Microcomputing

Creating a Database

Québec

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1. Introduction

This definition of the domain for summative evaluation describes and classifies the essential and representative elements of the *Microcomputing* program, and, more specifically, for the course entitled *Creating a Database*. As such, it gives an overview of the program, but should by no means replace the program itself. The purpose of defining the domain is to ensure that all summative evaluation instruments are consistent with the overall program.

The organization of this definition of the domain is the same as that of those of other courses. The content of each section is, however, specific to this course.

The definition of the domain for summative evaluation is used to prepare examinations that are valid from one version to another, from year to year, and from one school board to another, taking into account the division of responsibilities shared by the Ministère de l'Éducation and the school boards.

2. Program Orientations and Consequences for Summative Evaluation

Orientations	Consequences
The course *Creating a Database* is designed to allow students to acquire the knowledge required to use a database program autonomously.	The students should be able to autonomously use the basic functions required to create a database and possess an in-depth knowledge of the different database functions.
The program favours a pragmatic approach, proposing objectives of a practical nature.	The evaluation should consist of tasks designed to verify the students' acquisition of practical microcomputing skills.
The program is designed to allow students to put their microcomputing skills to immediate use, both in general education programs and in everyday life.	The evaluation should consist of tasks related to the students' general education courses and to specific activities of everyday life.
The program favours production activities.	The evaluation may include activities with more than one component.
The program is based on the most widely used database programs.	The examinations should be adaptable to different software programs or be independent of these programs.

3. Course Content for Purposes of Summative Evaluation

Themes

- **Creating a database**
  - Creating the structure
  - Entering the data

- **Modifying a database**
  - Deleting fields
  - Adding a calculated field
  - Adding and deleting records
  - Changing field size
  - Modifying records

- **Editing a database**
  - Sorting records
  - Querying a database
  - Grouping information
  - Headers and footers
  - Pagination
  - Statistical functions

- **Management commands**
  - Saving
  - Printing
    - List mode
    - Form layout mode
    - Report

Skills

- **Applying:** Using a procedure or techniques according to specific rules in order to obtain an expected result.

- **Producing:** Integrating knowledge and several different skills in an appropriate, original and well-organized manner in order to create a complex product.

4. Table of Dimensions

Themes / Skills	Creating a Database 25%	Modifying a Database 25%	Editing a Database 30%	Management Commands 20%
Applying 40%		**1** Deleting fields 5%	**6** Sorting records 5%	
		2 Adding a calculated field 5%	**7** Querying a database 5%	
		3 Adding and deleting records 5%	**8** Grouping information 5%	
		4 Changing field size 5%		
		5 Modifying records 5%		
Producing 60%	**9** Creating the structure 15%		**11** Headers and footers 5%	**14** Saving 5%
	10 Entering the data 10%		**12** Pagination 5%	**15** Printing (List mode) 5%
			13 Statistical functions 5%	**16** Printing (Form layout mode) 5%
				17 Printing (Report) 5%

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5. Observable Behaviours

General Description

The evaluation tasks should be based on the following list of observable behaviours. A task may combine several dimensions and more than one skill. This is especially the case regarding the skill of *Producing*. Students must complete the tasks within pre-established time limits in order to demonstrate their competency and autonomy in the use of a database program.

Description of the Dimensions Related to the Skill of *Applying*

Tasks related to this skill have pre-established steps and are designed to show specific skills. The evaluation of task performance is based on assessment of whether the correct method or procedure was used. The expected result should be identical for each student.

Using a database program, students should be able to:

1. Delete fields from the structure.

2. Insert a calculated field.

3. Insert or delete records.

4. Change the size of a field in a database.

5. Change records in a field in a single operation.

6. Organize database records using a single criterion.

7. Query a database using a relational operator.

8. Group the records in a field on the basis of one characteristic.

Description of the Dimensions Related to the Skill of *Producing*

The evaluation of the dimensions related to the skill of *Producing* is focused more on the result than on the method or procedure. Knowing the order in which steps must be performed is part of this skill. The expected result should be different for each student.

Using a database program, students should be able to:

9. Create the structure of a database with at least five fields of three different types.

10. Enter data for at least 8 to 10 records.

11. Create a header or a footer for a printed document.

12. Use the pagination functions in a printed document of more than one page.

13. Identify a statistical function and use it correctly in a report.

14. Save the format of a report or a database file under a new name in a file on diskette.

15. Print a whole or partial database in list mode.

16. Print a whole or partial database in form layout mode.

17. Print a database file report.

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6. Explanation of the Content and Weighting

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Weighting of Skills

Given that the objectives of the course are designed to favour the acquisition of knowledge and the development of skills related to the use of a database program, summative evaluation should measure two skills:

- the skill of *Applying*, which demonstrates the students' ability to use functions following specific instructions;

- the skill of *Producing*, which demonstrates the students' initiative, creativity and autonomy.

Weighting of Themes

The weighting of the themes corresponds to their importance in the course. Themes are related to the skill of *Applying* or that of *Producing*, depending on the one considered most appropriate.

Overall Weighting

- In terms of skills:
    - *Applying* skill   40%
    - *Producing* skill   60%

- In terms of themes:
    - Creating a database   25%
    - Modifying a database   25%
    - Editing a database   30%
    - Management commands   20%

7. Description of the Examination

7.1 Type of Examination

- The summative evaluation consists of a practical examination to be administered at the end of the course.

- Given the time allotted for the examination, elements of the content related to the skill of *Applying* will be evaluated using a database containing at least five fields and 60 records provided in a file on diskette.

7.2 Characteristics of the Examination

- The examination comprises one or more tasks.

- The examination is held in one sitting.

- The maximum duration of the examination is 120 minutes.

- It is necessary to use a computer, a database program and a printer during the examination.

- Students are not permitted to use the learning guide.

- Students may use the software's Help function. If the software has no Help function, students may consult the manufacturer's manual.

- Students may use a sheet of personal notes (letter format).

- Students must be evaluated on the same software they learned on.

- For evaluation of the skill of *Producing*, students must create a database structure different from the one provided for evaluation of the skill of *Applying*.

- Students must print each task.

- The examination will be corrected using the printouts and, if necessary, the students' files.

7.3 Pass Mark

The pass mark is set at 60 out of 100.