



Concussion Prevention

Utilizing Modern Innovation

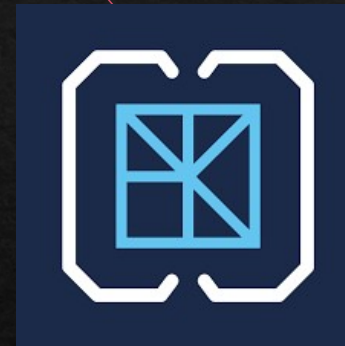
Preventing Concussion at the Source

- What Can we do as a Sport to prevent concussions?
- Where do we have the most impact?
- What are the most identifiable risks ?
- What tools are available?

Preventing Concussion at the Source



- Skill development
- Skill Evaluation
- Skill Intervention
- Injury Tracking
- Informed Coaching Practices



A research-based approach is effective

- Behavioral interventions are effective toward improving tackling technique in collegiate football players (*Swartz et al. 2015, J AthlTrain.*)
- Data-informed intervention can be used to improve coaching practices and ameliorate tackling and blocking skills in high-school football athletes (*Champagne et al. 2019, Med Sci Sports Exerc.*)
- Learner-controlled video feedback and behavior interventions are necessary for effective development of tackling and blocking techniques in youth (*DiStefano et al. 2021, submitted*)
- Understanding mechanisms of injury is critical for the development of effective injury prevention initiatives in sports (*Barh et al. 2005, Br J Sports Med*)
- Improvement in tackling technique can subsequently reduce the risk for head injuries (*Tucker et al. 2017, Br J Sports Med*)

Infrastructure required for injury prevention

Objective

Prevent injuries at the level of skill development

Requirements

An infrastructure that allows for standardized evaluations toward informing the design of data-driven behavioral interventions

- Accessible
- Scalable
- Flexible
- Low-resource
- User-friendly

Mechanism of action

Identify skill proficiencies and weaknesses as building blocks for customization of behavioural interventions targeted toward enhancing skill development at all levels of sports, with the objective to improve safety and reduce sport-related injuries

Safety-Driven
Performance Enhancement

▶ Solution – ENK Academy Platform

Digitalized platform serving as tool for standardizing evaluations and customizing data-driven behavioral intervention toward making informed decisions with respect to player development ✓

▶ Integration of analytics and artificial intelligence to aggregate effectiveness of interventions and skill-based weaknesses toward optimizing recommendations at the individual level

▶ Online and virtual infrastructure allowing for ACCESSIBLE / SCALABLE / FLEXIBLE / LOW-RESOURCE / USER-FRIENDLY settings, and adaptability during the pandemic

▶ Emerging tool for identifying weakness and targeting interventions, monitor progress of athletes over time, facilitate recruitment*

▶ Flexible interface allowing for translational application to all sports and all levels of play

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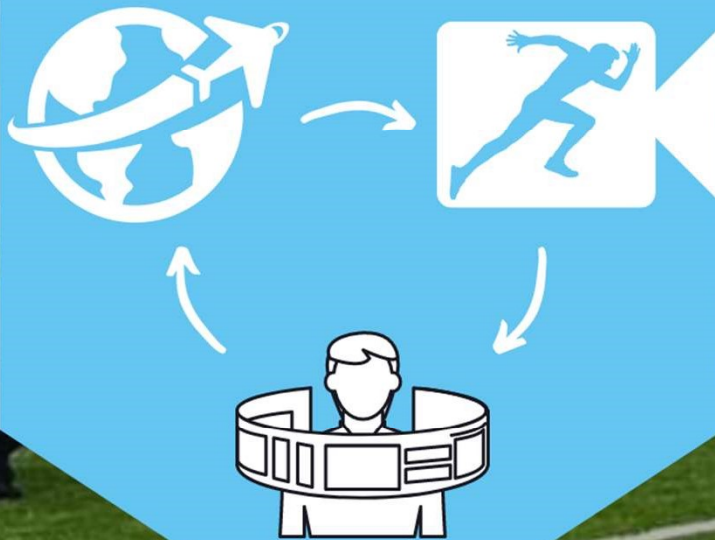
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Solution - ENK Academy Platform

ENK Academy

PRE

COVID-19



Solution - ENK Academy Platform

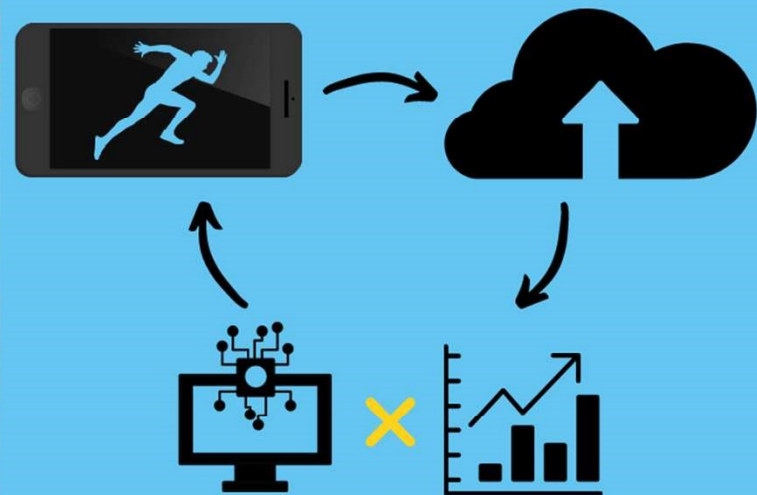
PRE

COVID-19



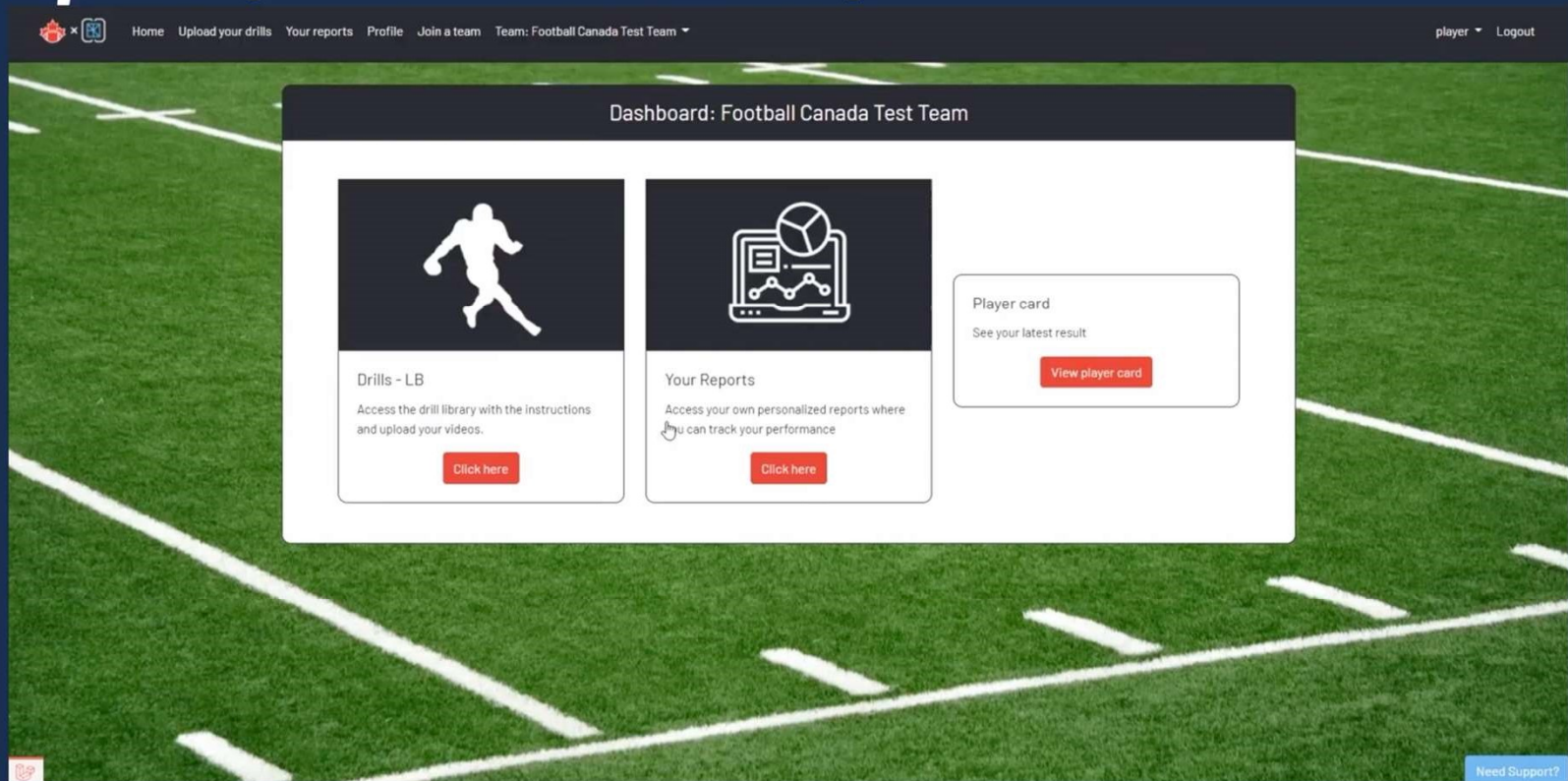
DURING

COVID-19

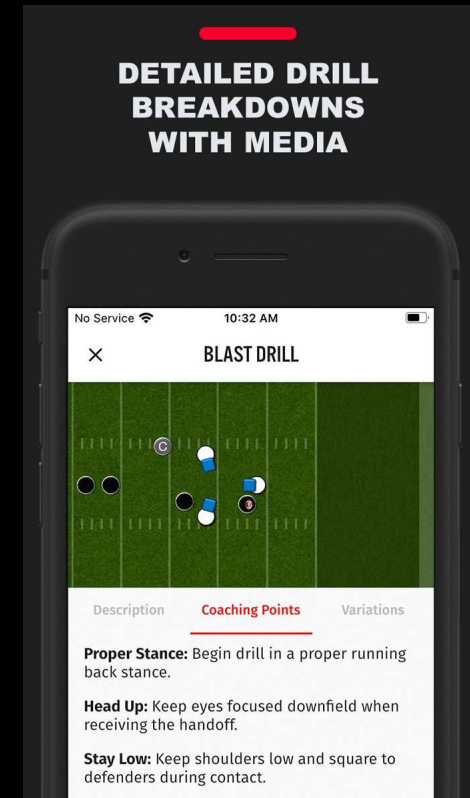
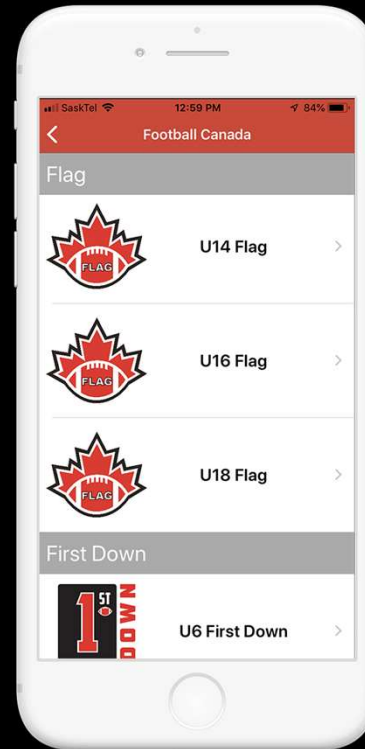


Solution - ENK Academy Platform - Example A (**PRE-intervention**)

ENKAcademy



Football Canada Mobile



FOOTBALLCANADA.COM

FOOTBALL CANADA

OWN THE NORTH

VIRTUAL SHOWCASE

FOOTBALL CANADA, ENK LAUNCH VIRTUAL NATIONAL COMBINE PILOT THROUGH ENK



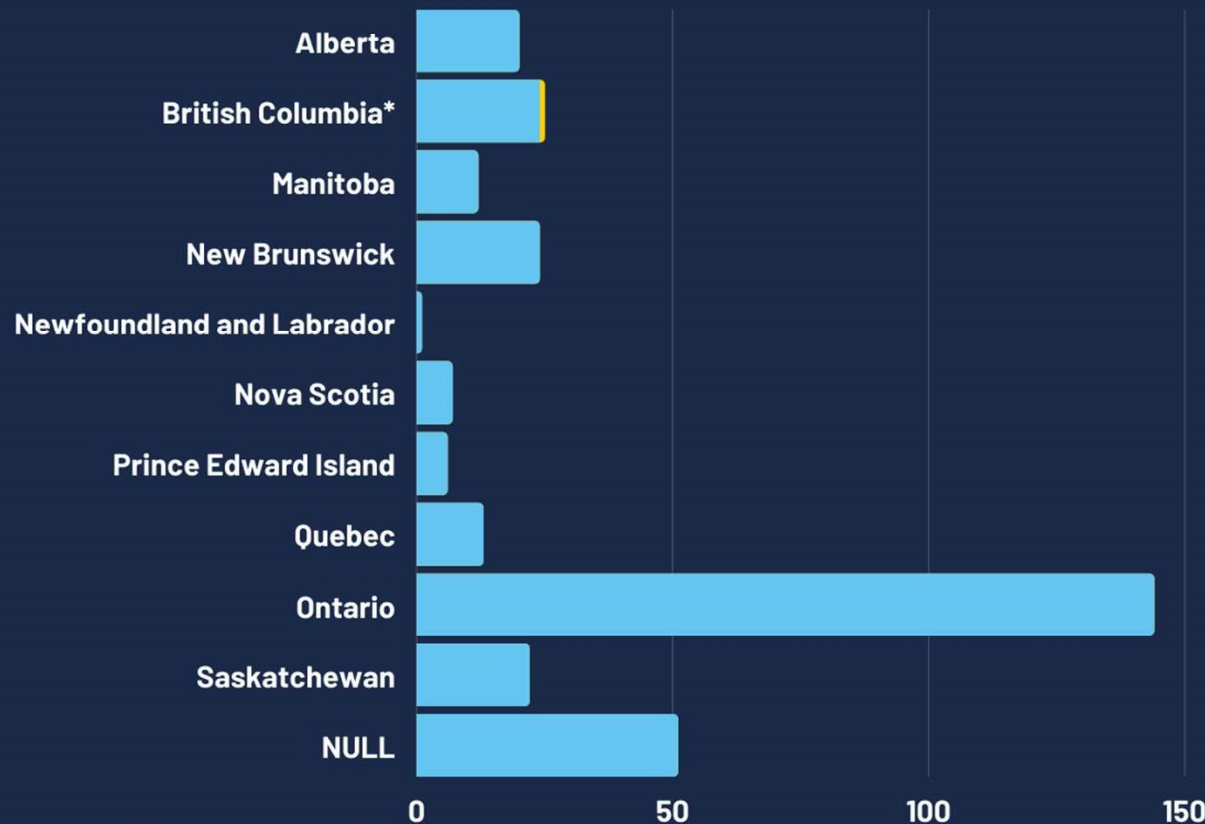
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Solution - ENK Academy Platform

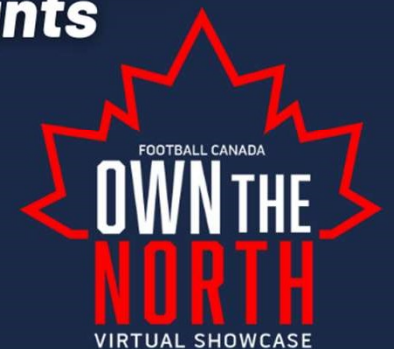
A screenshot of the ENK Academy web application's sign-in interface. The background is a high-angle photograph of a green football pitch with white yard lines. A dark blue header at the top contains the "ENK ACADEMY" logo on the left and "Login Register" links on the right. Centered on the page is a white sign-in modal with a dark blue header labeled "Sign In". Inside the modal, there are two input fields: "Username or Email" and "Password". Below these is a checkbox labeled "Remember Me". There are two buttons: a light blue "Login" button and a dark blue "Register" button. A link "Forgot Your Password?" is located below the buttons. The footer of the page is dark blue and contains the text "Powered by elite neurokinetix", a link to "Terms and Conditions, Privacy Policy, and Cookie Policy", a small red and white icon on the left, and a blue "Need Support?" button on the right.

Participation by province for the National Combine initiative (To date)



328

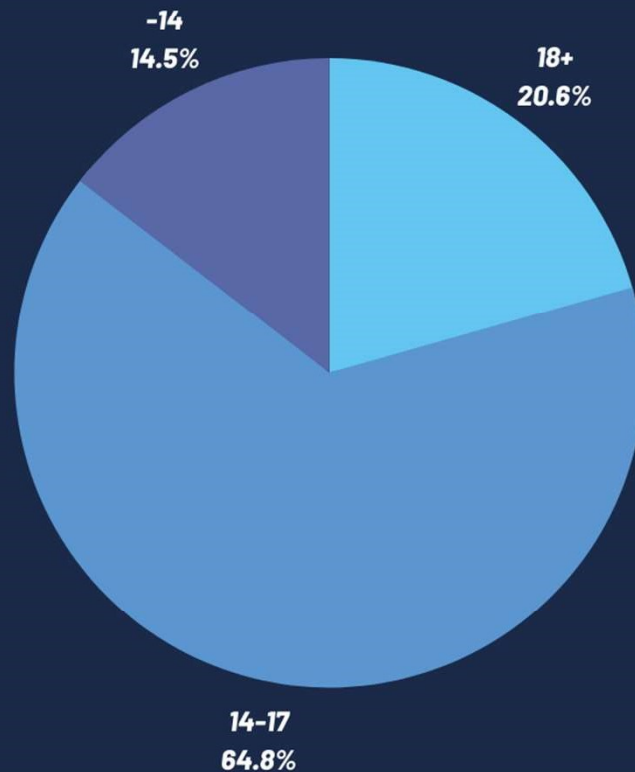
Participants



***1 woman participated in British Columbia**

***It is not mandatory to mention the province. That is why there are some players that left this area blank.**

Participation by age group for the National Combine initiative (to date)



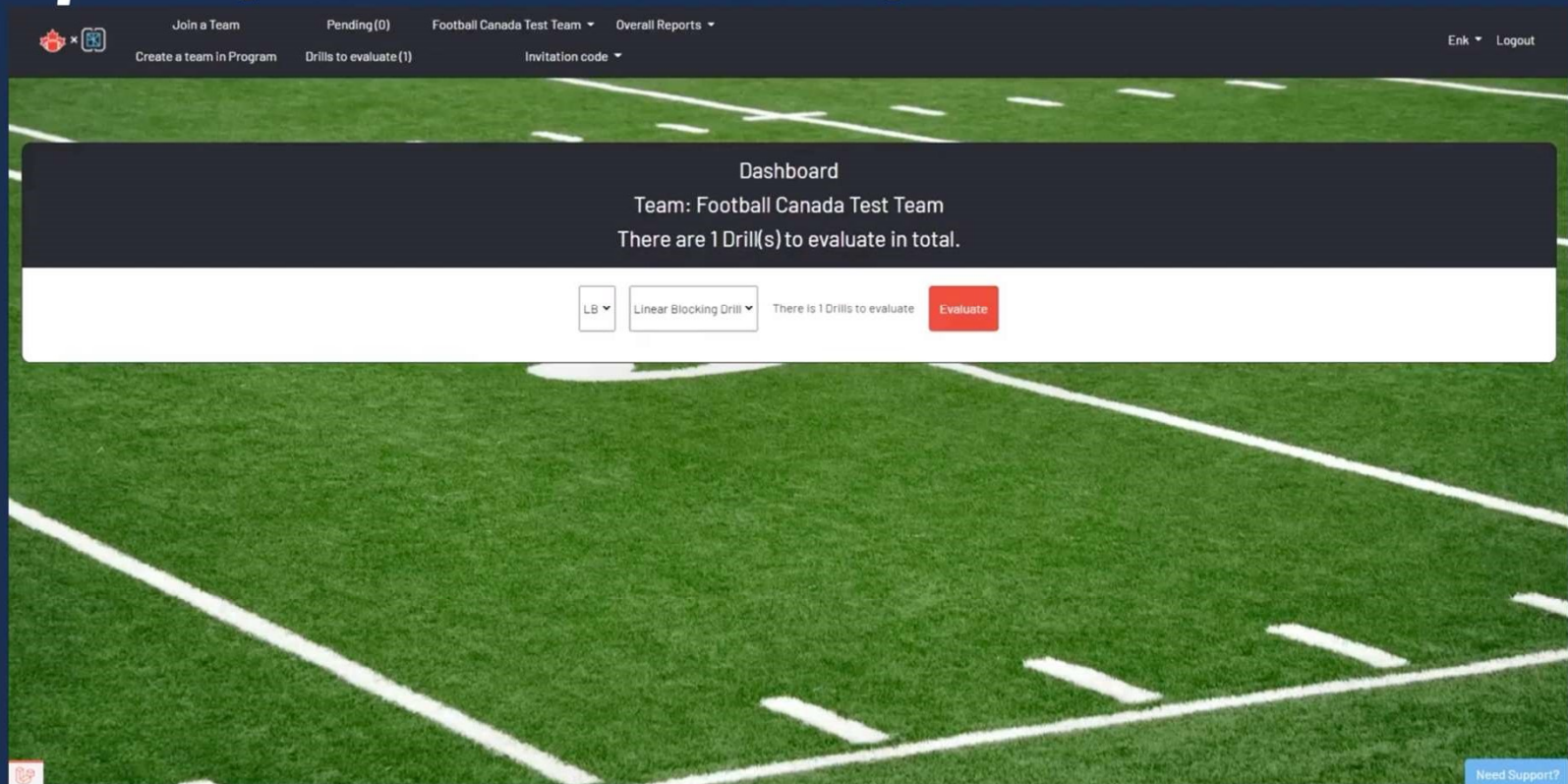
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Participants



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Solution - ENK Academy Platform - Example B (POST-intervention)



PARTNERSHIP ANNOUNCEMENT

PLAYER'S HEALTH



Injuries



Current status

No physical activity

Active injuries

History

Drafts

Date

Injury

06/30/2016

● Left knee

RETURN TO PLAY

05/14/2016

● Right hand

RETURN TO PLAY

Moving Forward

- ◆ Increase Scale
- ◆ Integrate all platforms
- ◆ Enhance Coaching practices
- ◆ Strengthen policies

