

The logo for e-Channel, featuring the text "e-Channel" in white, bold, sans-serif font inside a dark red, rounded rectangular shape with a slight shadow effect.

Alternative Equivalents to Licensed Curricula Currently Used by e-Channel Service Providers

Report

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The logo for Employment Ontario, featuring the text "EMPLOYMENT ONTARIO" in white, bold, sans-serif font inside a dark red rectangular box. Below the text is the tagline "Ontario's employment and training network." in a smaller, white, sans-serif font.

Ontario's employment and training network.

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Executive Summary

This report summarizes alternative equivalents to popular customized licensed curricula currently being utilized by e-Channel service providers. In order to prepare this report, the researcher reviewed over 200 potential equivalent sources. Eighteen alternative curricula options are summarized.

There are many possible alternative options for curricula online. Both open-source or free alternatives and paid or licensed alternatives have been included in this report. There is not a single source that will meet the needs of all the learners across the varied and culturally-specific programming offered through e-Channel. The next steps will be for service providers to review the options presented and determine feasibility of use within each organization.

Introduction

In 2019-2020 Contact North | Contact Nord (Contact North) was funded to research and prepare a report outlining alternative equivalents to popular customized licensed curricula currently being utilized by e-Channel service providers. This report provides a brief e-Channel overview and summaries of potential alternative equivalents.

The views expressed in this report are the views of Contact North and do not necessarily reflect those of the province. The Government of Ontario is in no way bound by any recommendations contained in this document.

Part 1: Overview

e-Channel Background

e-Channel was originally initiated through Ministry of Training Colleges and Universities' (now the Ministry of Labour, Training and Skills Development) project funding. Organizations were funded to develop online Literacy and Basic Skills (LBS) courses that met the specific needs of the learners in the sector or cultural stream they supported or were affiliated with. Eventually, agencies were identified and funded as e-Channel service delivery organizations. The current structure continues to provide one e-Channel organization to focus on meeting the needs of a specific sector or stream's learners, with Contact North being the e-Channel support organization.

There are currently 5 e-Channel LBS service delivery organizations funded by Employment Ontario. The e-Channel delivery organizations are listed below by organizational name followed by program name:

- Avon Maitland District School Board Centres for Employment and Learning; the LearningHUB (the LearningHUB)
- Sioux-Hudson Literacy Council; Good Learning Anywhere (GLA)
- College Sector Committee for Academic Upgrading; ACE Distance Delivery (ACE)
- Coalition ontarienne de formation des adultes (COFA); Le service de formation à distance pour adultes Programme F@D (F@D)
- George Brown College; Deaf Learn Now (DLN)

Scope of the Review

- Review licensed content currently being used by e-Channel service providers, in particular Edmentum's PLATO Learning Environment (PLE).
- Identify online content that could potentially be utilized by e-Channel service providers to replace or augment current curricula.
- Produce a report providing an overview of alternative curricula.

Both GLA and the LearningHUB use Edmentum's PLATO Learning Environment (PLE) library of courses to deliver some of their asynchronous courses. The PLATO library offers pre-packaged, customizable courses across a variety of subject areas that meet a wide array of adult literacy learner needs. The content available is focused on learners working at higher levels. PLATO also includes an assessment tool. Currently, this is the "Accucess". *"Accucess is an online diagnostic assessment and curriculum tool that is used to evaluate the knowledge and skills of learners and place them into an appropriate instructional level of content. Instructors ... will be able to quickly place students on grade level in reading, writing, and mathematics before they begin an instructional unit ... Based on the results of these assessments, learners are prescribed Plato Courseware to fill any learning gaps. In this way, Accucess personalizes learning for individual students or an entire class with a curriculum path taking from their current level to the target curriculum level."* (Source: https://support.edmentum.com/3_Edmentum_Assessments/Accucess_in_Edmentum_Assessments, last accessed March 20, 2020). Accucess will be replaced by Edmentum's "Exact Path" assessment tool by Dec. 2020.

Both service delivery organizations commented that they would like, at some point, to move away from Edmentum's American-based content. In addition, Edmentum's programming is unavailable in French or ASL, underscoring the importance of finding alternatives that meet all of the potential e-Channel registrants' needs.

Part 2: Summary of Alternative Equivalents

In this section, a summary is provided for several alternative online curricula equivalents. In order to prepare this list, the researcher reviewed over 200 potential equivalent sources. This review included, but was not limited to, the searchable directory of 110+ EdTech Start-Ups prepared by Contact North (<https://teachonline.ca/tools-trends/best-practices-around-world-including-ontario/edtech-startups-directory>).

The alternatives that have been included in this report are curricula that match or overlap with the content that would need to be replaced, offer online course material, and where possible focus on delivery to adults. Each alternative online curricula equivalent summary includes a list of curriculum topics or categories available, a brief overview of the course material and supports offered, and usage or licensing/pricing information where available.

As is currently the case, alternative curricula sources that meet the needs of English, French and ASL-using learners are not available.

Numeracy and Communication Alternatives

Centre for Education in Mathematics and Computing (CEMC)
Courseware, University of Waterloo

<https://cemc.uwaterloo.ca/resources/courseware/courseware.html>

Curriculum categories:

- Grades 7 and 8 mathematics
- Grades 9/10/11 Mathematics
- Grade 12 Advanced Functions & Pre-Calculus
- Grade 12 Calculus and Vectors
- Problem Solving and Mathematical Discovery
- Computer Science

CEMC online courseware includes lessons, interactive activities, and enrichment challenges. Courses are broken down into units with each unit organized into smaller lessons. Lessons include videos, review questions and practice exercises with answers and solutions.

CMEC courseware can be accessed free to charge and does not require registration.

Learning Upgrade

<https://web.learningupgrade.com/>

Curriculum categories:

- English
- Math
- Pre-Algebra and Algebra Upgrade
- Reading and Comprehension Upgrade

Learning Upgrade offers 21 courses with 900+ lessons. The program tracks learners by providing web-based diagnostic reporting with detailed graphical reports on student progress and areas of weakness.

Whole class or “school” licensing is available. Pricing information is not available online. Canadian schools can receive quotes and purchase through IBM Canada K-12 Education.

Math Planet

<https://www.mathplanet.com/>

Curriculum topics:

- Pre-Algebra
- Algebra 1
- Algebra 2
- Geometry

Mathplanet is an online set of courses that can be accessed at no cost. It is based on US high school level math topics. Courses include written notes and YouTube videos. Mathplanet does not include assignments or a practice component.

Mathplanet is licensed by Creative Commons Attribution Non-Commercial.

My Open Math

<https://www.myopenmath.com/index.php>

Curriculum topics:

- Arithmetic
- Algebra (Various courses and levels)
- Math Literacy
- Math for Liberal Arts

- College Algebra and Trigonometry
- Statistics (Various courses and levels)
- Financial Accounting
- Finite Math
- Chemistry

My Open Math provides courses based on popular open source textbooks. It utilizes IMathAS which is an Internet Mathematics Assessment System. IMathAS is primarily a web-based math assessment tool for delivery and automatic grading of math homework and tests (see <http://www.imathas.com/>). My Open Math provides a full course management system including content, exercises, quizzes, and grade books.

My Open Math can be accessed free of charge. Courses can be viewed using a guest account and it allows a user to apply for a free instructor account.

Ontario Colleges Math Test (OCMT) by Vretta

<https://theocmt.org/>

Curriculum topics available:

- Whole numbers
- Arithmetic
- Integers
- Decimals
- Fractions
- Ratios and Proportions
- Percents
- Basic Algebra
- Measurements

OCMT is a mobile learning platform that includes a diagnostic assessment and interactive remedial modules based on the assessment results. A post-assessment is included after remedial modules have been completed. It was developed in partnership with the Ministry of Education and the Ministry of Advanced Education and Skills Development.

It is currently only available through Ontario colleges.

Spellzone

<https://www.spellzone.com/>

Curriculum topics:

- Starter course (basic phonics)
- Basic Level Spelling
- Intermediate Level Spelling
- Advanced Level Spelling

Spellzone is an online English language spelling resource with a testing function and spelling courses. Courses range from basic phonic spelling rules to more advanced word endings. There are eight lessons in the starter course and 36 lessons across the other three levels. It includes word lists with activities and worksheets and an online dictionary with sound. The spelling ability test provides a baseline score and creates a learning pathway for a student. Students are retested automatically as they progress.

Pricing is offered in Canadian dollars and includes volume annual subscription rates (e.g. \$799/year for up to 1200 students).

Unlock Math

<http://www.unlockmath.com/index.php>

Curriculum topics:

- Foundations
- Pre-Algebra
- Algebra I
- Geometry
- Algebra II
- Pre-Calculus

Unlock Math was developed as a homeschool model but includes a “for-school” package version of Geometry, Algebra II and Pre-Calculus.

“Foundations” covers very basic topics like number sense and operations with numbers. Each lesson is approximately 30 minutes in length. Lessons include a warm-up, a video lesson, practice problems, review, a challenge question, reference notes, and a quiz/review/test. Grades are tracked in a grade book.

Unlock Math was developed in Canada however web pricing rates are in U.S. dollars and “school” pricing is available only by quote.

Alternatives for Various Curriculum Categories

Alison

<https://alison.com/>

Curriculum categories:

- Technology
- Language
- Science
- Health
- Humanities
- Business
- Math
- Marketing
- Lifestyle

Alison is a free online learning platform for skills training and education. Certificate courses (2-3 hours), diploma courses (8-10 hours) and learning paths (18-20 hours) are offered. Once registered, a student has access to a dashboard that tracks the courses in progress, completed courses, and certificates. The student can download a learner record and a learner report from the dashboard, which details enrolled courses and progress details. Certificates must be purchased unless a subscription to the Allison Premium service is purchased.

Complete Test Preparation

<https://www.test-preparation.ca/>

Test preparation course categories:

- Canadian Armed Services
 - Canadian Armed Forces Aptitude Test Qualification (CFAT)
 - Test d'Aptitude des Forces Canadiennes (TAFC)
- Law Enforcement, Border Security and Fire
 - British Columbia Police
 - RCMP (RPAT)
 - Ontario Police Constable Entrance Test
 - Canadian Police Test Strategy
 - Canadian Border Security Services Entrance Test
 - Canadian Firefighter Test
- Academic Achievement and Equivalency
 - Canadian General Education Development Exam (GED)
 - Canadian Adult Achievement Test (CAAT)

- Provincial Achievement Tests
 - British Columbia Provincial Exam
 - Alberta Provincial Achievement Test
- Citizenship
 - Canadian Citizenship
 - Canadian English Language Proficiency Index Program (CELPIP)
 - CELPIP Online Course
- English Language Proficiency
 - Canadian Academic English Language (CAEL)
- Public Service
 - General Aptitude Test Battery
 - General Competency Test
 - Written Communication Proficiency Test

Each online course contains online tutorials, practice guide and practice questions.

Limited pricing information is available online and varies by test preparation course. Content can be licensed.

GCFLearnFree.org

<https://edu.gcfglobal.org/en/>

Curricula are available in languages other than English, but not those used by LBS programs for their learners.

Curriculum categories:

- Microsoft
- Basic Skills
- Internet Skills
- Google
- Work & Career
- Skills for Today
- Creativity & Design
- Core Skills

Content is broken down into tutorials that include a knowledge-testing quiz at the end.

The content on GCFLearnFree.org can be accessed free of charge and without an account. However, users that set up an account are able to track learning history and earn “Achievement of Completion” certificates for each tutorial that they finish.

All of the content is copyright protected. Content can be used, downloaded, or printed for educational purposes as long as it is not distributed publicly or transformed or altered in any way. GCFLearnFree.org must be acknowledged properly. Organizations can apply to use the content in a Learning Management System (LMS).

Grovo by Cornerstone

<https://www.grovo.com/>

Curriculum categories:

- Leadership
- Diversity
- Business Acumen
- Communication
- Technology
- Compliance
- Project Management
- Sales & Customer Service
- Marketing
- Personal Growth

Grovo offers 2000+ off the shelf micro-lessons. Lessons are of very short duration (e.g. approximately 3-10 minutes) and include integrated quizzes with immediate feedback. The content offered is employment focused. Some content areas have “bundled” topics such as an “Introduction to Unconscious Bias”. Instructors can upload SCORM and PPT files to create your own lessons. You can export to AICC to port content to another LMS.

Pricing information is not available online.

Khan Academy

<https://www.khanacademy.org/>

Curricula is available in both English and French languages, but may not be culturally suitable to French speaking LBS learners.

Curriculum categories:

- Math
- Science and Engineering
- Computing
- Art & Humanities
- Economics and Finance
- Test Preparation
- College, Careers & more

Khan Academy has a self-study model where students can access the site with a personalized dashboard review instructional videos and complete practice exercises. The site also includes a teacher account option which, once set up, can be used to create an online classroom. Teachers can set up “Course Mastery” goals for students. Course challenges, quizzes and unit tests are included. The teacher dashboard shows student progress in the courses that have been assigned. Khan Academy is integrated with Google Classroom.

Khan Academy is a nonprofit organization and the site is 100% free to use.

Labster

<https://www.labster.com/>

Curriculum categories:

- Biology
- Chemistry
- Engineering
- Medicine
- Physics

Labster includes online virtual labs across a variety of science topics. Labs include real-life scenarios, interaction with lab equipment to conduct experiments as a theory section and incorporated quizzes. Virtual labs can be completed using a computer for a “low-immersion” 2-D experience or with a head mounted display for a “high-immersion” 3-D experience. The labs were developed for college and university level programs.

Pricing information is not available online.

Lynda.com from LinkedIn Learning

<https://www.lynda.com/>

Curriculum categories:

- Business
- Design
- Developer
- IT
- Marketing
- Web
- Photography
- Video
- Audio + Music
- CAD
- 3D + Animation
- Education + Elearning

Course overviews indicate duration of the course and whether the course is at Beginner, Intermediate, Advanced, Appropriate for All, or General level. Courses are primarily video tutorials.

Lynda.com requires a user account to access the courses. Users can track their progress, view their learning history, and save Certificates of Completion which are generated automatically for most courses once all the associated video tutorials have been completed.

Lynda.com offers group memberships to teams, companies and organizations. They can be set up so the user logs in through the organization's network. Pricing is not available online.

Lumen

<https://lumenlearning.com/>

Curriculum areas available:

- Business
- English/Communication
- Humanities/Language
- Mathematics
- Natural Science
- Social Science
- Technology
- Transitional Studies

Full course lists can be accessed here: <https://lumenlearning.com/courses/>

Lumen uses Open Educational Resource (OER) content in the course material available. The courses can be integrated into a Learning Management System (LMS). Current LMS integrations include Moodle, Canvas, Blackboard and D2L.

Course material is primarily focused at the college-prep or college level.

Annualized pricing gives users access to Lumen course material. Per student/per course pricing is also available.

OpenLearn

<https://www.open.edu/openlearn/>

Curriculum categories:

- Money and Business
- Education and Development
- Health, Sports and Psychology
- History and the Arts
- Languages
- Nature and the Environment
- Science, Maths and Technology
- Society, Politics and Law

Students can sign up for the platform at no cost and access over 900 free courses. Each course is levelled and provides an estimated number of hours to complete. A free “statement of student participation” can be downloaded upon completion.

OpenLearn Create (<https://www.open.edu/openlearncreate/>) is the sister site which allows organizations to publish content. It is Moodle based and some courses can be downloaded for reuse or customizing.

OER Commons

<https://www.oercommons.org/>

Curriculum categories (searchable):

- Applied Science
- Arts and Humanities
- Business and Communication

- Career and Technical Education
- Education
- English Language Arts
- History
- Law
- Life Science
- Mathematics
- Physical Science
- Social Science

Open Educational Resources (OER) Commons allows a user to search for open educational resources from around the world. The site allows users to complete a general search, but also includes subject and education level filters to help narrow search parameters. Materials indexed are varied and include full courses, modules, interactives, and simulations.

Materials indicate conditions of use.

Universal Class

<https://www.universalclass.com/index.htm>

Curriculum categories (samples):

- Accounting
- Crafts & Hobbies
- Business
- Career Training
- Computer Training
- Entrepreneurship
- Finance
- General Education
- Health & Medicine
- History
- How To / Do It Yourself
- Language Arts
- Mathematics
- Office Skills
- Personal Development
- Science
- Self-Help
- Social Work
- Test Preparation

- Writing Skills

Universal Class offers over 500 online courses across a wide variety of topics. Each course has lessons, exams and assignments. Courses are self-paced.

Each course is individually priced in U.S. dollars. Individual subscription plans are also available. Organizations can sign up for Group Enrollments, allowing them to purchase courses in bulk and provide students with enrolment keycodes. This option also allows an organization to track student progress.

Conclusion

There are many alternative options for curricula online. However, not one choice will meet the needs of all LBS learners within the culturally-specific programming delivered by the e-Channel service providers in all required languages. Canadian content can also be hard to find.

Several potential options may be worth the providers' further investigation and trial:

- Cost-free math curricula from CEMC, MathPlanet, My Open Math and Khan Academy
- Open Learn courses to replace those currently used for writing, grammar, and spelling
- GCFLearnFree.org tutorials to supplement courses on computer skills and work skills
- Identification of Open Education Resources from OER Commons that will best replace current customized Plato PLE courses.

The curricula alternatives above offer either free or open-source content, which makes them easily accessible to test in e-Channel service providers' programming.

There are also many paid resources available online, some with bulk licensing options, as outlined in this report. Several of the paid options may be optimal for replacing lower level or basic curriculum needs that providers' have identified. Learning Upgrade includes lower level curriculum in English and Math. Unlock Math covers foundational math topics. Spellzone content starts with basic phonics lessons. If the service providers indicate their preference to use resources to support licensing costs, these resources are also worth further investigation.

Each e-Channel service provider must evaluate the unique needs of their LBS learners in order to determine the best alternatives to replace or augment their current curricula. Choosing resources that meet the learners' skill levels and cultural positionality is essential. The various alternative curricula equivalents discussed in this report can begin to help service providers to explore how they might replace curricula currently in use while tailoring programming to learners' needs.