

# DEFINITION OF THE EVALUATION DOMAIN

Adult General Education

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Diversified Basic Education Program

Computer Science

EMERGING COMPUTER APPLICATIONS

CMP-5083-2

January 2020

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## Introduction

The Definition of the Evaluation Domain (DED) ensures consistency between a course and the related evaluation instruments. The DED is used to select, organize and describe the essential and representative elements of the course. The DED is based on the program of study and the course, but should by no means replace them in the planning of instructional activities.

All the DEDs produced after June 30, 2014, by the Ministère de l'Éducation et de l'Enseignement supérieur (MEES) are prescriptive. Consequently, they are the reference documents to be used in the development of all examinations, be they ministerial examinations or those developed by adult education centres or by Société GRICS (BIM). The DEDs thus serve as a model for preparing multiple equivalent versions of examinations that are valid across the province.<sup>1</sup>

In addition, as set out in the *Policy on the Evaluation of Learning*, adult learners must know what they will be evaluated on and what is expected of them.<sup>2</sup> The DEDs and the criterion-referenced rubrics are recommended for this purpose.

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1. Québec, Ministère de l'Éducation du Québec, *Policy on the Evaluation of Learning* (Québec: Gouvernement du Québec, 2003), 47.
  2. Ibid., 9.

## Evaluation Content

<b>General Information</b>	
<p><b>Broad Areas of Learning<sup>3</sup></b></p> <ul style="list-style-type: none"> <li>• Career Planning and Entrepreneurship</li> <li>• Citizenship and Community Life</li> </ul> <p><b>Subject Area</b></p> <ul style="list-style-type: none"> <li>• Mathematics, Science and Technology</li> </ul> <p><b>Families of Situations</b></p> <ul style="list-style-type: none"> <li>• Information               <ul style="list-style-type: none"> <li>– Interacts by interpreting signals he/she receives and using input and output peripherals</li> </ul> </li> <li>• Creation               <ul style="list-style-type: none"> <li>– Discovers what computers can do by consulting documentation and by experimenting</li> <li>– Creates by correctly using the appropriate functions</li> </ul> </li> <li>• Critical thinking               <ul style="list-style-type: none"> <li>– Evaluates his/her work by setting quality standards</li> </ul> </li> </ul>	<p><b>Program of Study</b></p> <ul style="list-style-type: none"> <li>• Computer Science</li> </ul> <p><b>Course</b></p> <ul style="list-style-type: none"> <li>• Emerging Computer Applications</li> </ul>
<b>Essential Elements Targeted by the Evaluation</b>	
<p><b>Subject-Specific Competencies</b></p> <ol style="list-style-type: none"> <li>1. Interacts in a computer environment</li> <li>2. Produces computerized documents</li> </ol>	<p><b>Categories of Knowledge</b></p> <ul style="list-style-type: none"> <li>• Context associated with a specific situation that involves using a recent technological discovery or a computer technology newly accessible to the general public</li> <li>• Concepts involved in dealing with specific situations</li> <li>• Understanding the commands and functions required for the project</li> <li>• Dealing with specific situations</li> </ul>
<b>Evaluation Criteria</b>	
<p><b>Evaluation Criteria for Competency 1</b></p> <ol style="list-style-type: none"> <li>1.1 Accurate interpretation of messages and signals</li> <li>1.2 Use of appropriate strategies to interact and to troubleshoot</li> </ol> <p><b>Evaluation Criteria for Competency 2</b></p> <ol style="list-style-type: none"> <li>2.1 Thorough planning of the work</li> <li>2.2 Application of appropriate tools and functions</li> <li>2.3 Rigorous compliance with the constraints identified</li> </ol>	<p><b>Proficiency in Subject-Specific Knowledge</b></p> <p>Proficiency in subject-specific knowledge presupposes its acquisition, understanding, application and mobilization, and is therefore linked with the evaluation criteria for the competencies.</p>

3. The broad areas of learning are stated exactly as in the course. However, the person who designs the evaluation instrument may choose other broad areas of learning.

## Explanation of the Evaluation Content

### Evaluation Criteria

The evaluation criteria are stated exactly as in the course.

The examination focuses little, if at all, on the first aspect of criterion 1.1 (reacting to messages transmitted by the application) and criterion 1.2. To make a judgment related to the first aspect of criterion 1.1 and to criterion 1.2, the teacher should observe the adult learner in the classroom. Obviously, any observations made during the examination should also be taken into account.<sup>4</sup>

### Information Clarifying the Evaluation Criteria

#### **1.1 Accurate interpretation of messages and signals**

This criterion evaluates the adult learner's ability to react appropriately to messages transmitted by the application and to demonstrate an understanding of the specific characteristics of the application by placing it in context.

#### **1.2 Use of appropriate strategies to interact and to troubleshoot**

This criterion evaluates the adult learner's ability to use sources of computer help (e.g. application help function, tutorials, the Internet).

#### **2.1 Thorough planning of the work**

This criterion evaluates the adult learner's ability to determine the elements needed to carry out the project.

#### **2.2 Application of appropriate tools and functions**

This criterion evaluates the adult learner's ability to present a production in compliance with the requirements of the task and the related quality standards.

#### **2.3 Rigorous compliance with the constraints identified**

This criterion measures the adult learner's ability to present a document in compliance with the requirements of the task and the related quality standards

### **Proficiency in Subject-Specific Knowledge**

Proficiency in subject-specific knowledge is assessed through the evaluation of competencies, using tasks related to the evaluation criteria.

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4. Since these criteria are evaluated for the purpose of certification, the teacher should make a judgment concerning the adult learner's ability **at the end of the course**. The mark given should not be based on several evaluations done at different times during the course.

## Weighting

The weighting for the evaluation of the competencies is determined in accordance with the relative weighting given each competency in the course. The competencies are weighted as follows:

Competency 1, *Interacts in a computer environment*: 30%

Competency 2, *Produces computerized documents*: 70%

The weighting of the evaluation criteria appears in the assessment tools provided in the *Marking Guide*. Adult learners must be made aware of the evaluation criteria used to evaluate them and the corresponding weighting of each criterion.

## Knowledge

The following table illustrates the prescribed knowledge for this course. However, in special cases, particularly when an application does not have the tools and commands needed to acquire all of the prescribed knowledge, the missing items can be replaced with equivalent knowledge.

The examination must require adult learners to apply a representative sample of the knowledge indicated in the table.

### Subject-Specific Content

Categories of Knowledge	Prescribed Knowledge
<b>Context associated with a specific situation that involves using a recent technological discovery or a computer technology newly accessible to the general public</b>	<ul style="list-style-type: none"> <li>Context before the emergence of the computer application</li> <li>Advantages and disadvantages of the emerging computer application</li> <li>Socioeconomic impact (environment, labour market, business opportunities)</li> </ul>
<b>Concepts involved in dealing with specific situations</b>	<ul style="list-style-type: none"> <li>Main concepts, objects and properties of objects</li> <li>Functions and procedures</li> <li>Input and output</li> </ul>
<b>Understanding the commands and functions required for the project</b>	<ul style="list-style-type: none"> <li>Determining the possibilities of the application</li> <li>Identifying the commands and functions required for a project</li> <li>Using the documentation and resources required for a project</li> </ul>
<b>Dealing with specific situations</b>	<ul style="list-style-type: none"> <li>Using the tools and commands and, if applicable, creating and modifying objects</li> <li>Reviewing the product or process</li> <li>If applicable, disseminating the final product</li> </ul>

## Specifications for the Evaluation Instruments

### Examination: Number of Parts, Sections, Procedure and Duration

The examination is administered in one evaluation session. Adult learners are responsible for managing the time available to them.

Time: 180 minutes

### Examination Content

The task consists in carrying out a project using an emerging application.<sup>5</sup>

### Information-Gathering Tools

- Adult's Booklet
- The adult learner's production (ex.: computerized document)
- The printed sheets, if applicable

### Authorized Materials

- Application installed on a computer or other device\*
- Internet access
- Peripheral, electronic device or technology required for production (ex.: printer, robot, VR headset)
- Removable medium (or storage space) containing the files needed for the production, if applicable
- Personal course notes
- Reference documents (paper or electronic format)

\* Necessary materials

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5. The goal of this course is to teach adult learners how to use an emerging application. It is up to the educational institution to choose the application that enables learners to explore most of the prescribed knowledge for the course.

## Assessment Tools

For the evaluation of Competency 1, *Interacts in a computer environment*, and Competency 2, *Produces computerized documents*, the criterion-referenced rubric (one for each competency) is the assessment tool used by the teacher. Criterion-referenced interpretation involves comparing the information gathered with the expected outcomes.<sup>6</sup> These rubrics are prescriptive and include the following rating scale:

Competency development:

- Advanced
- Thorough
- Acceptable
- Partial
- Minimal

A checklist is provided in the *Marking Guide* to help markers use the criterion-referenced rubrics.

## Pass Mark

The pass mark is 60%.

## Retakes

The adult learner must retake the entire examination.

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6. Québec, Ministère de l'Éducation, *Policy on the Evaluation of Learning* (Québec: Gouvernement du Québec, 2003), 28-29.

## **APPENDIX – CRITERION-REFERENCED RUBRICS**



Adult General Education

<p style="text-align: center;"><b>EVALUATION</b></p> <p style="text-align: center;"><b>Criterion-Referenced Rubrics</b></p> <hr/> <p style="text-align: center;">Adult learner's name</p> <hr/> <p style="text-align: center;">Teacher's name</p> <hr/> <p style="text-align: center;">Date</p>
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Diversified Basic Education Program  
*Computer Science*

Course  
*Emerging Computer Applications*  
CMP-5083-2

**Competency 1: Interacts in a computer environment (30%)**

**Instructions:**

- For each criterion, circle the statement(s) that correspond(s) to the adult learner’s performance level.
- In the last column, enter the mark that corresponds to the assigned rating(s). The only mark that can be allotted for a given level is that indicated in the rubric.

<b>Rating scale</b> <b>Evaluation criteria</b>	<b>Advanced</b> competency development	<b>Thorough</b> competency development	<b>Acceptable</b> competency development	<b>Partial</b> competency development	<b>Minimal</b> competency development	<b>Mark</b>
<b>1.1</b> <b>Accurate interpretation</b> <b>of messages and</b> <b>signals</b>	Always responds appropriately to explicit and implicit messages sent by the operating system. <b>10</b>	Almost always responds appropriately to explicit and implicit messages sent by the operating system. <b>8</b>	Often responds appropriately to explicit and implicit messages sent by the operating system. <b>6</b>	Has difficulty recognizing and interpreting explicit and implicit messages sent by the operating system. <b>4</b>	Has great difficulty recognizing and interpreting explicit and implicit messages sent by the operating system. <b>2</b>	___/20
	Demonstrates a good understanding of all of the features of the application. <b>10</b>	Demonstrates a good understanding of almost all of the features of the application. <b>8</b>	Demonstrates a good understanding of most of the features of the application. <b>6</b>	Has difficulty in understanding the features of the application. <b>4</b>	Has great difficulty in understanding the features of the application. <b>2</b>	
<b>1.2</b> <b>Use of appropriate</b> <b>strategies to interact</b> <b>and to troubleshoot</b>	Always uses appropriate help sources to troubleshoot. <b>5</b>	Almost always uses appropriate help sources to troubleshoot. <b>4</b>	Often uses appropriate help sources to troubleshoot. <b>3</b>	Sometimes uses appropriate help sources to troubleshoot. <b>2</b>	Rarely uses appropriate help sources to troubleshoot. <b>1</b>	___/10
	Interaction with the application demonstrates a high level of familiarity. <b>5</b>	Interaction with the application demonstrates a good level of familiarity. <b>4</b>	Interaction with the application demonstrates a developing familiarity. <b>3</b>	Interaction with the application demonstrates a low level of familiarity. <b>2</b>	Interaction with the application demonstrates a very low level of familiarity. <b>1</b>	
<b>Mark for competency 1:</b>						___/30

Assign a mark of 0 when the adult learner’s performance does not correspond to any of the statements in the rubric.

**Competency 2: Produces Computerized Documents (70%)****Instructions:**

- For each criterion, circle the statement(s) that correspond(s) to the adult learner's performance level.
- In the last column, enter the mark that corresponds to the assigned rating(s). The only mark that can be allotted for a given level is that indicated in the rubric.

<b>Rating scale</b> <b>Evaluation criteria</b>	<b>Advanced</b> competency development	<b>Thorough</b> competency development	<b>Acceptable</b> competency development	<b>Partial</b> competency development	<b>Minimal</b> competency development	<b>Mark</b>
<b>2.1</b> <b>Thorough planning</b> <b>of the work</b>	Planning, whether in the form of a text, list, sketch or other, is very detailed, and all the required elements are taken into account.  <b>20</b>	Planning, whether in the form of a text, list, sketch or other, is sufficiently detailed, and almost all the required elements are taken into account.  <b>16</b>	Planning, whether in the form of a text, list, sketch or other, is partial, but most of the required elements are taken into account.  <b>12</b>	Planning, whether in the form of a text, list, sketch or other, is limited, and most of the required elements are missing.  <b>8</b>	Planning, whether in the form of a text, list, sketch or other, is very limited.  <b>4</b>	<b>___/20</b>
<b>2.2</b> <b>Application of</b> <b>appropriate tools</b> <b>and functions</b>	The final product demonstrates a very high level of proficiency in the use of the commands and functions.  <b>20</b>	The final product demonstrates a high level of proficiency in the use of the commands and functions.  <b>16</b>	The final product demonstrates proficiency in the use of the commands and functions.  <b>12</b>	The final product demonstrates a low level of proficiency in the use of the commands and functions.  <b>8</b>	The final product demonstrates a very low level of proficiency in the use of the commands and functions.  <b>4</b>	<b>___/20</b>
<b>2.3</b> <b>Rigorous</b> <b>compliance with the</b> <b>constraints</b> <b>identified</b>	The final product takes into account all of the task requirements and quality standards.  <b>30</b>	The final product takes into account almost all of the task requirements and quality standards.  <b>24</b>	The final product takes into account most of the task requirements and quality standards.  <b>18</b>	The final product takes into account few of the task requirements and quality standards.  <b>12</b>	The final product takes into account very few of the task requirements and quality standards.  <b>6</b>	<b>___/30</b>
<b>Mark for competency 2:</b>						<b>___/70</b>

Assign a mark of 0 when the adult learner's performance does not correspond to any of the statements in the rubric.

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