for hands-on application may find themselves struggling to translate theory into actionable strategies on the field. The inability to effectively translate theoretical insights into practical coaching decisions can hinder coaches' capacities to adapt strategies to athlete needs, identify opportunities for improvement, and address emergent challenges during training and competition.

To bridge this gap, CE programs should emphasize practical learning experiences that encourage coaches to actively engage with coaching contexts. Simulated coaching situations and role-play exercises enable coaches to apply

theoretical concepts in controlled environments, honing their decision-making skills and boosting their confidence in their coaching abilities (Chen et al., 2010). Moreover, opportunities for on-field practices allow coaches to test their strategies, receive real-time feedback, and learn from their experiences, thus fostering a deeper understanding of the nuances of coaching (Gilbert & Trudel, 2001).

Absence of Continuous Professional Development

A clear indication of an ineffective CE system is the absence of provisions for continuous professional development (Stewart, 2013). As noted previously, sports, and more specifically coaching, is a dynamic field that constantly evolves with advancements in sports science, technology, and coaching methodologies. Without opportunities for ongoing skill enhancement and staying updated in their field, coaches may find themselves ill-equipped to address emerging challenges and leverage new opportunities (Gilbert & Trudel, 2001).

Neglecting ongoing skill enhancement undermines the long-term effectiveness of CE. When CE programs fail to offer mechanisms for coaches to continually refine their skills and stay current with industry trends, coaches' knowledge may become outdated or insufficient to meet the evolving demands of their roles (Gilbert & Trudel, 2001). Without continuous professional development, coaching quality and an ability to adapt to new coaching environments will become stagnant and impair athlete development. Instead, CE should be viewed as an ongoing journey in which coaches engage in continuous learning to enhance their coaching skills, deepen their understanding of sports dynamics, and maintain their proficiency as coaching professionals.

Disconnected Feedback Mechanisms

Inadequate assessment and feedback mechanisms serve as clear indicators of inefficacy within the realm of CE (Stewart, 2013). The efficacy of CE programs hinges upon the integration of robust assessment methodologies, enabling the comprehensive evaluation of coaches' performance and comprehension of coaching concepts. The absence of sound evaluation and feedback structures can result in a deficiency of insights that could prove essential for coaches to assess their own progress and pinpoint areas necessitating improvement (Gilbert & Trudel, 2001).

This issue is particularly germane during the phase of reintegration, where coaches, having completed advanced CE, strive to reintegrate into the educational system. It is precisely during this pivotal stage that the dearth of essential support mechanisms and feedback loops becomes apparent, thereby hindering the seamless application of the knowledge and competencies acquired. This phenomenon inherently renders the existing system inhospitable to the effective assimilation

and utilization of the multifaceted body of knowledge that constitutes the essence of CE within the coaching domain.

Coaches unaware of their areas for improvement can hinder their professional growth. If CE programs lack systematic feedback mechanisms, coaches might remain unaware of their strengths and weaknesses, limiting their ability to enhance their coaching skills (Cho & Cho, 2014). Constructive feedback enables coaches to make informed adjustments, optimize their coaching strategies, and ultimately provide athletes with better guidance for growth and performance enhancement (Gilbert & Trudel, 2001). Without constructive feedback, it may lead coaches to a false sense of mastery, preventing them from addressing potential shortcomings and refining their coaching approaches. Implementing robust assessment, feedback, and self-reflective mechanisms are integral to an effective CE system, enabling coaches to make informed adjustments, refine their practices, and deliver higher-quality coaching experiences to athletes.

Recommended Changes in Coaching Education Programs

Coaching settings exhibit significant variation, with recreational coaching highlighting participation, enjoyment, and skill enhancement, while competitive coaching places a greater emphasis on performance, competition, and achieving goals, particularly at the collegiate and professional levels. These distinctions underscore the crucial need for tailored training programs that equip coaches to excel in their specific coaching environments, all while aligning effectively with the principles of long-term athlete development. Engaging in the pursuit of accreditation within coaching education programs, as emphasized by Judge et al. (2012), can be instrumental in ensuring a standardized approach, maintaining program quality, and promoting adherence to recognized industry standards.

To rectify the identified deficiencies in coaching education programs, it is imperative to prioritize immediate and substantial reforms. These reforms should concentrate on thoroughly preparing coaches for their roles in these unique settings, addressing critical areas such as:

1. **Relevance and Alignment with Current Trends:** CE programs must regularly update their content to align with the latest coaching theories, practices, and trends. This adaptation ensures coaches are equipped with contemporary knowledge that resonates with the current state of their respective sports, preventing them from applying outdated or ineffective strategies.

2. **Practical Application and Hands-On Training:** CE should prioritize experiential learning, providing coaches with opportunities for practical application and hands-on training. These immersive experiences bridge the gap between theory and practice, enabling

coaches to refine their skills and build confidence in their coaching abilities.

3. **Bridging the Gap Between Theory and Practice:** CE programs need to facilitate the translation of theoretical insights into actionable strategies on the field. Simulated coaching situations, role-play exercises, and on-field practices should be incorporated to ensure coaches can effectively respond to the dynamic nature of real-world coaching environments.

4. **Continuous Professional Development:** To keep up with the evolving field of coaching, continuous professional development opportunities should be an integral part of CE. Coaches must engage in ongoing learning to enhance their skills, adapt to new coaching environments, and stay current with industry trends.

5. **Robust Feedback Mechanisms:** Effective assessment and feedback mechanisms should be implemented within CE programs. Coaches need systematic feedback to gauge their progress, identify areas for improvement, and make informed adjustments to their coaching approaches.

These comprehensive changes are essential to cultivate a CE system that equips coaches with the knowledge, skills, and adaptability necessary to excel in their roles, foster athlete development, and meet the evolving demands of the sporting world. Failure to address these areas may perpetuate the inadequacies within CE programs and hinder the growth and performance of both coaches and athletes.

As we consider the imperative changes needed in CE programs, it is crucial to acknowledge that coaching, once perceived as primarily a face-to-face interaction, is evolving in response to the changing landscape of coaching. This transformation extends to various coaching scenarios, with particular significance to individual sports such as track and field, weightlifting, wrestling, and tennis. The quality of coach-athlete interaction remains a cornerstone of coaching success, influencing not only the athlete's skill development but also their motivation, well-being, and overall performance. As such, there's a pressing need to underscore effective interpersonal communication and the cultivation of strong coach-athlete relationships. The coach's role extends beyond technical expertise; it hinges on an ability to connect with each athlete on a personal level. This understanding allows for the development of tailored coaching strategies that account for the unique needs, goals, and learning styles of each athlete.

Furthermore, in the evolving coaching landscape, CE programs must adapt and incorporate strategies for effective remote coaching and digital communication. The integration of these aspects is essential in recognition of the fact that face-to-face interaction may not always be feasible. Coaches must be equipped

to effectively deliver coaching through virtual means, particularly in today's world, where remote coaching is rapidly gaining prominence (Carson et al., 2021; Driska, 2018; Passmore & Woodward, 2023; Szedlak et al., 2023). In essence, the changes required in CE programs should not only prioritize the enhancement of technical knowledge but also emphasize the development of interpersonal relationships and the ability to adapt to changing coaching dynamics. This holistic approach is especially vital in individual sports, where the coach-athlete interaction stands as a critical element in achieving success.

Conclusion

An effective CE system serves as the cornerstone of athlete development and coaching excellence. By recognizing the signs of ineffective CE and implementing the recommended strategies, stakeholders in the sports community can collectively contribute to the cultivation of skilled coaches who positively impact athletes' growth, performance, and overall experience. Coaching education plays a pivotal role in shaping the capabilities of coaches and consequently influencing athlete development and performance. Recognizing the signs of ineffective CE is essential for stakeholders in the sports community to collectively work toward enhancing CE systems. By addressing the highlighted issues and adopting innovative strategies, the future of coaching education holds promise for producing skilled and adaptable coaches capable of leading athletes to excellence in an ever-evolving sports landscape.

References

Becker, A. J. (2009). It's not what they do, it's how they do it: Athlete experiences of great coaching. *International Journal of Sports Science & Coaching, 4*(1), 93-119. https://doi.org/10.1260/1747-9541.4.1.93

Burden, J. W., & Lambie, G. W. (2011). Sociocultural competencies for sport coaches: A proposal for coaches and coach education. *Journal of Coaching Education, 4*(3), 3-28. https://doi.org/10.1123/jce.4.3.3

Carson, F., McCormack, C., McGovern, P., Ralston, S., & Walsh, J. (2021). Coach like a woman: Learnings from a pilot coach education program. *Women in Sport and Physical Activity Journal, 29*(1), 68-73. https://doi.org/10.1123/wspaj.2020-0047

Chen, C., Hsu, C., & Hundhausen, C. (2010). Effects of the quality and quantity of computer-mediated communication on individuals' learning outcomes. *Journal of Computer Assisted Learning, 26*(5), 360-376.

Cho, M. H., & Cho, Y. (2014). The effects of learners' perceptions of an authentic learning environment on their motivation and learning outcomes in a virtual world. *Educational Technology Research and Development, 62*(3), 307-327.

Côté, J., Bruner, M. W., Erickson, K., Strachan, L., & Fraser-Thomas, J. (2010). Athlete development and coaching. In J. Lyle & C. Cushion (Eds.), *Sport coaching: Professionalization and practice* (pp. 63-83). Elsevier.

Cox, E. (2006). An adult learning approach to coaching. In D. Stober & A. Grant (Eds.), *Evidence based coaching handbook* (pp.193-217). John Wiley & Sons.

Cushion, C. J., Armour, K., & Jones, R. L. (2003). Coach education and continuing professional development: Experience and learning to coach. *Quest, 55*(3), 215-230. https://doi.org/10.1080/0 0336297.2003.10491800

Driska, A. P. (2018). A formative, utilization-focused evaluation of USA swimming's nationwide online coach education program. *International Sport Coaching Journal, 5*(3), 261-272. https:// doi.org/10.1123/iscj.2017-0096

Falcão, W. R., Bloom, G. A., & Sabiston, C. M. (2020). The impact of humanistic coach training on youth athletes' development through sport. *International Journal of Sports Science & Coaching, 15*(5–6), 610-620. https://doi.org/10.1177/1747954120933975

Fazio-Griffith, L., & Ballard, M. B. (2016). Transformational learning theory and transformative teaching: A creative strategy for understanding the helping relationship. *Journal of Creativity in Mental Health, 11*(2), 225-234. https://doi.org/10.1080/15401383.2016.1164643

Gilbert, W., & Trudel, P. (2001). Learning to coach through experience: Reflection in model youth sport coaches. *Journal of Teaching in Physical Education, 21*(1), 16-34.

Griffin, L. L., & Butler, J. (2005). *Teaching games for understanding: Theory, research, and practice.* Human Kinetics.

Jones, R., & Turner, P. (2006). Teaching coaches to coach holistically: Can problem-based learning (PBL) help? *Physical Education & Sport Pedagogy, 11*(2), 181-202.

Judge, L. W., Avedesian, J. M., Bellar, D. M., Hoover, D. L., Craig, B. W., Langley, J. … & Dickin, D. C. (2020). Pre- and post-activity stretching practices of collegiate soccer coaches in the United States. *International Journal of Exercise Science, 13*(6), 260-272.

Judge, L. W., Bellar, D., Bodey, K., Craig, B., Prichard, M., & Wanless, E. (2011). An examination of pre-activity and post-activity stretching practices of NCAA Division I and NCAA Division III basketball programs. *Journal of Coaching Education, 4*(1), 46-64.

Judge, L. W., Bellar, D. M., Craig, B., Petersen, J., Camerota, J., Wanless, E., & Bodey, K. (2012). An examination of preactivity and postactivity flexibility practices of National Collegiate Athletic Association Division I tennis coaches. *Journal of Strength and Conditioning Research, 26*(1), 184-191. https://doi.org/10.1519/JSC.0b013e31821852d0

Judge, L. W., Bellar, D. M., Gilreath, E. L., Petersen, J. C., Craig, B. W., Popp, J. K. … & Simon, L. S. (2013). An examination of preactivity and postactivity stretching practices of NCAA Division I, NCAA Division II, and NCAA Division III track and field throws programs. *Journal of Strength and Conditioning Research, 27*(10), 2691-2699. https://doi.org/10.1519/JSC.0b013e-318280c9ac

Judge, L. W., Bodey, K., Bellar, D., Bottone, A., & Wanless, E. (2011). An examination of the stretching perceptions and practices of Division I college volleyball programs in the United States. *Journal of Strength and Conditioning Research, 25*(3), 82-83.

Judge, L. W., Bodey, K. J., Bellar, D., Brooks, C., & Crawford, T. (2012). On the right track: Maximizing educational opportunities for USATF coaching education. *Journal of Coaching Education, 5*(1), 41-63.

Judge, L. W., Craig, B., Baudendistal, S., & Bodey, K. J. (2009). An examination of the stretching practices of Division I and Division III college football programs in the midwestern United States. *Journal of Strength and Conditioning Research, 23*(4), 1091-1096. https://doi. org/10.1519/JSC.0b013e318192b7d6

Judge, L. W., Petersen, J., Bellar, D., Craig, B., Benner, M., & Wanless, L. (2013). An examination of pre-activity and post-activity stretching practices of cross country and track and field distance coaches. *Journal of Strength and Conditioning Research, 27*(9), 2456-2464.

Kim, T. D., Yang, M., Bae, J., Min, B. A., Lee, I., & Kim, J. (2017). Escape from infinite freedom: Effects of constraining user freedom on the prevention of dropout in an online learning context. *Computers in Human Behavior, 66,* 217-231. https://doi.org/10.1016/j.chb.2016.09.019

Lave, J., & Wenger, E. (1991). Learning in doing: Social, cognitive, and computational perspectives. *Situated Learning: Legitimate Peripheral Participation, 10,* 109-155.

Leeds, E. M., Hodge, S. R., & Mills, A. M. (2013). Coaching and mentoring strategies to develop faculty in an online learning environment. *Journal of Asynchronous Learning Networks, 17*(2), 15-27.

Light, R. (2008). Complex learning theory—Its epistemology and its assumptions about learning: Implications for physical education. *Journal of Teaching in Physical Education, 27*(1), 21-37. https://doi.org/10.1123/jtpe.27.1.21

Martens, R. (2012). *Successful coaching* (4th ed.). Human Kinetics.

Merriam, S. B. (2004). The role of cognitive development in Mezirow's transformational learning theory. *Adult Education Quarterly, 55*(1), 60-68. https://doi.org/10.1177/0741713604268891

Metzler, M. (2017). *Instructional models in physical education.* Taylor & Francis.

Mezirow, J. (1991). *Transformative dimensions of adult learning.* Jossey-Bass.

Passmore, J., & Woodward, W. (2023). Coaching education: Wake up to the new digital and AI coaching revolution! *International Coaching Psychology Review, 18*(1), 58-72. https://doi.org/10.53841/bpsicpr.2023.18.1.58

Robinson, G. R., & Hullinger, H. (2008). New benchmarking techniques for online program sustainability. *The International Review of Research in Open and Distributed Learning, 9*(2).

Sammut, K. (2014). Transformative learning theory and coaching: Application in practice. *DOAJ: Directory of Open Access Journals, S8,* 39-53. https://doaj.org/article/ff919800c2a54b-6499255894b4e60555

Smith, K., Burns, C., O'Neill, C., Duggan, J. D., Winkelman, N., Wilkie, M., & Coughlan, E. K. (2023). How to coach: A review of theoretical approaches for the development of a novel coach education framework. *International Journal of Sports Science & Coaching, 18*(2), 594-608. https://doi.org/10.1177/17479541221136222

Smith, A. N., & Cushion, C. J. (2006). Theorizing the coaching process: A critical review of current research and future directions. *International Journal of Sport Science & Coaching, 1*(3), 253-275.

Stewart, C. (2013). The negative behaviors of coaches: "Don't be this guy!" *Physical Educator, 70*(1), 1-14.

Szedlak, C., Bennett, B., & Smith, M. J. (2023). Special issue in online and remote coaching: Exploring coaching delivery and coach education in online/digital environments. *International Sport Coaching Journal, 1-3.* https://doi.org/10.1123/iscj.2023-0063

Weinberg, R. S., Freysinger, V. J., Vealey, R. S., & Block, C. (2020). What does it mean to be "mentally tough" as a NCAA Division I collegiate coach? *Journal of Applied Sport Psychology, 34*(2), 342-362. https://doi.org/10.1080/10413200.2020.1791277