The middle school concept was devised to counteract the tendency of junior high school programs to mimic those of the high school at the expense of addressing the developmental needs of students who are in the process of physical maturation. This book on curriculum design focuses on the importance of the middle school and understanding preadolescent students at this intermediate level of education. It considers an effective middle school as one which breaks down the barriers of departmentalization and concentrates on learning and teaching across the disciplines. To enable such an environment, the booklet suggests that educators consider the developmental needs of the preadolescent, and outlines a basis for curriculum design to meet these needs. The booklet examines developmental characteristics in the following areas: Cognitive Skill--Brain Development; Cognitive Skill--Language Development; Affective Development; Social Development; Aesthetic Development; and Physical Development: Growth, Health, Body Management. Each characteristic is presented in terms of: (1) opportunities needed for healthy development in each area; (2) characteristics of emerging adolescents related to each area; (3) implications for the education of preadolescents; and (4) curriculum implications.
FOCUS ON CURRICULUM DESIGN FOR MIDDLE SCHOOL PROGRAMS

by

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Focus On:

Curriculum Design for Middle School Programs
by Lorraine B. Kaminski, Ph.D. and Karen L. Dornbos, Ph.D.

The middle school was born because of the increasing nature of junior high schools to mimic their older sibling, the senior high. The preadolescent student has long been identified as needing unique nurturing, particularly when it comes to learning. Originally junior high schools did an effective job of that (some still do). However, the temptation to imitate the high school combined with the gradually earlier physical maturation of the preadolescent has brought about the demand for a change away from the traditional junior high schools. This requires new and different education programs for these intermediate level students. The effective middle school is designed to achieve this goal.

Unfortunately, due to decreasing high school enrollment bringing about the plague of the “bumping” syndrome, many teachers often find themselves teaching preadolescent students when they have been trained only to teach high school students. In addition, being left without a curriculum designed especially for the needs of these preadolescent students, the teaching staff tend to gravitate toward departmentalization. Further, left without inservice training specifically concerning preadolescent needs and learning styles, staff will be seriously handicapped in their ability to deal with the total needs of the students effectively.

The effective middle school breaks down the barriers of departmentalization by concentrating on teaching and learning across the disciplines. The cognitive skills consisting of both brain development and language acquisition are considered as important as the affective, social, aesthetic and physical needs. The twenty-first century, where these students will spend their entire adult lives, demands a kind of cooperation and interdependence which has been largely unknown to mankind in the past. Programs must begin to focus on these needs at the critical preadolescent stage and move children along developmentally, until they are ready to handle a high school departmentalized program and several different teachers.

Educators need not become defensive but only need to look at the developmental characteristics of preadolescents and their implications as the curriculum is designed. The following chart provides a sound basis for curriculum design that meets the needs of the preadolescent.
Developmental Characteristics of Middle School Students

1. Cognitive Skill - Brain Development:

The ultimate goal of the cognition component is for middle school children to acquire, adapt, and apply knowledge as they construct new or expanded concepts. In addition they should be aware of their own brain development. To progress toward this goal, the preadolescent must have opportunities to develop:

A. Physical knowledge (explore the observable properties of objects and physical phenomena).
B. Logical mathematical knowledge (understand and create relationships among objects and phenomena).
C. Representational skills (symbolize the world through actions, objects, and words).
D. Common social knowledge (learn the terms and facts valued by society).
E. Critical thinking skills (observe, reason, analyze, predict, conclude, evaluate).

1. Characteristics of Emerging Adolescents Brain Development

Students move from the concrete to the formal stage.

Girls often reach the formal stage one to two years before boys.

Slow brain growth.

2. Implications for the Preadolescent Brain Development

Students move from real experiential learning to reflective and abstract learning.

Teaching methods need to vary.

More difficult to initiate novel intellectual processes.

3. Curriculum Implications Brain Development

Inferential thinking skills should become a segment of the curriculum.

Teachers need to use real life examples in order to personalize the abstract.

Provide a second chance to do abstract problem solving and provide cues.

Repetitive practices of existing skills as a strengthening of those.

New concepts should be presented concretely and linked to personal experience and previous learning.
1. Characteristics of Emerging Adolescents
Brain Development

- Egocentric. Moving toward understanding others' thinking.

2. Implications for the Preadolescent Brain Development

- Teachers need to be able to determine the cognitive skill level of learners.

- Need social interaction with peers in order to define their own thinking.

- Interaction with nature, society, and people.

3. Curriculum Implications
Brain Development

- Instruction needs to occur in flexible cooperative groups based on needs and skill level.

- Some learning needs to occur outside of the classroom.

II. Cognitive Skill - Language Development:

The ultimate goals of the language component of the middle school years are for middle school children to develop the ability to share their thoughts, ideas, feelings, and perceptions with others, as well as to accurately interpret the communications they receive. To progress toward their goals, middle school preadolescents must have opportunities to:

A. hear many examples of real language and through reading, see many examples of written language.

B. learn how to attend to communications directed toward them.

C. increase their oral vocabulary and auditory comprehension skills.

D. increase their ability to interpret and communicate nonverbal messages accurately.

E. experiment with language sounds, rhythm, volume, pitch, and words.

F. improve memory skills related to oral and written language.

G. expand their ability to use words to represent knowledge, events, ideas, imaginings, and perceptions.

H. extend their range of expressive language strategies.

I. see examples of written language.

J. experiment with the function and forms of written language.

K. express themselves in writing.

L. attach meaning to print.

1. Characteristics of Emerging Adolescents
Language

- Increased demand to use language appropriately and effectively.

2. Implications for the Preadolescent Language

- Language represents concepts, feelings, and information.

3. Curriculum Implications
Language

- Reading is seen as a dynamic process and interaction between the reader's existing knowledge, the information suggested in the written text, and the purpose of the reading situation.
1. Characteristics of Emerging Adolescents Language

Increased control of their oral language.

Need to know why they are to learn something and how they will use it outside of school.

Need to share their thoughts, ideas, feelings, and perceptions with others.

Need to accurately interpret the communications they receive.

Increased ability to interpret meaning from print.

Able to attend to communications directed toward them.

Increased ability to recall oral and written communications.

Give and receive many nonverbal messages.

Increase in ability to use language.

2. Implications for the Preadolescent Language

Oral language should focus on the student’s life.

Written language has relevance only if the adolescent can relate it to oral language that is understood.

Ability to express themselves orally and in writing is increasing.

Reading focuses more on how to get meaning from print and on reading as a pleasurable activity.

Broadening of views of meanings in readings.

Need to develop auditory comprehension skills and increase oral vocabulary.

Teacher talk increases and the amount of independent reading increases.

Improved ability to interpret and communicate nonverbal messages.

More capable of using sounds, rhythm, volume, pitch, and words to extend their range of expressive language.

3. Curriculum Implications Language

Give opportunities for practice in functional reading, writing, and speaking.

Make use of magazines, newspapers, and content area material for teaching of instructional strategies that can transfer to real life.

Provide opportunities to hear many examples of real language and to see many examples of written language.

Engage learners in activities that develop their image of themselves as readers, writers, speakers, and listeners.

Opportunity to learn to read by the act of reading. An effective strategy is a daily uninterrupted silent reading period.

Opportunities to exchange interpretations of readings.

Provide instruction on listening strategies, note taking, and focusing skills.

Teach memory techniques and strategies related to oral and written language.

Provide experiences interpreting and communicating nonverbal messages accurately.

Provide opportunities to experiment with language using a variety of techniques.
1. Characteristics of Emerging Adolescents

   Language

Greater ability to use words to represent knowledge, events, ideas, imaginings, perceptions.

Greater ability to solve problems.

Interaction with peers is sought.

Learn by doing.

Varied and expanding interests.

More reading is required of the student.

Ability to understand increasingly complex text.

Influenced by peer and significant adult models.

2. Implications for the Preadolescent

   Language

Expected to be able to express self in print.

Greater expectations are placed on students by parents, teachers, and self.

Teachers are asking thoughtful questions.

Significant adults and peers are influential.

Activities help support the learning.

Be exposed to literature with a variety of genre.

Need to read faster with high comprehension.

Need to become independent learners.

* assessing what is already known about a topic can influence understanding.

Appropriate models are needed.

3. Curriculum Implications

   Language

Instruction in process writing.

Provide opportunities to:

* discuss answers to questions orally.
* to write answers to questions.
* receive feedback.

Use cooperative teaming and peer discussion.

Provide hands-on concrete examples for initial learning.

Opportunities for teacher to read orally to students from a variety of genre.

* materials at various levels and interests available to students.
* classroom atmosphere where there are lots of books of various levels.

Teachers need to make students aware that their rate of reading depends on the material being read and the purpose for which it is being read.

Model strategies and provide guided practice that gradually shifts control for specific strategies from the teacher to the student.

Model enthusiasm. Model reading, writing, speaking, and listening.
III. Affective Development:

The ultimate goal of the affective component is for middle school children to feel lovable, valuable, and competent about themselves. To progress toward this goal, preadolescents must have opportunities to:

A. learn about themselves.
B. develop independence.
C. discover the satisfaction of meaningful work.
D. evaluate themselves positively.
E. develop non-sexist attitudes and behaviors.

1. Characteristics of Emerging Adolescents

**Affective**

- Emotional extremes due to hormonal changes.
- Feel self-confidence.
- Feel misunderstood and isolated.
- Tendency to have fears.

2. Implications for the Preadolescent

**Affective**

- Feel confused about themselves and these changes and about their place within the social group.
- Overly concerned that everyone notices everything about them.
- The preadolescent needs to realize this is a universal feeling of this age group.
- Inappropriate knowledge base to explain natural phenomena which are normal.
- Worry over non-acceptance based on grades, looks, physical ability, and belonging.

3. Curriculum Implications

**Affective**

- Curriculum and instructors need to remain positive, tolerant, and understanding.
- Discuss values; morality.
- Provide programs which allow children to reduce stress, role play, and achieve success.
- Provide discussion groups, sharing time, and role playing.
- Discuss worries and fears.
- Provide scientific knowledge to alleviate fears.
- Provide for physical activity, involvement with others, advisor-advisee programs, and counseling.
1. Characteristics of Emerging Adolescents
   **Affective**
   Conscience becomes stronger.

2. Implications for the Preadolescent
   **Affective**
   Concerns about fairness and honesty.
   Difficulty with ‘gray’ areas.
   Inability to apply rules to self.
   Inability to see two sides of a situation.

Begin to leave the family structure.

Search for significant others outside of the family.

3. Curriculum Implications
   **Affective**
   Show the need for rules in a society.
   Promote programs that develop roles of authority and self-awareness.
   Experiential learning with judicial system (i.e., student court and the court system).
   Institute student organizations and develop rules and regulations for living within a society.
   Implement advisor/advisee program.
   Peer group counseling.
   Provide role models, opportunities for relationships to develop, and for career awareness.

### IV. Social Development:

The ultimate goal of the social component is for middle school children to develop internal behavior controls, prosocial values, and to develop successful patterns of interaction with groups. To progress toward this goal preadolescents must have opportunities to:

A. learn the rules and expectations of society.
B. develop social skills.
C. develop respect for the wide diversity of people in the world.

1. Characteristics of Emerging Adolescents
   **Social**
   A growing dependence on peers.

2. Implications for the Preadolescent
   **Social**
   Students spend time and energy developing peer acceptance.
   This does not have to occur at the expense of parental relationships.

3. Curriculum Implications
   **Social**
   Opportunities to work in groups.

Opportunities to work in groups.
<table>
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<tbody>
<tr>
<td><strong>Social</strong></td>
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<tr>
<td>Development of relationships with opposite sex.</td>
<td>Behaviors are responsive to group pressure.</td>
<td>Classes designed to teach persuasion, debate skills, and non-abusive expressive talk should be a part of the curriculum.</td>
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<tr>
<td>Acknowledgement of a multicultural society.</td>
<td>Superficial lack of concern for family.</td>
<td>Opportunities to share their feelings and reasons for behavior in a supportive environment.</td>
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<td>In beginning stages the interest is with the same sex. As the preadolescent matures interest develops in attracting the attention of the opposite sex.</td>
<td>Provide appropriate social experiences.</td>
<td>Provide sex education programs.</td>
</tr>
<tr>
<td>The world is composed of people who are not the same as self in race, creed, color, and socio-economic status.</td>
<td>Provide programs that offer development of skills for building relationships.</td>
<td>Present programs that represent groups in a positive manner.</td>
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<td>Provide social experiences.</td>
<td>Teach social skills through cooperative learning.</td>
<td>Provide opportunities for heterogeneous groups based on these factors.</td>
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<td>Provide sex education programs.</td>
<td>Stress the importance of both group activities and independent activities.</td>
<td>Provide field trips that make students aware of these different societal factions.</td>
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V. Aesthetic Development:

The ultimate goal of the aesthetics component is for the middle school adolescent to develop curiosity about the appreciation for the arts and the natural world. To progress toward this goal, preadolescents must have opportunities to:

A. explore and become actively involved in diverse forms of art and music, creative movement, drama, poetry, and literature.

B. experience and create humor.

C. experience the wonder of the natural world.

1. Characteristics of Emerging Adolescents Aesthetics

Curious about the world.

Love to explore, investigate, inquire, and test ideas and things.

Short attention span with periods of listlessness, day-dreaming, and fatigue.

Curious about themselves and trying to find out who they are.

2. Implications for the Preadolescent Aesthetics

Develop and allow for exploration.

Exploration may include taking things apart, reading extensively, challenging the teacher.

Need a variety of instructional techniques, need time for interaction and clarification.

Development of the whole child (social, emotional, physical, and intellectual) with emphasis on total growth rather than just subject matter growth.

3. Curriculum Implications Aesthetics

Ample opportunity for exploration in the various forms of art - development of skills should not be emphasized.

Use a variety of techniques:

- lecture
- inquiry
- demonstration
- question/answer
- homework
- small group
- large group
- discussion
- debates
- manipulation
- audio-visual

Use "quarter system":

1/4 teacher instruction
1/4 large group
1/4 small group
1/4 independent

Emphasize experience rather than accomplishment by providing opportunities for:

- enrichment
- exploration

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<tr>
<td>Discovering what they like and dislike.</td>
<td>Learn best with multi-materials approach.</td>
<td>Opportunity to try various forms of art, music, drama, movement, and humor.</td>
</tr>
<tr>
<td>Relevance of an activity is important.</td>
<td>It is important that students see how they can use the new learning now and in the future.</td>
<td>* allow for creativity rather than for conformity.</td>
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<td>* learn by doing as well as by seeing, reading, or listening.</td>
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<td>Experience things that are of interest now and can foster interest in the future.</td>
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The most effective way to implement aesthetics during the school day is through the Unified Arts program, which may include:
- Home Economics.
- Art
- Music
- Band
- Orchestra
- Dance
- Photography

Aesthetics may be seen in the following format, in addition to others:
- art fairs
- craft demonstrations
- fashion shows
- bake-offs
- performances
- plays
VI. Physical Development: Growth, Health, Body Management

The ultimate goals of the physical component of the middle school years are for middle school children to achieve mastery of the environment through improved body control and for them to develop knowledge of their own physical development and that of their peers. In addition, it is important for them to develop skills and behaviors related to a healthy lifestyle. To progress toward these goals, preadolescents must have opportunities to:

A. develop their senses.
B. learn about their bodies.
C. practice gross motor skills.
D. practice fine motor skills.
E. increase their understanding of hygiene, nutrition, safety, and fitness.

1. Characteristics of Emerging Adolescents

Physical Development:
   a. Growth
   The growth pattern is largely the same for all boys and girls:
   * wide variations in the timing and degree of changes.
   * relatively consistent in both males and females.

   The greatest amount of physical as well as psychological and social change in an individual will occur during this time.

   Body is changing into an adult body and the development of secondary sex characteristics take place:
   * boys are growing broad shouldered, deep chested, and heavier with a voice change which is more noticeable than with girls.
   * most rapid growth for boys usually occurs between ages 13 and one-half and 14.

2. Implications for the Preadolescent

Physical Development:
   a. Growth
   Transition takes about four years.
   * begins and ends about two years earlier for girls than for boys.

   Physical differences need to be recognized and accepted by the individual.

   Need to know, understand, and manage their physical changes.
   * perceptions and feelings toward changes are more important than the actual changes.

   Change in status can occur as they compare themselves to their peers:
   * girls prefer to develop at the same rate as other girls.

3. Curriculum Implications

Physical Development:
   a. Growth
   Learning about their own physical changes and their peers' physical changes.
   * opportunity to interact appropriately with age mates.

   Need to feel differences are okay and that differences will not interfere with their level of acceptance.

   Need to accommodate a wide range of student abilities.
   * provide varying groups to accommodate differences.
### 1. Characteristics of Emerging Adolescents

**Physical Development:**
- **a. Growth**
  - extremely self-conscious.
  - facial proportions change as the nose and chin become more prominent.
  - Girls are usually taller and proportionately heavier than boys from ages 11-14.
  - The growth hormone in the anterior lobe of the pituitary gland.
  - stimulates the overall growth of bones and tissue and is responsible for the individual's rate of growth.
  - causes the gonads, testes in males and ovaries in females to grow, which in turn produce hormones of their own.
  - Bones grow faster than the muscles:
    - legs and arms grow proportionately faster than the trunk.
    - hands and feet mature faster than arms and legs.

### 2. Implications for the Preadolescent

**Physical Development:**
- **a. Growth**
  - An awareness that individuals grow at varying rates and that they begin this rapid growth at different ages.
  - The major result of puberty is the ability to biologically reproduce.
  - Awkwardness and accidents are common due to rapid growth.
  - Poor posture and awkwardness become increasingly evident.

### 3. Curriculum Implications

**Physical Development:**
- **a. Growth**
  - Emphasize self understanding by promoting health and science experiences that will develop an understanding of growth and development.
  - Expect a tremendous range of maturity levels in any given classroom.
  - Biologically and physiologically:
    - some 14 year old boys may be equal to 10 year old boys.
    - some 14 year old girls may be equivalent to 19 year old girls.
  - Awareness of the responsibilities the student has for their actions and the consequences through:
    - drug education
    - sex education
    - family life education.
  - Physical activities should be incorporated in the program day and through the classroom activities.
1. Characteristics of Emerging Adolescents

   Physical Development: b. Health

   Freedom from disease, however,
   * eyes, ears, and teeth may require medical attention.
   * minor illnesses of duration are common.

   Oil and sweat glands active. Acne increases.

   Growth in size of heart is slower so that endurance is usually not high.
   Changes in thymus, thyroid, and adrenal glands result in changes in rate of metabolism, blood pressure, and pulse rate.
   * may overtire in exciting competition.
   * periods of listlessness, possibly of emotional or physical nature.

2. Implications for the Preadolescent

   Physical Development: b. Health

   A nutritional diet is needed to meet the rapid growth which is taking place in order to maintain good health.

   Body odor may result due to activated sweat glands.

   Most students will need at least nine hours sleep.

   Important to develop good habits for diet, exercise, and rest, with a balance between mental and physical activity.

3. Curriculum Implications

   Physical Development: b. Health

   Encourage development of the habit of periodic visits to the doctor and dentist.

   Awareness of proper nutrition so wise choices can be made about what they eat.

   Physical education class periods should be long enough to allow for showers.
   * showers should be required
   * bathing regularly should be encouraged.

   Provide opportunity for exploration of a variety of physical activities.

   Intramural activity programs rather than interschool and based on student needs:
   * all interested students should be encouraged to take part in after school activities.
   * group students with other students of like physical abilities.

   Homework should be coordinated between teachers.
M.A.M.S.E. Resources

**CHANGING FROM A JUNIOR HIGH TO A MIDDLE SCHOOL**

By Nicholas P. Georgiady and Louis G. Romano

A filmstrip-cassette presentation of a model to move from a junior high school program to a middle school program. This model emerged from actual implementation of a middle school in ten school districts in Illinois, Michigan, and Ohio.

$24.95

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**THE MIDDLE SCHOOL - A HUMANIZING EFFORT**

by Nicholas P. Georgiady, Addie Kinsinger, and Louis Romano

This filmstrip-cassette is an excellent presentation of the characteristics of a middle school. Can be used for teacher in-service or for parent groups interested in the middle school.

$21.00

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**FOCUS ON INTERSCHOLASTIC SPORTS AND THE MIDDLE SCHOOL**

by C. Kenneth McEwin

This focus paper presents the case for and against interscholastic sports, and takes the position that there is no place for interscholastic sports at the middle school.

$3.50

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**MIDDLE SCHOOL - POSITION PAPER**

by Tony Egnatuk, Nicholas P. Georgiady, C. Robert Muth and Louis G. Romano

This publication was designed to assist one of America’s largest school districts to adopt the middle school concept. Later the original position paper was revised to meet our present day needs. Note similarity of recommendations with those of the report *Turning Points, Preparing American Youth for the 21st Century*, Carnegie Council on Adolescent Development.

$3.50

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**CRASH COURSE ON PARENTING PRE-ADOLESCENTS**

by Dolly McMaster

A four-page flyer which informs parents on certain facts about the pre-adolescent and the resulting normal behavior.

10/$2.50

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**FOCUS ON INTEGRATING ART INTO THE CLASSROOM**

by Anita Bouth

This publication includes a brief review of brain functioning, suggestions for subject areas to integrate creative expression into the curriculum. Specific lesson plans provided for science, social studies, English, and math. Appendices include classroom materials needed, resource materials and prints, and activities to facilitate cross-over of creative thinking activities.

$3.50

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**FOCUS ON MICROCOMPUTERS IN THE MIDDLE SCHOOL**

by Jean Marlow, Dale Rosene, Joseph Snider, and Don Steer

This focus paper reviews the effective uses for microcomputers in the middle school complete with a valuable listing of resources for teachers.

$3.50
FOCUS ON SCHOOL CLIMATE
by Thomas Scullen
$3.50

This manuscript is an attempt to pinpoint the techniques necessary to promote and maintain an excellent organization. Improving school climate begins with the principal, who must accept the challenge of developing a style that accentuates the positive and motivates staff members to do their very best. Practical suggestions are provided to improve school climate.

FOCUS ON CENSORSHIP IN THE MIDDLE SCHOOL
by Nicholas P. Georgiady
$3.50

This focus paper examines the problem of censorship and how middle schools can meet it through careful planning. Excellent resources included.

DO YOU HAVE A MIDDLE SCHOOL
by Louis G. Romano, Susan Pressel, Margaret Sandber and Ken Wagner
10/$2.00

A checklist designed to help teachers, administrators and parents to determine if a school district has a middle school. It focuses on “The People,” “The Instruction,” “The Activities,” and “The Structure.”

EVALUATIVE CRITERIA FOR A MIDDLE SCHOOL
by William Powell and Louis G. Romano
$6.00

Two years of extensive research provided this self-evaluation tool for middle schools interested in determining if their program is consistent with the middle school philosophy. Covers philosophy, objectives, administration, curriculum, exploratory, guidance, media center, school-community, school plant, school staff, and instructional areas. (Revised 1990)

FOCUS ON MIDDLE SCHOOL PARENT-TEACHER CONFERENCES
by Alice L. Hamacheck and Louis G. Romano
$3.50

FOCUS ON TEAM TEACHING
by Robert Cross and Sue Cross
$3.50

FOCUS ON A MIDDLE SCHOOL BELIEF SYSTEM
by Frank S. Blom, Glen K. Gerard and Addie Kinsinger
$3.50

PROCEDURES FOR ORDERING

1. Make out checks to M.A.M.S.E. or order by requisition from the school district.
2. Order all materials from:
   Executive Director, M.A.M.S.E.
   Michigan State University, College of Education
   419 Erickson Hall
   East Lansing, MI 48824-1034