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Results and Implications of the Field Testing of the C.U.N.Y. Special Education Modules.

Apr 76


EDRS PRICE

HF-$0.83 BC-$1.67 Plus Postage.

DESCRIPTIONS

Autoinstructional Aids; Educational Programs; Exceptional Child Research; Field Studies; Handicapped Children; Higher Education; Program Effectiveness; Special Education Teachers

IDENTIFIERS

City University of New York

ABSTRACT

Four self-instructional modules designed at the City University of New York for training special education teachers were field tested with 357 students. Information on module functioning was obtained from students and instructors through questionnaires, ratings of module activities, comments on the materials and problems encountered, and observations of students participating in module activities. Instructors who took an active role in the module reported a greater success rate than those instructors who didn't take an active role. Among the module adaptations made by instructors to meet student needs were provision of supplementary work assignments where needed and use of students' prior experience. Field testing revealed the difficulty in developing valid pre- or postassessment procedures. (SB)
In this paper or presentation I will discuss briefly the field testing phase of the CUNY module development project. I will describe the design and the scope of the field testing, and share with you what we've learned from it with emphasis on the conditions under which modules are likely to be effective and where they could stand improvement.

Just to preclude any confusion, throughout this paper I will refer to all persons using the modules as "students". "Students", as used here means teachers in training: it includes not only education students but also teachers who are taking graduate courses or who are participating in in-service training programs.

The purpose of the field testing was to evaluate the effectiveness of modules as learning tools in diverse educational settings and to provide data on how the specific modules used could be improved. Data were gathered from a variety of sources in each field test-site.

Information on module functioning was obtained from students and instructors through the use of extensive questionnaires. The instructors and students rated the effectiveness of each activity of the module they used on a six point rating scale. In addition they were asked questions about the general effectiveness of the material and about problems encountered in its use. Many questions were open-ended and comments on areas not covered in the questionnaire were solicited.

Use was also made of participant observers (graduate students in education and psychology) who attended last sessions and participated
activities along with the students using the module material. Observer reports provided a comprehensive, immediate source of data on the use of selected parts of the module. In one case in which two modules were used as a basis for a complete graduate course, a participant observer attended and participated in each of the fifteen class sessions. While the tabulation of the students' and instructors' ratings were helpful in indicating effectiveness of various module components, the participant observer reports were extremely helpful in determining why a particular activity was either effective or ineffective and how that activity could be or was improved.

The field testing commenced in the summer of 1974 and continued through the fall of 1975. During that time, the modules were used by a total of 357 students in a wide range of educational settings which included: four public colleges of the City University of New York, two private colleges in the New York metropolitan area, in-service training programs of five special education programs of the New York City Board of Education and one in-service program of the New York State SEIMC network.

Of the 357 students, one hundred fifty-five used one of the modules as part of a graduate course. Fifty-six students used the material as part of an inservice course and one hundred fifty-five students used the material in the form of a one day inservice training workshop. (The number of students using each module and the number of modules used in each setting are presented in Table 1).

As was mentioned earlier, the modules were designed to be completely self-instructional and, when possible, a choice of alternative instructional activities was provided. Each instructor assigning a module was free
to use it as he saw fit; to take an active role in using, adapting or adding to the material or to take no part at all in the module other than assigning it and reading and checking the assessments.

In five field test sites, the modules were used without the instructor taking an active role. Only one of these five instructors reported that the students successfully completed the module.

However, the results were different where the instructor adapted or expanded the materials to fit the needs of the students, the educational setting or a particular handicapping situation. Eight of thirteen instructors (61%) who took an active role in the module reported that students successfully completed the material.

Some ways that instructors have effectively adapted the CUNY modules to student needs include the following:

1. Drawing on the students’ prior experience when introducing a module to supplement or elaborate the module’s overview.

2. Relating the module to other work in the course or highlighting its relevance to the classroom if the module is used in an inservice setting.

3. Rewriting or adding to the pre-assessment to provide for questions at a higher taxonomic level if the sophistication level of the students warrants this. An example of when this might be applicable is the adaptation of a module in an inservice setting.

4. Administering the pre-assessment prior to the student’s exposure to the module contents.
5. Setting a higher criterion level for competency attainment if the purpose for using the module is to increase an already existing competence.

6. Setting up a time table of expected completion dates for each of the module parts and periodically checking on student progress.

7. Assisting in the formation of peer groupings.

8. Allowing class time or setting up office hours for questions of clarification and to provide for the expressed need of more instructor contact.

9. Evaluating student assignments at critical points in the module and providing effective and early feedback.

10. Providing supplementary work assignments where needed.

11. Scheduling large group discussions to share experiences, clear up misconceptions and extend and consolidate concept acquisition.

12. Revising the post-assessment to include some measure of performance under simulated or actual classroom conditions.

Some comments need to be made about both assessments and activities in modules.

Each of the modules contain a pre-assessment which can serve to exempt students from all or part of the activities of the module and a post-assessment which certifies a student as competent in the competencies addressed in the module. The field testing experience
made it clear once again that it is very difficult to develop valid assessment procedures pre or post. Comments made by instructors, students, and participant observers revealed some basic problems.

For example, two of the pre-assessments spent too much time assessing prerequisite skills and did a poor job in selecting students for different entry levels in the module. Some of post-assessments were not directly related to the varied activities of the modules. The assessment procedures in most cases required students to submit written answers to written questions. The assessments of two of the modules were criticized for relying on specific information questions which required students neither to integrate the material they learned nor to reflect upon it.

The last point I'll make about assessment procedures concerns an attempt by one module author to use peer evaluation. Peer evaluation here means that a group of students evaluate each others' performance on some given criteria. The results indicate this technique simply didn't work: it was found to be insufficiently complete or critical.

Some activities in the modules were more or less effective. The use of video-taping of students working with children or their peers was judged to be very effective. The use of small peer groupings for the planning and conduct of simulations was also judged effective. On the other hand, the use of role play activities under artificial conditions was not well received.

This paper has presented some highlights of the results of the field testing of 4 modules designed for training special education teachers. A principal finding of the field testing was that modules are not as effective when they are used solely as self-instructional systems as when the instructors take an active role in adapting...
the modular material. A more complete discussion is contained in a full field test report and each of the modules now contain a section on suggested revisions and procedures for module use.
Table 1

Module Use in Graduate Courses

<table>
<thead>
<tr>
<th>Module</th>
<th>Number of Students</th>
<th>Number of Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Perception</td>
<td>86</td>
<td>5</td>
</tr>
<tr>
<td>Family Reactions to the</td>
<td>47</td>
<td>3</td>
</tr>
<tr>
<td>Handicapped Child</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How Parents Can Help</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Modality Linking</td>
<td>22</td>
<td>1</td>
</tr>
</tbody>
</table>

Module Use in In-service Courses

<table>
<thead>
<tr>
<th>Module</th>
<th>Number of Students</th>
<th>Number of Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal Perception</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Family Reactions to the</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicapped Child</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>How Parents Can Help</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Modality Linking</td>
<td>21</td>
<td>3</td>
</tr>
</tbody>
</table>

Module Use in Staff Development Workshop

<table>
<thead>
<tr>
<th>Module</th>
<th>Number of Students</th>
<th>Number of Classes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modality Linking</td>
<td>155</td>
<td>1</td>
</tr>
</tbody>
</table>

Total 390* 24

*Since 33 students used a module twice the actual sample size is 357.