This document outlines the guidelines and procedures for educators interested in using the Computerized Information System for Nursing Educators (CISNE), a project sponsored by Francophone International Learning Module Systems. In the first of the report's four sections are a brief description of CISNE guidelines for entry procedures and forms for entering objectives, test items, and resources. Section 2 tells how to enter previously prepared material into the CISNE system. In the third section guidelines for participating schools wishing only to retrieve information from CISNE are described and illustrated with examples. The final section contains a timetable of CISNE activities. (WDR)
The first step towards computerized instruction or computer assisted instruction

Author
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CISNE is the acronym for Computerized Information System for Nursing Educators.

CISNE provides guidelines and procedures for educators interested in computerized information systems (CIS) and in computer-assisted instruction (CAI).

CISNE is an example taken from nursing educators. CISNE can be applied to any area with little change in guidelines or procedures. Many of the CISNE forms herein included and the programs outlined can be used unchanged in many course areas.

CISNE leads to CAI by storing, categorizing, and field testing materials before the sequencing from baby steps to giant steps that makes up the backbone of CAI.

CISNE is open to the general public. However, permission to program computers based upon this document should be cleared by writing to:

CISNE also provides computer programs not included in this document.
## CONTENTS

1. **CISNE Guidelines for Entry Procedures** ........................................ 1
   - CISNE Guidelines for Entry Procedures ...................................... 2
   - CISNE Entry Form for Objectives ............................................ 3
   - CISNE Entry Form for Test Items ........................................... 4
   - CISNE Entry Form for Resources ........................................... 5

2. **CISNE Guidelines on How to Enter Previously Developed Material Into the CISNE System** ........................................ 6
   - How to Enter Previously Developed Material Into the CISNE System ... 7

3. **CISNE Guidelines for Participating Schools (Retrieval)** ................. 9
   - CISNE Guidelines for Participating Schools (Retrieval) .................. 10
   - What You Can Expect To Find in the CISNE Package You Asked For .... 12
   - CISNE Input Process .................................................................. 13
   - Sample Input Training .................................................................. 14
   - Sample Input Obligations ......................................................... 15
   - CISNE Filing System .................................................................. 16
   - Sample Questions ....................................................................... 18
   - General Guidelines on CISNE .................................................... 19

4. **TIMETABLE FOR CISNE ACTIVITIES** ........................................... 22
   - CISNE Tasks ............................................................................... 26
   - Eliminating The Burden of Sisyphus From the Shoulders of the Practical Nursing Instructor .................................................. 28
GENERAL GUIDELINES

1. CISSP GUIDELINES FOR ENTRY PROCEDURES
Anytime you have objectives, test items, or resources to enter into the ESCOE bank, here are the procedures to follow:

STEP 1

Divide your course into its major categories and each category into its major subcategories. The CISNE name for each major category is block; the CISNE name for each major subcategory is unit. This outline of your course should correspond very closely to official program descriptions.

STEP 2

After each line giving the major categories and subcategories of your course, place the corresponding code number that specifies the CISNE block and unit. (If you have difficulty doing this, CISNE will be happy to provide you with coding assistance.)

STEP 3

Whenever you have an objective, test item, or resource to enter into the CISNE bank, identify that part of your official course outline to which this material refers.

STEP 4

Once this is done, identify each objective, test item, or resource you submit with the appropriate CISNE block and unit code. (Your previous efforts in step 2 above should help you here. If you need more help, feel free to contact CISNE for the proper coding for this information.)

STEP 5

Complete steps 3 and 4 above for each objective, test item, or resource that you wish to submit to the CISNE bank. (Special CISNE forms are available for submitting objectives, test items, and resources.)
CISNE ENTRY FORM FOR OBJECTIVES

(To be filled out by submitting teacher)

Local Course Name ____________________________  CISNE Course Code # ____________________________
Local Course Category _________________________  CISNE Block Code # ____________________________
Local Course Subcategory ________________________  CISNE Unit Code # ____________________________

CONDITIONS ———— 01
  02
  03
  04
  05
  06

PERFORMANCE ———— 01
  02
  03
  04
  05
  06

EXTENT ———— 01
  02
  03
  04
  05
  06
  07
  08

This objective is primarily ______ KO: A knowledge objective
  ______ PO: A performance objective
  ______ AO: An attitude objective
CISNE ENTRY FORM FOR TEST ITEMS
(To be filled out by submitting teacher)

Local Course Name_________________________ CISNE Course Code #____________
Local Course Category_______________________ CISNE Block Code #____________
Local Course Subcategory____________________ CISNE Unit Code #____________

The following test item is related to ESCOE objective number____________
(If you don't know all 16 digits of the ESCOE code number, please staple a copy of the objectives to which this test item is related to the back of this page.)

CHECK ONE: This test item is primarily KE: A knowledge evaluation test item
____________ PE: A performance evaluation test item
____________ AE: An attitude evaluation test item

TEST ITEM

Answer Key
____________
CISNE ENTRY FORM FOR RESOURCES

(To be filled out by submitting teacher)

Local Course Name_________________________  CISNE Course Code #___________

Local Course Category_______________________  CISNE Block Code #___________

Local Course Subcategory_____________________  CISNE Unit Code #___________

This resource is correlated directly to CISNE objective number__________________

(If you don't know all 16 digits of the CISNE code for the related objectives, please staple a copy of this objective to the back of this resource entry form.)

CHECK ONE: This resource is primarily____KR: A knowledge resource

____PR: A performance resource

____AR: An attitude resource

DIRECTIONS: Please answer the following four questions on description, usage, availability, and cost.

DESCRIPTION: Give a brief description of exactly what the resource is. If the resource can be photo-copies, staple this resource to the back of this CISNE resource entry form.

USAGE: State briefly how you use this resource to improve your teaching.

________________________________________________________________________

AVAILABILITY: Give the specific address where this resource can be obtained.

________________________________________________________________________

COST:

________________________________________________________________________
GENERAL GUIDELINES

2. CTSNE GUIDELINES

ON HOW TO ENTER PREVIOUSLY DEVELOPED MATERIAL

INTO THE CTSNE SYSTEM
HOW TO ENTER PREVIOUSLY DEVELOPED MATERIAL
INTO THE CISNE SYSTEM

Many of the participants in the CISNE system have found themselves with valuable material but that does not conform to the precise format of CISNE. This material may be in printed or in photocopy format. Sometimes it consists of course outlines, final examination questions, modules, self-instructional packages, and a wide variety of other learning resources.

Theoretically, it would be possible to take this material and piece by piece place it on the official CISNE input forms, whether for objectives, test items, or resources. In practice, the busy teacher does not have time to do this. Yet, it is still important to share this material with other teachers.

There is a very simple way to do it. Here it is:

STEP 1

Assemble the material you have into self-standing units that represent major categories or subcategories of your course.

STEP 2

After your own local name for this material, have the proper CISNE block and unit number.

STEP 3

Go through the material you have developed in order to identify it with three symbols.

Use 0 to stand for objectives
Use E to stand for evaluation, test items, or final exams
Use R to stand for learning resources
STEP 4

Make enough xeroxed copies of this material so that you can start cutting and pasting.

STEP 5

Try to rearrange the materials you have developed according to the following format.

A. Place each major objective across the top of your desk
B. Immediately under each major objective, place those test items that directly measure this objective
C. Immediately under the test items, place those resources that help the student attain this objective

STEP 6

By using either paper and paste or scotch tape, put this material together into sequential form. Try to make sure that your pages follow the regular 8½ x 11 format. In cases of learning resources that cannot be easily photocopied, give a brief description that will indicate the nature of the learning resource and also where it can be obtained.

STEP 7

Submit this material to your coordinator of practical nursing. She will then go through it and forward it to CISNE for inclusion in the bank.

Note: This above procedure is only one of the ways to enter previously developed materials in the CISNE bank. If this procedure is not practical in your case, feel free to consult CISNE for consultation in what to do with valuable material that does not conform precisely to the CISNE format.
GENERAL GUIDELINES

3. CISNE GUIDELINES
FOR PARTICIPATING SCHOOLS
(RETRIEVAL.)
CISNE GUIDELINES
FOR PARTICIPATING SCHOOLS
(RETRIEVAL)

As a teacher in either a BOCES or a city school district participating in the CISNE practical nursing program for 1973-74, you have the right to retrieve material from the CISNE bank.

The following guidelines tell you how to get the material you want from the CISNE practical nursing component.

STEP 1:
Contact your local coordinator of practical nursing and let her know of your desire to participate in the CISNE model program.

STEP 2:
Study carefully the CISNE block and unit breakdowns she will give you for practical nursing. This means identifying those CISNE components such as objectives, resources, or test items that will be helpful to you in your classroom teaching.

STEP 3:
Specify in writing the precise block and unit you wish to receive from the CISNE bank. Each request originating from an individual teacher is limited to one unit at a time.

STEP 4:
Give this request for CISNE material to your coordinator of practical nursing. She will request this material from CISNE. You will receive it from her.
STEP 5:

Go through the material you receive from CISNE. Try to adapt it to your teaching needs. If you have a need for additional training, make this need known to your nursing coordinator who will contact CISNE to give you the needed assistance.

STEP 6:

After you have taught with the CISNE material, report your reactions to your local coordinator of practical nursing. She will relay them to CISNE. You are now ready to request another unit of CISNE materials.

STEP 7:

If there are materials you are looking for that do not appear in the CISNE bank, relay this information to your coordinator of practical nursing. She will be able to use your request for new CISNE material at the next meeting of coordinators of practical nursing for all participating CISNE schools.
WHAT YOU CAN EXPECT TO FIND
IN THE CISNE PACKAGE YOU ASKED FOR

Your CISNE order will be processed immediately upon receipt from your local practical nursing coordinator. In the package you receive will be a collection of objectives, criterion-referenced test items, and learning resources.

Each unit consists of a certain number of objectives. Each of these objectives is correlated with criterion-referenced test items and learning resources.

In some cases, because the CISNE bank is not yet complete, you will find objectives that have only one or two test items and no resources at all. In very rare cases where no test items or learning resources are currently available, you will find only an isolated objective.

CISNE makes a distinction between furnishing you with test items and furnishing you with final or mid-term exams. CISNE does not furnish you with exams. CISNE does not tell you what to test. CISNE furnishes you with test items from which you may select an exam of your choice. If you like what you find in the CISNE bank of test items, you are free to use them. If you don't like what is there, you are free to add to or modify them.

Anytime you add to or modify the CISNE bank of test items or learning resources, you can help out your colleagues in other schools by submitting your revisions to CISNE. In order to expedite the entry of this material into the CISNE system, you are asked to refer to the CISNE INPUT PROCEDURES.
Here is an outline of the CISNE input process:

A. Teacher submits material

B. CISNE codes and verifies the completeness of these materials

C. CISNE edits these materials for typing

D. Materials are typed

E. Nurses (Nursing Board and Directors of Nursing) verify these materials from the nursing point of view

F. Materials are put into computer
SAMPLE INPUT TRAINING

1. An overview of my objectives:
   a. Present CISNE to your staff in allied health professions.
   b. Pinpoint the ways in which CISNE can be of service and assistance to faculty in developing clinical evaluation instruments and performance objectives.
   c. Specify the outcomes resulting from collaboration with CISNE.

2. Services CISNE can render to health and nursing instructors. Help with models and techniques for:
   a. Development of performance and behavioral objectives in the areas of knowledge, clinical techniques, and necessary attitudes.
   b. The development and improvement of clinical evaluational techniques.
   c. The transformation of existing instructional resources into a self-sustaining system that will permit individualized instruction and learning through low-cost technology.

3. Outcomes of this effort:
   a. All participating instructors will receive CISNE materials from other participating community colleges at no cost.
   b. All materials contributed to the system by community colleges and other participants will be available.
   c. Professional experts in curriculum evaluation and technology will be provided by CISNE at no cost to participating instructors.
   d. Training sessions will be provided to instructors on a group and individual basis where needed.
   e. Allied health professional instructors will be able to articulate their efforts as an alternative to needless duplication.
SAMPLE INPUT OBLIGATIONS

As part of our articulation project, we will do the following:

1. Install a computer terminal in your school for the purpose of articulation with RN programs and associate degree programs.
2. Provide training you request in how to use this terminal effectively as a multi-purpose tool for articulation.

We would expect you to do the following:

1. Make this terminal available to all interested teachers.
2. Keep us informed of how this tool helps you articulate better.
3. Tell us what you want to receive via this terminal; for example:

   Curriculum material
   Evaluation methods
   Instructional innovation
   Teaching-learning resources
CISNE FILING SYSTEM

In order to provide a slot for incoming CISNE materials and to provide for instant retrieval, the following will be done:

STEP 1

A set of manila files will be developed with the following numbers and titles:

1501 TITLE: CISNE Entry Procedures and Guidelines
1502 TITLE: CISNE Retrieval Guidelines
1503 TITLE: CISNE News Releases
1551 TITLE: CISNE LAG Guidelines
1552 TITLE: CISNE HPA Guidelines
1553 TITLE: Computer and Hardware Systems
1554 TITLE: Closing Out the Office
1555 TITLE: CISNE Time-Line for LPN, 1973-74
1556 TITLE: PN Mail

1557 TITLE: Final Report

STEP 2

After you have created these files using manila folders, go through the vast collection of materials we have and arrange them accordingly. For example, this memo itself should be placed in file 1502.

STEP 3

After you have done all of this, put the material that is not yet filed into a separate file. We will try to find out where it goes or create new file titles and numbers.
STEP 4

When step 1, 2, and 3 are done, we will go through the files together. This will give us a chance to document things that have been done but not get recorded on files.

STEP 5

We will then agree upon a mutually accessible place to keep this file available to us and to the general public.
QUESTION: I am a LPN teacher in one of your four pilot schools for the 1973-74 CISNE project. What services can I expect?

ANSWER: CISNE will provide you with training and intensive follow-up.

QUESTION: What are the components of the CISNE training services available to me?

ANSWER: (1) CISNE will provide you with computer printouts of objectives currently in the CISNE bank.
(2) CISNE will show you how to select those objectives which are in accord with your overall course goals.
(3) CISNE will show you how to rewrite those objectives that must be modified in order to make them useful to you.
(4) CISNE will show you how to originate objectives that are not yet available.
(5) CISNE will help you correlate test items to those objectives that form the basis for your course.
(6) CISNE will help you pretest in order to diagnose where to begin with individual learners.
(7) CISNE will help you teach with the objectives you have chosen.
(8) CISNE will help you test with criterion-referenced test items in order to certify course completion for individual student and for

QUESTION: What are the follow-up services available to me?

ANSWER: (1) CISNE will plan with you and the local contact person for LPN programs.
(2) CISNE will visit your school upon your request.
(3) CISNE will send you the latest LPN data available from other schools.
(4) CISNE will make period phone calls to answer and anticipate your questions.
(5) CISNE will make available to you the latest professional literature on LPN program developments through behavioral objectives and criterion-referenced test items.
(6) CISNE will keep open a feedback link-up between you and the other three experimental schools.
The following questions have been frequently asked by educators about CISNE. CISNE stands for Computerized Information System for Nursing Education.

It is hoped that providing these questions and answers will give schools the necessary information upon which they can base their decision to use CISNE services available to them.

Q. What is CISNE?
A. CISNE is Computerized Information System for Nursing Education.

Q. What tools does CISNE provide?
A. CISNE provides instructional tools and evaluation tools.

Q. What is the instructional tool of CISNE?
A. From 1970 to 1973, CISNE trained teachers to write behavioral objectives in a number of occupational education areas. These objectives are currently entered into a computer storage bank. These objectives are coded by the official USOE standard terminology code number.

Q. Where is a list of available objectives to be found?
A. At the back of this document you will find a list of courses for which CISNE has objectives. This list indicates: a) the name of the course or subject matter for which CISNE has objectives, b) the official USOE code number used to describe this course in state and federal reports, c) the number of objectives available, d) an indication of whether or not ESCOE has a block unit summary of the objectives available.

Q. What does the school do to avail itself of this instructional service of CISNE?
A. Any school principal or supervisor can request official school stationery order forms with which to obtain computer printouts of the objectives available in a specific course or subject area. This letter should be countersigned by the school district superintendent. Upon receipt of this letter, CISNE will return to the school official order forms with which to obtain these objectives. Each school has the option of requesting all the objectives available, or requesting only those selected portions in which they are interested. In certain courses or subjects where there are a large number of objectives available, each requesting school will receive a list of blocks (categories) and units (subcategories) which outline the content of the objectives stored by CISNE.

Each requesting school will be able to circle the code numbers for only those blocks and units for which objectives are desired.

Upon receipt of this form properly filled, CISNE will make arrangements for these objectives to be sent to the requesting school.
Q. What is the evaluation tool of CISNE which correlates criterion-referenced test items to each behavioral objective stored in the CISNE bank?

A. Eventually, it is hoped that every behavioral objective in the CISNE bank will be correlated with a number of criterion-referenced test items. These test items can be used by teachers to measure the learning of their students.

Q. Are these correlated criterion-referenced test items available in all areas for which CISNE has objectives?

A. No.

During the school year 1973-74, CISNE in cooperation with the Bureau of Occupational Education Research and the Bureau of Testing will work together on completing test items for the behavioral objectives used in licensed practice nursing (LPN) in secondary schools throughout New York State.

Participation in this development of behavioral objectives and correlated criterion-referenced test items will be limited to no more than two BOCES and two city schools that have LPN programs on the secondary level.

Participants in this intensive development project of objectives and test items will be chosen by the State Licensing Board and the Bureau of Health Occupations Education.

Q. How can schools with LPN programs who are not participants in the development of objectives and test items for 1973-74 benefit from this project?

A. Non-participating schools that have LPN programs can write to Howard P. Alvir, CISNE Service, Room 468EB, State Education Department, Albany, N.Y. 12224 and ask to be placed on the mailing list to receive

1) CISNE INTERIM REPORTS
2) The CISNE NEWSLETTER

Q. How can non-participating schools that do not have LPN programs benefit from the CISNE project?

A. All schools in New York State that are interested in following the development of this model for instruction and evaluation can request to be placed on the mailing list to receive both the CISNE INTERIM REPORTS and the CISNE NEWSLETTER.

Q. How will the interim reports and newsletters be of benefit to participating schools?

A. By reading these interim reports and newsletters, any school in New York State will be kept up to date on the most current development in integrating behavioral objectives in classroom teaching.

Schools that have LPN programs will be able to apply these results directly into their classroom.

Schools without LPN programs will be able to apply these results indirectly into classroom applications in a number of subject matter areas.

Q. What is an example of a direct application of the LPN CISNE material?

A. Any objectives, criterion-referenced test items, and instructional resources that are developed for use in the pilot project will be made available to all schools in New York State. These available products will be announced in the CISNE INTERIM REPORT and in the CISNE NEWSLETTER.
Q. What is an example of an indirect application of CISNE?

A. The behavioral objectives, criterion-referenced test items, instructional resources developed for LPN programs cannot be applied directly to other subject matter areas.

The basic process used to take the current LPN objectives in the CISNE bank and to transform them from useful curriculum information into usable curriculum tools can be applied in every subject matter area.

In other words, schools that start out with the CISNE objectives written by teachers and for teachers will be able to transform these objectives into usable instructional tools in their classroom. Similarly, the process used by CISNE to develop correlated test items can be applied by schools on their own in their own classrooms.

Q. Will the training materials for objectives, test items, and resources developed for LPN programs be made available to all schools in New York State?

A. Yes. The availability of all processes and products developed by CISNE will be announced in the INTERIM REPORT and NEWSLETTER.
The CISNE entry retrieval code is operational.

Operational means:

1. For any subject matter to be entered into CISNE, a list of blocks and units exist.

2. These blocks and units are retrievable in terms of objectives, tests, and resources.

3. This code provides for retrieval according to the three domains of knowledge, performance, or attitude.

4. This coding system can be used either with or without a computer.

5. This coding system provides for all possible parts. For example, if we have only objectives in one block and units, we can still enter them without having to wait for the test items or the resources to be written later.

Printouts for any course to be developed will be in the hands of the participating schools.

This means that:

1. Either computer printouts or xeroxed copies of the objectives in question are physically present in the participating schools.

2. The existing course outlines in the participating schools have been compared and integrated into the blocking unit breakdown in this above printout. This refers only to the course outline, not the individualize specifications.
3. By phone calls with the subject matter supervisor, specific local LEA plans have been developed on how to make this useful material usable by the school in question.

4. By phone calls and/or by personal visits, plans and objectives have been put in writing that spell out the intended objective of local in-service training for participating schools.

5. All teachers who wish to volunteer their services to work on the bank during the summer will have been given the opportunity to make at least one contribution to the bank.

Commitments to develop new materials for the bank will be spelled out and formalized.

This means that:

1. All four participating schools will specify the area to be developed in common. This means that at least two of the four participating schools will develop exactly the same area.

2. Each of the four participating schools will specify the one area that they alone will develop.

3. CISNE will begin its training on how to use existing CISNE banked materials.

4. Those schools you have completed training and production on the adaptation of existing materials into usable materials will be trained by CISNE in how to develop the new materials.
CISNE will be operational in four schools.

This means that:

1. Each participating school will have taught the CISNE method for at least four school days under the supervision of the local subject matter supervisor.

2. The success of this inauguration of the CISNE method will be evaluated through consultation of CISNE and the local school supervisors.

3. Plans will be formalized for greater in depth coverage through the CISNE method.
CISNE TASKS

Objective: Nursing Supervisors will make specific commitments on CISNE participation.

I -----> A, B, C, D
II -----> Staff Time
III -----> Time Frame

A 1 Each school will receive from CISNE a complete printout of all PN materials in the bank.

A 2 CISNE will train teachers on how to use these materials.

B 1 At least two of the four participating schools will develop their own version of the same block or unit.

B 2 CISNE will help merge these versions into one comprehension package.

C 1 Each school will develop a complete package for one block or unit; each school will choose a different topic.

C 2 CISNE will duplicate and distribute to each school.
Each school will submit materials they want to be banked.

CISNE will bank these materials and make them available for all participants who request them.

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>STAFF TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong> Training</td>
<td>X + 1 day, show</td>
</tr>
<tr>
<td></td>
<td>1 day, tell a week later</td>
</tr>
<tr>
<td><strong>B</strong> Write Unit</td>
<td>1 day, how to package (obj-test-res)</td>
</tr>
<tr>
<td></td>
<td>1 day, review materials (later)</td>
</tr>
<tr>
<td><strong>C</strong> Write Unit</td>
<td>X, write</td>
</tr>
<tr>
<td>(ongoing)</td>
<td>1 day, review (later)</td>
</tr>
<tr>
<td><strong>D</strong> Submit</td>
<td>X, prepare</td>
</tr>
<tr>
<td></td>
<td>0 days</td>
</tr>
</tbody>
</table>
Sisyphus was the legendary king of Corinth condemned to roll a heavy stone up a steep hill in Hades only to have it roll down again as it nears the top. Unfortunately, many nurses who have never heard Sisyphus have been condemned to the same repetitious task.

The Computerized Information System for Nursing Education (CISNE) is establishing a model program for the delivery of instructional and evaluational tools through the vehicle of a performance based curriculum.

This curriculum package has four components.

1. Delivery of objectives, resources, and test items.
2. Training in systems management.
3. Follow-up services to make sure that professional practical nursing teachers do professional tasks while paraprofessionals take care of paraprofessional duties.
4. Information dissemination in order to insure that two practical nursing instructors working on the same areas are able to collaborate.

Operationally, four participating secondary schools have broken down their curriculum into a number of major categories (blocks) and subcategories (units). Each participating teacher shares with all the others what she is doing in a particular block and unit.
<table>
<thead>
<tr>
<th>USEFUL: WHAT WE HAVE</th>
<th>USABLE: WHAT YOU WANT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives:</td>
<td>Lesson Plans:</td>
</tr>
<tr>
<td>Evaluation Items:</td>
<td>Exams:</td>
</tr>
<tr>
<td>Resources:</td>
<td>Teaching Aids:</td>
</tr>
<tr>
<td>Training:</td>
<td>Concerns:</td>
</tr>
<tr>
<td>Coding System:</td>
<td>File Cabinets:</td>
</tr>
</tbody>
</table>

This Adds Up To: