

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
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“FROM BLUE TO RED – THE FIRST HUMAN MISSION TO MARS’ – A CREATIVE,
INTEGRATIVE, CROSS-CURRICULAR APPROACH TO EDUCATION AND OUTREACH.

Abstract

“From Blue to Red” is a children’s illustrated hardcover book, audio book and eBook created by over 450 students at Lord Beaverbrook High School (LBHS), their teachers and a professional creative leadership team led by co-producers Ross McIntyre and Samantha Whelan Kotkas in Calgary, Alberta, Canada. This book and music are the culmination of a one-year project that was undertaken in 2011-2012 through funding from the Canadian Space Agency. “From Blue to Red” was created in both English and French and showcases the LBHS students in the conception, writing and production of a hard cover book that explores the science of an adventure on the first human mission to Mars. The student’s created a world-class project that attracted the talents of narrators Diana Krall, Julie Payette, David St. Jacques and Robert Thirsk.

The delivery of education is changing rapidly. Education must inspire life long learning. We must value student input by creating controlled parameters that allow for student choice. The learning model we developed for ‘From Blue to Red’ was delivered through a creative mentorship program that combined teachers, professional artists and scientists funded by the Canadian Space Agency. This model utilizes cross-disciplinary contributions from people with a variety of talents and from all walks of life.

Educators need to teach creativity and ingenuity. How does this happen? This happens by engaging students and allowing them to create in a safe and supportive environment with mentors proven to be creative people and successful leaders themselves.

Qualitative and quantitative learning assessment surveys were completed pre/during and post project. We determined that learning and long-term retention and interest in the Space Sciences were markedly increased amongst students. Surveyed students positively indicted their engagement in metacognitive processes. This resulted in significant increase in their understanding and knowledge of the Space Sciences.

Working through this model we created a synergy that resulted in an overwhelmingly positive educational environment- with seemingly limitless enthusiasm from our students. This project has proven that a model which melds the arts and sciences for student learning is the best possible way to deliver educational material which engages students on many levels and prepares them for life-long learning.