EXECUTIVE SUMMARY

**HISTORICAL LITERACY IN 21ST CENTURY ONTARIO:
AN QUASI-EXPERIMENTAL RESEARCH USING THE VIRTUAL HISTORIAN© [1]**

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PRELIMINARY RESULTS ARE IN!!!

This executive summary presents the findings of a quasi-experimental study conducted with grade 10 history students in two urban Ontario English-speaking school districts. The purpose of this research was to investigate the role and impact of an inquiry-based digital history program, *The Virtual Historian*© (hereafter VH), on students' historical learning and literacy.

One hundred seven (107) participants divided into two groups, instructional (classroom) and experimental (VH), were involved in implementing a Canadian history curriculum unit on "World War II and the Dieppe Raid of 1942." Both groups received a pre-test and post-test on the unit of study to assess their prior knowledge and progression in learning. Both groups also carried out, for the same time period (3 classes of 75 minutes), a research assignment: an argumentative essay on the historical significance of the Dieppe Raid for Canada, the Allies, and World War II. Only the VH group learned the unit of study in the computer lab using *The Virtual Historian*© without formal classroom teaching. The instructional group studied the same unit in class using an inquiry-based learning model structured around classroom lectures, group activities, and independent research study. The instructional group was exposed to both primary and secondary sources on the subject matter, as well as the Internet, but not *The Virtual Historian*©.

FINDINGS

The results provide evidence that using *The Virtual Historian*© as a digital learning program to teach history can increase significantly students' understanding of the subject matter, their ability to write an essay with supporting evidence, and their critical thinking about the past.

More specifically, results from Table 1 indicate that both groups (instructional and VH) made progress in their understanding of the subject-matter. However, using *The Virtual Historian*© leads to the organization and writing of more sophisticated historical essays. Students in the VH group were able to construct more structured and coherent argumentations than their counterparts. Their knowledge of the subject (series of events, actors, facts) was greater and their ability to think historically (present clear arguments supported by appropriate evidence, consider historical significance, and judgement on the issue) significantly more sophisticated than those in the instructional group. Students in the VH group have clearly developed more advanced meta-conceptual awareness of self-learning and achievement but perceive learning as a dynamic exchange between content, pedagogy, and technology.

Results from standard deviations also indicate that *The Virtual Historian*© helps produce more consistently positive outcomes among students who use the program. While results from the two

school boards are comparable, some variances are noticeable between students in the instructional and VH groups, notably for the standard deviation on the essay scores. Gender was not a statistically significant factor in students' performance in tests and essays.

Table 1[2]
Mean numbers and standard deviations for each variable by group

Variables	Instructional Groups			Virtual Historian Groups		
	Pre-test mean (SD)	Post-test mean (SD)	Essay mean (SD)	Pre-test mean (SD)	Post-test mean (SD)	Essay mean (SD)
Tests and essay (School board #1)	3.51 (1.17)	10.29 (2.65)	12.26 (3.69)	3.94 (1.78)	11.51 (2.60)	15.93 (2.89)
Meta-cognition (School board #1)		3.53 (1.38)			4.23 (1.59)	
Tests and essay (School board #2)	4.11 (2.67)	9.08 (2.60)	12.55 (2.58)	3.72 (2.76)	10.57 (2.45)	12.73 (4.03)
Meta-cognition (School board #2)		2.99 (1.71)			4.38 (1.58)	

CONCLUSION

It may be concluded from this study that if knowledge comprehension and historical thinking and literacy skills can be sustained by constructivist teaching activities, the use of *The Virtual Historian*© as digital history program can help produce even more sophisticated thinking in the discipline and more advanced literacy skills among students. Students' perception of learning also situates *The Virtual Historian*© in a dynamic model in which technology must build on content and pedagogy. This conclusion is evidenced by the research findings in terms of pre-test-post-test gains, meta-cognition, and essay writing scores.

For more details on this study or on *The Virtual Historian*© program, please contact the principal investigator:

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[2] Participants for this study were all volunteers and not randomized. Data was collected during the fall 2008 in both school districts.