Even though occupational therapists were employed in school systems as early as the 1940s, it was the passage of Public Law 94-142 which led to a rapid increase in the number of occupational therapists employed in school systems (Ottenbacher, 1982; Regan, 1982) such that currently schools are second only to hospitals as the largest employer of occupational therapists (AOTA, 1985). The percentage of occupational therapists employed in schools was 11% in 1973, 14% in 1977, and 18.3% in 1982 (AOTA, 1985).

Need
Public Law 94-142 does not describe the roles or functions of public school occupational therapists in other than general terms. Similarly, the American Occupational Therapy Association (AOTA, 1981) delineates the role of therapists in public schools only in general terms:

As a related service, occupational therapy is provided to enhance students' abilities to adapt to and function in educational programs. Occupational therapy services provided to students under the provisions of P.L. 94-142 must have a relationship to the educational goals identified for each student in the Individualized Education Program. The primary goal of occupational therapy in carrying out the mandates of the law is to offer students those predetermed services that will improve their ability to adapt, thus enhancing their potential for learning. Thus, occupational therapy services must have a direct impact upon students' abilities to learn and benefit from their educational programs. (p. 811)

Therefore, the roles and functions of school-based occupational therapists are subject to interpretation. However, using data provided on the 1978 AOTA membership survey, Gilfoyle and Hays (1979) identified the functions of school-based occupational therapists. These functions, in the order of frequency reported by the respondents are as follows:

- Improve gross and fine motor skills.
- Improve sensorimotor integration function.
- Improve ability in activities of daily living.
- Improve muscle strength and endurance.
- Improve function using assistive devices.
- Prevent developmental disability and dysfunction.
- Prevent deformity.
- Increase joint range of motion.
- Increase socialization.
- Increase vocational skills.
- Increase school adjustment.

Clearly, these reported roles and functions use the language of the medical model. For example, most of the goals are stated in biophysical terms; their relationship to education and educational readiness is not evident. They are not stated in educational terms that administrators, teachers, and parents can understand easily. There is a need, therefore, to delineate the roles and functions of a school-based occupational therapist within the context of an educational model.

To date, occupational therapy services within public school settings have been accepted if not well understood. However, the long-standing need for a clarification of the education-related services occupational therapists provide in the public school setting is intensified by the financial pressures bearing on special education. The cost of special education has risen dramatically, and Congress recently mandated a national evaluation of the expenditures for special education, with costs of related services, including occupational therapy, to be documented (Decision Resources, 1984). In Minnesota, the state legislature has mandated a fiscal
analysis of occupational therapy services in the public schools (Barbara Hanft, Government and Legal Affairs, AOTA, personal communication, May 20, 1986). These separate events may foreshadow the increased scrutiny of expenditures for all of special education and occupational therapy specifically.

The pressure to reduce the costs of special education could well result in an increased pressure to reduce, modify, or streamline occupational therapy services within the public schools. This may be particularly true if school administrators have neither the necessary arguments (based on knowledge of how occupational therapy enhances the educational readiness of handicapped children) nor the necessary support (political action on part of "stakeholders" to preserve and enhance the provision of high-quality, school-based occupational therapy services to handicapped children).

The current dilemma of occupational therapy in the public schools can be seen as resulting from two unmet primary needs: (a) the need to describe the roles and functions of school-based occupational therapists within an educational context and (b) the need to demonstrate the cost-effectiveness of school-based occupational therapy services.

**Strategy**

These two needs may be met through the evaluation of school-based occupational therapy programs. Evaluation is related to research, but differs with regard to values, purposes, and resources (Neighor & Schulberg, 1982). Where clinical research questions center on the search for "truth," evaluation research focuses on program effectiveness, efficiency, and responsiveness (Neighor & Schulberg, 1982). Ottenbacher and York (1984) define evaluation research as the "systematic application of applied research procedures to assess the conceptualization, design, implementation, and effectiveness of therapeutic intervention programs" (p. 647).

What are the strategies of evaluation research that need to be implemented for school-based occupational therapy programs? Current evaluation research should focus on how occupational therapy services are educationally related (program evaluation), and future evaluation research should focus on how well such services are being delivered (project evaluation) (Wholey, Scanon, Duffy, Fukemoto, & Vogt, 1971). It is important to develop a solid data base from program evaluations before attempting to execute project evaluations effectively.

To be more specific, evaluation research centering on program evaluation is more basic than the type of evaluation research to which Ottenbacher and York (1984) referred, which centers on project evaluation. Program evaluation is not based on quasi-experimental designs but on a descriptive and analytic portrayal of the program and its roles and functions. In our case, basic evaluation research or program evaluation would describe and analyze the roles and functions of school-based occupational therapists within an education-related context.

Furthermore, program evaluation investigating school-based occupational therapy services should focus on two questions. Based on the needs identified by researchers as primary to the evaluation of social programs (Rzomovic, 1984) and on data gathered by Barbara Hanft of AOTA (personal communication, December 15, 1985) during a national meeting of school system administrators, the questions to be answered are as follows:

- What services of school-based occupational therapists are related to the education of handicapped children?
- How do such services relate to the education or educational readiness of handicapped children?

Another question that evaluation research on project effectiveness should investigate subsequently relates to finances. One study revealed that as special education placement became more restrictive, the cost of special education increased (Kakalik, Thomas, & Carney, 1981). Thus, a third evaluation question for study in school-based occupational therapy programs concerns the cost of services. Can programs document and demonstrate that occupational therapy services limit the need for more restrictive environments and thus reduce the costs of special education? The lack of clear data about costs may jeopardize the funding for occupational therapy in the schools and reduce services to handicapped children.

**Dissemination**

Evaluation research is only part of the task. Planning for the dissemination of the findings is as important as the research itself.

According to Neighor and Schulberg (1982), one primary purpose of evaluation research is to advocate interests, in this case the interests of handicapped students served by occupational therapy programs in the public schools, when there is competition for resources. The sharing of information pertaining to the evaluation findings (the definition of the roles and functions of school-based occupational therapists and the documentation of how occupational therapy services promote placement in the least restricted environment and thus reduce costs) is a legitimate mechanism to use in the competition for funding. This is a marketing approach for dissemination that can be implemented proactively to assure the continuation of occupational therapy as a viable related service in public schools.

The proposed evaluation research must also be considered within the context of who will use it. This factor will influence the conceptualization and implementation of the evaluation research as it is planned for dissemination. For example, before beginning evaluation research, the researcher needs to establish rapport with those who are to be the consumers of the findings (Aikin & Daillak, 1979). Thus, rapport with local, state, and federal administrators of special education programs needs to be further developed and strengthened. Extra-organizational factors such as community support also need to be identified and facilitated to increase a favorable reception of the evaluation findings. To draw an analogy, just as one can use manual facilitation techniques to bias muscle tone in a hemiplegic person prior to cued
intentional movement, one can use rapport and community support to influence the political climate prior to the reporting of evaluation research findings.

**Summary and Conclusion**

This paper has identified the need for evaluation research regarding school-based occupational therapy programs, proposed a strategy for the current and future evaluation of school-based occupational therapy programs, and discussed the need and rationale for the process of dissemination as a component of such evaluation research.

The purpose of evaluation research is to maintain and improve school-based occupational therapy programs. If carried out, evaluation research will not have a sudden or significant impact on school personnel, but more likely it will foster a "gradual, incremental" (Aiken & Daillak, 1979, p. 48) support for school-based occupational therapy programs.

**References**


