Strategies to Positively Affect Retention in Online kinesiology-Based Collegiate Courses

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Abstract

Online education continues to experience higher attrition rates than traditional in-person formats, posing significant challenges for faculty and institutions alike. Based on personal experiences as faculty of an online kinesiology-based program, this article outlines retention issues we have experienced and offers potential solutions. Drawing from empirical research and theoretical frameworks (e.g., self-determination theory), we propose actionable strategies that include course development, emotional and social engagement, faculty involvement, and targeted student support. Unique considerations for kinesiology students, who often balance professional, athletic, and academic commitments, are examined. Evidence-based recommendations emphasize using kinesiology-specific content that is shorter, interactive video lectures, peer collaboration, structured feedback, culturally responsive pedagogy, and early identification of at-risk students.

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Student attrition (i.e., retention) is a significant concern within higher education, particularly within online (also called e-learning) programs (Monteiro et al., 2016). Angelino et al. (2007) reported that dropout rates for online courses are 15-20% higher than traditional face-to-face programs. In their literature review, Seery et al. (2021) suggested that online class retention rates were 10-20% lower than face-to-face courses. This is a significant concern for both students (i.e., study debt, loss of time, and no tangible outcomes) and faculty staff (i.e., lower class numbers and possible failure to meet student quotas). Furthermore, and at a higher level, these statistics outlined above can also negatively impact the university through rankings, credibility, and revenue (Olaya et al., 2020).

This article was born from concerns experienced in our (first author's) online graduate degree. While no data collection was conducted, anecdotally, we observed that a few students drop out of courses (and the program due to subsequent grade point average issues) each semester, some without even contacting us. Although reasons vary, students have reported quitting or withdrawing due to mental health issues (e.g., stress and burnout), because they feel overwhelmed juggling a job, serving as a coach, being a student, and having enough quality time with their spouse/kids. For our students, their education was perceived as the least important and, therefore, the first to go. Therefore, we sought to find ways to improve retention by using generalized theory and research on retention in online programming and applying it to kinesiology and sport science-based students. In essence, we sought ways to ease the academic burden so that students would be less likely to drop their courses. What follows is our review of

the literature and subsequent recommendations for administrators, faculty, and students who study and work in sports. For simplicity, we refer to all students in the sports professions (e.g., sport psychology, physical education, coaching, sports science, athletic training, sport management) as kinesiology students in the remainder of the article.

Identity, Motivation, Attrition, and Online Classes

From their systematic review of online learning attrition and dropout, Monteiro et al. (2017) suggested that attrition rates in online programs are higher due to two primary categories of factors: those related to the student and those associated with course design. Personal student factors include significant life events (e.g., health issues, family responsibilities) and the presence or absence of social support networks (e.g., first-generation student). Psychological factors, such as a student's motivation and self-regulation, are also critical (Yang et al., 2023). Stress and burnout are strongly tied to working in the sports professions (e.g., Pearson & Baghurst, 2020; Griffin et al., 2025).

Course design-related factors may include the level of interactivity, clarity of instructional materials, and the availability of timely feedback, all of which can influence a student's engagement and persistence (Lee & Choi, 2011). In addition, environmental factors such as access to reliable technology, internet connectivity, and a stable learning environment at home or work may further impact a student's ability to complete online coursework (Lee & Choi, 2011). Together, these student-, course-, and environment-related factors interact to shape the risk of attrition in online education.

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Waterman (1993) suggested that college is a critical period for identity development, encompassing both academic and broader psychosocial dimensions. While students may develop a sense of identity through engagement with particular subjects or classes and find purpose through course content and related experiences, identity formation during this life stage also includes navigating the transition to adulthood. This broader process involves establishing autonomy, clarifying personal values, and forming long-term goals related to career and relationships (Arnett, 2000). Conversely, a student may experience doubt about who they are and what they are doing, leading to confusion and a loss of purpose (Sokol, 2009).

In-person groups are more likely to gain critical mass, where key influencers (i.e., social catalysts) can lead and connect students (Seo et al., 2025). Steenberghs and colleagues (2021) found that popular peers significantly influence other students' emotional engagement, suggesting that key influencers can elevate the overall classroom atmosphere. However, limited peer-to-peer interaction in online learning environments may hinder strong identity commitment, particularly in online education. When students learn in online settings, where relationships may not be deeply formed, how will their identity be formed? Will they remain committed to the class?

Self-Determination Theory (SDT) offers a robust theoretical lens for examining student motivation and attrition in online education, particularly within applied disciplines like kinesiology. As a theory of human motivation and psychological development, SDT posits that optimal functioning and intrinsic motivation are supported when three fundamental psychological needs are met: autonomy, competence, and relatedness (Deci & Ryan, 2000; Ryan & Deci, 2017).

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While the online learning environment can enhance students' sense of autonomy through features such as self-paced modules, asynchronous lectures, and flexible scheduling, this autonomy can be a double-edged sword for kinesiology students. These students often juggle demanding academic requirements alongside athletic and professional commitments, and without appropriate scaffolding, the freedom offered in online courses may lead to procrastination or disengagement (Jeno et al., 2019). To cultivate student autonomy constructively, course design should include structured but flexible learning paths, optional synchronous sessions, and clear timelines that help students maintain a sense of direction without compromising their sense of volition (Sun & Rueda, 2012).

The need for competence (i.e., feeling effective and capable in one's activities) is particularly relevant in kinesiology, where mastery of practical, hands-on skills is central (e.g., laboratory work, working with clients, or coaching athletes). Online students may struggle to assess their skill development accurately without physical interaction with equipment, instructors, or peers. Therefore, fostering competence in an online kinesiology context requires intentional instructional design. Strategies such as embedded formative assessments, detailed rubrics, timely and specific instructor feedback, and video-based skill demonstrations can help students gauge and build their efficacy (Martin et al., 2020). For example, students could be asked to record themselves performing physical techniques and receive individualized feedback through annotated video tools, enabling precise guidance on performance improvements. Similarly, digital badges or competency-based milestones may offer tangible indicators of progress, reinforcing students' belief in their capabilities.

Although autonomy and competence can be supported with strategic design, the need for relatedness often proves more challenging to meet in virtual settings. The absence of spontaneous interactions and peer support can contribute to feelings of isolation, which has been linked to decreased motivation and higher attrition in online programs (Hart, 2012). Building a sense of community through structured discussion boards, peer review assignments, and group projects is essential. Furthermore, instructor presence through consistent communication, personalized messages, and video introductions can help humanize the online experience and foster a greater sense of connection (Richardson et al., 2015).

When autonomy, competence, and relatedness are collectively supported, SDT suggests that students are more likely to be intrinsically motivated and persist in their studies. For kinesiology students managing layered academic and extracurricular demands, these psychological needs must be intentionally addressed to mitigate disengagement and dropout risks in online learning environments.

Course Development Strategies for Kinesiology Students

Effective course design is essential for supporting student retention in online education, particularly among kinesiology students who often face unique challenges. These students frequently balance rigorous academic loads with family obligations, part-time jobs, and seasonal sporting commitments. For example, graduate assistants in collegiate settings report significant work–life conflict during competitive seasons due to extended hours, travel demands, and limited schedule flexibility, all of which reduce available time for academic engagement (Smith et al., 2018). Similarly, sport science students engaged in competitive training often spend 10 or more

hours per week on sport-related activities and 20–25 hours of academic work, leading to missed classes and elevated stress levels (Sæther et al., 2022). Recognizing these contextual demands is critical when designing online learning experiences that foster persistence and success.

Seery et al. (2021) conducted a systematic review of retention strategies in online higher education, highlighting six key areas that can be influenced by instructional design: course development, student support, faculty involvement, social engagement, emotional engagement, and targeted interventions. Among these, course development emerged as a particularly impactful lever. For kinesiology students with fragmented schedules and elevated stress, timely instructor feedback, peer collaboration, and flexible learning pathways are especially valuable. For example, integrating peer-led activities has enhanced engagement and retention in online formats, including MOOCs (De Freitas et al., 2015). Additionally, course structures that emphasize higher-order thinking skills, such as those outlined in Bloom's taxonomy, can help students better engage with material despite external pressures (Markle & O'Banion, 2014; Dresner et al., 2014). By intentionally aligning instructional strategies with the lived realities of kinesiology students, faculty can better support motivation, enhance learning outcomes, and improve course completion rates.

Application of Technology

Integrating video lectures and multimedia resources is increasingly recognized as essential for engaging online learners (Scagnoli et al., 2019). While innovative tools like Microsoft Kinect enable embodied learning through gesture-based interaction (Hung et al., 2018), such specialized equipment is inaccessible to most instructors or students. Fortunately,

common learning management systems (LMS) offer built-in features that facilitate interactivity without requiring advanced technical skills. For example, instructors can embed quizzes directly into videos, create clickable segments that allow learners to navigate content non-linearly, or incorporate decision-making scenarios that offer students choices within the lecture. These accessible strategies enhance learner agency by giving students control over their learning path and promoting active engagement (Wang et al., 2024).

Student preferences also highlight the importance of the instructor's visible presence in video lectures. Studies show that videos including the instructor's face that conveys facial expressions and non-verbal cues are perceived as more engaging and educational, even if recall performance is similar to videos without this feature (Kizilcec et al., 2015; Sathik & Jonathan, 2013; Schnepp et al., 2014). Such human elements can increase enjoyment and foster emotional connection, contributing to higher retention.

Video length further impacts learner attention. Shorter videos tend to maintain engagement more effectively than longer lectures, which can lead to fatigue or distraction (Elsamanoudy et al., 2021). Breaking content into 6- to 10-minute segments not only accommodates the busy schedules of all students (e.g., student-athletes) but especially graduate students balancing assistantships and athletics (Kuka, 2024). In addition, it facilitates content absorption by allowing learners to study in manageable chunks (Wang et al., 2024). Embedding interactive elements within these shorter videos can further promote sustained attention and deepen cognitive processing.

Length of Course

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Course length is a potential factor influencing retention, yet it remains under-researched. The most common length of an academic college course in the United States is approximately 15 to 16 weeks, aligning with the standard semester system utilized by many institutions. This duration typically encompasses around 14 weeks of instruction followed by a week dedicated to final examinations (Selingo, 2022). However, Ferguson & DeFelice (2010) found no significant difference in student satisfaction levels between those enrolled in a five-week course and those in its full-semester equivalent.

Bawa (2016) conducted a comprehensive review of retention issues and solutions in online courses, but did not consider course duration as a contributing factor. Currently, limited research directly compares retention and attrition rates between shorter courses and those of traditional length. Jordan (2015), using a large sample of Massive Open Online Courses (MOOCs), found a negative linear relationship between course length and attrition, with dropout rates increasing as course duration extended up to 15 weeks.

Ho and Karagiannidis (2007) investigated the perceptions of undergraduate business students and reported that:

> (1) There is no difference in performance whether students study during summer school or regular school terms; that is to say that this aspect of the learning environment is not significant to the effectiveness of learning and (2) [students] preferred to enroll in summer school (intensive learning mode of 5 weeks) rather than standard school length (12 weeks); and (3) found the subject they studied in summer school (intensive learning mode of 5 weeks) was more enjoyable (motivational) than any other business course in their previous studies, indicating that the process of learning is significant. (p.1)

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Although research on the impact of course length remains limited, existing studies offer preliminary support for the effectiveness of shorter, more condensed courses. Notably, Ho and Karagiannidis (2007) highlight the role of enjoyment in student motivation; students who find a course enjoyable are more likely to complete it, ultimately improving retention rates.

Course content varies widely in kinesiology, from theoretical foundations in motor learning to skill-based components like exercise technique or lab-based assessments. The suitability of condensed formats may depend on this distinction. For example, theoretical content may adapt well to shorter courses, while skill-based or practicum components may require extended time for practice and feedback. Similarly, non-traditional students or graduate assistants with demanding schedules may benefit from intensive formats allowing focused engagement over a shorter period.

Evaluating how shorter courses influence student interactions with peers and instructors is important when considering course design. Ferguson & DeFelice (2010) compared identical courses delivered in both an intensive, shorter format and a traditional semester-length format. Interestingly, while students in the intensive course reported lower satisfaction with instructor communication, they expressed greater satisfaction with peer interactions. This suggests that while condensed courses may enhance student collaboration, they may also require adjustments in instructional strategies to maintain effective faculty engagement. Ferguson and DeFelice (2010) concluded that:

> A pedagogical shift is needed in the five-week course to emphasize interaction with the professor. Live chat rooms, threaded discussions, and the use of blogs, combined with prompt responses to all email inquiries, are strategies that would provide opportunities

for increased interaction. Other techniques to help with the intense workload include recording podcasts and Frequently Asked Questions (FAQs). These techniques could be used in the full-semester course as well, but an emphasis on instant responses would not be as critical. In an intensive course, the professor needs to be available to respond promptly to online inquiries. (p. 81)

These findings suggest that while shorter courses may offer motivational and scheduling advantages for kinesiology students, they also require thoughtful instructional design to preserve instructor presence and support student success.

Encouraging Cognitive Engagement

Fostering cognitive engagement is an important retention strategy (Seery et al., 2021), particularly in online kinesiology programs where students often juggle academic, athletic, and professional responsibilities. However, developing critical thinking and cognitive engagement in online settings presents unique challenges. These include sociocultural factors (e.g., language barriers, diverse backgrounds), topic familiarity (e.g., culturally sensitive or complex content), and technological limitations (e.g., discomfort with digital platforms or a preference for face-to-face interaction) (Tathahira, 2020). These barriers are especially relevant in kinesiology, where learning often involves applied, experiential components that are difficult to replicate online.

To overcome these challenges, course content and assignments must be intentionally designed to promote deep learning. This is particularly critical in kinesiology, where deep learning requires students to integrate theory with practice, such as analyzing case studies, defending exercise prescriptions, or critically evaluating sport performance strategies. Sawyer (2005) emphasized that deep learning activities must mirror the demands of the discipline, which

is a significant challenge in online environments. Redmond et al. (2018) recommended designing assignments that require students to integrate ideas, defend responses, and think critically. Jaggars and Xu (2016) further reinforced this by showing that students who engage in higher-order cognitive activities are more likely to persist in online courses. Their findings are especially pertinent to kinesiology students, who benefit from assignments that simulate real-world decision-making and critical analysis in sport and health contexts.

Group assignments and peer feedback activities can stimulate critical thinking by encouraging students to exchange, debate, and challenge each other's ideas (Tathahira, 2020). Notably, online classes afford students more time to think. For example, there is a delay between questions (from instructors or source materials) and the need for a verbal or written response. This can be beneficial for students who require more time to process material. Research by Lee (2014) extended this further by suggesting students' anxiety levels are lower in online classes, making them more conducive to critical thinking and higher-order debate.

Small changes in course content may also help cognitive engagement. For example, Simonds et al. (2014) found a significant relationship between student age and preference for learning activities in online courses. Younger students preferred interactive learning activities, whereas older students preferred more traditional lecture videos by the instructor. While it is unrealistic to tailor instruction to every individual learning style, offering a limited variety of modalities (e.g., combining short lecture videos with occasional interactive elements) can help meet the needs of a diverse student population. These might include embedded quizzes, discussion prompts, or opportunities for students to choose between formats (e.g., video vs. reading). This approach supports engagement without placing undue burden on instructors.

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Student Support

Beyond course design, student retention depends on other factors. These include strategies and policies to support the students' environment within the academic institution, program, and course. These include providing student services that meet the needs of online students and making relevant resources, such as technology, readily available.

Providing Comprehensive Student Services

Students must be provided with the resources necessary to be successful in an online environment. For example, some may be unfamiliar with the technology or need financial aid guidance. Therefore, online students must be provided with the necessary services they might obtain if they were physically present on campus.

Program orientations are one such service that might improve retention. Stoebe and Gribing (2020) examined the impact of a comprehensive virtual orientation on online students' retention and academic preparedness at a small private college. Their institution transitioned from an optional, synchronous orientation to a mandatory, asynchronous format that included information on student support services, time management, technology resources, and academic expectations. Following this change, the retention rate from fall to spring increased by 7%. Both student and faculty surveys indicated that participants felt more academically prepared after completing the orientation.

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Financial aid guidance remains critical in student retention, particularly for online learners who may face unique challenges navigating financial resources without direct, in-person support (Navarro et al., 2018). Research indicates that online students frequently report difficulties accessing timely and personalized financial aid advising, which can increase stress and contribute to attrition (Almeida et al., 2020). Providing clear, easily accessible financial aid information and dedicated advisors or counselors familiar with the specific demands of online or kinesiology students can help mitigate these barriers and improve retention outcomes.

Career planning during the program helps students align their academic efforts with personal and professional goals (Seery, 2021). Students who work with academic advisors and see how their coursework connects to their career aspirations may be more motivated to persist and succeed (Fowler & Boylan, 2010). Career planning also provides structure, fostering a sense of purpose and direction, which can reduce feelings of isolation and disengagement, key factors affecting retention rates (Seery et al., 2021). Engaged students are more likely to remain committed to their academic journey, boosting retention.

To this end, kinesiology programs can strengthen motivation and retention by explicitly linking coursework to professional certifications and career pathways. For example, exercise science courses can align with the content domains required for the Certified Strength and Conditioning Specialist (CSCS) exam offered by the National Strength and Conditioning Association (NSCA). Similarly, athletic training modules can be structured around competencies required by the Board of Certification for Athletic Trainers. Health and wellness tracks might integrate standards from the American College of Sports Medicine (ACSM). Embedding these

certifications into course outcomes signals clear career relevance and gives students tangible goals to work toward.

Additionally, establishing connections with professional organizations (e.g., NSCA, ACSM, AASP) early in the program can expose students to conferences, networking opportunities, continuing education, and job boards relevant to their field. Online programs can facilitate these connections through virtual guest speakers, partnerships for internships or practicums, and discussion boards linking students with active professionals.

Mentorship is another crucial layer of support that can bolster career planning and retention. Formalized mentorship programs can provide guidance, accountability, and a stronger sense of belonging for online kinesiology students lacking informal networking opportunities. Pairing students with alums or faculty mentors within their discipline creates an avenue for individualized career advice and psychosocial support, both predictive of persistence.

Supporting Technological and Academic Needs

Seery et al. (2021) emphasized the importance of providing comprehensive technological support to enhance online student retention. Particularly in an online environment, students must have access to the required technological tools and resources, such as reliable internet, appropriate hardware, and necessary software applications. Although this may not be the responsibility of the academic program or institution to provide, they may need to make technological expectations clear so that students are positioned to succeed and not be surprised.

Administrations can provide robust support systems, including online help desks and technical support teams, which are essential for assisting students with technological issues. Knowing students' technological capabilities through an assessment in advance of beginning

courses can aid the instructor in knowing what skills might need to be taught before or early in the course (Travers, 2016). Training and orientation sessions help students become familiar with the online learning environment and platforms (e.g., Canvas, Moodle, Blackboard), reducing anxiety and building confidence. Additionally, institutions must stay updated with technological advancements, regularly upgrading their systems to provide a seamless and modern learning experience.

Faculty Involvement

External factors largely influence attrition in higher education; however, their peers, administration, and instructors can significantly influence a student's decision to remain in a program (Rasco et al., 2020). Thus, an instructor can potentially encourage or discourage a student from remaining in a course. Therefore, instructors must possess the necessary interpersonal skills and pedagogical training to ensure their interactions are a positive experience for the student.

Faculty Training

Formal training for faculty teaching online is crucial (Wolf, 2006). Recognizing that teaching in person can differ greatly from virtual formats, faculty must be trained to adjust. As Travers (2016) noted, "Prior to teaching online, instructors need to be properly trained in strategies in supporting both young and adult students" (p. 56). Training on pedagogy is particularly important for those teaching online (Batts et al., 2010). For example, the age of students affects their preference for certain types of online learning (Simonds et al., 2014), and

faculty should be able to adjust their content accordingly. Moreover, features of pedagogy such as assessment and feedback are different due to the lack of face-to-face interactions.

Wolf (2006) comprehensively reviewed how faculty should be trained to teach in online settings. Specifically, faculty should: (1) be trained in the same learning management system (LMS) used to teach (e.g., Canvas, Moodle, Blackboard), (2) receive pedagogical training specific to threaded discussions and fostering interaction, (3) obtain ongoing training as technology and learning changes, (4) possess proficiency in fundamental computing skills, (5) participate in the design of the course, (6) be motivated to teach online, and (7) receive institutional support (e.g., training, funding, equipment) necessary to be successful.

For kinesiology faculty, pedagogical training should also address challenges unique to applied and experiential learning in a virtual environment. Common pitfalls include overreliance on lecture-based formats that fail to capture the active, movement-oriented nature of the discipline. Training should instead emphasize best practices such as using video demonstrations to teach exercise technique, incorporating asynchronous assignments where students film themselves performing assessments or coaching cues, and leveraging virtual simulations for anatomy, biomechanics, or physiology content. These strategies would help to surface the experiential components of lab-based or field-based coursework.

Faculty can also be encouraged to design creative alternatives for traditionally hands-on content. For instance, students in an online exercise science course might conduct field-based testing (e.g., timed runs, flexibility screens) using household equipment or complete client interaction case studies based on real-life scenarios. When supported by clear instructions and robust rubrics, such adaptations maintain learning integrity while expanding accessibility.

Increasing Faculty-Student Interactions and Mentoring

Because instructors do not regularly see students in person, there may be the potential for the instructor to feel distant from the student. Consequently, instructors are less likely to be aware of how students feel about the teaching and course material, and it is reasonable to suggest that any pastoral issues are less likely to be discussed. In turn, this presents a challenge for instructors to get to know students on a more personal level. Therefore, faculty should be intentional in developing meaningful faculty-student interactions and mentoring. Examples include carving out time for online office "drop-ins," live chat rooms, threaded discussions, and blogs (Ferguson & DeFelice, 2010).

Emotional Engagement

Students emotionally engaged in learning are significantly more likely to persist and be retained in online courses (Deng, 2021). Emotional engagement is characterized by interest, enjoyment, and a sense of belonging. It enhances students' intrinsic motivation and commitment to course activities, particularly in online learning environments that lack physical presence and spontaneous peer interaction. According to Dixson (2015), students who reported higher emotional engagement were likelier to participate actively, complete assignments, and remain enrolled in their courses. Emotional engagement acts as a buffer against the isolation often experienced in online education, supporting stronger connections to both instructors and peers. These emotional connections can reinforce students' identification with the learning community, promoting persistence and academic success.

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For those in our discipline, setting clear expectations from the outset is crucial for fostering commitment and motivation in online learning. This can be achieved by outlining weekly responsibilities, explaining how course content aligns with professional goals (e.g., developing effective training programs or understanding athlete development), and encouraging students to reflect on their personal reasons for pursuing the field.

Students must also cultivate self-discipline and emotional engagement. Instructors can help students achieve this by providing structured weekly modules with consistent deadlines and interactive, applied assignments that reflect real-world coaching challenges. Emotional connection can also be cultivated through storytelling and engaging in case studies, or student-led discussions where learners reflect on their own athletic or coaching experiences.

Summary and Implications for Practice

Retention in online kinesiology education is a growing concern, particularly given the discipline's applied nature and the competing demands many students face outside the classroom. This article examined a range of strategies to improve student retention in virtual kinesiology courses, synthesizing findings from recent research with practical, discipline-specific solutions. Central to this discussion were themes of pedagogical design, faculty engagement, institutional support, and the inclusion of culturally responsive practices. Table 1 presents the article's themes along with actionable strategies and application.

Faculty must recognize that some students require individualized support to remain engaged and successful. Prior research has demonstrated that identifying at-risk students based on behavioral and demographic profiles can significantly improve retention outcomes in online

courses (Wolff & Zdrahal, 2012). Within kinesiology, students frequently manage multiple responsibilities, such as athletic commitments, part-time coaching roles, or employment obligations, all of which may compromise academic performance or consistency in engagement (Mazerolle, 2022; Smith et al., 2018). Monitoring student activity within learning management systems, such as login frequency, discussion participation, assignment submission patterns, and quiz performance, can help faculty develop engagement profiles to identify and support students falling behind.

Efforts to increase student success must also reflect an institutional commitment to diversity, equity, and inclusion. Instructors should be equipped to address the needs of students from diverse cultural backgrounds through both representation and inclusive pedagogy. As Baghurst (2025) argued, faculty ethnicity, gender, and cultural backgrounds should reflect the student population as well as the life experiences of the applicant. Pennington (2023) emphasized the need for more proactive efforts to recruit and retain students from underrepresented backgrounds in kinesiology, recommending the following strategies:

- cultural competence resources and trainings, in person or online;
- fundraising and scholarships for minority groups;
- a Curriculum Oversight Committee that ensures curriculums are taught through diversity, equity, and inclusion lenses;
- resources such as slideshow presentations on the university/department webpage and/or course online shells (Canvas, Blackboard, Moodle, etc.);
- age-appropriate activities for kinesiology and allied health professional programs to promote student recruitment and outreach efforts;

- department and program websites with social media presence;
- department and program flyers (print or PDF), images, and marketing videos; and
- deeper commitments and emphasis on student recruitment and pipeline development. (p. 394)

Taken together, these findings point to a multi-layered approach to improve student retention. At the course level, faculty can implement practices such as embodied video instruction, shorter and more interactive lecture segments, and cognitive engagement strategies aligned with Bloom's taxonomy. At the institutional level, support services must be visible, accessible, and responsive to the evolving needs of online learners. Early identification systems, personalized mentoring, culturally inclusive content, and a visible commitment to equity all contribute to student belonging and persistence.

Ultimately, the successful retention of kinesiology students in online education hinges on deliberate course design, informed pedagogy, and a holistic approach to student well-being. These efforts benefit learners and strengthen program stability, academic outcomes, and institutional reputation.

References

Almeida, L. S., Freire, I., & Meireles, J. (2020). Factors influencing online student success: A systematic review. *Open Learning: The Journal of Open, Distance and e-Learning, 35*(3), 250–268. https://doi.org/10.1080/02680513.2020.1794883

Angelino, L., Williams, F. K., & Natvig, D. (2007). Strategies to engage online students and reduce attrition rates. *The Journal of Educators Online*, *4*(2), 1-14.

Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. https://doi.org/10.1037/0003-066X.55.5.469

Baghurst, T. (2025). *Reflections on the coaching life: 90 daily thoughts to help coaches and sports professionals improve their craft. Volume 2.* AKP.

Batts, D., Pagliari, L., Mallett, W., & McFadden, C. (2010). Training for faculty who teach online. *Community College Enterprise*, *16*(2), 21–31.

Bawa, P. (2016). Retention in online courses: Exploring issues and solutions - A literature review. *SAGE Open*, *6*(1), 215824401562177

Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Deng, R. (2021). Emotionally engaged learners are more satisfied with online courses. *Sustainability, 13*(20), 11169. https://doi.org/10.3390/su132011169

De Freitas, S. I., Morgan, J., & Gibson, D. (2015). Will MOOCs transform learning and teaching in higher education? Engagement and course retention in online learning provision. *British Journal of Educational Technology, 46*, 455-471.

Dixson, M. D. (2015). Measuring student engagement in the online course: The Online Student Engagement Scale (OSE). *Online Learning, 19*(4), 1-15. https://doi.org/10.24059/olj.v19i4.561

Dresner, M., de Rivera, C., Fuccillo, K. K., & Chang, H. (2014). Improving higher-order

thinking and knowledge retention in environmental science teaching. *BioScience, 64*(1), 40-48. https://doi.org/10.1093/biosci/bit005

Elsamanoudy, A. Z., Aboukamer, R. A., & Hassanien, M. A. (2021). Short versus long video-based lectures as a tool for faculty development during COVID-19 pandemic. *International Journal of Community Medicine and Public Health*, *8*(5), 2576.

Ferguson, J. M., & DeFelice, A. E. (2010). Length of online course and student satisfaction, perceived learning, and academic performance. *International Review of Research in Open and Distributed Learning, 11*(2), 73-84. https://doi.org/10.19173/irrodl.v11i2.772

Fowler, P. R., & Boylan, H. R. (2010). Increasing student success and retention: A multidimensional approach. *Journal of Developmental Education, 34*(2), 2-9.

Griffin, A., Baghurst, T., & Quick, S. (2025). Lived experiences of stress and the coping mechanisms of assistant coaches in the National Basketball Association (NBA). *Quest,* 1–21. https://doi.org/10.1080/00336297.2024.2442996

Hart, C. (2012). Factors associated with student persistence in an online program of study: A review of the literature. *Journal of Interactive Online Learning, 11*(1), 19–42.

Ho, H., & Karagiannidis, V. (2007). Summer school teaching and learning: Some thoughts from undergraduate business students. *College Quarterly, 10*, 1-12.

Hung, H.-T., Kinshuk, & Chen, N.-S. (2018). Embodied interactive video lectures for improving learning comprehension and retention. *Computers & Education, 117*, 116-131. https://doi.org/10.1016/j.compedu.2017.10.005

Jaggars, S. S., & Xu, D. (2016). Retention in online courses. *SAGE Open, 6*(1), 2158244015621777. https://doi.org/10.1177/2158244015621777

Jeno, L. M., Grytnes, J. A., & Vandvik, V. (2017). The effect of a mobile-application tool on biology students' motivation and achievement in species identification: A self-determination theory perspective. *Computers & Education, 113*, 11–22. https://doi.org/10.1016/j.compedu.2016.12.003

Jordan, K. (2015). Massive Open Online Course completion rates revisited: Assessment, length and attrition. *International Review of Research in Open and Distributed Learning, 16*(3), 341-358. https://doi.org/10.19173/irrodl.v16i3.2112

Kizilcec, R. F., Bailenson, J. N., & Gomez, C. J. (2015). The instructor's face in video instruction: Evidence from two large-scale field studies. *Journal of Educational Psychology, 107*(3), 724-739. https://doi.org/10.1037/edu0000013

Kuka, K. M. (2024). *The causes and implications of burnout among graduate assistants* (Master's thesis, University of Tennessee). TRACE: Tennessee Research and Creative Exchange. https://trace.tennessee.edu/utk_gradthes/11388/[1](https://trace.tennessee.edu/utk_gradthes/11388/)

Lee, Y., & Choi, J. (2011). A review of online course dropout research: Implications for practice and future research. *Educational Technology Research and Development, 59*(5), 593-618. https://doi.org/10.1007/s11423-010-9177-y

Lee, S. M. (2014). The relationships between higher order thinking skills, cognitive density, and social presence in online learning. *The Internet and Higher Education, 21*, 41-52. https://doi.org/10.1016/j.iheduc.2013.12.002

Markle, R., & O'Banion, T. (2014). Assessing affective factors to improve retention and

completion. In *Learning abstracts* (Vol. 17, No. 11, pp. 1-16).

Martin, F., Sun, T., & Westine, C. D. (2020). A systematic review of research on online teaching and learning from 2009 to 2018. *Computers & Education, 159*, 104009. https://doi.org/10.1016/j.compedu.2020.104009

Mazerolle, S. M. (2022). *Challenges to career as a source of meaning and satisfaction: A study of quality of life and work–life balance leading to burnout* (Unpublished doctoral dissertation). University of South Dakota. Retrieved from https://red.library.usd.edu/cgi/viewcontent.cgi?article=1028&context=diss-thesis

Monteiro, S., Lencastre, J. A., Osório, A. J., & Silva, B. D. (2016). *Reducing attrition and dropout in e-learning: The development of a course design model*. In L. Gómez Chova, A. López Martínez, & I. Candel Torres (Eds.), *Proceedings of ICERI2016 – 9th International Conference of Education, Research and Innovation* (pp. 2440–2446). IATED Academy. https://hdl.handle.net/1822/43173

Monteiro, S., Lencastre, J., da Silva, B., Osório, A., de Waal, P., İlin, S., & İlin, G. (2017). A systematic review of design factors to prevent attrition and dropout in e-learning courses. In G. İlin, Ş. İlin, B. da Silva, A. Osório, & J. Lencastre (Eds.), *Better e-learning for innovation in education* (pp. 11-23). The Contractor and Partners of the Better E-Learning for All Strategic Partnership acting within the Erasmus Plus Programme.

Navarro, M., Flores, L. Y., & Worthington, R. L. (2018). Retention strategies for online learners: An empirical examination. *Distance Education, 39*(3), 300–315. https://doi.org/10.1080/01587919.2018.1476843

Olaya, D., Vásquez, J., Maldonado, S., Miranda, J., Verbeke, W. (2020). Uplift modeling for preventing student dropout in higher education. *Decision Support Systems*, *134*, 113320.

Pearson, B., & Baghurst, T. (2020). Stress and burnout experienced by intercollegiate swimming head coaches. *International Sport Coaching Journal*, 1-7. https://doi.org/10.1123/iscj.2019-0030

Pennington, C. G. (2023). Diversity, equity, and inclusion in kinesiology departments. *Physical Educator*, *80*(4), 387-402. https://doi.org/10.18666/TPE-2023-V80-I4-11403

Rasco, D., Day, S. L., & Denton, K. J. (2020). Student retention: Fostering peer relationships through a brief experimental intervention. *Journal of College Student Retention: Research, Theory & Practice*, *25*(1), 153-169. https://doi.org/10.1177/1521025120972962

Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education. *Online Learning Journal, 22*(1), 183-204.

Richardson, J. C., Maeda, Y., Swan, K., & Ice, P. (2015). Online learning: A review of the literature. In M. G. Moore (Ed.), *Handbook of distance education* (4th ed., pp. 152–168). Routledge.

Ryan, R. M., & Deci, E. L. (2017). *Self-determination theory: Basic psychological needs in motivation, development, and wellness.* Guilford Press.

Sæther, S. A., Mehus, I., & Johansen, B. T. (2022). Dual careers of youth athletes in Norwegian

elite sport schools: A systematic review of challenges and coping. *International Review for the Sociology of Sport, 57*(8), 1195–1213. https://doi.org/10.1177/10126902221111462

Sathik, M., & Jonathan, S. G. (2013). Effect of facial expressions on student's comprehension recognition in virtual educational environments. *SpringerPlus, 2,* 1-9. https://doi.org/10.1186/2193-1801-2-455

Sawyer, R. K. (Ed.). (2005). *The Cambridge handbook of the learning sciences.* Cambridge University Press.

Scagnoli, N. I., Choo, J., & Tian, J. (2019). Students' insights on the use of video lectures in online classes. *British Journal of Educational Technology, 50*(1), 399-414. https://doi.org/10.1111/bjet.12572

Schnepp, J., Horton, L., El-Sayed, A., & Bohil, C. J. (2014). VirtuTrace: The development of an immersive virtual reality tool for analyzing traced data. *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '14)*, 1573-1576. https://doi.org/10.1145/2556288.2557207

Seery, K., Barreda, A. A., Hein, S. G., & Hiller, J. L. (2021). Retention strategies for online students: A systematic literature review. *Journal of Global Education and Research, 5*(1), 72-84. https://doi.org/10.5038/2577-509X.5.1.1105

Selingo, J. J. (2022, October 27). *How long is a college semester?* U.S. News & World Report. https://www.usnews.com/education/best-colleges/articles/how-long-is-a-college-semester

Seo, E., Lee, S. Y., Muenks, K., & Yan, Y. (2025). The secret language of peers: How peer

behaviours signal mindset and influence classroom experiences. *British Journal of Educational Psychology.* Advance online publication. https://doi.org/10.1111/bjep.12759

Simonds, T. A., & Brock, B. L. (2014). Relationship between age, experience, and student preference for types of learning activities in online courses. *Journal of Educators Online*, *11*(1), n1.

Smith, A. B., Taylor, E. A., & Hardin, R. (2018). Career entry and experiences of female graduate assistants in collegiate athletics. *Journal of Issues in Intercollegiate Athletics, 11*(1), Article 3. https://scholarcommons.sc.edu/jiia/vol11/iss1/3/

Sokol, J. T. (2009). Identity development throughout the lifetime: An examination of Eriksonian Theory. *Graduate Journal of Counseling Psychology*, *1*(2), Article 14.

Steenberghs, N., Lavrijsen, J., Soenens, B., & Verschueren, K. (2021). Peer effects on engagement and disengagement: Differential contributions from friends, popular peers, and the entire class. *Frontiers in Psychology*, *12*, 726815. https://doi.org/10.3389/fpsyg.2021.726815

Stoebe, A., & Grebing, R. (2020). The effect of new student orientations on the retention of online students. *Online Journal of Distance Learning Administration*, *XXIII*(2).

Sun, J. C.-Y., & Rueda, R. (2012). Situational interest, computer self-efficacy and self-regulation: Their impact on student engagement in distance education. *British Journal of Educational Technology, 43*(2), 191–204. https://doi.org/10.1111/j.1467-8535.2010.01157.x

Tathahira, T. (2020). Promoting students' critical thinking through online learning in higher

education: Challenges and strategies. *Englisia: Journal of Language, Education, and Humanities*, *8*(1), 79-92. https://doi.org/10.22373/ej.v8i1.6636

Travers, S. (2016). Supporting online student retention in community colleges. *Quarterly Review of Distance Education*, *17*(4), 49–61.

Waterman, A. S. (1993). Developmental perspectives on identity formation. In J. E. Marcia, A. S. Waterman, D. R. Matteson, S. L. Archer, & J. L. Orlofsky (Eds.), *Ego identity: A handbook for psychosocial research* (pp. 42–68). Springer-Verlag.

Wang, J., Du, X., & Liu, Y. (2024). The effects of video lecture design on learners in online learning: A systematic review. *International Journal of Distance Education Technologies, 22*(1), 1–18. https://doi.org/10.1142/S0219649223500521

Wolf, P. D. (2006). Best practices in the training of faculty to teach online. *Journal of Computing in Higher Education*, 17(2), 47–78.

Wolff, A., & Zdrahal, Z. (2012). Improving retention by identifying and supporting *at-risk* students. *EDUCAUSE Review Online*. Retrieved from http://www.educause.edu/ero/article/improving-retention-identifying-and-supporting-at-risk-students

Yang, D., Wang, H., Metwally, A. H. S., Huang, R. (2023). Student engagement during emergency remote teaching: A scoping review. *Smart Learning Environment, 10*, 24.

Strategies for Retention in Online Kinesiology Courses

Table 1

Actionable Strategies to Improve Retention in Online Kinesiology Courses

Theme	Actionable Strategy	Kinesiology-Specific Application
Course Design	Align assignments with Bloom's taxonomy and real-world sport or health scenarios.	Use case studies on athlete development, injury prevention, or coaching decisions.
	Integrate peer-led activities and group projects.	Simulate team-based environments common in sport and exercise settings.
	Offer flexible learning pathways and clear timelines.	Accommodate students balancing coursework with coaching, training, or athletic travel.
Technology Integration	Use LMS tools to embed quizzes, clickable segments, and decision-making scenarios in videos.	Create interactive modules on exercise prescription, biomechanics, or sport psychology.

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	Keep videos short (6–10 minutes) with instructor presence.	Ideal for students with fragmented schedules due to assistantships or athletic commitments.
	Use accessible platforms (e.g., Canvas Studio, Edpuzzle).	No need for specialized tools like Kinect; focus on scalable, low-barrier tech.
Course Length	Use condensed formats for theory-heavy courses.	Apply to topics like sport ethics, motor learning, or sport psychology.
	Emphasize instructor availability and peer interaction in short courses.	Use live chats and discussion boards to maintain engagement in intensive formats.
Cognitive Engagement	Design assignments that require integration, defense, and critical evaluation.	Ask students to critique training plans, defend coaching strategies, or analyze sport performance.
	Include group discussions and peer feedback.	Encourage debate on controversial topics (e.g., doping, gender equity in sport).
	Offer modality options (e.g., video vs. reading).	Support diverse learners, including those with different sport schedules or learning preferences.
Student Support	Provide mandatory virtual orientations with tech, time	Prepare students for balancing online learning with sport-related roles.

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	management, and academic expectations.	
	Offer financial aid advising tailored to online and non-traditional students.	Address stressors common among graduate assistants and part-time coaches.
	Link coursework to certifications (e.g., CSCS, CMPC, ACSM).	Reinforce career relevance and motivate persistence through credential alignment.
	Connect students with professional organizations and alums mentors.	Build community and career networks in fields like coaching, athletic training, and sport psychology.
Faculty Involvement	Train faculty in online pedagogy and experiential learning strategies.	Emphasize video demos, virtual labs, and student-recorded assessments for skill-based content.
	Encourage creative adaptations for hands-on content.	Use home-based fitness testing, coaching simulations, or client case studies.
	Schedule virtual office hours and personalized outreach.	Foster connection and support for students who may feel isolated; have flexible office hours to account for atypical work hours of students in sports.

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Emotional Engagement	Use storytelling, case studies, and student-led discussions.	Let students reflect on their own athletic/coaching experiences to build relevance and motivation. Consider bringing in guest speakers.