

Assignment 3a: Proposed NCCP Cycling Coach Revision

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LRNT 524: Innovation, Design and Learning Environments

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January 2nd, 2022

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Using design thinking principles appropriately can help simplify the overwhelming instructional design process. Utilizing design principles that are empirical yet suitable for the unique task is akin to the importance of developing clear, articulate, and guiding brand and logo design for emerging organizations. This paper uses design thinking and proposes updates to the National Coaching Certification Program's (NCCP) cycling coach training using multi-modal and flexible educational methods to help sports leaders learn during these complex cultural and technological times.

Our design approach begins with a comprehensive, problem-solving-based evaluation. Design thinking *is* problem-solving at its core (Kelley, 2001; Brown & Katz, 2009). We closely examined NCCP cycling coach training materials and practices currently administrated in British Columbia through multiple exploratory discussions. We focused on three areas of investigation:

- What are the pain points for coach developers?
- What are the pain points for coaches in training?
- Which aspects of the program are currently out of scope or immovable?

Articulating the challenges individuals, communities, and organizations face during coach training (Dorst, 2015) helped our team understand the complexities of the scenario and confidently explore subsequent stages of the design thinking process. The investigation concluded that the following pain points are critical to our solution building:

- National bodies own education materials, with no allowance for editing or context building,
- Official resources are not contextually diverse, leading to low comprehension and retention of theoretical and practical learning outcomes,
- Outdoor practical components are challenging to deliver in remote areas; sport-specific delivery policies are inflexible, and
- Resources and support for coaches using home study methods are poor.

The above issues culminate in a low completion rate, with only 1% of coaches achieving certification over the past six years. Because of these pain points, our solution focuses on the following elements:

- Increasing User Focus,
- Problem Framing,
- Increasing Diversity, and
- Embracing Experimentation.

Increasing the felt user experience can help shift public perception of coach training from a hoop-jumping process to a contextually appropriate and practical experience that allows sports enthusiasts to transform into sports leaders. Designers can add context using online participant message boards where official materials are restrictive or outdated. Coaches in training can then access more relevant resources to their cycling discipline, and engage with discipline-specific experts, instead of relying only on their interpretation of official resources. Recognizing that official resources cannot be modified in the short term, adding participant message boards can optimize user experiences until official revisions take place. These informal discussions invite experienced coaches to adopt a mentorship role, encourage the use of simple language that welcomes new learners (Baker & Moukhliiss, 2020), and grant both readers and writers on the forum the autonomy to engage at a rate that appreciates cognitive load (Nielsen, 1994). Making coach training more user-focused and easier to access invites a broader frame of Canadians to explore their relationship with the sport as a community-building and self-discovery tool. Like the NCCP's guiding principles, considering, and framing all the challenges of a given situation before choosing a course of action mirrors the next component of our design solution, problem-framing.

Problem framing allows researchers (or, in this instance, instructional designers) to extrapolate and address challenges where pre-existing models or principles do not exist. Given the rapid and expansive changes and challenges present across the Canadian sport sector, limited precedents are

available to guide the introduction of eLearning, online-facilitated learning, and outreach to rural or emerging communities, including First Nations and new immigrants to Canada, respectively. Berman (2009) argues that designers can posit solutions more effectively when they 'leave their baggage at the door' and frame problems (i.e., lack of accessibility to the end-user) using insight from numerous stakeholders. With appreciation for the stability created by the NCCP's deliberate yet slow content revision cycles, its guiding constructivist principles encourage designers to role model user-focused and context-building learning experiences. Augmenting the training experience with online forums can help prospective coaches from different backgrounds, contexts, and experiences share insights and interpretations, learn from, and teach one another, and add credibility and relevance to the official documents (Hess, 2013). Limited quantitative and qualitative studies occur in the sports sector, and inadequate data collection and analysis poorly inform national and provincial coach development policies and revisions. By incorporating members of each territorial jurisdiction and allocating more time and resources to customer service and support, policymakers and instructional designers can make more informed policy and revision decisions.

Maximizing user experience despite British Columbia's vast geographical constraints requires agile and experimental solutions. In-person practice teaching components of the coach training program are challenging to organize and costly for individuals and the governing body. Historically, prospective coaches must attend a weekend module to assess their practical application of theoretical concepts. It is often financially and logistically impossible for coaches, especially north of Kamloops, to participate in these in-person events, representing a certification barrier. Having identified this as a critical barrier during our design thinking process, we suggest coaches are allowed to submit video recordings with easy-to-read instructions. By allowing coaches to demonstrate their teaching competencies close to home, learning can occur in a more relaxed and progressive fashion. Instead of rushing through two full days with multiple coaches, video submissions encourage learning through the preparation, recording,

and debrief of their video submission with a certified evaluator. Developing easy-to-read instructions and evaluative criteria makes this video option more inviting, increases the likelihood of completion, and ensures uniform evaluation standards across the evaluator cohort. To successfully implement this design solution, designers and administrators must embrace a phase of increased experimentation and continued flexibility when evaluating video submissions.

Embracing experimentation may also help optimize conversations across all modalities of coach development. For example, NCCP coach evaluators use Thiagarajan's (1992) six-question framework to guide certification debriefs. Crichton & Carter (2017) suggest evaluators use six additional guiding frames to encourage optimal feedback, like commenting on actions already taken or currently taking place, a student's strengths or domain of expertise, and their ability to use proactive thinking and metacognition. To help pattern more comprehensive debrief skills across the entire coach community, debriefs skills using both frameworks can be added to coach training modules.

Creating design solutions in complex systems requires an investigative and empathetic inquiry. Both authors acknowledge their personal experiences impact the proposed design solutions, with the humble understanding that factors outside their scope may negate the ability of coaching organizations to implement these suggestions. With great appreciation for the work of coach developers across the country, our proposed updates aim to acknowledge the world-renowned status of the NCCP and help it maintain its position as a world leader in coach education despite these cultural and technological fluid times.

References

- Baker III, F. W., & Moukhliiss, S. (2020). Concretising Design Thinking: A Content Analysis of Systematic and Extended Literature Reviews on Design Thinking and Human-Centred Design. *Review of Education, 8*(1), 305-333.
- Berman, D. B. (2009). *Do good design: How design can change our world*. New Riders.
- Brown, T. & Katz, B. (2009). *Change by design*. HarperCollins e-Books.
- Dorst, K. (2015). *Frame Innovation*. The MIT Press.
- Crichton, S. & Carter, D. (2017). *Taking Making into Classrooms Toolkit*. Open School/ITA.
- Hess, W. (2013, July 13). *20 Guiding Principles for Experience Design*. www.designprinciplesftw.com
<https://www.designprinciplesftw.com/collections/20-guiding-principles-for-experience-design>
- Kelley, T. A. (2001). *The art of innovation: Lessons in Creativity from IDEO, America's leading design firm*. Currency.
- Nielsen, J. (1994). Enhancing the explanatory power of usability heuristics. *Association for Computing Machinery, 152–158*. <https://doi.org/10.1145/191666.191729>
- Thiagarajan, S. (1992). Using Games for Debriefing. *Simulation & Gaming, 23*(2), 161–173.
<https://doi.org/10.1177/1046878192232004>

CYCLING BC PROPOSED AVENUES FOR CHANGE

Design Goal:

Create a roadmap or outline that can be delivered to coaches across the country, resulting in a unified and consistent participant experience, with the ultimate goal of producing coaches that are equal in competence throughout the sport. Ensuring that coach competency is approached uniformly will eventually result in more consistent experience for riders, and a growth in interest in the sport.

- Identify Gaps in current delivery by audience survey (what works, where are pain points?)
- Develop on demand micro-Elearning, coupled with participant forum for soundboarding?

Theory Instruction

- Develop year long calendar (basic and SS) so coaches can plan their learning in advance
- Add parameters for Video Submission (what needs to be included? What are hard MUSTs and MUST NOTs)

Practical Instruction

- Develop assessment Criteria, what MUST be included, what are nice to haves. Develop simply one page explainer document
- Develop streamlines assessment process, who, how, turnaround, feedback?

Portfolio Support

- Certification Exam - outside of our control
- Possibility for a Learner Support DLE? Participants can post feedback or questions about the examination process? Can support the learning in an informal way

Evaluation

- Formal and Informal avenues?
- Scheduled meetings (pre and post certification?)
- Debriefing to train debriefing
- Informal questions via a DLE? DM? Slack channel where you can be reached outside of scheduled meetings?

Mentorship and Debriefing

