

Research-Based Sport Learning Outcomes & the AAC&U VALUE Rubrics

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By cross-mapping research-based collegiate sport learning outcomes onto the AAC&U VALUE domains, this paper establishes a model that provides shared higher-education vocabulary and aligns reported competencies with institutional assessment frameworks. Such integration enables sport participation to be systematically documented, evaluated, and communicated as a site of learning, thereby positioning sport performance courses as essential components of innovative curricular design and institutional assessment plans.

Varsity sport participation in higher education represents one of the most immersive and multifaceted learning environments available to students. Beyond the physical skills honed through training and competition, student-athletes cultivate a breadth of cognitive, interpersonal, and intrapersonal competencies with direct relevance to their academic, professional, and civic lives. These experiences, shaped by the guidance of coaches, the dynamics of teams, and the demands of high-level performance, offer rich opportunities for intentional learning design. Within this environment, student-athletes are not only practicing technical and tactical skills, but also engaging in cycles of reflection, adaptation, and feedback that mirror the processes of experiential learning education (Kolb, 1986). The lessons learned in practices and competitions, such as leadership, ethical decision-making, intercultural competence, and resilience, extend far beyond the playing field, transferring into academic, professional, and civic contexts. Yet, despite decades of scholarship affirming the developmental potential of collegiate sport (Bonfiglio, 2018; Chalfin et al., 2015; Harry, 2023; Harry & Weight, 2019; Plunkett et al., 2016; Weight & Lee, 2019), these learning processes remain largely unmeasured in higher education, highlighting the need for policy and curricular frameworks that can systematically document, align, and assess the learning outcomes of collegiate sport participation.

Learning outcomes serve as a critical foundation for curriculum development, assessment, and credentialing. They articulate the knowledge, skills, and dispositions students are expected to acquire and enable institutions to align educational experiences with broader mission and accreditation standards. In higher education, learning outcomes are often informed by established assessment frameworks, providing a common language across courses and disciplines using criteria and benchmarks. Frameworks such as the Association of American Colleges & Universities' (AAC&U) VALUE Rubrics are widely recognized as a standard for articulating and assessing broad, transferable outcomes in the academic curriculum and enable

colleges and universities to measure essential outcomes in ways that are both rigorous and contextually meaningful (AAC&U, 2010; 2016). In contrast, the articulation of learning outcomes within college sport has remained largely ad hoc, frequently folded into broader discussions of student-athlete development, transferable skills, and personal growth, but rarely formalized or systematically documented within recognized curricular structures as part of credit-bearing academic units.

This paper addresses that gap by presenting 13 research-based sport learning outcomes and demonstrating their alignment with the AAC&U VALUE rubrics, positioning varsity sport as a recognized, assessable site of academic learning. This framework is intended to guide institutions, athletic departments, and accrediting bodies toward a shared language for the educational value of collegiate sport, bridging the historical divide between athletic participation and academic recognition. Such an approach provides a pathway to integrate athletics into formal curricular design, providing faculty and academic administrators with evidence of measurable learning, and positions athletic departments as co-educators in the broader mission of higher education.

Research-Based Sport Learning Outcomes

A growing body of research documents the competencies that are fostered through college sport participation. These learning outcomes, examples of sport-based learning contexts, and a few key studies from which these competencies were derived are included below in Table 1.

While these college sport participation learning outcomes are well-documented in literature and cultural rhetoric, they have not been integrated into the educational infrastructure of higher education, and they have not been discussed utilizing the structured outcome language common to academic curricula. This lack of formal alignment poses challenges for integrating sport performance courses into accredited academic programs or for establishing credentialing pathways for coach-professors. The learning that occurs through sport participation is seldom incorporated into institutional assessment systems that track and report student learning outcomes. Without a framework for mapping this learning to academic program goals, opportunities to connect athletic participation to the broader educational mission are missed, limiting the ability to design, deliver, and evaluate sport learning experiences with the same rigor and intentionality applied to traditional academic courses. Bridging this gap requires a framework that translates the implicit learning of sport into the explicit language of higher education assessment.

Table 1. Research-Based Participation in Intercollegiate Athletics Learning Outcomes

Competency Area	Research-Based Sport Learning Outcomes	Example Learning Contexts	Supporting References
Intrapersonal Development	1. Resilience	Bouncing back from mistakes or injuries; Staying engaged during slumps; Responding to feedback	E&Y (2017)Weight et al. (2018); Weight et al. (2022)
	2. Emotional Intelligence	Using focus routines; Managing emotions after tough calls; Supporting teammates	Goffena & Horn (2021); Nash & Collins (2006); Weight et al. (2022)
	3. Reflective Learning	Film self-study; Goal setting; Seeking feedback; Journaling growth	Harry (2023); Rettig & Hu (2016)
	4. Time Management	Balancing travel with coursework and training; Scheduling sleep, training, and recovery for performance	Comeaux et al. (2011); Harry (2023)
Interpersonal Collaboration	5. Leadership & Teamwork	Captaining units and setting team standards; Organizing huddles or team meetings; Mentoring rookies	Amornsiripanitch (2023); Huntrods et al. (2017); Weight et al. (2022)
	6. Ethical Reasoning	Modeling fair play; Addressing inappropriate behavior	Arnold (1992); Simon et al. (2015)
	7. Cultural competence	Navigating diverse team cultures; Building trust; Mediating conflicts	Hirko (2009); Huntrods et al. (2017)
	8. Communication	Calling sets; Using sideline signals; addressing the media and fans	Gayles & Hu (2009); Raunig & Coggins (2018)
Strategy, Analytics & Innovation	9. Strategic Data-Based Decision Making	Adjusting coverages; Opponent scouting and planning using data analytics; Substitution patterns based on performance metrics	Greene et al. (2023); Matz (2020)
	10. Problem Solving & Innovation	Creating new drills; Designing set plays; Adapting with limited resources	Greene et al. (2023); Nash & Collins (2006)
Human Performance & Well-Being	11. Health & Physiology	Applying recovery principles; Managing training loads; Interpreting performance data	DeFreese et al. (2021); Weight et al. (2016)
	12. Sport-Specific Skills	Mastery of technical skills (e.g., shooting form, sprint starts); Executing tactical systems with precision	Matz (2020, 2022)
	13. Physical Conditioning	Building strength, endurance, agility, speed; Following programs; Tracking fitness progress	Matz (2020, 2022); Weight et al. (2016)

AAC&U VALUE Rubrics

The Association of American Colleges & Universities (AAC&U) developed the Valid Assessment of Learning in Undergraduate Education (VALUE) rubrics to provide a shared set of criteria for assessing essential learning outcomes across disciplines. Each of the 16 VALUE domains—ranging from *Critical Thinking* and *Teamwork* to *Ethical Reasoning* and *Integrative Learning*—has three core parts:

1. Domain Definition: Describes the overall learning outcome for each essential learning outcome domain (e.g. *Teamwork is behaviors under the control of individual team members that facilitate their team members' ability to contribute to the team's work*).
2. Dimensions (Criteria to measure): The rows of the rubric, which specify the key subskills or competencies that make up the learning outcome (e.g. *Contributes to team meetings, fosters constructive climate, responds to conflict*).
3. Performance Levels: The columns of the rubric which provide developmental descriptors for how performance progresses over time (measured on a 4-point scale).

An example of the Teamwork VALUE rubric is presented in Appendix A.

Developed through a national faculty-led initiative, these VALUE rubrics provide a shared structure for articulating and assessing broad, transferable learning outcomes across disciplines. They were designed to create a common language for complex skills, support authentic assessment of student work, and give institutions a reliable tool for evaluating achievement in areas such as critical thinking, teamwork, ethical reasoning, communication, and integrative learning (AAC&U, 2010). By emphasizing faculty expectations and real student products rather than standardized tests, these VALUE rubrics offer a structured, evidence-based vocabulary for articulating and assessing the outcomes that sport participation can foster, enabling alignment with institutional accreditation standards and curricular expectations. Each of the implicit learning outcomes cited from sport participation can then be paired with one or more associated value rubrics to lead the development and assessment of sport-centric curriculum.

Table 2 below outlines the 13 implicit learning outcomes with explicit VALUE domains and associated framing language.

Table 2: Sport Learning Outcomes with Relevant AAC&U VALUE Domain Rubrics & Select VALUE Dimensions (Criteria to Measure within the Rubrics)

Sport Learning Outcome	Associated VALUE Rubric(s)	Key VALUE Dimensions (Criteria)
1. Resilience	Foundations & Skills for Lifelong Learning	- Embraces setbacks as learning opportunities - Persists through challenges to complete goals - Adapts strategies for improvement
2. Emotional Intelligence	- Foundations & Skills for Lifelong Learning - Integrative Learning	- Sets and pursues self-directed goals - Manages emotions constructively - Reflects on learning to improve personal regulation
3. Reflective Learning	- Foundations & Skills for Lifelong Learning - Integrative Learning	- Evaluates personal strengths/weaknesses - Seeks and uses feedback - Connects learning across contexts
4. Time Management	- Foundations & Skills for Lifelong Learning - Problem Solving	- Balances competing priorities - Plans effectively over short/long term - Allocates resources strategically
5. Leadership & Teamwork	- Teamwork - Civic Engagement; - Ethical Reasoning	- Contributes to team climate - Integrates diverse viewpoints - Connects personal actions to civic responsibility
6. Ethical Reasoning	Ethical Reasoning	- Recognizes ethical issues in complex contexts - Applies ethical theories to decision-making - Considers diverse perspectives in ethical judgments
7. Cultural Competence	- Intercultural Knowledge & Competence - Teamwork	- Demonstrates cultural self-awareness - Engages respectfully across differences - Works collaboratively with diverse groups
8. Communication	Oral Communication	- Organizes and expresses ideas effectively - Adapts communication for audience/context - Uses appropriate vocabulary and non-verbal cues
9. Strategic Data-Based Decision-Making	- Inquiry & Analysis - Problem Solving; - Critical Thinking - Quantitative Literacy	- Identifies and frames complex problems - Applies evidence-based strategies - Evaluates multiple approaches to challenges
10. Problem Solving & Innovation	- Problem Solving; - Creative Thinking	- Generates innovative solutions - Designs and tests approaches - Adapts strategies to changing conditions
11. Health & Physiology	- Inquiry & Analysis; - Quantitative Literacy	- Applies scientific evidence to performance - Interprets physiological/health data - Engages in evidence-based practice
12. Sport-Specific Skills	- Inquiry & Analysis; - Integrative Learning	- Develops technical mastery - Integrates theory and practice - Applies feedback to improve performance

13. Physical Conditioning	• Foundations & Skills for Lifelong Learning; • Quantitative Literacy	• Establishes health and fitness goals • Monitors progress with data/metrics • Applies principles of training & conditioning science
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Conclusion

By cross-mapping research-based collegiate sport learning outcomes onto the AAC&U VALUE domains, this paper establishes a model that provides a shared higher-education vocabulary and aligns reported competencies with institutional assessment frameworks. Such integration enables sport participation to be systematically documented, evaluated, and communicated as a site of learning, thereby positioning sport performance courses as essential components of innovative curricular design and institutional assessment plans.

This approach has broad implications for higher education. Mapping sport learning outcomes to established VALUE rubrics legitimizes sport performance courses as meeting widely accepted standards of learning, strengthening the case for academic credit and aligning with national calls to recognize applied and experiential learning as central to undergraduate education (AAC&U, 2016). In addition, this framework invites collaboration between faculty and coaches as co-educators, combining academic rigor, assessment expertise, and curricular alignment, with domain-specific knowledge and insight into the lived realities of student-athletes. Together, they can ensure that the outcomes of sport participation are designed, measured, and communicated with the same intentionality as classroom-based learning. This model positions athletics as strategic partner in achieving the academic program goals, and provides a pathway to strengthen the relationship between two historically distinct units. In this model, collegiate sport is not simply extracurricular but a recognized, credit-bearing domain of inquiry that develops graduates as skilled performers, reflective learners, and engaged citizens (Weight et al., 2022; Weight et al., 2024).

References

Amornsiripanitch, N., Gompers, P., Hu, G., Levinson, W., & Mukharlyamov, V. (2023). *No revenge for nerds? Evaluating the careers of Ivy League athletes* (No. w31753). National Bureau of Economic Research.

Arnold, P. J. (1992). Sport as a valued human practice: A basis for the consideration of some moral issues in sport. *Journal of Philosophy of Education*, 26(2), 237–255.

Association of American Colleges & Universities. (2010). VALUE rubrics. AAC&U.

Association of American Colleges & Universities. (2016). High-impact practices and student learning outcomes. AAC&U.

- Chalfin, P., Weight, E. A., Osborne, B., & Johnson, S. (2015). The value of intercollegiate athletics to university employers. *Journal of Issues in Intercollegiate Athletics*, 8, 1–27.
- Comeaux, E., Speer, L., Taustine, M., & Harrison, C. K. (2011). Purposeful engagement of first-year Division I student-athletes. *Journal of The First-Year Experience & Students in Transition*, 23(1), 35–52.
- DeFreese, J. D., Weight, E. A., Kerr, Z., & Kroshus, E. (2021). Health and well-being measures of collegiate athlete and non-athlete graduates. *Journal of Intercollegiate Sport*, 14(1), 26–45. <https://doi.org/10.17161/jis.v14i1.13498>
- Ernst & Young. (2017). *Why female athletes make winning entrepreneurs*. Retrieved from: <https://www.ey.com/content/dam/ey-unified-site/ey-com/ja-jp/campaigns/entrepreneurial-winning-women/documents/ey-why-female-athletes-make-winning-entrepreneurs.pdf>
- Gayles, J. G., & Hu, S. (2009). The influence of student engagement and sport participation on college outcomes. *The Journal of Higher Education*, 80(3), 315–333.
- Greene, D., Beard, N., Clegg, T., & Weight, E. (2023). The visible body and the invisible organization: Information asymmetry and college athletics data. *Big Data & Society*, 10(1), 1–12.
- Harry, M. (2023). Athletics is education: Chickering and Gamson’s Seven Principles applied to intercollegiate athletics. *Journal of Higher Education and Athletics Innovation*, 1(10), 68–89.
- Harry, M., & Weight, E. A. (2019). Education through athletics: Interest in an athletics performance curriculum. *Journal of Applied Sport Management*, 11(4), 15–28.
- Hirko, S. (2009). Intercollegiate athletics and modeling multiculturalism. *New Directions for Higher Education*, 2009(148), 91–100.
- Huntrods, C. S., An, B. P., & Pascarella, E. T. (2017). Impact of intercollegiate athletic participation on leadership development. *Journal of College Student Development*, 58(2), 198–214.
- Matz, L. (2020). Turning intercollegiate athletics into a performance major like music. *Journal of the Philosophy of Sport*, 47(2), 283–300.
- Matz, L. (2022). Sports Major: Competitive performance as a liberal art. *Liberal Education*. Association of American Colleges & Universities.

- Nash, C., & Collins, D. (2006). Tacit knowledge in expert coaching: Science or art? *Quest*, 58(4), 465–477.
- Plunkett, S. W., Weight, E. A., Osborne, B., & Lancaster, E. (2016). The value of intercollegiate athletics participation from the perspective of former athletes. *International Journal of Sport Management*, 17, 1–12.
- Raunig, T. A., & Coggins, P. E. (2018). What intercollegiate athletics coaches wish faculty knew. *Journal of Curriculum and Teaching*, 7(1), 111–124.
- Rettig, J., & Hu, S. (2016). College sport participation and student educational experiences and selected college outcomes. *Journal of College Student Development*, 57(4), 428–446.
- Simon, R., Torres, C., & Hager, P. (2015). *Fair play: The ethics of sport*. Westview Press.
- Weight, E. A., DeFreese, J. D., Bonfiglio, A., Kerr, Z., & Osborne, B. (2018). Occupational measures of former NCAA athletes and traditional students. *International Journal of Sport Management*, 19(2), 1–26.
- Weight, E. A., Haroldson, J. M., Harry, M., & Rudd, E. (2024). Adversity and resiliency: Athlete experiences within US college sport. *Journal of Intercollegiate Sport*, 17(3).
- Weight, E. A., Smith, A. B., & Rubin, L. M. (2022). The athlete advantage: Human capital resource emergence through sport. *Journal of Issues in Intercollegiate Athletics*, 15(1), 442–458.

Appendix A:



TEAMWORK VALUE RUBRIC

For more information, please contact value@aacu.org



Evaluators are encouraged to assign a zero to any work sample or collection of work that does not meet benchmark (cell one) level performance.

	Capstone 4	Milestones 3 2		Benchmark 1
Contributes to Team Meetings	Helps the team move forward by articulating the merits of alternative ideas or proposals.	Offers alternative solutions or courses of action that build on the ideas of others.	Offers new suggestions to advance the work of the group.	Shares ideas but does not advance the work of the group.
Facilitates the Contributions of Team Members	Engages team members in ways that facilitate their contributions to meetings by both constructively building upon or synthesizing the contributions of others as well as noticing when someone is not participating and inviting them to engage.	Engages team members in ways that facilitate their contributions to meetings by constructively building upon or synthesizing the contributions of others.	Engages team members in ways that facilitate their contributions to meetings by restating the views of other team members and/or asking questions for clarification.	Engages team members by taking turns and listening to others without interrupting.
Individual Contributions Outside of Team Meetings	Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project. Proactively helps other team members complete their assigned tasks to a similar level of excellence.	Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project.	Completes all assigned tasks by deadline; work accomplished advances the project.	Completes all assigned tasks by deadline.
Fosters Constructive Team Climate	Supports a constructive team climate by doing all of the following: - Treats team members respectfully by being polite and constructive in communication. - Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. - Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. - Provides assistance and/or encouragement to team members.	Supports a constructive team climate by doing any three of the following: - Treats team members respectfully by being polite and constructive in communication. - Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. - Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. - Provides assistance and/or encouragement to team members.	Supports a constructive team climate by doing any two of the following: - Treats team members respectfully by being polite and constructive in communication. - Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. - Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. - Provides assistance and/or encouragement to team members.	Supports a constructive team climate by doing any one of the following: - Treats team members respectfully by being polite and constructive in communication. - Uses positive vocal or written tone, facial expressions, and/or body language to convey a positive attitude about the team and its work. - Motivates teammates by expressing confidence about the importance of the task and the team's ability to accomplish it. - Provides assistance and/or encouragement to team members.
Responds to Conflict	Addresses destructive conflict directly and constructively, helping to manage/resolve it in a way that strengthens overall team cohesiveness and future effectiveness.	Identifies and acknowledges conflict and stays engaged with it.	Redirecting focus toward common ground, toward task at hand (away from conflict).	Passively accepts alternate viewpoints/ideas/opinions.