DEFINITION OF THE EVALUATION DOMAIN

Adult General Education

Diversified Basic Education Program

Computer Science

OPERATING A DATABASE CMP-5071-2

September 2018

Québec

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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.[1]

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.[2] The DEDs and the criterion-referenced rubrics are recommended for this purpose.

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

General Information	
Broad Areas of Learning[3] • Environmental Awareness and Consumer Rights and Responsibilities • Citizenship and Community Life **Subject Area** • Mathematics, Science and Technology **Families of Situations** • Creation - Discovers what computers can do by consulting documentation and by experimenting - Creates by correctly using the appropriate functions - Acts prudently by adopting safe behaviours • Critical thinking - Evaluates his/her work by setting quality standards - Validates information by using validation criteria	**Program of Study** • Computer Science **Course** • Operating a Database
Essential Elements Targeted by the Evaluation	
Subject-Specific Competencies 1. Interacts in a computer environment 2. Produces computerized documents 3. Adopts behaviours that reflect a concern for ethics, safety and critical thinking	**Categories of Knowledge** • Nature, role and properties of the main objects of a database • Main databases • Standard terminology associated with databases • Translating a question from everyday language into database language • Using an existing database • Creating and modifying data
Evaluation Criteria	
Evaluation Criterion for Competency 1 1.1 Use of appropriate strategies to interact and to troubleshoot **Evaluation Criteria for Competency 2** 2.1 Thorough planning of the work 2.2 Appropriate formatting based on document type 2.3 Application of appropriate tools and functions 2.4 Rigorous compliance with the constraints identified **Evaluation Criteria for Competency 3** 3.1 Appropriate adoption of ethical and safe behaviours 3.2 Judicious integration of information in accordance with the constraints identified	**Proficiency in Subject-Specific Knowledge** Proficiency in subject-specific knowledge presupposes its acquisition, understanding, application and mobilization, and is therefore linked with the evaluation criteria for the competencies.

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 criteria 1.1 and 3.1. To make a judgment related to these criteria, the teacher should observe the adult learner in the classroom. Of course, any observations made during the examination should also be taken into account.[4]

Information Clarifying the Evaluation Criteria

1.1 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 steps needed to produce the document.

2.2 Appropriate formatting based on document type

This criterion evaluates the adult learner's ability to apply the appropriate formatting to the results.

2.3 Application of appropriate tools and functions

This criterion evaluates the adult learner's ability to use the commands and functions needed to consult and modify a database, as well as the functions needed to create queries, forms and reports.

2.4 Rigorous compliance with the constraints identified

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

3.1 Appropriate adoption of ethical and safe behaviours

This criterion evaluates the adult learner's ability to act in accordance with a personal sense of ethics and a concern for the safety of data.

3.2 Judicious integration of information in accordance with the constraints identified

This criterion evaluates the adult learner's ability to process information gleaned from a database and to ensure the validity of the results obtained.

Proficiency in Subject-Specific Knowledge

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

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 importance of each competency in the course. The competencies are weighted as follows:

Competency 1, *Interacts in a computer environment*: 15%
Competency 2, *Produces computerized documents*: 65%
Competency 3, *Adopts behaviours that reflect a concern for ethics, safety and critical thinking*: 20%

The weighting of the evaluation criteria appears in the assessment tools provided in the *Correction and Evaluation 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 presents the prescribed knowledge selected for the examination. 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
Nature, role and properties of the main objects of a database	• Table • Record • Field • Primary key • Queries • Selection (sort, filter, without criteria) • Simple query, single criterion query, use of logic operators (< = >) • Complex query, multiple criteria query, use of relational operators (AND, OR) • Reports
Main databases	• Database management systems (DBMS) • Internet search engines
Using an existing database	• Using queries • Using reports • Adding, deleting and changing data in a table
Creating and modifying data	• Queries • Single criterion query • Multiple criteria query • Calculated field • Reports • Grouping levels • Formatting results

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.

Duration: 180 minutes

Examination Content

The task consists in producing a document that requires the use of a database application.[5]

Information-Gathering Tools

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

Authorized Materials

- Database application installed on a computer or other device*
- Internet access
- Printer connected to the device
- 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

5. The goal of this course is to teach adult learners how to use a database 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,* Competency 2, *Produces computerized documents,* and Competency 3, *Adopts behaviours that reflect a concern for ethics, safety and critical thinking,* 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.[6] These rubrics are prescriptive and include the following rating scale:

Competency development:

- Advanced
- Thorough
- Acceptable
- Partial
- Minimal

A checklist is provided in the *Correction and Evaluation 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.

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

EVALUATION

Criterion-Referenced Rubrics

_____
Adult learner's name

_____
Teacher's name

_____
Date

Diversified Basic Education Program
Computer Science

Course
Operating a Database
CMP-5071-2

Competency 1: Interacts in a Computer Environment (15%)

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.

Rating scale / Evaluation criteria	**Advanced** competency development	**Thorough** competency development	**Acceptable** competency development	**Partial** competency development	**Minimal** competency development	**Mark**
1.1 Use of appropriate strategies to interact and to troubleshoot	Always uses appropriate help sources to troubleshoot. **10**	Almost always uses appropriate help sources to troubleshoot. **8**	Often uses appropriate help sources to troubleshoot. **6**	Sometimes uses appropriate help sources to troubleshoot. **4**	Rarely uses appropriate help sources to troubleshoot. **2**	**___/15**
	Interaction with the application demonstrates a high level of familiarity. **5**	Interaction with the application demonstrates a good level of familiarity. **4**	Interaction with the application demonstrates a developing familiarity. **3**	Interaction with the application demonstrates little familiarity. **2**	Interaction with the application demonstrates very little familiarity. **1**	
					Mark for competency 1:	**___/15**

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 (65%)

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.

Rating scale / Evaluation criteria	**Advanced** competency development	**Thorough** competency development	**Acceptable** competency development	**Partial** competency development	**Minimal** competency development	**Mark**
2.1 Thorough planning of the work	Planning, whether in the form of a text, list, sketch or other, is very detailed, and all the required elements are taken into account. **15**	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. **12**	Planning, whether in the form of a text, list, sketch or other, is partially complete, but most of the required elements are taken into account. **9**	Planning, whether in the form of a text, list, sketch or other, is limited, and most of the required elements are missing. **6**	Planning, whether in the form of a text, list, sketch or other, is very limited. **3**	**__/15**
2.2 Appropriate formatting based on document type	Layout of information in the reports is fully appropriate. **10**	Layout of information in the reports is very appropriate. **8**	Layout of information in the reports is appropriate. **6**	Layout of information in the reports is seldom appropriate. **4**	Layout of information in the reports is rarely appropriate. **2**	**__/20**
	Data formatting elements (formatting of numbers, alignment, shading, etc.) are fully appropriate. **10**	Data formatting elements (formatting of numbers, alignment, shading, etc.) are very appropriate. **8**	Data formatting elements (formatting of numbers, alignment, shading, etc.) are appropriate. **6**	Data formatting elements (formatting of numbers, alignment, shading, etc.) are seldom appropriate. **4**	Data formatting elements (formatting of numbers, alignment, shading, etc.) are very seldom appropriate. **2**	

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 (65%) (cont.)

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.

Rating scale / Evaluation criteria	**Advanced** competency development	**Thorough** competency development	**Acceptable** competency development	**Partial** competency development	**Minimal** competency development	**Mark**
2.3 Application of appropriate tools and functions	The final product demonstrates a very high level of proficiency in the use of commands and functions. **15**	The final product demonstrates a high level of proficiency in the use of commands and functions. **12**	The final product demonstrates proficiency in the use of commands and functions. **9**	The final product demonstrates a low level of proficiency in the use of commands and functions. **6**	The final product demonstrates a very low level of proficiency in the use of commands and functions. **3**	**__/15**
2.4 Rigorous compliance with the constraints identified	The final product takes into account all of the task requirements and quality standards. **15**	The final product takes into account almost all of the task requirements and quality standards. **12**	The final product takes into account most of the task requirements and quality standards. **9**	The final product takes into account few of the task requirements and quality standards. **6**	The final product takes into account very few of the task requirements and quality standards. **3**	**__/15**
					Mark for competency 2:	**___/65**

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

Competency 3: Adopts behaviours that reflect a concern for ethics, safety and critical thinking (20%)

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.

Rating scale / Evaluation criteria	**Advanced** competency development	**Thorough** competency development	**Acceptable** competency development	**Partial** competency development	**Minimal** competency development	**Mark**
3.1 Appropriate adoption of ethical and safe behaviours	Always handles data so as to prevent loss and ensure the confidentiality of personal information. **5**	Almost always handles data so as to prevent loss and ensure the confidentiality of personal information. **4**	Often handles data so as to prevent loss and ensure the confidentiality of personal information. **3**	Seldom handles data so as to prevent loss and ensure the confidentiality of personal information. **2**	Rarely handles data so as to prevent loss and ensure the confidentiality of personal information. **1**	**__/5**
3.2 Judicious integration of information in accordance with the constraints identified	Data is always processed (addition, modification and deletion of data, creation of queries, reports, etc.) without any errors. **15**	Data is almost always processed (addition, modification and deletion of data, creation of queries, reports, etc.) without any errors. **12**	Data is often processed (addition, modification and deletion of data, creation of queries, reports, etc.) without any errors. **9**	Data is seldom processed (addition, modification and deletion of data, creation of queries, reports, etc.) without any errors. **6**	Data is rarely processed (addition, modification and deletion of data, creation of queries, reports, etc.) without any errors. **3**	**__/15**
					Mark for competency 3:	**___/20**

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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