Educational Competencies for Health Occupations Educators

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EDUCATIONAL COMPETENCIES FOR HEALTH OCCUPATIONS EDUCATORS

Dorothy M. Witmer

Abstract: Health occupations teachers are facing many challenges which necessitate development of new competencies if their students are to be prepared for a changing health care delivery system. A study was conducted in Nebraska during 1987-88 with a two-fold purpose: (a) to identify the competencies needed by health occupations teachers as they perceived them, and (b) to compare these results with a study of health occupations teachers conducted seven years earlier. Respondents identified utilizing microcomputers in teaching as a top priority. A review of literature indicated that instruments being used to identify educational needs of health occupations teachers contain competencies that are basic in education and are not reflecting competencies needed to meeting the challenges of the changing workplace in health care settings. Recommendations are made for development of questionnaires that assess health occupations teachers’ competencies needed in the health care delivery system.

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Health occupations educational programs are in the midst of a crisis with decreasing enrollments and a rise in health care consumers who need and will continue to need a continuum of health care services. Adding to the problems facing health care professionals are rising numbers of aging health care consumers. Dr. T. Franklin Williams, Director of the National Institute on Aging, stated in 1987, “Our most critical need for academic leadership is in gerontology and geriatrics, for the faculty members to teach essentially all health and human service professionals in these fields, because virtually all such professionals will from now on be involved in care of older people” (“Report on Task Force,” 1987, p. 295).

With the increasing numbers of elderly consumers who need more health care services and an evolving health care system, instructors in health occupations education are facing new challenges. Competencies of instructors must reflect the demands they face.

Literature Review

Idaho Study

Taylor (1980) and associates surveyed instructors in six program areas of vocational education. The instrument in this study contained 107 competency statements compiled after an extensive literature search. The competencies ranked consistently by teachers as a high need were those relating to instructional evaluation, accommodating needs of nontraditional students and keeping professionally updated.

Earlier Nebraska Study

Ebrite (1981) completed her study of health occupations teachers in Nebraska using 34 competency statements to assess problem areas. Stimulating students to assume responsibility for their own learning, providing for articulation between health occupations programs, determining students!
instructional needs and evaluating teacher effectiveness were high on the response list. According to Ebrite, these responses were similar to responses from a former study completed in Colorado, Oklahoma, and West Virginia in 1979.

**North Carolina Study**

A different list of concerns of health occupations teachers was identified by Stevens (1983) in North Carolina. Needs of health occupations teachers were in the areas of public relations, design and implementation of community surveys, budgeting and long-range planning. Self evaluation of instructional effectiveness was among the top five areas of need, also.

**Illinois Study**

The instrument used by Stevens contained competencies that were different from those in studies by Taylor (1980) and Ebrite (1981), but did not reflect the concerns of employers and needs identified by Shea (1983). Shea reported a research study conducted by the Southern Illinois University School of Medicine, in which employers stated their concerns about health occupations education. Employers from a variety of employment settings (ambulance services, blood banks, home health agencies, long term care facilities, hospitals, and others) identified five key issues which have direct meaning for health occupations instructors: competencies:

1. Need for improved communication between service and educational institutions;
2. Need for improved understanding of roles among allied health personnel, nurses, and health practitioners;
3. Overspecialization in training of students, leading to career inflexibility;
4. Lack of regional training programs; and
5. Need for more convenient and accessible continuing education programs.
A multidisciplinary team of health occupations educators provided conclusions and recommendations about each issue raised by employers. A brief discussion of each issue and the recommendations follows.

The first concern voiced by employers is that students are not being prepared for the realities of the job. A major recommendation is the "working" advisory committee, made up of representatives from employing agencies, who actively work for improvement and problem solving (Shea, 1983, p. 120). Educators concluded closer ties between education and service must occur; communication between the two needs much improvement.

A second concern is the misunderstanding which occurs about the roles and responsibilities of various health care professionals. Educators recommended more interdisciplinary training and education. It is a responsibility of educators to provide interdisciplinary exchanges in the educational setting, thereby increasing understanding of each other’s role.

The third concern, the need to reduce overspecialization in educational programs, is a frustration to employers who feel students cannot accept responsibilities outside their own field. Employers explain this is difficult in small institutions where budget restraints prohibit hiring a person for every speciality. The most common suggestion for improvement is multicompetency training based on a model which includes common skills, specific skills, and advanced skills.

A fourth concern is the lack of regional training. Employers want well-trained personnel in all areas but all programs of training are not available. As a result, on-the-job training is an additional effort employers must provide. The provision of some training programs is difficult.
because of reduced funding and reluctance of state agencies to approve small programs with few graduates. Educators agree extended programs need to be offered to outlying areas and cooperation is necessary between employers and schools.

Employers' final concern was expressed by 40% of the respondents: There is a lack of continuing education at the time and location convenient to working personnel. Educators responded with the overall recommendation that educational institutions, professional associations, employers, and state boards of education should work together in planning a system of continuing education. Shea (1983) summarized by repeating the need for greater cooperation between employing agencies and educational institutions in order to progress in health occupations education and health care delivery.

Concerns of Allied Health Educators

Concerns about graduates of health occupations programs were discussed by Abrams and Collins (1985) in Review of Allied Health Education: 5. Health occupations graduates must be able to cope with changes in an evolving health care delivery system. Abrams and Collins wrote that health occupations graduates should possess competencies in the following areas: clinical assessment and evaluation, health promotion and prevention, and management and supervision, marketing and public relations, political and legislative ramifications, business and finance, computer literacy, creativity and problem solving, leadership, counseling, education in stress management, and ethics and professionalism. Abrams and Collins, in promoting these areas of competency, said, “The prospective payment system has indeed created a need for a new breed of allied health professionals” (p. 27). These compétences are needed by health occupations graduates to meet the challenges of today. If they are to be taught, health occupations teachers
must possess them, or at least be able to teach them. The authors, in recommending these competencies, were referring to programs of greater length than one year; it is unreasonable to expect that all previously mentioned competencies can be taught in a one-year curriculum. Review of Allied Health Education: 5 contains other directives for developing training programs which yield graduates capable of serving people in the rural areas and meeting the health care needs of an aging society.

Geriatrics Needed by Health Occupations Graduates

The need to incorporate geriatrics into health occupations programs is supported by a study in a special issue on gerontology and geriatrics in Journal of Allied Health (1987). The Task Force on Gerontology and Geriatric Education in Allied Health, reporting in that issue, said allied health students are not being prepared in sufficient numbers to treat the increasing elderly population. Incorporating geriatrics into health occupations curricula is another challenge, and consequently, indicate another area of competency needed by health occupations teachers.

Need for Study

The review of literature has identified a broader range of competencies than those found in survey instruments asking instructors about their educational needs. As indicated there is a need for instructors to become more competent in areas such as recruiting, instruction of problem solving methods, computer technology, gerontology, and the changing tasks of health care workers. In addition, assessments of educational needs and competencies of health occupations teachers do not reflect the challenges facing teachers today. This became the rationale for the present study.
Purposes of Study

In order to learn how health occupations teachers in Nebraska currently perceived their educational needs, a study was conducted in 1987-88. The purpose of the study was twofold: (a) to identify the competencies needed by health occupations teachers as they perceived them, and (b) to compare these results with a prior study of health occupations teachers conducted seven years earlier. It was decided not to change drastically the instrument used in the earlier study, although the literature review revealed other competencies could be included.

The major objectives of the study were to:

1. Identify educational competencies needed by health occupations teachers,
2. Identify the five competencies with highest need as prioritized by the teachers, and

Methodology

Population

Ninety-seven teachers were involved in the study. Ninety-five postsecondary teachers were identified from the publication of postsecondary colleges and programs published by the Nebraska Division of Vocational Education, Two Year Postsecondary Directory (1987). Two secondary health occupations instructors were identified by the Division of Vocational Education.

Instrumentation

The instrument used to assess the need for educational competencies of health occupations instructors in Nebraska was originally compiled and
implemented by Ebrite (1981). The instrument, with minor modifications, was used for comparison of results of the two studies. Modifications of the survey instrument resulted in a list of competency statements reduced from 34 to 28. The term problem, used to indicate ranking of importance of the competency statement in Ebrite's study, was changed to need. The highest level of need was indicated by checking the column which was assigned a number of 4; for high level of need, 3; for medium level need, 2; for low level of need, 1; and for no need, 0. A new competency statement was included in the 28 statements: Utilizing microcomputers in teaching. Respondents were also asked to list needed competencies that were not included on the questionnaire.

Two other questions were added to the instrument:

1. Have you had any courses specific to geriatric clients, and

2. With the expected increase of elderly who will receive services from health care workers, do you see a need for health occupations teachers to have a course in gerontology?

In a separate question, respondents were asked to select and rank from the 28 competency statements, the five statements which they considered to have the highest level of need (priorities). These statements were ranked one through five, with one the highest priority and five the lowest priority.

Validity and Reliability

The questionnaire used in this study was the same questionnaire used by Ebrite (1981) with some minor modifications. Ebrite used the items of this questionnaire in a similar study of three other states in 1979. The questionnaire had been submitted to a review panel by Ebrite to determine its validity for use in Nebraska. The modified questionnaire was submitted to health occupations instructors and other vocational educators to validate its
use. All tasks were considered valid by the educators. In the present study, the 28 competency statements were analyzed for reliability using Chronbach alpha. The standardized item alpha was computed as .9623.

Data Collection

The questionnaire with cover letter and stamped return envelope was mailed to 97 teachers. Each questionnaire was pre-coded with letters indicating the school or college and the number of the questionnaire. A due date was noted in the cover letter for return of the surveys. Fifty-two questionnaires (54%) were returned by the specified date. A telephone follow-up was made to non-respondents, requesting return of the questionnaires. At the conclusion of the survey, 60 questionnaires (62%) were returned.

Data Analysis

Instructor surveys were analyzed for level of need for all 28 competency statements, using descriptive statistical procedures, the mean and standard deviation. Those competency statements which were selected most frequently and ranked by health occupations teachers as priorities of need were identified. The priorities ranked by health occupations instructors in 1987-88 were compared to those identified in the earlier study, 1979-80. Statistical procedures were performed using SPSS/X Package for Social Sciences.

Results, Discussion, and Implications

The findings are discussed in relation to the objectives of the study.

Objective 1: To identify the educational competencies needed by health occupations instructors.

The competency statements are listed in Table 1 in descending order by mean. Standard deviations are provided also. The competency statement
with the greatest level of need is listed first. Utilizing microcomputers in teaching ranked highest with a mean of 2.817 (See Table 1). All competency statements with a mean of 2 or above indicated at least a medium to upper level need. The means of 26 of the 28 competency statements reflected some evidence of need.

The use of microcomputers in teaching is one of the latest technologies introduced into the classroom. It is only in the last several years that microcomputers have been used by teachers in Nebraska. Some health occupations instructors are not using them at this time. It is reasonable to expect anxiety in the use of a new technology. This was reflected in the level of need.

The competency statement with the second highest mean, stimulating students to assume responsibility for their own growth, appeared as a high level of need in the previous study conducted in Nebraska. Experience has shown that this remains a chronic problem voiced by colleagues in health occupations education, as well as other vocational areas.

Understanding instructor liability, the competency statement with the third highest mean, is an apparent reflection of instructors' concern with lawsuits. Instructors are not immune to involvement in potentially liable situations.

When instructors were given the opportunity to list other needed competencies, none were listed. It cannot be concluded, however, that all needed competencies were identified in this questionnaire, especially in view of the broad range of competencies discussed in the literature review. Responses to the two questions about courses in gerontology were as follows: To the question, "Have you had any courses specific to geriatric clients?,” 29 had a course and 30 had not: To the question, “With the
Table 1

**Ranking of Competencies by Level of Need, Using Mean and Standard Deviation**

(4 = high need, 0 = no need)

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilizing microcomputers in teaching</td>
<td>2.817</td>
<td>1.186</td>
</tr>
<tr>
<td>Stimulating students to assume responsibility for their own growth</td>
<td>2.250</td>
<td><strong>1.202</strong></td>
</tr>
<tr>
<td>Understanding instructor liability</td>
<td>2.119</td>
<td>1.247</td>
</tr>
<tr>
<td>Providing learning experiences for disadvantaged students</td>
<td>2.086</td>
<td>1.174</td>
</tr>
<tr>
<td>Determining each student’s learning needs and instructional needs</td>
<td>2.034</td>
<td>.982</td>
</tr>
<tr>
<td>Adapting materials and methods of presentation to each student’s level of understanding</td>
<td>2.000</td>
<td>.982</td>
</tr>
<tr>
<td>Providing for articulation between health occupations programs</td>
<td>2.000</td>
<td>1.189</td>
</tr>
<tr>
<td>Providing classroom experiences for application of problem solving techniques</td>
<td>1.950</td>
<td>1.141</td>
</tr>
<tr>
<td>Writing task analyses</td>
<td>1.949</td>
<td><strong>1.074</strong></td>
</tr>
<tr>
<td>Evaluating teaching effectiveness</td>
<td>1.817</td>
<td>1.142</td>
</tr>
<tr>
<td>Analyzing test results</td>
<td>1.776</td>
<td>1.215</td>
</tr>
<tr>
<td>Constructing tests</td>
<td>1.717</td>
<td>1.136</td>
</tr>
<tr>
<td>Developing student performance evaluation tools</td>
<td>1.650</td>
<td>1.162</td>
</tr>
<tr>
<td>Evaluating instructional materials</td>
<td>1.621</td>
<td>.952</td>
</tr>
<tr>
<td>Evaluating learning experiences in the occupational (clinical) area</td>
<td>1.600</td>
<td>1.012</td>
</tr>
<tr>
<td>Evaluating student performance in the laboratory</td>
<td>1.508</td>
<td>1.073</td>
</tr>
</tbody>
</table>
Table 1, continued

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating student performance in the occupational area</td>
<td>1.450</td>
<td>1.016</td>
</tr>
<tr>
<td>Determining relevant curriculum content</td>
<td>1.390</td>
<td>.947</td>
</tr>
<tr>
<td>Writing student performance objectives</td>
<td>1.333</td>
<td>1.100</td>
</tr>
<tr>
<td>Writing course objectives</td>
<td>1.300</td>
<td>1.046</td>
</tr>
<tr>
<td>Utilizing a variety of instructional methods (lecture, discussion, role playing, etc.)</td>
<td>1.267</td>
<td>1.056</td>
</tr>
<tr>
<td>Writing lesson plans</td>
<td>1.217</td>
<td>.976</td>
</tr>
<tr>
<td>Developing course outlines</td>
<td>1.217</td>
<td>1.043</td>
</tr>
<tr>
<td>Planning student laboratory experiences</td>
<td>1.200</td>
<td>1.117</td>
</tr>
<tr>
<td>Providing learning experiences in the actual occupational area</td>
<td>1.167</td>
<td>1.092</td>
</tr>
<tr>
<td>Allowing each student time to master new manipulative skills</td>
<td>1.119</td>
<td>.966</td>
</tr>
<tr>
<td>Presenting a lesson</td>
<td>.967</td>
<td>.901</td>
</tr>
<tr>
<td>Demonstrating manipulative skills</td>
<td>.949</td>
<td>.879</td>
</tr>
</tbody>
</table>

expected increase of elderly who will receive services from health care workers, do you see a need for health occupations teachers to have a course in gerontology?," 46 said yes and 11 said no. Over 49% of respondents had participated in continuing education related to geriatric clients. Over 76% of the respondents agreed health occupations instructors need courses in gerontology.
Objective 2: To identify the five competencies with highest need as prioritized by the instructors in the 1987-88 study.

In a separate section of the questionnaire, instructors were asked to review the 28 competency statements and to select the five statements of top priority. They were to list priorities one through five with one indicating the highest need and five the lowest need. Table 2 displays the competency statements selected by priority of need for both studies. In the column labeled Priority 1987-88, priorities 1 and 5 show more than one competency statement because the same number of instructors selected different statements.

The priority listing in Table 2 differs from the ranking of competency statements by mean in Table 1, except for utilizing microcomputers in teaching. This statement was ranked first by mean and by priority selection. The other differences in ranking of competency statements may be due to some respondents not listing their priorities and the wide range of statements selected to indicate priorities. There were many different statements selected as a priority, resulting in a low frequency of selection for any one competency statement.

Objective 3: To compare priority of needs of 1987-88 study with the priorities of health occupations instructors in 1979-80 study.

Study of 1979-80

Table 2 displays the comparison of competency statements as they were ranked for priority of need in both studies. Ebrite (1981) did not report numbers and percentages of respondents who selected the competency statements for priority of need, therefore, this information is not presented for comparison in the table. Several competency statements appear at priority levels 2, 3, and 5; these were selected by an equal number of respondents.
### Table 2

**Comparison of Competency Statements for Priority of Need, 1987-88/1979-80**

<table>
<thead>
<tr>
<th>Competency Statement</th>
<th>Priority 1979-80</th>
<th>Priority 1987-88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilizing microcomputers in teaching</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>Understanding instructor liability</td>
<td>1,3,5</td>
<td>N/R</td>
</tr>
<tr>
<td>Stimulating students to assume responsibility for their own growth</td>
<td>N/R</td>
<td>1</td>
</tr>
<tr>
<td>Evaluating student performance in the laboratory</td>
<td>2</td>
<td>N/R</td>
</tr>
<tr>
<td>Allowing each student to progress at his/her own rate</td>
<td>N/A</td>
<td>2,4</td>
</tr>
<tr>
<td>Evaluating student performance in the occupational area</td>
<td>N/R</td>
<td>2</td>
</tr>
<tr>
<td>Determining each student’s learning needs and instructional needs</td>
<td>N/R</td>
<td>3</td>
</tr>
<tr>
<td>Providing learning experiences in the actual occupational areas</td>
<td>N/R</td>
<td>3</td>
</tr>
<tr>
<td>Constructing tests</td>
<td>.4,5</td>
<td>N/R</td>
</tr>
<tr>
<td>Evaluating teaching effectiveness</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Allowing each student time to master new manipulative skills</td>
<td>N/R</td>
<td>5</td>
</tr>
</tbody>
</table>

Note. N/R = not ranked as one of the top five priorities; N/A = competency statement was not included in this study. In both studies, more than one competency statement appears at the same priority level because equal numbers of respondents selected those statements at that level. Conversely, different respondents selected the same competency statement for different priority levels.

Utilizing microcomputers in teaching was not part of the questionnaire in Ebrite's study and cannot be compared here. The number one priority selected...
by the highest number of respondents was stimulating students to assume responsibility for their own growth.

Study for 1987-88

Understanding microcomputers in teaching is not a surprising top priority of need for instructors in this age of technology in the classroom. Understanding instructor liability, selected as a second priority, also seems to reflect a present concern in society, the lawsuit, which is more prevalent today than seven years ago. The other priority statements are not dissimilar to the studies by Taylor (1980) and Stevens (1983) in the review of literature.

Similarities Between the 1979-80 and 1987-88 Studies

The only competency statement from the 1979-80 study prioritized the same as the current study is evaluating teaching effectiveness. Both studies show this statement prioritized as number five. Other priorities show instructors have a continual concern for evaluating student performance and their own teaching effectiveness.

Differences

Statements appearing in the ranking for priority of need are different from each other in all priority levels with the one exception previously mentioned. Understanding instructor liability, prioritized as number two in 1987-88, did not appear on the priority list in 1979-80.

Implications

The survey instrument used in this study was limited to competencies which are very basic in vocational education. The questionnaire was modified to a limited degree in order to show comparisons with the responses of the earlier study. The literature review indicates as updated instrument is necessary to reflect the times. Current trends in health occupations
education: shortages of personne, dissatisfaction with graduates among employers, need for more coopers ion between educators and employers, increased demand for workers who can meet the needs of the elderly, and more emphasis on skills outlined in The Review of Allied Health Education, clearly indicates health occupations educators need a survey of greater dimension and scope. It appears survival of programs will depend upon the extension of competencies to include: problem solving and creativity, computer technology, recruiting and marketing, gerontological content, and ability to cooperate with employers to produce graduates who are flexible and capable of meeting realistic demands of the job for which they are trained. Survey instruments must reflect competencies needed in a changing health care delivery system. Instructors in health occupations programs should ask themselves, "Am I teaching competencies to enable students to meet the demands of today’s health care delivery system?" and "Am I competent in the areas which should be taught?"

Conclusions and Recommendations

The following conclusions and recommendations are made as a result of the 1987-88 study in Nebraska.

Conclusions

1. Health occupations instructors are concerned about their ability to utilize microcomputers in teaching.

2. Health occupations instructors recognize the need to understand the liability issues of teaching.

3. Instructors want to be effective in teaching.

4. Stimulating students to assume responsibility for their own growth is a continued concern for instructors.
5. Providing meaningful learning experiences for all, including disadvantaged students, and evaluation of student progress, is of high priority.

6. There is a need to provide continuing education in geriatrics/gerontology for health occupations instructors to prepare them for the health care needs of an aging population.

7. The survey instrument to assess competencies for health occupations instructors must be updated as necessary to meet changing educational needs caused by a rapidly changing health care delivery system.

Recommendations

1. Educational needs assessment surveys of health occupations instructors should include competencies graduates of programs will need to meet the expectations of the health care industry.

2. A working advisory committee should be formed to assist in the development of the competency statements included in a needs assessment survey of health occupations teachers. Relying on previous survey instruments is no longer sufficient.

3. Health occupations instructors need to participate in continuing education in geriatrics/gerontology if they are to be prepared to teach students how to serve this special population which is increasing in our society.

4. Geriatric care should be a fundamental part of health occupations curricula.

5. Health occupations instructors need to become knowledgeable about the uses of microcomputers in teaching, and appropriately apply this technology in their teaching.
6. Continuing education on teacher liability issues should be available for all health occupations instructors.

References


