



Best practices guide for the creation of digital educational resources

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Coordination and content

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Introduction

This best practices guide is intended for people who create materials for preschool, elementary and secondary education, vocational training and adult general education. First, the document defines the term “digital educational resource” (DER), which will be used in all documents published by the Ministère de l'Éducation (MEQ). Additionally, this guide provides information on the elements to take into account when creating a DER, including criteria related to copyright law, advertising, information security and protection of personal information, universal accessibility, pedagogical qualities, gender equality, and sexual and sociocultural diversity. The third purpose of this guide is to ensure that the DERs can be found.

Although this guide has been designed based on the characteristics of My Classroom, the secure section of Open School and the provincial platform for digital educational resources, school staff are encouraged to draw inspiration from it for various practices.

Note

As the name indicates, this document is a best practices guide. However, the instructions given in the sections of the document referring to copyright law, advertising and the protection of personal information are mandatory. Additionally, when you create a DER on the provincial platform, you will be provided with the option to share it with students in your class; with colleagues from your educational institution, school service centre, school board or private educational institution; or to publish it for all users of the platform across Québec. Compliance with certain criteria may be either recommended or mandatory, depending on the sharing mode you have selected. You can browse with confidence while searching for resources on the platform, knowing that the resources meet the criteria set out below.

Criteria to comply with based on sharing mode

Criterion	Share with colleagues from your educational institution, school service centre, school board or private educational institution	Publish for all users of the platform across Québec
Compliance with copyright law	Mandatory	Mandatory
No advertising	Mandatory	Mandatory
Information security and protection of personal information	Mandatory	Mandatory
Principles of universal accessibility	Recommended	Recommended
Pedagogical qualities	Mandatory	Mandatory
Gender equality	Recommended	Mandatory
Sexual and sociocultural diversity	Recommended	Mandatory

Definition of “digital educational resource” (DER)

Digital educational resources (DERs) are materials (texts, images, videos, textbooks, course modules, tests, homework, etc.) in a digital format that are used in the context of teaching or learning. These resources may be, but do not necessarily have to be, accessible to all users (“accessible digital educational resource” or “ADER”) or free of copyright (“open educational resource” or “OER”).

While creating an ADER, the inclusion of a variety of learners is taken into account (Burgstahler, 2005; Barile et al, 2012). An ADER allows the needs of all students to be met, such as needs related to limitations or different learning styles of students, while encouraging learning.

An OER is defined as a set of pedagogical, learning or research materials that are in the public domain or can be used under an intellectual property licence that permits reuse or modification (such as a Creative Commons licence) (UNESCO, 2021; Ministère de l'Éducation et de l'Enseignement supérieur, 2018, p. 81).

Elements to take into account when creating a DER

Compliance with copyright law

In Canada, the [Copyright Act](#) (R.S.C., c. C-42) protects original works that have been fixed in any material form and that fall into one of the following categories: literature, art, drama and music; it can also be a compilation.

When you integrate original works into your resources, you must ensure that you comply with the *Copyright Act*.

The resource must:

- be created and used for pedagogical purposes;
- contain only literary, dramatic, artistic (work of art, illustration, photograph, diagram, etc.), audiovisual (film, documentary, news program, archival audiovisual document, etc.) or musical works that:
 - are free from restrictions on their use;
 - are in the public domain;
 - have the appropriate licence. The Copibec licence only covers copies made by a teacher for students in their class. To publish a DER for a broader audience or on an unsecure site (including social networking sites), you must obtain a specific licence from the rightsholder;
- provide a clear citation for all works or excerpts from works.

You can also consult [this article from RÉCIT](#) (available in French only) for instructions on how to insert Creative Commons licences in your videos.

No advertising

In Québec, the *Consumer Protection Act* (CQLR, chap. P-40.1) forbids [commercial advertising directed at children under 13 years of age](#).

The resource must be free of commercial advertising. Note that this restriction does not apply to public service announcements or educational advertising, such as advertisements intended for prevention or awareness-raising purposes.

Information security and protection of personal information

DERs must protect the confidential nature of personal information belonging to users of the platform.

The resource must:

- not collect personal information, meaning information about a specific individual that allows them to be identified (first name, last name, address, date of birth, etc.);
- include links to secure and verified sources in order to avoid putting the user at risk:
 - ensure that any links that lead to other sites are secure.

Principles of universal accessibility

DERs must be created in a way that encourages access to information and allows the use of digital assistive technologies, such as Braille readers, speech synthesis or screen readers. This contributes to allowing all students, including those with disabilities, social maladjustments or learning difficulties, to reach their full potential and achieve success. It is also useful for pedagogical differentiation.

To ensure that all students have access to the content of the resources selected by their teachers, you are strongly advised to take into account the accessibility criteria when

creating resources. Working in this fashion is beneficial for you and your colleagues, as you might avoid having to modify resources in the future.

Based on the recommendations made by the Conseil supérieur de l'éducation in 2017, this guide suggests accessibility criteria that should be taken into account whenever possible when creating a DER. The details of these criteria can be found in the Appendix.

The resource should:

- present text in a clear and organized way;
- ensure that text and tables are in a compatible format that allows reading and writing assistance tools to be used;
- include alternate methods to present visual and audio content, without the loss of information.

Pedagogical qualities

In order to allow teaching staff to guide student learning, DERs that are shared on the platform must have certain pedagogical qualities.

The resource must:

- comply with the [Québec Education Program](#) and with the other programs of study in use (vocational training, adult general education) by encouraging students to develop subject-specific and cross-curricular competencies;
- be based on the idea of developing digital competency and the related dimensions listed in the [Digital Competency Framework](#);
- use quality language that:
 - has no errors of spelling, grammar, syntax or punctuation;
 - uses a level of language appropriate to the learning context;
 - uses student-friendly vocabulary;

- be based, when necessary, on sources that are reliable, relevant and credible, unless the context justifies an exception, such as if the pedagogical aim is to teach students about determining which sources are unsuitable;
- contain citations for the sources used;
- provide content that is accurate, relevant and current:
 - the resource does not contain errors or imprecise information;
 - the content is relevant based on the subject discussed and the pedagogical aim;
 - expressions or terms that are now considered archaic and offensive are accompanied by an explanation that places them in their historical context;
 - the content is recent, unless the context justifies an exception (for example, it is acceptable to present content that is not current when discussing events in the past).

You are encouraged to draw inspiration from conclusive data from the professional and scientific research conducted in recent years in various fields of education. This data should, for example, help you include in your planning recognized strategies that will allow your students to develop competencies.

Gender equality

Digital educational resources (DERs) must reflect the makeup and values of Québec society, which promotes gender equality, in both the illustrations and the text. DERs must respect all of the following criteria, unless the context, such as historical context, justifies an exception.

The resource must:

- show egalitarian relationships and interactions between people of different genders;
- not include discrimination or stereotypes;
- use [gender-neutral writing](#), meaning a writing style that prioritizes equal representation of women and men.

Sexual and sociocultural diversity

DERs must reflect the makeup and values of Québec society, which promote openness to others and to diversity, in both the illustrations and the text. DERs must respect all of the criteria outlined below, unless the context, such as a historical one, justifies an exception.

The resource must:

- show egalitarian relationships and interactions between a variety of people with different characteristics from those of the majority, from various origins and belonging to various sociocultural, ethnocultural, linguistic and religious groups, as well as diverse family structures;
- be free of discrimination and stereotypes related to ethnocultural origin, language and religious affiliation, disabilities, social class, age, sexual orientation, etc.;
- promote body and sexual diversity, gender diversity and a variety of gender expressions (clothing, hairstyles, size, etc.).

Elements that make it possible to find a DER

The search engine on the platform uses metadata (title, description, keywords and tags) that you add to the catalogue. This form, which you will be able to access when publishing your DER, allows you to enter the metadata associated with your resource in a structured manner to describe its characteristics. Therefore, it is important to use meaningful metadata when filling out the form. Use specific and representative keywords by thinking of what search terms you would use to find your resource on the platform and by completing as many of the fields as possible. This will ensure your DER is catalogued appropriately and is as easy to find as possible, which benefits the entire community.

Useful links

- For creating open educational resources (OER): <https://fabriquerel.org/> [Available in French only].
- To consult charts to help with decisions regarding the classroom use of works for which you are not the original author:
<http://www.education.gouv.qc.ca/references/tx-solrtyperecherchepublicationtx-solrpublicationnouveaute/resultats-de-la-recherche/detail/article/schemas-du-droit-dauteur/> [Available in French only].
- Regarding the absence of advertising:
http://www1.education.gouv.qc.ca/bamd/Doc/Cadre_publicitaire_ANG.pdf.
- Regarding information security and the protection of personal information: [*Act respecting Access to documents held by public bodies and the protection of personal information*](#) (CQLR, c. A-2.1).
- Regarding the principles of accessibility: “Standard sur l’accessibilité des sites Web du gouvernement du Québec” ([SGQRI 008 2.0](#)) [Available in French only] and the criteria recommended by the members of the W3C ([World Wide Web Consortium](#)). As accessibility is a rapidly evolving field, new guides, resources and guidelines are published regularly.

- Regarding the [*Charter of human rights and freedoms*](#) (CQLR c. C-12).
- For assistance with gender-neutral language: see [*The Canadian Style*](#).
- For spelling names of locations in Québec: the [Commission de toponymie](#) [Available in French only].
- For conclusive data in education: the [Centre de transfert pour la réussite éducative du Québec \(CTREQ\)](#) [Available in French only].

Appendix: Criteria that must be respected to ensure a DER is accessible

1. The resource must present text in a clear and organized manner

- Use a sans-serif font (Arial, Verdana, etc.) where none of the characters look alike (e.g. ll, 1l, lt).
- Use a size 12 font or larger.
- Ensure that the spacing between lines of text is at least 1.5.
- Align the text content to the left, as justified text changes the spacing between letters and makes reading more difficult for certain students.
- Ensure that page numbers are visible at all times in documents.
- Whenever possible, avoid using images as backgrounds.
- Avoid using dropped capitals or other symbols that prevent the text from being read using speech synthesis or that interfere with speech synthesis.
- Ensure that there is enough contrast between the colours used for the text and the background (for example, choose black on white, yellow on black, white or yellow on dark blue).
- Add digital anchors in the table of contents included in resources (e.g. a hyperlink in each title and subtitle in the table of contents leading to the corresponding location in the resource).
- Arrange the titles (title 1, title 2...) and subtitles into a hierarchy.
- Ensure that the hyperlinks in the documents comply with the following guidelines:
 - The keywords in the text are found in the title of the hyperlink (do not write “Click here”).
 - They are separate from the text.
 - There are only a limited number, as too many hyperlinks can hinder the comprehension of a text.
- Determine the reading order for the different elements of a text (e.g. titles, paragraphs, image) or a table.

2. The text and tables must be in a compatible format that allows reading and writing assistance tools to be used

- Ensure that all documents are “unlocked,” meaning permission has been given for users to access the content.
- Ensure that it is possible to select the text.
- Ensure that it is possible to copy and paste the text into an external document (e.g. Word document).

3. The resource must include alternate methods to present visual and audio content, without the loss of information

- Ensure that images are not surrounded by text but are located above or below the text.
- Select the text wrap mode “in line with text” for reading visual elements (e.g. images, symbols, logos) for speech synthesis or screen readers.
- Replace the file names of visuals (e.g. images, artwork) and audio content (e.g. podcasts, audiobooks) with meaningful titles (e.g. pictureofaredrose.jpg, not image003.jpg).
- Provide equivalent text (descriptive text) for:
 - visual content (e.g. images, artworks)
 - audio content (e.g. podcasts, audiobooks)
 - videos (e.g. tutorials, documentaries)
- Add subtitles or provide a transcript of videos and images.

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