

Workers Compensation Board – Research and Workplace Innovation Program

Virtual Reality to Bring Safety Awareness on the Safe Use of Chainsaws – Final Report

June 22nd 2021 – June 08th 2023

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- 1) **Acknowledgement:** Manitoba Construction Sector Council and Bit Space Development acknowledge that this project is funded by the Workers' Compensation Board as per the statement provided. "Supported by a grant from the Research and Workplace Innovation Program of the Workers Compensation Board of Manitoba."
- 2) **Project Summary:** The Manitoba Construction Sector Council (MCSC) and its industry/association partners have identified an opportunity to provide virtual reality training on the proper and safe use of chainsaws. This unique training opportunity complements existing safety awareness, and will align with CSA Standards, chainsaw manufacturers specifications, and other non-virtual training programs. VR training and proper use of chainsaws will address issues of cost and transportation of dangerous materials to remote areas in the province. VR training simulations and 360° VR tours will be particularly appealing to a broader demographic of users, as it allows individuals to practice frequently and in a safe manner. Participants will learn to inspect chainsaw before use, during use and after use, identify hazard scenarios, proper equipment maintenance, and safe storage of chainsaws from industry experts.
- 3) **Executive Summary:** As this chainsaw safety resource wraps up, MCSC had the pleasure to collaborate with Workers Compensation Board, Safe Work Manitoba, Bit Space Development and all those involved during the entire lifespan of this project. From tech developers, to industry, to subject matter experts, to unions, to newcomer agencies, safety associations, to institutions and instructors, everyone involved has done a tremendous job of developing, piloting and providing up to date feedback to this Chainsaw Safety resource. This project was built entirely from scratch with the aid of industry, safety associations and chainsaw experts. As gas powered chainsaws are still highly utilized at this time, this resource is at the cutting edge to provide a safe, interactive and immersive learning experience for each end user. Whether the user is a new entrant to the workforce, a home-owner, instructor or seasoned chainsaw user, this two-part resource covers all safety components, chainsaw anatomy, safe starting procedures, introductory chainsaw cutting guidelines, maintenance tips and safe storage practices. It was a pleasure to partner with Workers' Compensation Board of Manitoba, Safe Work Manitoba, all stakeholders, tech developers, industry, community, subject matter experts, unions, institutions and the general public throughout the development of this Chainsaw Safety resource. The Chainsaw Safety resource will continue to be deployed and disseminated beyond the completion of this project.

Click link or image below to view the YouTube promotional video for Chainsaw Safety VR created by BIT Space Development: <https://www.youtube.com/watch?v=aQxO-DCCVM>



Click link or image below to view the YouTube full Chainsaw VR full Playthrough developed by BIT Space Development: <https://www.youtube.com/watch?v=UeEn7V1oG6U>



4) Review of work

- 360-degree tours
 - i. VR Safety Tours is now live and online for all to benefit from.
 - ii. Links to each VR Safety Tour is as follows:
 - iii. For those on a desktop computer or laptop, select: "Start Tour with Mouse"
 1. **Morden** (First Lesson):
<https://app.vrsafety.net/link?linkId=ec5f88f1-6fc6-472e-8e27-fbd686a2a0b7>
 - a. Proper PPE for a chainsaw operator
 - b. How to inspect a chainsaw
 - c. Starting up a chainsaw
 - d. Performing a buck-cut

2. **Richer** (Second Lesson):

<https://app.vrsafety.net/link?linkId=a8285912-146e-463f-aa71-c04b7558ad75>

- a. Site awareness
- b. Tree felling
- c. Tree limbing

3. **Chainsaw Storage, Maintenance, Etc.** (Third Lesson):

<https://app.vrsafety.net/link?linkId=1bf05ec9-bd94-44b2-b149-e08e195ec4af>

- a. Chainsaw transportation
- b. Chainsaw maintenance
- c. Chainsaw storage

iv. Online links are open to anyone and everyone to access.

○ Chainsaw VR game:

- i. Bugs and spelling errors that were identified all have been repaired and updated.
- ii. BIT Space Development had an intern working on implementing the player's body. As the player's body is being cut from the game for an innovative restructure, there is optimism that this will be accomplished by completion date.
- iii. Bit Space completed the final draft version of the game early May 2023.
- iv. Polished resource presented to Advisory and Working group

5) **Attachments:**

- Initial Application Attachment 1
- Final Financial Report Attachment 2
- Curriculum Attachment 3
- KTE Attachment 4
- Overview of work Attachment 5
- Project Key Milestones Attachment 6

6) **Upcoming events:**

- Canadian Apprenticeship Forum (National Event June 12th & 13th 2023)
- Summer camps 2023
- Upcoming school presentations, careers fairs and conferences