

KIN 572 Research Methods in Sports Coaching

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Office Hours: I am available to meet with students in person or online by appointment.

Course Description

This course examines current issues within coaching science research. The goal of the course is to develop coaching students' research literacy skills to assist them in establishing best coaching and leadership practices. Students should develop a comprehensive understanding of (a) the strengths and limitations of quantitative, qualitative, and mixed methods research designs; (b) interpretation of basic statistics; (c) how to critically evaluate scientific literature; and (d) how to synthesize and communicate research in written and verbal forms.

Rationale

The focus of this course is to develop the **research literacy** skills of coaches and technical leaders. The ability to critically evaluate research is essential to fostering innovative and evidence-based coaching and leadership practices. Critical evaluation of sport science research necessitates an understanding of research design and methods (quantitative, qualitative, and mixed methods designs). Furthermore, an understanding of how to interpret basic statistical analyses is essential for reading and critically evaluating quantitative sport research.

Aims and Outcomes

The overarching aim of this course is for high performance coaches and technical leaders to develop research literacy skills to foster evidence-based practice in their roles as sport coaches/leaders.

By the end of this course, students will be able to:

- Identify different types of quantitative, qualitative, and mixed methods research designs used within sports coaching
- Evaluate the strengths and limitations of quantitative, qualitative, and mixed-methods research designs
- Apply knowledge of research designs to critically assess sports coaching research articles
- Understand the role of theory in coaching science research
- Understand the application and interpretation of basic statistics in sports coaching
- Use JASP (statistical software) to organize data and analyze and interpret basic statistics
- Read and interpret tables and figures within scientific research articles
- Identify ethical issues involved in coaching science research
- Synthesize and communicate research findings and their application in verbal and written form

Class Format:

KIN 572 is a 3 credit course that will be delivered over 2 semesters (August 2017-April 2018).

The course content is delivered in 3 formats:

- Four face-to-face meetings at the beginning of the course (check the calendar for date/time (PST)/location).
- Synchronous online meetings via Collaborate (check the calendar for date/time)
- Asynchronous self-paced readings, videos, and learning activities

The four face-to-face sessions focus on establishing foundational research methods concepts that pertain to sports science and coaching research. Students enrolled in the Masters in High Performance Coaching and Technical Leadership (MHPC&TL) program will attend four face-to-face classes during the residential component of their program. Students enrolled in the Masters in Kinesiology (MKIN) program are strongly encouraged to attend the residential component with the MHPC&TL students, however will have the option of attending four face-to-face classes during the first two weeks of the semester.

Synchronous class time will be centered on discussion of class concepts and critical evaluation of coaching science literature. Students will be encouraged to reflect upon their own coaching practices in relation to sports science and coaching research.

The online asynchronous self-paced activities include course content, journal articles, recorded videos, self-assessment questions, and completion of workshop assignments to immediately apply course concepts. In the asynchronous portion, you will be posting an online presentation that will be reviewed by at least three peers and you will provide feedback to three peers.

Requirements and Expectations

Prerequisites

KIN 515 (Gap Analysis) or KIN 373 (Research Methods in Kinesiology or equivalent) or KIN 371 (Introduction to Statistics in Kinesiology or equivalent)

Course Expectations

You are expected to attend face-to-face sessions (Modules 1-3), synchronous online meetings (see dates in calendar), and follow the online modules (4-10) to complete the course requirements. Online modules (4-10) will be more time intensive, as students will have longer to complete each of these modules. Students will be expected to contribute to group discussions and complete assignments by the stated completion date.

The expected weekly time commitment is 10-12 hours to complete the readings and learning activities.

This course requires you to have access to:

1. Reliable high-speed internet connection. During the synchronous online meetings, you will also need to have a microphone/headset and a webcam.
2. A computer that runs Java, which is required to run Blackboard Collaborate. You will be using Collaborate to participate in real-time web conference sessions, to record your online presentation, and to watch recorded sessions. Check the Java system requirements page for more details: <http://java.com/en/download/help/sysreq.xml>.
3. JASP (statistical analysis software). Students will be required to download (free to download and use) and have access to JASP. Download the latest version of JASP here: <https://jasp-stats.org/download/>
4. Microsoft Excel. Students will be required to open a data file that was created in Microsoft Excel.

Contacting Your Instructor

Students are always welcome to contact the instructor via email. Students may also wish to set up an appointment with the instructor if they have any questions or concerns about the course. The instructor is available for face-to-face or online meetings by appointment.

Academic Accommodation for Students with Disabilities

The University's goal is to ensure fair and consistent treatment of all students, including students with a disability, in accordance with their distinct needs and in a manner consistent with academic principles. Students with a disability who wish to have an academic accommodation should contact Access and Diversity without delay.

Inclusivity

Education is a multidisciplinary field that brings together faculty, students and others from diverse academic and personal backgrounds. UBC's Faculty of Education is committed to creating a respectful workplace and learning environment that supports inclusion based on the principles of equity, diversity and social justice in order to create an environment that supports its community members' full participation. The Faculty of Education is committed to providing accessible, usable, and welcoming spaces for faculty, staff, students, and visitors who have disabilities, are members of racialized communities, Indigenous, transgender, two-spirit and gender-diverse people, regardless of their age, sexual orientation, social status, religion, ethno-linguistic, nationality and/or citizenship status.

Faculty of Education courses take place in learning environments that are inclusive of gender identity, gender expression, sex, race, ethnicity, class, sexual orientation, ability, age, etc. Learners and educators expect to be treated respectfully at all times and in all interactions. Non-sexist, non-racist, non-homophobic, non-transphobic and non-heterosexist language is expected in Faculty of Education classes, course content, discussions and assignments.

Please feel welcome to e-mail your instructor your name and pronoun and how you would like these to be used.

Academic Integrity

All UBC students are expected to behave as honest and responsible members of an academic community. Breach of those expectations or failure to follow the appropriate policies, principles, rules, and guidelines of the University with respect to academic honesty may result in disciplinary action. It is your responsibility to become familiar with the University of British Columbia's Academic Honesty and Plagiarism Policies, as well as the Student Declaration and the consequences of violating these policies.

Students are responsible for submitting original work and accurately citing (referencing) the work of others within assignments. All submitted assignments become the property of the University of British Columbia and electronic copies of submitted assignments will be stored and used to check against future, present, or past cases of academic misconduct.

Readings and Resources

All course readings can be accessed through the "Library Course Reserves" link located on the course menu.

Course Reading

Academic articles and book chapters will be posted on Connect and will be used to supplement synchronous and asynchronous learning, demonstrate the application of course concepts, and facilitate class discussion and workshop assignments. Please refer to the list within each course module for required readings.

Additional Course Resources

A list of academic articles, book chapters, and/or books that correspond to the content contained within each module will be provided as additional resources. These readings are optional and will advance your knowledge of topics discussed within the course and assist you in KIN 530 and KIN 596. Please refer to the list within each course module for optional additional course resources.

Evaluation

Assessment 1

Format

Details

Due Date

Weighting

Learning Outcomes

Tri-council Policy Statement 2 Tutorial

Online research ethics tutorial

Students will be required to complete the online research ethics tutorial

December 14, 2017

5%

To identify ethical issues involved in coaching science research

Assessment 2

Format

Details

Due Dates

Weighting

Learning Outcomes

Workshop Assignments (WA)

Written responses to applied questions

Students will complete 4 workshop assignments throughout the term. The first (Modules 1, 2, and 3) and fourth (Modules 9 and 10) workshop assignments are each worth 15% of the student's final grade and the second (Modules 4 and 5) and third (Modules 6, 7, and 8) workshop assignments are each worth 10% of the student's final grade (total = 50%). The workshop assignments are designed to reflect the application of course concepts introduced in face-to-face, synchronous, and asynchronous learning contexts. For example, students will have an opportunity to learn how to use JASP to analyze and interpret statistical output. Upon learning this information, students will be asked to apply their knowledge by conducting a statistical analysis in JASP and answer questions to facilitate their interpretation of the data.

September 25, 2017, October 30, 2017, December 7, 2017, March 8, 2018

WA1 (15%) + WA2 (10%) + WA3 (10%) + WA4 (15%) = 50% Total

To apply research methods concepts and expand research literacy skills through a series of guided tasks

Assessment 3

Format

Details

Final Project: A Critical Analysis of Coaching Science Literature

Presentation and paper

Part A: Summarizing and evaluating research

Students will chose a topic related to coaching science that is of interest to them. They will be required to search for and acquire a minimum of five peer reviewed original research articles related to their chosen topic. Students should summarize each of the five articles. Summaries

should include a) the purpose of the study; b) hypotheses (if applicable); c) a brief summary of the methods; d) a discussion of the strengths and limitations of the methods used; e) identification and interpretation of the findings that reflect the identified methodological strengths and limitations; and f) the implications of the study. Students should primarily focus on the critical examination of the methods and results section of the paper. The discussion of the strengths and limitations of the research papers should go beyond what is stated in the discussion sections of the papers themselves and demonstrate the student's knowledge of course content. Each article summary should be no more than 2.5 pages.

Part B: Synthesizing and applying research

In 2.5 pages, students will be required to synthesize all five articles and by doing so address the following questions: a) What can we say about the topic based on these five articles?; b) What do we **not** know about this topic based on these five articles?; c) What conclusions can we make about this particular topic? Finally, students will be required to describe how they would integrate their knowledge of the topic into their coaching practice based on their critique and synthesis of the research findings.

Part C: Communicating findings

Communication of Part A and Part B will take two forms:

1. The presentation (10% total)
 - a. Students will be required to record a 10-minute PowerPoint presentation that communicates Part B of the assignment (10%). Students will use Blackboard Collaborate to record their presentation. Students should assume that they are giving a 10 minute seminar to other coaches about findings on their topic (highlighting the strengths and limitations of the research on their topic) and the application to coaching practice. Students' presentations will be recorded and submitted 14 days in advance of the final paper due date. The presentation will be graded by the instructor. Review information on this page to familiarize yourself with Blackboard Collaborate <http://ets.educ.ubc.ca/resources/learning-technologies/getting-started-with-collaborate/collaborate-presenter/>.
 - b. Students will be required to provide feedback on three of their peers' presentations, as well as receive feedback on their own presentation from three of their peers. Students will be placed into groups of 4 for this portion of the assignment. Students will be assessed on their ability to reflect on the feedback they received from their peers by critically appraising the feedback and the integration of appropriate feedback into their final paper (see final paper marking rubric for details). This component will be graded by the instructor at the time of the paper submission. You must complete the presentation by Monday, March 26, 2018.
2. The paper (25%)
 - a. Students will be required to write Part A and Part B in a paper form as outlined in both of the sections above. Students should

complete their assignment in accordance with APA 6th edition style guidelines. For more information please refer to <http://wiki.ubc.ca/images/6/6f/Apastyle.pdf>. *The Publication Manual of the American Psychological Association* 6th edition is also available through the UBC library. You must complete the paper by Monday, April 9th, 2018.

- b. Complete the "Peer Feedback Form" and reflect the feedback you received from three of your peers on your presentation. Attach this completed form to the final paper submission.

Due Date March 26, 2018 (presentation), April 9, 2018 (paper)
Weighting 10% (presentation) + 25% (paper) = 35% Total
Learning Outcomes To identify and critically examine the research methods used to address a research question; To accurately interpret results; To identify and communicate the strengths and limitations of research studies; To synthesize research findings and draw conclusions about a topic; To communicate research findings; To identify how research findings may be integrated into their coaching or leadership practice.

Assessment 4

In Class Participation

Format Synchronous team discussion
Details Students will receive marks for answering questions and engaging in discussion during synchronous class time (online and face-to-face). Students may receive up to a maximum of 10% (1% per module) for their contributions to class discussion. If students are unable to attend a scheduled synchronous class but wish to receive participation credit then they must a) contact the instructor in advance of the class and b) watch the recorded synchronous class and submit a response to the questions posed in class on the corresponding discussion board for the module.
Due Date All scheduled synchronous classes
Weighting 10%
Learning Outcomes To critically appraise and debate the strengths and limitations of different research approaches; To be able to discuss the link between methodologies, methods, findings, and applications of a research study.

Grading

Assessment	%	Due Date
Tri-council Policy Statement 2 (TCPS 2) Tutorial	5%	December 14, 2017
Workshop Assignments	50%	A1 (15%): September 25, 2017 A2 (10%): October 30, 2017 A3 (10%): December 7, 2017 A4 (15%): March 8, 2018
Final Project: A Critical Analysis of Coaching Science	10% +	Presentation (10%): March

Literature	25%	26, 2018 Paper (25%): April 9, 2018
In Class Participation	10%	All scheduled synchronous classes

Assignment Due Date Policy

All extensions, rescheduling, or other concessions are at the discretion of the instructor. If you miss a due date because of an emergency, you must contact your instructor as soon as possible. If you do not contact your instructor, your assignment will be considered late. Late assignments will be deducted at a rate of 10% per day. Deductions will commence from the date and time the assignment is due, and will accumulate for each subsequent 24-hour period, including weekends. Assignments are not accepted after 6 days past the deadline.

Dates	Theme	Readings	Activities
Unit 1: Research Design: Qualitative, Quantitative, and Mixed Methods			
<p>Face-to-face HPC & TL: Aug. 30 1:30pm-5pm & Aug. 31 9:00am-12:30pm</p> <p>MKIN: Sept. 5 9:00am- 12:30pm & Sept. 7 9am-12:30pm</p>	<p>Module 1: Research Approaches in Coaching and Leadership Science</p>	<p>Cope, E., Harvey, S., & Kirk, D. (2015). Reflections on using visual research methods in sports coaching. <i>Qualitative Research in Sport, Exercise and Health</i>, 7, 88-108. doi: 10.1080/2159676X.2013.877959</p> <p>Sebbens, J., Hassmén, P., Crisp, D., & Wensley, K. (2016). Mental health in sport (MHS): Improving the early intervention knowledge and confidence of elite sport staff. <i>Frontiers in Psychology</i>, 7. doi: 10.3389/fpsyg.2016.00911</p>	<p>Complete readings and read the online module overview prior to face-to-face class</p>
<p>Face-to-face HPC & TL: Aug. 31 9:00am-12:30pm & 1:30-5:00pm</p> <p>MKIN: Sept 7 9:00am- 12:30pm & Sept 12 9:00am-12:30pm</p>	<p>Module 2: Foundations and Evaluation of Quantitative Research</p>	<p>Sebbens, J., Hassmén, P., Crisp, D., & Wensley, K. (2016). Mental health in sport (MHS): Improving the early intervention knowledge and confidence of elite sport staff. <i>Frontiers in Psychology</i>, 7. doi: 10.3389/fpsyg.2016.00911</p>	<p>Complete readings and read the online module overview prior to face-to-face class</p>
<p>Face-to-face HPC & TL: Sept. 1 9:00am-12:30pm</p> <p>MKIN: Sept. 14 9:00am-12:30pm</p>	<p>Module 3: Quantitative Research Design</p>	<p>Sebbens, J., Hassmén, P., Crisp, D., & Wensley, K. (2016). Mental health in sport (MHS): Improving the early intervention knowledge and confidence of elite sport staff. <i>Frontiers in Psychology</i>, 7. doi: 10.3389/fpsyg.2016.00911</p>	<p>Complete readings and read the online module overview prior to face-to-face class</p>
<p>Online Asynchronous Learning Oct. 16-22</p> <p>Online Synchronous Class Oct. 19 5:00-6:30pm (PT)</p>	<p>Module 4: Qualitative Research Design and Evaluation</p>	<p>Ryan, F., Coughlan, M., & Cronin, P. (2007). Step-by-step guide to critiquing research. Part 2: Qualitative research. <i>British Journal of Nursing</i>, 16, 738-744.</p> <p>Sparkes, A. C., & Smith, B. (2014). Traditions in qualitative research. In <i>Author</i> (Eds.), <i>Qualitative research methods in sport, exercise, and health: From process to product</i> (pp. 33-59). New York: Routledge.</p> <p>Thelwell, R. C., Wagstaff, C. R., Rayner, A., Chapman, M., & Barker, J. (2017). Exploring athletes' perceptions of coach stress in elite sport environments. <i>Journal</i></p>	<p>Complete readings and online module prior to synchronous class</p>

Dates	Theme	Readings	Activities
		<p><i>of Sports Sciences</i>, 35(1), 44-55. doi: 10.1080/02640414.2016.1154979</p>	
<p>Online Asynchronous Learning Oct. 23-Nov. 5</p> <p>Online Synchronous Class Oct. 26 5:00-6:30pm (PT)</p>	<p>Module 5: Mixed Methods Research & Introduction to R</p>	<p>Morley, D., McKenna, J., Gilbert, S., French, J., Till, K., Quarmby, T., & Turner, G. (2017). Can't pay, can't play? Talent lead's perspectives on the financial constraints experienced by athletes on the England Talent Pathway. <i>High Ability Studies</i>. doi: 10.1080/13598139.2017.1341489.</p> <p>Wagstaff, C. R. D., Hanton, S., & Fletcher, D. (2013). Developing emotion abilities and regulation strategies in a sport organization: An action research intervention. <i>Psychology of Sport and Exercise</i>, 14, 476-487.</p>	<p>Complete readings and online module prior to synchronous class</p>
Unit 2: Statistical Foundations			
<p>Online Asynchronous Learning Nov. 6 – Nov. 12</p> <p>Online Synchronous Class 5:00-6:30pm (PT)</p>	<p>Module 6: Statistical Foundations: Descriptive Statistics</p>	<p>Lorains, M., Ball, K., & MacMahon, C. (2013). An above real time training intervention for sport decision making. <i>Psychology of Sport and Exercise</i>, 14, 670-674.</p>	<p>Complete readings and online module prior to synchronous class</p>
<p>Online Asynchronous Learning Nov. 13 – Nov. 19</p> <p>Online Synchronous Class Nov. 16 5:00-6:30pm (PT)</p>	<p>Module 7: Statistical Foundations: Inferential Statistics</p>	<p>Lorains, M., Ball, K., & MacMahon, C. (2013). An above real time training intervention for sport decision making. <i>Psychology of Sport and Exercise</i>, 14, 670-674.</p> <p>Erickson, K., & Côté, J. (2016). A season-long examination of the intervention tone of coach-athlete interactions and athlete development in youth sport. <i>Psychology of Sport and Exercise</i>, 22, 264-272.</p>	<p>Complete readings and online module prior to synchronous class</p>
<p>Online Asynchronous Learning Nov. 20 - 26</p> <p>Online Synchronous</p>	<p>Module 8: Examining Relationships</p>	<p>Matosic, D., Ntoumanis, N., Boardley, I. D., Sedikides, C., Stewart, B. D., & Chatzisarantis, N. (2015). Narcissism and coach interpersonal style: A self-determination theory perspective. <i>Scandinavian Journal of</i></p>	<p>Complete readings and online module prior to synchronous class</p>

Dates	Theme	Readings	Activities
Class Nov. 23 5:00-6:30pm (PT)		<i>Medicine and Science in Sports</i> . doi: 10.1111/sms.12635.	
Online Asynchronous Learning Jan. 29 – Feb. 11 Online Synchronous Class Feb. 8 5:00-6:30pm (PT)	Module 9: Examining Group Differences Part I	Williams, J. S. & Kendall, L. (2007). Perceptions of elite coaches and sports scientists of the research needs for elite coaching practice. <i>Journal of Sports Sciences</i> , 25, 1577-1586.	Complete readings and online module prior to synchronous class
Online Asynchronous Learning Feb. 19 – March 4 Online Synchronous Class March 1 5:00-6:30pm (PT)	Module 10: Examining Group Differences Part II	Kraemer, W., J., Hooper, D. R., Kupchack, B. R., Saenz, C., Brown, L. E. et al. (2016). The effects of a roundtrip trans-American jet travel on physiological stress, neuromuscular performance, and recovery. <i>Journal of Applied Physiology</i> , 121, 438-448.	Complete readings and online module prior to synchronous class