

Assignment 3a: Design Process Reflection

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The quality of sports coaching and coach development varies widely across Canada's 65 registered sports and thirteen territorial jurisdictions. Goals, budgets, and staff capacity range across each sport's local, provincial, and national governing bodies, making it increasingly difficult to update documents and policies beyond core functions. Fortunately, change is in the air. Numerous sports are shifting their strategic visions beyond Olympic success. They are now incorporating active for life and community-based visions that encourage long-term personal development through sports participation. Coach and club development is therefore receiving more attention as a viable and efficient change mechanism. Our team members, Paula, and Ben are both involved in the sports leadership realm as a community volunteer parent chaperone and a certified master coach developer, respectively. Moreover, Paula is a professional instructional designer. As a result, our team represents a combination of professional expertise and necessary levels of scope to explore design challenges and possible solutions in a comprehensive and meaningful way. This document outlines the investigative design thinking process we used to explore NCCP cycling coach training and certifications in Canada. Our proposed solutions are available in our second document.

Our design thinking process utilized the provided worksheet, multiple phone calls, and a cooperative writing process to follow the Stanford d.School's five design steps: empathize, define, ideate, prototype, and test (Crichton & Carter, 2017). The process included three video calls (Dec 7th, 13th, and 17th) to clarify the design process steps, conduct an interview, and choose a course of action. Our first video call explored each team member's design challenges in their professional realm and used steps 1-4 of the accompanying worksheet to help us empathize with one another. We concluded our call after defining each other's specific design challenge. On our second call, we discussed ideas brainstormed individually between meetings, step 5. We then asked further questions to explore one another's context and offered constructive feedback, step 6. The discussion helped us decide that Ben's

design challenge is more pertinent to this assignment. Given Paula's professional experience, she volunteered to draft a complete solution to Ben's instructional design challenge. We used step 7 to brainstorm initial recommendations to aid Paula's solution-finding process before concluding our second call. Paula then created a prototype solution, step 8, and on our third call, she presented the new design framework and deliverables using an illustrated infographic. Since available time and resources are limited, the team members could not assess the prototype in a professional or material setting. However, by completing two academic writing assignments about this process, we used active learning and metacognition to design a prototype, reflect upon the process, and match prototype solutions with best practices from the design thinking literature.

Like telling jokes in another language, meta-cognition remains the hallmark of self-awareness in complex systems. Goldman (2012) argues meta-cognition or the ability to acknowledge one's position in a process, is one of four epistemological viewpoints that instructional designers can alter through design thinking. Furthermore, Goldman (2012) illustrates how design thinking can positively impact students of different ages. For example, the Coaches Association of Canada's (CAC) National Coaches Certification Program (NCCP) employs a 'dual-action' learning method where coach developers role-model best practices in all interactions with coaches in training. Indeed, the coach developer and coach training process employ reflective exercises to help leaders and ultimately athletes pattern metacognitive understanding of their strengths and areas for improvement. Acknowledging one's personal beliefs and their effect on our core judgements is essential to metacognition and decision-making (Rowland, 1992; Cox & Osguthorpe, 2003; Archer, 1965). So, in the spirit of taking a leap of faith (Cross, 2007), our reflective process helped us hypothesize a prototype revision to NCCP cycling coach training and certification in Canada.

By completing this design thinking process with a partner, we engaged in a cooperative and constructive exchange of ideas, balanced our goals and limitations, and used critical thinking to solve a

specific challenge. Completing this design thinking process using a topic of individual interest assessed each team member's ability to value ideas and feedback, interact with others, and lead as a valuable contributor to the group. The NCCP's five core competencies, valuing, interacting, critical thinking, problem-solving, and critical thinking (CAC, 2021), mirror the outcomes of this assignment, both rooted in constructivist learning theory and employed through active learning. Therefore, this reflective writing assignment's engaging and complex nature mirrors optimal NCCP learning methods. By acknowledging the academic foundation of the NCCP's guiding principles, our team understood that enacting 'best principles' is infinitely challenging in complex systems. As instructional designers, we aim to produce solutions that respect past authors and embrace the faults of our solutions over time.

Please view the revised and polished copy of our interviews below for readers interested in learning more about the investigative process employed during this design thinking challenge. The content includes ideas and concepts only relevant to our proposed design solution, partner two's NCCP coach development updates. In addition, please view our second document to learn more about our proposed solution.

References

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Start by Gaining Empathy	
<p>STEP 1) Interview [December 7]</p> <ul style="list-style-type: none"> • Conducts coach education for volunteer and part-time instructors and coaches in British Columbia. • Two national organizations govern the coach training and certification process. • Currently a learning facilitator, a member of the revision council, and a proven content contributor. 	<p>STEP 2) Dig Deeper [December 7]</p> <ul style="list-style-type: none"> • Successfully advocating for change but limited by the political orientation of the governing bodies. • Successfully pushed the boundaries in the past two years to innovate, teach differently, create alternative resources, and help more coaches achieve certification than in the past 30 years combined. • However, additional changes to the official content need to occur to support similar impacts across the country.
Reframe the Problem	
<p>STEP 3) Capture Findings [December 7]</p> <p><u>Needs:</u></p> <ul style="list-style-type: none"> • Flexible modes of delivery, • Competency-based, • Clear evaluative criteria, • Resources and materials prepare students for the final exam. • Start with the goal in mind, meet the students in the middle. • Understand student needs (geographic and technological limitations). • Create incentives to pursue and achieve certified status. • Incorporate decision-making into the learning process to increase engagement and gamification opportunities and offer multiple ways to demonstrate competence. <p><u>Insights:</u></p> <ul style="list-style-type: none"> • Budget constraints limit the time and scope of the revision process. • The governing body is hesitant to expand the council's scope, wishes to avoid becoming too human-centred. 	
<p>STEP 4) Define Problem Statement [December 7]</p> <p>Develop and deliver information that is easy to understand while working within the confines of a national governing body that dictates my range.</p>	
Ideate: Generate Alternatives to Test	
<p>STEP 5) Sketch five radical ways to meet your user's needs [December 7]</p> <ul style="list-style-type: none"> • Talk to current coaches to understand their current understanding, abilities, skills, needs. 	

- Understand the limitations set by the national governing body.
- Strive to create one uniform user experience that encapsulates microlearning, encourages reflection while leaving space for future journaling
- Provide two choices whenever possible, ex: try this quiz, or write a 100-word response, record a verbal response (2minutes), or take a quiz.
- Acknowledge that eLearning can appear a burden, but remind how important it is to remain up to date
- Ask questions that allow students to take the microlearning module in their preferred order. Each module is worth five points. For example, they may choose to accumulate points if they wish to complete the required credits in each period.

STEP 6) Share your Solutions and Capture Feedback [Dec 10 & 13]

December 10 call with Lisa and Leeann.

Words they isolated during my explanation of both of our scenarios included:

- Clearly define the learning outcomes and integrate them into the user experience
- Communities of practice, getting people together to share experiences
- Certification, working with the end in mind, match activities with learning outcomes

December 13

Currently, NCCP cycling coach training includes:

- Universally developed PDF materials delivered by PDF. Edits forbidden. Minimal flexibility.
- Audience having trouble comprehending resources due to a variety of contexts and environmental circumstances (array of athletes, coach aptitude)
- The original author of cycling materials still leads the council, demonstrates limited interest in change

Theory

- Revisions during 2020 by the national governing body consolidated administrative and financial control, launched a learning management system and new uniform resources. However, the revised documents continue to fail to meet the needs of coaches in-training and learning facilitators. As a result of the changes, facilitator variety and compensation have decreased. The number of courses offered has decreased. Revised materials provided do not match the Coaches Association of Canada revisions, do not match the exam questions, and are difficult to use in an online setting.
- Historically, the conversion rate is abysmal. For example, between 2015 and 2019, 1600 people started the coach education process, and only twenty people completed it (1% success rate).

Practical

- Includes two outdoor practice teaching days to help coaches teach sport-specific skills
- Participants receive minimal resources, requiring them to create new lesson plans without adequate samples.

Certification

- Includes a written Portfolio that prepares coaches to lead a club program over 10-52 weeks, a sport-specific exam with over-complex language, and a 30-60 minute debrief call with the evaluator.

Iterate Based on Feedback

STEP 7) Reflect and Generate New Solution [December 13]

Improve online coach training and certification. Therefore, each step should be:

- On-demand prerequisites reduce administrative obligations
- Theory modules move towards on-demand eLearning, reducing hours on ZOOM calls. eLearning covers practice/program structure and physical literacy movements, reinforced by branching scenarios (choose your adventure) that match the correct choice with the right reason (demonstrating coaches acknowledgement and assessment of benefits and risks). Pull online quiz material (learning outcomes and videos) into sport-specific chapters and include revised and more detailed versions of this material (last filmed in 2000).
- Practical modules continue unchanged (Basic Skills in a field on Saturdays, and sport-specific skills at an appropriate venue on Sundays: BMX, Road, Mtn. Bike, Velodrome) but include a report card, facilitators may fail a participant, and the option to submit a video instead of attending the event in-person can help coaches from rural communities.
- The portfolio includes more detailed instructions, links to essential reference pages, simplified 1-page evaluation criteria.
- The quiz includes more general coaching questions based on the coaching code of conduct and responsible coaches' movement.
- Updates debrief call policies to require coach evaluators to follow NCCP expectations and evaluative criteria and complete administrative tasks.
- Post-certification mentorship programs host facilitated video calls and alternate monthly between reflective activities and expert guest speakers. In addition, utilize public podcast (started in 2020) and coach-specific newsletter (one thousand coaches) to convey additional updates and resources.

Build and Test

STEP 8) Build Your Solution [December 17]

On our December 17 call, Paula presented a new program design, building from our discussion in Step 7, informed by copies of the current resources (theory journal and evaluative portfolio).

See next page

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

