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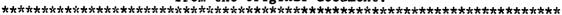
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ABSTRACT

This bulletin describes the activities of the PAM Assistance Centre, a project supported by Michigan Special Education Services. The bulletin focuses on the Centre's role in nurturing quality educational opportunities for students with disabilities. The paper outlines several challenges in adapting to the uniqueness of a child with a physical or sensory impairment, and the need for consideration of both low and high technology aids in meeting these challenges. It describes the development of the Centre as a source of information for matching available technological devices with the needs of individuals with disabilities and their caregivers. Samples of information requests received from Michigan school districts are listed, organized within the following themes: specialized support and the continuum; curriculum; emerging populations; young children; vocational; transition; and general education. The education themes of various PIAM (Physically Impaired Association of Michigan) publications are also listed. PAM Assistance Centre's other activities, including school-related presentations, promotion of accessibility, and efforts aiding personnel development, are also noted, and plans for the future are specified. (JDD)

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PAM REPEATER



LOW TECH AND
QUALITY SPECIAL EDUCATION

NO. 75

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PAM and Quality Education

How does the PAM Assistance Centre address today's objectives for special education? Does "low tech" assist in the implementation of those themes identified as high priority by the Michigan Department of Education?

Staff at the PAM Centre, in looking back at the final quarter of 1991, earmarked a number of varied client requests relevant to special education services. We hope that sharing these representative cases with our P.I.A.M. membership will serve a good purpose. It should clarify a portion of PAM's potential for helping to program for students with a disability.

Quality Education for Students with Disabilities

The Role of the PAM Assistance Centre

Contents

- I. Low Tech and the Special Student
- II. The PAM Assistance Centre and Special Education
- III. Low Tech and the Quality Education Themes
- IV. P.I.A.M. Publications Enhance Quality Education
- V. Additional Considerations
- VI. PAM: Looking to the Future

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QUALITY EDUCATION FOR STUDENTS WITH DISABILITIES

The Role of the PAM Assistance Centre

I. Low -Tech and the Special Student

Quality education for students with disabilities involves the administrative and educational support systems which our society endeavors to maintain for all children, and every child is unique in his own way.

In order to adapt to the uniqueness of a child with a physical or sensory impairment — to discover and build upon these strengths and capabilities which are there — caring and creative staff persons face many challenges. Some of these are very basic.

- I. Parents find themselves with a handicapped baby to nurture and blend into family life. What are some of the low-tech devices out there which facilitate the feeding and physical management of that child? As the child grows, how can (s)he explore his environment? entertain himself? do things with other children? (Theme 4, Young Children)
- II. It is time for school. How can he be safely transported? Move about in the building? Access the tools of learning? Respond to educational expectations? Contribute? Gain acceptance? (Theme 2, Curriculum)
- III. The child with moderate to severe disabilities is probably in a general education setting. Are these teachers familiar with low tech, practical adaptations as well as with the more sophisticated equipment, devices and resources? (Theme 8, General Education) Can the administration see that he has physical education and recreational outlets which help make him "one of the gang"? Are therapy and supportive services in place in his regime, with occupational therapists channeling ideas for adaptations into his classrooms? (Theme 1, specialized support in continuum)
- IV. Junior High, when peer acceptance becomes even more essential to this physically or multiply impaired student. Does he **dres**s like his peers, even though adaptations to those garments are necessary? Does his home setting allow him maximum independence and permit his parents to insist that he do things for himself and others? Technology can facilitate independence on these many levels—vital to the self-concept of this individual. Medically fragile children are often particularly vulnerable to limitations on their independence. (Theme 3, Emerging Populations)
- V. The teenager is expected to be gearing toward the world of work. Can we fairly evaluate his progress using traditional instruments without adaptations? (Theme 6, Evaluation) Are we providing technology updated to challenge his current potentials and prepare him for later employment opportunities? (Theme 5, Vocational) Can we make practical suggestions to the shop and work-study teacher, the home and family living teacher (under whatever title) as to devices and techniques which will allow for meaningful participation in these and other community based programs? (Theme 7, Transition)



It is apparent that "the consideration of (both low and high) technology in the implementation of each objective will help Michigan's students and educators remain in the mainstream of today's technology-rich culture."

II. The PAM Assistance Centre and Special Education

The PAM Assistance Centre began to channel and intensify services of the Physically Impaired Association of Michigan (PIAM) in 1979.

It was becoming increasingly evident at that time that parents of physically and multiply impaired students were largely unaware of resources and information vital to the fulfillment of their parenting role. P.O.H.I. Teacher Consultants and Teachers of Homebound and Hospitalized Students were frustrated for the same reasons. I.S.D. and local administrators were quick to acknowledge these needs on a State Department survey conducted by independent researchers prior to providing support for the PAM Centre as it was being established.

Meanwhile the organization (PIAM) continued to provide a wide array of practical information to professionals and parents, as well as to adults with disabilities, doing this by holding quarterly statewide meetings and publishing monthly newsletters (of which there were fewer in the early '80's).

The new PAM Centre was to be open daily to the public, and was to be focused more specifically on what **technology** had to offer disabled persons. These were pre-personal computer days, but the Eulenbergs and a handful of other brilliant and committed persons were at work. However, in 1979, as in 1992, the needs for low (or light) tech were acknowledged to be basic to the functions of everyday living and participation in the school milieu.

Case records maintained by the PAM Centre suggest that there was a great variance of needs brought to the attention of the small PAM staff. The two file drawers gave way to an expanding database of resources, and catalogs have been amassed representing roughly 3000 companies and 30,000 items of equipment. (Additional "high tech" resources are on file at the Living and Learning Resource Centre, begun in 1986 to address this area exclusively).

The PAM Centre's first "case" (February, 1979) was happily solved when the special education director of one of our major cities was to purchase pool equipment. Dissatisfied with the costs and design of the equipment about which his therapists were informed, he called PAM. As a result, he purchased some Michigan products more to his liking and at considerable less expense.

Since that time PAM has been providing information and assistance to persons with disabilities and their caregivers on a day-to-day basis, with no "red-tape" involved. As in 1992 we anticipate the future of special education in this state, it may be helpful to see how themes relating to quality education were addressed in 1991 by staff at the PAM Assistance Centre.



III. Low Tech and the Eight Quality Education Themes.

Persons from almost every Michigan school district, rural and urban, have had some contact with PAM in the course of a year. In the interest of confidentiality, we have omitted the names of those persons and school districts referenced here.

The examples listed below are a sampling of the information requests drawn from September through December, 1991. These concerns support the Themes, Goals, and Objectives of Special Education Services in Michigan.

Theme 1. Specialized Support and the Continuum

Technology as an enabler will help insure that every child is as close to inclusion as practicable, wherever (s)he is being served on the continuum.

- ISD teacher needed information on making school building barrier free for a student with cerebral palsy. Parents had resorted to requesting this at the child 's IEPC. Look ing especially at drinking fountains and handicapped parking
- Local Superintendent looking for resources for stair lifts for 5th grader who recently had both lower extremities amputated
- ISD School Administrator wanted information on the legalities of stairclimbers vs. elevators
- School Superintendent wanted resources for door openers, alternate door hardware and ramp specifications for modifying the school building
- Parent of a child with multiple handicaps wanted information on toys that are brightly colored and have sounds or lights to stimulate him
- · Parent of a deaf-blind child wanted activities and toys that could be used at home
- Parent needed information on holster chairs

Theme 2. Curriculum

In whatever setting, students must be able to access educational content comparable to the general education curriculum. Not only must he **understand** communication directed to him, he must also be able to **respond**. Not for all, and not exclusively, is the computer or the high-tech communication aid the answer, although pertinent software can promote subject mastery on almost any level.

Curriculum encompasses a wide range of subject matter. In addition to basic writing aids and seating adaptations, questions arise concerning accessible educational toys and devices, adaptations for teaching science and home economics, and therapeutic recreation.

- ISD Work Study Coordinator needed information on visual or vibrating timers for a hearing impaired student in cooking class
- Public school teacher needed resources for a timer that flashes a light for a student in foods class
- Teacher in local school needed resources for raised line paper for visually impaired student



- Middle School principal needed large print materials for a visually impaired student that had been mainstreamed
- · Teacher needed information on horseback riding for visually impaired students
- · School looking for resources for sign language puzzle
- Teacher looking for resources on exercise videos
- · Educational consultant wanted information on training videos on feeding
- ISD wanted information on special toys for children
- · Parent wanted information on music therapy services for child with Down 's Syndrome

Theme 3. Emerging Fopulations

The PAM Centre has addressed the needs of the newly emerging population of medically fragile children by presenting a REPEATER (88) Wheels on Wheels and GRAM (89) The Challenge of Transporting Children with Special Needs.

Intervention strategies to facilitate the physical management of medically fragile children may involve "low tech".

- · Personnel from Head Start Program wanted brochures for bilingual parents
- Elementary school teacher needed resources for alerting system to call nurse from another room for medically fragile, ventilator dependent quadriplegic child
- Parents of a child who has had a traumatic brain injury are looking for information on how they can modify their home to allow him the greatest degree of independence and meet the building codes

Theme 4. Young Children

Many of the greatest challenges relating to the physical management of handicapped children are encountered in infancy. The child's normal instincts for mobility and play require responses which can only be elicited with appropriate "enablers" - e.g. toys that develop the intact sensory abilities of blind children; adapted tricycles.

- ISD teacher looking for drinking cups to promote independence of children in PPI Home Program
- Regional Services District occupational therapist wanted playground equipment, specificallyswings for a child with quadriplegic cerebral palsy
- Educational consultant needed information on providing access to Head Start Program to child who uses a wheelchair and the program is offered in the basement of a church without a lift or elevator
- School district teacher has a child who is blind and has cerebral palsy and they want toys that he can access with his left hand
- Occupational therapist looking for information on self-help group for a young child who recently became a quadriplegic
- Early Childhood Special Education Consultant needed resources for toys for special children
- · ISD psychologist looking for control switches for toys for a child
- Non- profit rehabilitation service called for information on parenting classes
- Occupational therapist needed information on toys for visually impaired children



- Community Mental Health parent wanted information for child on adaptive sleds with possibilities for head and trunk support
- Individual called for information on large print book with pictures for toddler age child with albinism
- Parent wanted information on boots for child to put on independently as child wanted to be as independent as possible because feeling peer pressure to be like other children
- Grandparent wanted information on sources of products for grandchild who is visually impaired
- Parent of child who is deaf-blind wanted activities and toys that could be used at home
- · Parent needs a high crib rail for twin size bed
- · Parent wanted scoop plates for child
- · Parent wanted puzzles with large pieces and knobs
- Parent of child with Down 's Syndrome needed a walker for child. He was too big for walkers offered by baby companies
- Parent looking for information for a mesh dome that attaches to a full size crib to keep child from getting out

Theme 5. Vocational

PAM Centre staff offers numerous suggestions for the use of technology utilization in order for students to be prepared for the world of work. Ideas on training, access, and the structure of the work environment to ensure employability are provided, dependent on individual needs.

- Physical therapist needed information on toileting skills training and urinals for a young adult with cerebral palsy. He is currently employed and requires assistance from co-workers to transfer to toilet
- Major ulitity company wanted information on what agency could help them hire individuals with handicaps
- Community College wanted information on copy holders with automatic moving line guides
- ISD Auxiliary Services wanted information on talking calculators with earphones
- High school teacher looking for information on the International Directory of Job Oriented Assistive Device Sources
- Parent wanted something like the bit talkman that is no longer being made

Theme 7. Transition

The challenges of transition change as an individual matures, but may be equally traumatic at any age. Teenagers are particularly at risk. Often the success of a work study program for P.O.H.I. students may be related to the utilization of low technology (safely elevate a table, use a wheelchair reducer to get through a door, etc.).

The social transition of a handicapped student into adult acceptance and activities may be far more difficult to achieve. PAM staff are often approached to help equip individuals with handicaps with recreational skills and personal self-help skills which enable them to approach appropriate community resources. Aids to facilitate independent or semi-independent activities of daily living skills and choices can greatly enhance the chances of social acceptance.



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- School needed information on devices for grooming and dressing, control switches for TV, lights, etc., and attention signals, to aid students in becoming as independent as possible
- Parent needed information on alarm clocks and closed caption decoders for child who has a hearing impairment
- Teacher in SXI program needed cup with a straw so child can drink independently
- Occupational therapist wanted resources on adapted video equipment and a hand held shower with temperature control
- ISD needed information on transportation options
- Occupational therapist in school environment wanted information on adaptive ski equipment and local contacts for utilizing this equipment
- · Parent needed information on drivers training, vans and adaptive driving equipment
- Parent of a child who is hearing impaired needs information on portable and regular TDD's
- · Parent wanted to know where she could purchase a braille watch
- Parent of child who is outgrowing present wheelchair and seating system would like information on options available
- Parent needed resources for numerous devices for activities of daily living for child with muscular dystrophy
- · Parent wanted information on adapted snow skiing equipment

Theme 8. General Education

The great majority of Michigan's special education students will find their placement most appropriate within general education. This inclusion process brings a host of new challenges to general education administrators and staff. Many of these challenges can be met administratively, e.g. assigning mobility—impaired students to classes on the first floor. PAM addresses numerous facility questions relating to barrier-free access and classroom adaptations.

A recent (10-91) PAM REPEATER, "Inclusion—An Accommodation Primer" has been shared in several inservices, illustrating the usefulness of assistive technology in regular classrooms, and was reproduced in entirety for at least one state-wide technology conference.

- Parent wanted to know where she could get materials to address a general education classroom regarding handicaps to help child be accepted in school
- · School wanted information on portable telephone amplifiers to use in the classroom
- Middle school principal needed large print materials for a visually impaired student that had been mainstreamed
- Elementary school wanted information on writing paper for a visually impaired child
- ISD educational consultant wanted information on where they could obtain a portable ramp to use for graduation. They have one student who uses a wheelchair and want all the students to use the ramp so this individual is not singled out.
- Special Services Supervisor wanted information on accommodations the role of technology in education
- ISD physical therapist looking for mobility aids for a dwarf size student so the child may participate in field trips with class. Also looking for mobility aids and ways to test students ability to use them.



- School called for barrier free design guidelines
- ISD occupational therapist needed information on safe accessible playground surfaces
- ISD physical therapist looking for information on power wheelchairs and scooters
- High School Principal needed information on swimming pool lifts
- · School District needed a ramp for the playground
- Director of Catholic Religious Education wanted information on communication devices for a deaf child and where to obtain these services
- Teacher wanted information on PAM Centre and adaptive devices
- Teacher needed information on toilet seats with safety frames and resources on wheelchair sports
- Parent of visually impaired child wanted to find a large print address book
- Parent needed information on adding barrier free bathroom to their home for son who uses a wheelchair
- Builder needed information on elevators for private home so child could become more independent

IV. PIAM Publications Enhance Quality Education

"The fourth cornerstone is organizations that provide support... The newsletters, conferences and programs renew our enthusiasm and provide opportunities..."

PIAM publications have been providing support and information for school personnel and parents since 1973. The PAM REPEATER, which has been published consecutively since 1979, is widely recognized as a valuable resource for school districts, libraries, parents and individual handicappers. The annual "Camp O Rama" directory is reproduced in many districts so that individual teachers, therapists and parents can have their own copies.

Various publications with potential relevance to quality education themes are noted below.

l.	Continuum	REPEATER ('86) REPEATER ('88)	Challenge of Transporting Children with Special Needs. Incontinence Care. Wheels on Wheels. The Selection of a Van Lift or Scooter.*
2.	Curriculum	REPEATER ('84) REPEATER ('85)	Music: Not Just for the Listening. Back to School.
4.	Young Children	REPEATER ('86)	(Baby) Sitting with Special Children. Directory: Toys for Special Children. Toys and Play for Special Kids.
5.	Vocational	REPEATER ('89) REPEATER ('90)	Driving with a Disability. Sewing: Easier with Adaptations. * Cookbooks and Good Eating. Gardening For All.



7. Transition

REPEATER ('83) Adaptive Recreational Equipment.

REPEATER ('84) Familiar Sports and Activities Adapted for Special Camps.

REPEATER ('86) Gifts that Show You Care.

REPEATER ('88) Wearables: Clothing Resources for

Persons with Special Needs.

REPEATER ('88) Adaptations: Archery Canoeing,

Photography.

REPEATER ('89) Transportation and Travel for Mobility

Impaired Persons.

REPEATERS ('79-'91) Camp O Rama, Annual Directory

of Special Camps.

REPEATER ('90) Signaling Devices.*

REPEATER ('90) Information for Persons with

Hearing Impairment.*

REPEATER ('90) Home Accessibility 1.*

REPEATER ('91) Home Accessibility 2.*

8. General Ed.

REPEATER ('91) Inclusion - The Role of Technology.

REPEATER ('92) Low Tech Solutions - A Place to Begin.

*This material has been selected for the Educational Resources Information Center (ERIC) database and abstract journal, Resources in Education, including reproduction in microfiche and hard copy.

V. Additional Considerations

A. Personnel Development

As noted in the Special Education State Plan for Fiscal Years 1992-1994 (p.52), the PAM Assistance Centre is an operational link in Michigan's Comprehensive System for Personnel Development, providing:

appropriate media, materials and equipment, consultation and information services for the blind, visually, hearing, physically, and multiply impaired populations.

In 1991 PAM informed and/or assisted university students with low tech concerns from the following institutions:

Michigan State University
University of Michigan
Madonna College
Eastern Michigan University
Grand Rapids Community College
Hope Academy
Wayne State University
Northern Michigan University
University of Kansas



Additionally, professional staff from the following schools and school districts visited the PAM Centre for low tech information, an ongoing "inservice":

Port Huron Public
Ottawa Area Center
Hillsdale I.S.D.
Jackson Public
Kent I.S.D.
Detroit Public
Beaver Island Community Schools
Macomb I.S.D.
Highland Pines School
Wayne R.E.S.A.
Ionia I.S.D.
Beauna Vista Schools
Alpena-Montmorency-Alcona E.S.D.
Eaton I.S.D.

Additionally staff from the following additional school districts made repeat visits to PAM within the 1991 calendar year:

Eaton I.S.D.
Tuscola I.S.D.
Genesse I.S.D
Ingham I.S.D.
Lansing Public
Charlevoix-Emmet I.S.D.
Saginaw I.S.D.

B. School Related Presentations

In 1991 PAM staff, conducted 23 school related presentations and/or displays outside the Centre. Noteworthy this year was our physical visibility in the U.P. at Marquette-Alger I.S.D., Copper Country I.S.D. and Dickinson-Iron I.S.D. Funding for many of these activities was secured from other than S.E.S. grant sources.

C. Accessibility and the A.D.A.

The Physically Impaired Association of Michigan has historically played a major role in promoting the physical accessibility of both public and private facilities in Michigan.

The reorganized Michigan Center for Barrier Free Design (MCBFE) became a reality in May, 1991 with major support from P.I.A.M. The PAM Centre continues to receive numerous requests for assistance and information concerning accessibility issues—many of them pertinent to school-age handicappers. Here are a few recent illustrations of these requests taken from our case files. With the 1991 passage of the Americans with Disabilities Act accessibility obviously is becoming a major concern of many.



- Family needs to add elevator to home for child to become more independent.
- School Superintendent wants information on door openers, alternate door hardware, and ramp specifications for student using Amigo.
- Parent has a son who has cerebral palsy and epilepsy with many needs, e.g. shower chair which will give a lot of back support.
- Businessman wants to convert student rental units for handicapper access, especially kitchen and bath.
- Special ed consultant needs information on accessibility resources.
- Consultant has concerns about accessible drinking fountain and handicapper parking for student with cerebral palsy in Junior-Senior High building.
- Parent has son in wheelchair and they are adding another bathroomfor him. Need dimensions for door, sink, shower, bathtub, etc.
- Parent needs information about door-knob levers, grippers, zipper mittens, one hand utensils and fork/knife for son with muscular dystrophy.
- Superintendent concerned about the accessibility of a child with recent double amputation. Questions about stair lift and funding sources.

D. Other

- The PAM Centre renders numerous other services which are very difficult to classify, such as finding a dentist who can comfortably address the needs of a child with cerebral palsy.
- Over two thousand copies of the annual REPEATER "Camp O Rama" are distributed and reproduced for further distribution throughout the state of Michigan.
- The PAM Centre acts as a clearinghouse or liaison for persons interested in new product development, helping them locate interested manufacturers.
- The PAM Centre is a vital link for parents and children interested in locating support groups.

VI. PAM: Looking to the Future

The recent passage of the American with Disabilities Act brings into a sharper focus the challenge of employment, and accessibility to public services and accommodations, including schools. Research conducted through the Michigan Council on Developmental Disabilities, and again by the Michigan Commission on Handicapper Concerns, within the last three years provided unmistakable documentation of the very practical needs of the "man on the street" who has a disability.

Information is needed concerning a wide range of devices, such as those which relate to to personal care, home management, educational and vocational management, mobility, seating, transportation, communication, recreation, ambulation, sensory disabilities, orthotics, prosthetics, therapeutic aids, computers, controls, emergencies and evacuations, and architectural elements.

Having met ongoing client needs and given numerous group presentations at conferences before key groups of people, and at the Centre itself, staff has had little opportunity to further promote Centre services. Indeed, with a total budget of well under \$100,000, the resources of the PAM Centre are over-extended, as is the physical facility. However, the PAM Assistance Centre



has established itself as a very versatile resource available to school personnel, parents, and persons who themselves have a disability.

Many persons who might well benefit from the caring and individualized attention which the staff at the PAM Centre bestows do not yet know that PAM is available to them. The needs, however, are "out there."

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PROJECT INNOVATIVE PARENTING

P.I.P. helps parents who have disabilities learn:

* normal infant and child development

* parent/child bonding

- * physical management of young children
- * discipline
- * selection of appropriate toys
- * finding special equipment for child care

For more information about P.I.P., contact:

Project Innovative Perenting PAM Assistance Centra 601 W. Maple Lansing, MI 48906 517-371-5897 or 1-800-274-7426 Voice or TDD

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