As education puts more stress on individualization through media approaches, the role of the media-teacher specialist becomes increasingly vital.

**WHY** is the American elementary educator expected to serve in a professed mechanical era, without the assistance of a mechanical technician? Why is the elementary educator, who is trained to teach, expected to be able to improvise, repair, and replace the mechanical equipment presently supporting educational programs? By walking into any open school in any city, U.S.A., concerned educators can view the frustration of both teachers and students as they attempt to rewind by hand mangled cassettes, replace bent phonograph needles, or untangle wires from headsets that form the hub of the listening area.

Elementary educators, attempting to provide increased individualized instruction through the audiovisual supplementation scheme, are facing myriad problems for which very few persons have been prepared. The following are just some examples of the current audiovisual related, technical problems:

- The purchase of durable equipment from a highly profit oriented market
- The procurement of the necessary support items that by design must be periodically replaced (for example, batteries, bulbs, and lenses)
- The periodic maintenance necessary

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when such equipment is in constant usage (for example, cleaning of the cassette tape recorder heads, replacement of worn-out cassette cartridges, and replacement of springs and tension gears)

- The transportation and hook-up of various auxiliary units to the original console, whether it be a video or audio sending center
- The best methods of storage for each individual piece of equipment (for example, cold and dry, wet and damp, in the light, in the dark, and which side up)
- The knowledge of warranties and guarantees and the finite stipulations to which there must be adherence so that factory replacement may be achieved
- The possibility of interchangeable usage of both parts and connections
- The quality of production of which each individual piece of equipment is capable
- The possible variations of usage of each piece of equipment being disclosed through current experimentation by the production laboratories.

As elementary educators are attempting to adjust to a team teaching and unfamiliar open schooling process, all aimed at the production of a more highly individualized curriculum for the single student, why must these same educators be expected to utilize the mechanical technology and provide excellence of program without the technician team member?

Elementary teaching teams for open schooling must have a team technician who can purchase, repair, adjust, and maintain the mechanical media which have, overnight, become the most practical avenue of individualization of instruction in the open school. In addition, such teams need a technical adviser to aid in the planning and usage of media in the classroom.

The purchasing of low quality goods must be stopped. The student ends up paying for the discount margin. One of the authors observed two first grade "disadvantaged" students who had devised a step, press, and pry method for working a cassette tape recorder. It took three hands, one elbow, and a knee. At a time in our educational history when the form for funding a high quality of education has become, "purchase from the lowest bidder," we have relinquished the logic that the quality of brand name would cost less in the final evaluation. The technical team member would be skilled in the logic and design of the various models of possible equipment available to educators, and knowledgeable of the adjusted price relating duration of usage to cost. Comparison shopping by a knowledgeable search of catalogs and attendance at "hard" and "software" conventions could establish the skill necessary for accurate purchasing of equipment.

Basic field repair would need to be another skill, recognizing that the technician would not be expected to complete a lung transplant, but should be able to stop the bleeding and apply the band-aid to the approximate area. In this era of printed circuits and module replacement, field repair can save endless "bench time," that time wasted during which a piece of equipment is transported to the repair shop, waits its turn on the repair bench, and is then shipped back to the classroom.

Periodic maintenance, as indicated by the service manuals which accompany all good brand name equipment, can inevitably save money and out-of-use time. The skill to accomplish this necessary maintenance would have to be a basic skill of the team technician. Centralized equipment and tools for this maintenance operation would be necessary, along with the needed amount of back-up equipment to be used while maintenance of the specific equipment was in progress.

Need for Team Technician

Adjustments and advisement as to the best usage of each piece of equipment would be a vital function of the team technician. Elementary teachers, who have never operated or do not know of the gamut of mechanical equipment, have no basis for comparison of peak performance. The technician would provide the teacher with a
hierarchy of warning signals that might indicate the possibility of impending mechanical failure.

The team technician, having the skills necessary to purchase accurately, suggest effective usage, and provide field maintenance for the needed mechanical equipment, would be an immediate and effective relief to the anxiety and frustrations presently engulfing the open school team teacher in time of media mania.

The team technician should be assigned to approximately 150 students or approximately two teaching teams. Attendance at the curriculum planning sessions of each team would be essential. At these meetings it would be the responsibility of the technician to:

- Provide suggestions as to how to integrate usage of audiovisual equipment into the planned curricular and instructional strategies
- Suggest supplementary needs for the designed curriculum objectives and activities
- Advise as to the various modifications of equipment usage in relation to present pattern in operation at that time
- Provide literature and suggestions relating to any new form of equipment and media available
- Design and circulate the necessary forms relating to hours of usage and maintenance scheduling for the equipment presently being used by the team
- Give demonstrations of new equipment presently being experimented with in production laboratories
- Coordinate the location and setting up of any equipment needed for the total week.

The ranks of team technicians should be filled only by persons certified in the specialization of elementary education. Only a trained certified elementary educator could fully comprehend the absolute necessity for supplementary materials and equipment to effect the activities designed about the educational objectives of the elementary curriculum. The team technician must be able to understand the full meaning of and ways of accomplishing curricular and instructional planning and implementation and the intricate relationship of such to the child's final learning activities.

Now that we are experiencing an abundance of trained certified elementary educators, it is becoming increasingly possible for us to provide the needed media specialist to teaching teams. Due to this situation, we not only can ensure the technical-mechanical skills that are vital for this role, but we can also expect that individual to be grounded in the general instructional skills and knowledge associated with a certified professional elementary educator. As education moves toward an increasing emphasis on individualization through media approaches, the role of the media-teacher specialist becomes increasingly vital.

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