

1988

Cooperative Education in Health Occupations Education

Mary J. Thompson Ed.D.
Auburn University

Find similar works at: <https://stars.library.ucf.edu/jhoe>
University of Central Florida Libraries <http://library.ucf.edu>

This Article is brought to you for free and open access by STARS. It has been accepted for inclusion in Journal of Health Occupations Education by an authorized editor of STARS. For more information, please contact STARS@ucf.edu.

Recommended Citation

Thompson, Mary J. Ed.D. (1988) "Cooperative Education in Health Occupations Education," *Journal of Health Occupations Education*: Vol. 3 : No. 2 , Article 7.
Available at: <https://stars.library.ucf.edu/jhoe/vol3/iss2/7>

Thompson: Cooperative Education in Health Occupations Education

Journal of Health Occupations Education
Fall 1988, Vol. 3, No. 2

COOPERATIVE EDUCATION IN HEALTH OCCUPATIONS EDUCATION

Mary J. Thompson'

Abstract: The purpose of **this** article is to explain why and how the cooperative education **method** can be used in **health** occupations programs. Definitions are included for experiential learning, cooperative education and clinical experiences. Different types of cooperative education are explained and examples are given for cooperative education programs offered at secondary and **postsecondary** levels. A theory **about** differences in learning requirements in and outside of school settings is compared with cooperative education goals. Strategies are proposed for implementing the cooperative education method of instruction within existing health occupations education programs.

The purpose of this article is to explain **why** and how the cooperative education method can be used in health occupations programs

'Mary J. Thompson, D.Ed., is Assistant Professor, Department of Vocational Education, College of **Education**, Auburn University.

Journal of Health Occupations Education, Vol. 3, [1988], No. 2, Art. 7
to expand and improve experiential learning opportunities. Learning
through experience is an old and reliable instructional method.

Prehistoric humans learned the fundamentals of food gathering, fire making and shelter building through trial and error. Workers in the Middle Ages began guilds to teach young people the crafts and skills needed for allowing towns to survive. Farm families traditionally have passed down farm related skills to their sons and daughters. American land grant colleges were created for students to learn such subjects like engineering and agriculture through hands-on experiences (Crowe & Adams, 1979).

Experiential Learning

Experiential learning enables students to learn by doing, by using actual examples and real life practices, to reinforce other ways of learning (Crowe & Adams, 1979). A health occupations student will learn why and when to measure blood pressure along with the steps and procedures through practice with actual instruments under real conditions. Experiential instructional methods may include simulations, demonstrations, practice, role-playing or learning conducted in the actual work setting as paid or unpaid workers.

Vocational education is a field strongly based in experiential learning. Vocational classrooms and laboratories are designed to resemble work settings. Course content is organized around the knowledge, skills and attitudes used by workers in particular occupational areas. In health occupations programs, laboratory exercises, simulations, role playing and clinical experiences are examples in experiential learning methods.

Rapid changes in technology and subsequent changes in procedures and practices have made it difficult to provide effective simulated work

Thompson: Cooperative Education in Health Occupations Education

experiences in health occupations classrooms (Walters & Johnson, 1985).

Teachers can orally describe probable scenarios but working under actual time constraints, with real patients and alongside experienced **health** professionals, provides the best opportunity for learning health care practices while demonstrating the knowledge, skills and attitudes required in particular occupations. The cooperative education method can extend experiential learning for health occupations students by allowing employment in actual health care settings under real work conditions. A comparison of cooperative education and clinical experiences may reveal ways to expand experiential learning for **health** occupations students.

Clinical Experiences and Cooperative Education

Clinical experiences in health occupations programs provide the opportunity to observe, assist or perform basic **skills** in community health care agencies (Walters & Johnson, 1985). Cooperative education is an instructional method that combines classroom instruction with paid, on-the-job learning (Humbert & Woloszyk, 1983). Both clinical and cooperative education methods provide students with planned and supervised learning activities in school and work place settings. Job and classroom instruction for cooperative and clinical experiences are directly related to career objectives of students. A formal contract between participants, as required in a cooperative training agreement, is also a requirement for clinical experiences of health occupations students. These **agreements** must be formalized before health occupations students may observe, assist or perform in any clinical activity. Clinical experiences may be short in duration while cooperative jobs last for the duration of the training agreement.

Students may perform different roles during clinical and cooperative learning experiences. Clinical students usually observe and assist

health care professionals, while cooperative students are expected to perform the tasks required in a specific job, even as they continue to learn technical knowledge, skills and attitudes in school and work place settings. The end **goals** of cooperative and clinical learning experiences may **also** be different. Clinical students may observe work practices of competent practitioners since they may not possess adequate knowledge or skills. However, in other situations, clinical students may be allowed to assist or perform independently. Cooperative students, on the other hand, are expected to perform the tasks required in the particular job. The major difference between clinical experiences and cooperative education centers on the financial remuneration for **students**, a requirement in cooperative programs, and not required for clinical experiences.

Cooperative Education Method of Instruction

Health occupations educators may be able **to** adapt existing clinical practices to develop a cooperative education component for their programs. To be classified as a **cooperative** education program, the following five characteristics are required:

1. Employment compensated in accordance with all applicable laws;
2. Alternate or parallel periods of in-school instruction,
3. Academic and occupational instruction directly related to the career objectives and work **roles** of students;
4. **A** written agreement jointly developed and signed by all participants (student, employer, instructor and parents, if applicable);
5. School and work activities planned, monitored and evaluated by all participants (**Humbert & Woloszyk, 1983**).

Thompson: Cooperative Education in Health Occupations Education
Type of Cooperative Education Programs

Cooperative education programs may be organized into three basic types: exploratory, job preparatory, and capstone. Any one of the **types** of cooperative education can be adapted to fit existing parameters in comprehensive health occupations programs. Student and school resources will guide the proper selection of cooperative education type.

Exploratory cooperative education. The first type, exploratory cooperative education, allows students **to discover and** work in a variety of occupations as beginning workers. When in school, students learn general knowledge, skills and attitudes required of all workers. On the job, lessons are reinforced in relation to the specific job. Students **may change jobs and** career objectives as they **experience** the actual demands and responsibilities of their selected jobs. For example, students may be employed as aides working alongside different types of professionals in health care agencies. Observing job duties and direct contact with different kinds of health care professionals can help students decide on specific occupational objectives. Exploratory cooperative education may be implemented in **health** occupations programs after students have completed clinical experiences, to help students formalize and make decisions about future career goals in health care professions.

Job preparatory cooperative education. The **second** type of cooperative education, job preparatory, allows students to learn technical theories and skills while employed as beginning workers in specific occupations. Sometimes called on-the-job training programs, successful job preparatory learning experiences require a carefully designed training plan unique to each student, with close monitoring of

supervisors.

Teacher-coordinators provide **two** kinds of related instruction in the vocational classroom. General-related instruction involves knowledge, skills and attitudes required to obtain and maintain employment. General-related instruction involves employability skills instruction and usually is provided for every cooperative student. Technical- or job-related instruction develops from the requirements of the specific job as well as the student's unique abilities. Technical-related instruction is different for each cooperative student. **Teacher-**coordinators in job preparatory programs must be careful to provide both kinds of related instruction for their students. Diversified, interdisciplinary or multi-occupational programs are examples of job preparatory cooperative education programs.

Capstone cooperative education. The third type, capstone cooperative education, occurs after students have acquired and demonstrated competence in a vocational education program and have been recommended for part-time employment by their instructors. The capstone learning experience is a capping off of formal, school-based learning, allowing students to move to their chosen career path as paid employees, while still enrolled in the formal **school** program. Cooperative education teacher-coordinators supervise learning experiences **at the worksite,** helping students ease the transition from school to work. In most states with capstone cooperative education, related classroom instruction is required. Depending on the organizational structure of the vocational program, students may return to their specific vocational program and instructor or meet with other cooperative students and the **teacher-**coordinator. Instruction may be general- or technical-related, dependent

Thompson: Cooperative Education in Health Occupations Education on student needs, abilities and performance on the job. The capstone approach is often used with **health** occupations students after completion of the school-based and clinical experiences, when students are ready for the responsibilities accompanying paid employment (Walters & Johnson, 1985). Every vocational education discipline uses the capstone cooperative education approach.

Postsecondary Cooperative Education

Postsecondary cooperative education "learning experiences are available to students attending technical **and** community college programs. **Postsecondary** and university higher education students may choose parallel experiences, allowing them to work in an occupation directly related to their major **and/or** career objective while they are enrolled in full-time study. Alternating cooperative experiences allow students to take off quarters or semesters of study to work in paid employment directly related to their major or career objective. All work experiences are supervised by faculty or coordinators from the educational institutions so that in-school learning experiences may be related to **students'** work assignments. Parallel cooperative education experiences require longer enrollment periods in the educational program, but students become highly motivated toward their in-school education because they have been **able** to apply theory through practice at the work site (Humbert & Woloszyk, 1983).

Cooperative Health Occupations Education

Cooperative education experiences may be offered to health occupations education (HOE) students studying at different levels and at different times during their educational programs. Secondary students may first explore different health occupations while they are employed as entry-level health care assistants or aides (exploratory). **They** also may

employment in specific health care occupations (Capstone) through an HOE cooperative education program **which** may enhance **skills** and encourage further education in health occupations programs. However, if the HOE program is not available, a diversified program may provide some opportunities to work in health care.

Selection and enrollment in secondary, **postsecondary** or higher education health occupations programs may be the direct result of career decisions made during cooperative education learning experiences. Former and concurrent cooperative education students may be motivated to enter and excel in the rigorous study required in health occupations programs. They may experience fewer qualms about career choices and focus, may understand more about different health care roles and may **be** strongly motivated to complete and succeed in health occupations **program** requirements.

A Theory About Learning In And Out Of School

Theoretical assumptions concerning the ways people acquire **and use** learning and thinking skills outside of formal school learning have important implications for experiential programs such as cooperative education and clinical experiences. Students are taught to think and learn in **school** settings in different ways than are used in work and community settings (**Resnick**, 1987). In school, students usually are required to work individually, to think silently and **alone**, to work problems in their minds and to perform on their own abilities without help from others. Outside of school, in work, personal and recreational lives, people usually are not isolated **but** share their performance and experiences with others. Individual effort may not be rewarded, instead, group efforts may better fit the reward system. Success may depend on

Thompson: Cooperative Education in Health Occupations Education
how well members work, perform and contribute physical and mental

abilities, working together as a total group. While individuals may work alone and be rewarded for individual effort in school, when they become members of outside-of-school work groups, their success depends on combining efforts with coworkers, neighbors or family members (Resnick, 1987) .

A second dimension for differentiating learning in and out of school involves contrasts between mental and manipulative thinking and learning processes. In school, students are usually taught to solve problems, memorize or remember ideas through pure thought activities without using manipulative tools such as charts, machines, books, or notes. Outside school, people use computers, equipment and other manipulative tools to help live and work together in solving community, work, and family problems. Thinking and learning outside of school **rarely** centers on mental ability alone; natural and human resources and tools are used routinely to help solve intellectual problems.

A third way formal school and informal learning differs involves reasoning ability related to symbols. In school, students are taught to use symbols to think about and solve problems. Mathematics courses are filled with figures, theorems, and abstractions (symbols) usually unrelated to the ways people think and solve problems, use resources or act in situations outside of school. People on the job more often tend to use mental processes reflecting **actual** events and objects. The recall of abstract thought problems about the number of car lengths needed for effective braking power rarely flashes into the mind of the automobile driver faced with a **child** running into the direct path of the car. The mind makes the foot press the brake pedal and the arms turn **the** steering wheel to avoid collision with the child. When faced with concrete

Journal of Health Occupations Education, Vol. 3 [1988], No. 2, Art. 7
situations, the mind focuses to solve the problem with real objects and events rather than abstract solutions.

Another way in and out of **school** learning is different relates to general versus situation-specific skills and theories. Most schools attempt to teach a wide range of general **skills** hoping individual students will be able to adapt and revise applications when confronted **with** specific situations. Teachers may use examples to **help** students understand but school learning is directly removed from the real problem or setting. People at work, home, or in the community may use knowledge recalled from a variety of mental sources, not just those specific examples taught in school. Outside the classroom, people find new ways to solve the specific problems they face each day.

Cognitive research suggests that people work best when they have a mental model of a system, including the parts, the ways, and the reasons the parts fit together, and how changes in one part can cause changes in others (**Gentner & Stevens, 1983**). When the mental **model** does not fit a particular situation, people use other mental **skills** to examine, work around, repair, and design new mental models. When new mental models do not work, people who are flexible and adaptable can mentally remove themselves from the existing situation to solve the problem. They are able to think, analyze, and develop new solutions based upon previous mental models. Individuals use their cognitive thinking processes to function in their work, personal, and **community** roles.

Experimental Learning In And Out Of School

When individuals are in transition to new environments (as when students move from formal schooling to paid employment), they may be required to **call on mental** abilities not directly related to the

Thompson: Cooperative Education in Health Occupations Education

situation- specific-, problem-solving approach called upon in school learning. Experiential learning activities (learning by doing) and other school programs that enable students to mentally and physically experience problems in actual settings, **may** be more effective ways to connect learning and thinking in school with demands of the real **world**.

Resnick (1987) criticizes vocational education programs that train students to use methods, tools, and equipment that soon may be obsolete. She advocates a return to instructional methods used in traditional apprenticeship programs. **Resnick** proposes that the experimental method may better help students acquire the **mental** abilities they will need for adult roles.

The apprentice practices basic skills until proficiency has been verified by the master worker. For an apprentice worker, wages, and services are lower **than** those rewarded for master-level work. As with apprentices, cooperative education students work under the direct supervision of experienced workers, and are paid at beginner wages **as** they learn **and** practice basic job skills. Cooperative students are expected to gain proficiency in technical skills, knowledge, and attitudes required by their jobs, while they continue their classroom instruction. Students learn skills with the actual **tools** and equipment needed to perform their jobs. Each cooperative education student has a written training plan detailing the knowledge, skills, and attitudes required for job performance along with classroom instruction directly related to the job and training plan. Students are evaluated for job performance by experienced supervisors from traits and skills listed on their training plans. Each student's total job performance, including motivation, skill level, and role perception, is evaluated for **school** credit, as **well** as, pay and promotion.

Classrooms for cooperative education students are located both in schools and **at work** places. Learning is developed, reinforced, and **shared** by all participants in all settings. **As** students experience difficulty with **work** assignments, the training supervisor can assist in analyzing **and** preparing alternative solutions. Teacher-coordinators can use the difficult work assignment to develop additional solutions other class members may have experienced. Transition from classroom to job is **a** gradual movement between school and work, until students are able to display effective job performance.

Implementing the Cooperative Education Method

Most states require **formal** training and certification for secondary cooperative education program operation **and** instruction; in **postsecondary** and higher education institutions there are no certification requirements. Teacher education institutions offer cooperative education courses to help educators acquire the competencies of successful cooperative education teacher-coordinators. Professional associations (such as the Cooperative Work Experience Education Association of the American Vocational Association and the Cooperative Education Association) sponsor workshops and training seminars to assist individuals in developing expertise **in** organizing and administering cooperative education programs. Four training centers (northeast, southeast, **central/western**, and community/junior college) are funded to provide initial and inservice cooperative education training for **postsecondary** and higher education personnel. Workshops **and** seminars are scheduled regionally. Cooperative education teacher-coordinator is the most important key to a **program's** success and proper training for job demands **has** been seen as important to success for coordinators (Lloyd, 1981).

Thompson: Cooperative Education in Health Occupations Education
Summary Educators have many options for **adapting** the cooperative

education method within **health** occupations programs. **As** long as the five characteristics of cooperative education programs are included, many variations may be created for different kinds of cooperative education-experiential learning experiences. Educators may choose to mix experiential learning activities or develop a **continuum** of activities to build articulated, comprehensive, and open **entry-exit** health occupations programs. Funding considerations for cooperative education experiences are minimal since the training sponsor helps provide **tools**, equipment, and expertise for learning by students. It is important for teachers to acquire the additional competencies to operate and administer cooperative education learning experiences, since research exists linking the competency of instructors with success for the program (Leske & Persico, 1984; Lloyd, 1981). Employers are eager to support cooperative education programs and usually are familiar with the concept and operation (**Franchak & Smiley, 1981; Herrnstadt, Horowitz & Sum, 1979; Hogue, Grossman & Spiegel, 1985; and Nunez & Russell, 1981**). Educational reforms have emphasized that more experiential, field-based learning is desirable, with cooperative education cited most often as the best experiential learning approach (Thompson, 1986).

The final decision about including the cooperative education method in existing or new health occupations programs rests with the expertise and guidance of the educators and professionals involved in developing and evaluating these programs. As with any educational decision, the final resolution is based on needs of students for developing their educational, social, personal, and career potentials. Cooperative education has proven to be a successful instructional method, used with all levels, ages and types of students. Health occupations students

Journal of Health Occupations Education, Vol. 3 [1988] No. 2, Art. 7
could benefit from the inclusion of the cooperative method within their overall educational programs.

References

- Crowe, M. R. & Adams, K. A.** (1979). The current status of assessing experiential education programs. Information series No. 163. Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University. (ERIC Document Reproduction No. ED 173 562).
- Franchak, S. J. & Smiley, L. L.** (1981). Evaluating employer satisfaction: Measurement satisfaction with training and job-performance. Research and development series No. 10. Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University. (ERIC Document Reproduction No. ED 201 203).
- Gentner, D. & Stevens, A. L., Eds.** (1983). Mental models. Hillsdale, NJ: Erlbaum.
- Herrnstadt, L., Horowitz, M. A., & Sum, A.** (1979). Transition from school to work: The contribution of cooperative education programs at the secondary level. Boston, MA: Department of Economics, Northeastern University (ERIC Document Reproduction No. ED 183 721).
- Hogue, K., Grossman, M., & Spiegel, D.** (1985). Evaluation of employer teacher and student perceptions of co-op. College Station, TX: Texas A & M University. (ERIC Document Reproduction Service No. ED 216 254).
- Humbert, J. T. & Woloszyk, C. A.** (1983). Cooperative education. Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University. (ERIC Document Reproduction No. ED 229 578).
- Leske, G. & Perisico, Jr., J.** (1984). Indicators of quality in cooperative vocational education: A review and synthesis of research. St. Paul, MN: Minnesota Research and Development Center for Vocational Education, University of Minnesota.
- Lloyd, G. M.** (1981). An assessment of cooperative vocational education programs since the educational amendments of 1976. Columbus, OH: The National Center for Research in Vocational Education, The Ohio State University.
- Nunez, A. R. & Russell, J. F.** (1981). Manufacturers' views of vocational education. Columbus, OH: The National Center for Research Education, The Ohio State University. (ERIC Document Reproduction Service No. ED 215 107).
- Resnick, L. B.** (December, 1987). Learning in school and out. Educational Researcher, 16 (9), 13-20.

Thompson: Cooperative Education in Health Occupations Education

Thompson, M. J. (1986). The role of cooperative vocational education in the educational reform movement. Auburn, AL: Center for Vocational & Adult Education. (ERIC Document Reproduction No. ED 269 580).

Walters, N. J. & Johnson, L. H. (1985). Guidelines for clinical experiences in health occupations education. Auburn, AL: Center for Vocational & Adult Education. (ERIC Document Guidelines for clinical experiences in health occupations education. Auburn, AL: Center for Vocational & Adult Education.