

**21<sup>st</sup> Century Teaching and Learning**  
**Digital Historian: Community Connected Experiential Learning**  
**Upper Grand District School Board**

[MUSIC]

TEXT ON SCREEN: #InnovatiON21c

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NARRATOR: Every day this school bus pulls up around 9:45. Twenty-five students from three different high schools in the Dufferin County area flow into their one-room school house. You can probably tell this isn't your average classroom.

NEIL ORFORD: There is a demand to reach kids at a very different level now, than there was even as recently as five and ten years ago within the box that is school. I think we have to design new pathways. And the pathway that we have chosen to reach kids at a historical consciousness level is by marrying history and numeracy.

NARRATOR: These grade eleven and twelve students are enrolled in a program which takes them out of their schools and into the community for a full semester. They spend each day learning both history and math at Dufferin County Museum as part of the Digital Historian project.

NEIL ORFORD: So it's a four-credit program that is very experimental in nature. Then the whole point, of course, is to see whether or not students can work in the world of history and math to create understandings that have not been there before.

NARRATOR: Students dove into their research skills through two major projects. One was to investigate into a local veteran's life, while the other was finding background information on an unknown historical artefact, tying both to their data management course by using statistical data and probability. Their findings then became part of the Dufferin County Museum display and archive collection, which can be seen by all visitors of the museum. Assignments like these have boosted student confidence and have pushed them to become independent learners.

FRANCES: I have definitely learned self-regulation. I think learning in this program, especially having all of my assignments and all of my projects online, having all of that available to me really shows me that if I don't put effort into something, that I'm not going to get a good result.

KAELYN: Before, I could never really push myself and do it myself. I'd need someone on me all the time. Now I'm, like, more of an individual and I can do it myself. And that's good, because of university next year.

KATHRYN: It's really helped me understand, because I've always really loved history. I think it's kind of given me a sense of what it would really be like if you were to do something like this as a job.

NARRATOR: Principal Patrick Hamilton collaborated with Neil to get the project rolling. He felt that there was a need for this type of real-world learning.

PATRICK HAMILTON: The power I saw was students getting to do the work of historians, getting to play with it with their own hands. You know, you teach for those teachable moments, where kids say things or they make connections, or they synthesize ideas. And I used to be quite happy seeing that a few times a semester. I see it every day that I'm here in this program.

NARRATOR: It's a class that attracted many students to enrol.

JORDYN: I always had an interest in history, so it's really just diversified how I learned about the history of our community, and just everything around us, basically. It's created more of an interesting way to learn about history. It's not very textbook-heavy. It's more diverse, I'd say, because it's not just textbooks, it's hands-on, too. It's more fun than the regular classrooms.

KAELYN: We get to touch our artefacts sometimes. And we get to work in the archives with Laura downstairs. It's just so cool, because it's like you're with the history, and we're surrounded by all this cool stuff. So, it's, like, study break, we'll look at some local history.

NEIL ORFORD: We take them to a different environment.

NARRATOR: And when it comes to this authentic environment, working alongside a historian teaches students real-life problem solving skills.

BLAKE HEATHCOTE: What I found interesting about them is how little they knew when I started with them, which was only a few weeks ago, and how fast they pick it up and how far some of them have been able to, and certainly are willing to go. I thought, well, if I can bring these little chapters from my interviews and into the kids' hands, and have them look at ways to make them engaging and interesting to them, that really takes it far beyond what I was able to do.

NARRATOR: And this collaboration and deep learning happen not only between members of the community and the students, but also between the students themselves, with the help of technological tools.

AIDAN: We're not in different classes for most of the day. We're in the same class. We get to know each other, and we get to know how to work with each other, and work with each other's differences, especially.

JORDYN: It makes it a lot easier to collaborate with people, because we all have each other's phone numbers, which is a lot different than in a regular class. So we text, email, we can talk to each other easier through the cloud and on the computers that we all have.

NARRATOR: And the history and math teachers must learn to collaborate with the students, as well as with each other.

NEIL ORFORD: Now, as a teacher, of course, I'm very honest about my limitations with digital technologies. And I say to the kids, I said, "You know, I run into dead ends. Help me out." I can't imagine being a teacher going into a classroom, whether it's a traditional classroom or a classroom like this, and saying, "I know everything."

ASHER KIRK-ELLEKER: This is the first time I've ever been involved in something like this outside the classroom, so being able to work with somebody like Neil just really drives home the point that we can push those boundaries, that we can try to move education into new realms.

NARRATOR: Neil's approach to assessment happens much differently than in other classrooms. Students do have assignments, but it's their emotions and high engagement that truly demonstrate their learning.

NEIL ORFORD: I know that they're learning because they cry. I know that they're learning because they run up to me at the front of the classroom with their laptop and they thrust it in front of me, and they say, "I just found this!" When I assess the kids in a program like this, I'm assessing the kids every day. And I'm assessing each individual kid's pathway to success, of which there is no one pathway.

ASHER KIRK-ELLEKER: I think that this program affords us the opportunity to craft really authentic assessments, really sort of detailed, big projects. And I think that that's a more meaningful way to assess than just on the basis of quizzes and tests. They're actually out there crafting their own project, really customizing it to what they were trying to do within their history classes, and sort of moving in their own direction with it.

NARRATOR: Not only were the students physically immersed in an authentic learning environment, they also became emotionally invested with their work by developing a deep connection to their veteran research.

JORDYN: At school you're usually just doing projects, textbook work, so you don't feel like you're actually making an impact on anyone. And knowing that it's here and people can come to see it is really cool, because you know it's having an impact. And you know you're putting history together for people to learn about.

JULIE MCNEVIN: It really, really shines through in their veteran's research, that they become very emotionally connected to the person that they're researching, and invested in collecting as much detail as they can.

FRANCES: My veteran, I didn't know him five months ago. And I got assigned a veteran from Dufferin County in the middle of February. And I have been working on him, finding out every aspect of his life, like, where he was born, the street he lived on, his brothers and sisters, and to find out everything about his life, including his birth and death, and everything in between. It's a really, really emotional, emotional process.

NARRATOR: Many of the students who weren't strong math learners to begin with felt that the program gave them more confidence in the subject. KAELYN: I'm not very good at math, but when the math is kind of tied in with the history, then it's easier for me to grasp and kind of say, well, this makes more sense now, because it's actually tangible.

ASHER KIRK-ELLEKER: I think a program like this really encourages them to view math as something that they will be using, that they can relate to things that they're doing in other courses. And I think because of that, it's pretty powerful. NARRATOR: Neil says teachers who are looking to start an initiative like this must be open-minded and ready to make mistakes.

NEIL ORFORD: In an environment like this, in an experiential learning program, I would always say to teachers, "Be prepared to be patient. Be prepared to be tolerant. And always ask forgiveness of the kids, because they'll give it back to you." I am so happy now with the messiness of learning, and the magic of finding things that we didn't know before. There's a real authenticity about that kind of discovery that the kids have.

TEXT ON SCREEN: "I am so happy now with the messiness of learning and the magic of finding things out that we didn't know before." – Neil Orford, Teacher