Preservice teachers must develop decision-making skills and feel comfortable with decision-making processes. Prospective teachers at MidAmerican Nazarene College (MNU), Kansas, are involved in a research-based output system called the Decision-Making Packet (DMP). DMP's are units of study that allow students choice and require their pupils to take responsibility for their own education. DMP's can be developed on almost any topic and are designed to maximize pupil independence. Students contract with teachers, outlining activities they will complete during the week. DMP materials are available for use by pupils throughout the day. There are many suggested activities, which give pupils choices about the topic. The activities account for preferences in learning style. The DMP offers many grouping structures, including teacher-directed, individual, small group, and partner activities. Students at MNU must choose an interdisciplinary theme, participate in skills and motivational activities, and utilize several decision-making steps in order to complete the packet of instructional materials designed for classroom use. The decision-making stages include developing a content outline, making modifications based on research, developing activities, sharing presentations with classmates, and presenting to faculty for evaluation. This paper describes the DMP training process, using as an example a unit on Africa. It presents examples of parts of a packet, including topic overview, content outline, behavioral objectives, pretest and posttest assessment, student contracts, student motivators, developmental activities, culminating activities, assessment, resources, and accompanying worksheets. (SM)
PRACTICE MAKES PERFECT: PROSPECTIVE TEACHERS DEVELOP SKILLS IN DECISION-MAKING

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Teachers make a myriad of decisions each day - important decisions that affect children's learning, behavior, and attitudes. Since so much of what teachers do requires decision-making, it is imperative that teacher trainees be given choices so that their decision-making is facilitated. Students at the college/university level learn to be teachers by making decisions which involve content, and the arrangement of it. However, "Many real-world decisions occur in an atmosphere of stress, involving such factors as time constraints and emotional involvement" (Santrock, 1995, p. 354). It is important, then, that prospective teachers practice making decisions, and feel comfortable with the process before they enter the classroom where stress and emotional involvement are common. Stress and the pressure of the moment there may make it difficult to decide on challenging content and activities on the spot. Making decisions during the Methods courses in a less stressful setting is ideal. While the content cannot be left completely open to student choice during the training process, there are a number of specific areas where decision-making skills can be enhanced.

There is "...a growing research base which asserts that learners "construct" their own understandings/knowledge from the information they acquire. This is referred to as the constructivist approach to learning, and it differs from the traditional approach which assumes a teacher can "deliver" knowledge to the learner" (Knapp & Glenn, 1996, p. 112). Prospective teachers, like other learners, reconstruct knowledge, and make decisions about instruction by being allowed to make important choices as they move through the educational program. Caine & Caine (1994) speak of the value of individuals being involved in decision-making or Making Connections in their book by that title. Others (Roblyer et al, 1997), also discuss the value of each learner reconstructing knowledge, and reorganizing
content so that it makes sense to that individual. University students have the ability to reconstruct knowledge, problem solve, and utilize research skills, which will develop more fully if the students practice them repeatedly. The use of technology augments their processing skills markedly, and given the opportunity to make decisions, teacher trainees can produce creative, challenging materials for use with pupils in the school classroom.

Interdisciplinary Focus

Innovative strategies can be implemented by using an interdisciplinary approach. If you examine a series of books like the Houghton Mifflin Social Studies books (1991) for children, you will find stories from language arts, scientific discoveries, and even challenging math problems. Many new text books that are designed for children already reflect the interdisciplinary approach.

In Olathe, Kansas, where many of our students complete their practice teaching, the schools are using an interdisciplinary approach in an interesting way. The standard schedule for changing classes is maintained, but an agreed upon theme will be emphasized in each content area. The teachers at the Junior High level, for example, spent a number of weeks during the summer developing themes that could be used within a particular time frame at a specified grade level. The eighth grade is currently studying the universe in science. The space race is the emphasis in social studies, and ways of illustrating rockets and exploration are stressed in art. Stories dealing with important people who have contributed to our knowledge of the universe are the focus of language arts, and even music related to the "universe" theme is accented. This is being done to provide the pupils with a more cohesive body of content which should encourage higher level thinking, and the development of generalizations. "By linking subjects together through interdisciplinary units, teachers get "more bang for their bucks" (Combs, 1997, p. 5).

At MidAmerica Nazarene University (MNU) the integration of Science and Social Studies Methods courses has some built in difficulties. The courses are listed separately in the Bulletin (University catalog), and they are scheduled to be taught at different times during the same semester. For example, Science may be scheduled on T, Th at 2:00 p.m., while Social Studies is taught M, W, F, at 1:00 p.m. The program has gone through the state
educational approval system, and an immediate change in times and integration of content would require additional consideration by the state. Such a change would also create conflicts with other course schedules on campus. How could we integrate these content areas then?

We have tackled the problem by taking an intermediate step, hoping that later a more comprehensive integration may be achieved in the future. The professors have combined the major requirement for student output into a common curricular one. This means that both classes are currently being taught as scheduled with additional innovative, concentrated sessions on Saturday. The major research output is interdisciplinary, and combines both Science and Social Studies content. This is useful in several ways. It is useful for students to concentrate on one major theme and complete it thoroughly. It is also helpful for faculty members to know the common processes that are being presented by others. "By being aware of what your colleagues are doing in their classrooms, you can easily provide "options" that relate to their content" (Combs, 1997, p. 6). Thus, the integrated output places the faculty members on the same wavelength. This type of feedback from students also prevents duplication of effort for both students, and professors. For identification of the process, the creative, research-based output system is called the "Decision-Making Packet".

Unique Structure of Content

Decision-Making Packets are unique units of study that allow students choice, and require the pupils they teach to take responsibility for their own education. DMP's can be developed on almost any topic, and are designed to maximize pupil independence. The completed packet of materials is available for use by the pupils throughout the school day, and provides for varying ability levels, and a range of learning styles. Each pupil "contracts" with the teacher, outlining the activities s/he will complete during the week. This allows for the use of many structures, and much media in the learning environment.

There are several characteristics that when combined make these curricular materials different from others.

1) The structure of the Decision-Making Packet is a very flexible curricular form. It
allows the teacher to add or delete activities with greater ease than almost any other curricular design, and this permits the pupils' needs and interests to be accented.

2) There are many suggested activities, giving choices to pupils who are learning about the topic, and options for additional topics, as well. The idea is a useful one in a democracy where individual differences are recognized as important, and choice is valued.

3) The activities provide for preferences in learning style, and "...we should also encourage and allow our youngsters to express themselves through their preferred modalities" (Combs, 1997, p.5). Activities allow input and output in reading, music, artistic work, accenting listening skills, problem solving, and social interaction.

4) The DMP offers a variety of grouping structures, including teacher directed, individual, small group, and partner activities. In connection with the groupings many resources are made available to pupils. Maps, films, computer Internet connections, videos, pictures, realia, experimental materials, worksheets, and books are all made available to the pupils.

Choice - A Democratic Theme

In a democratic society it is useful for prospective teachers to practice the decision-making skills that will be required later of their pupils. "Students tend to gain a greater understanding of a problem if it is approached from an in depth, interdisciplinary perspective and when they are engaged in project-based activities related to real problem-solving" (Knapp & Glenn, 1996, p. 11). The earlier individuals can begin to learn to make decisions about the activities that will help them learn about a topic, the better. The wisdom to choose, and the freedom to do so is learned, and should be cherished. "For freedom is not anarchy. Real freedom is intelligent, knowledgeable choice and rises out of order when order achieves sufficient complexity. Through ever more effective innovations, man's brain frees him from fear. Through ever improving methods of production and distribution, man's brain frees him from want. Through ever growing powers to perceive and plan, man's brain frees him for love and fun. Man's brain does this and always has. We share the promise that it always will; though slowly and by steps of pain. For that is how we learn" (Pribram, 1964, p. 108). What a lovely statement! People's brains are
marvelous indeed, and this is the reason behind our choice of output that then provides our students with choices. Some students want us to tell them exactly what is required; others are thrilled to be allowed to choose.

The prospective teachers at MNU are provided with a three way process that requires them to:

1) choose an interdisciplinary theme or concept that is of interest to them,
2) participate in training in skills and motivational activities, and
3) utilize several decision-making steps in order to complete the packet of instructional materials that are designed for use in the classroom.

MODEL OF CHOICES AVAILABLE

The following chart provides a model of the sequence of choices that are available to the student:

---

**Choice of Theme**

- Integrated Social Studies/Science
- Age/Grade Level
- Research
- Library, Web, ERIC, Direct Experience
- Organize Data
- Examine Evaluation Criteria
Integrated Content

Students choose an integrated topic from the many in Science and Social Studies. A number of possibilities are suggested, such as ecology, weather, space race, the world of inventions, and health care advances. The age/grade level at which the topic is to be developed is part of the initial choice.

Research

On the selected themes, research will be needed to determine the feasibility of the topic. The students are encouraged to use the Web, ERIC, Direct Experiences, Interviews/Observations, and the Library where media and books relating to their topic can be found. The amount of research may vary depending on the resources available.

Organize Data

Once the background research is begun, the student will need to keep notes, and finally organize the materials, and notes into a logical form. A system for indicating the order used in the packet is shown to the pupils they will teach is needed, and this becomes part of the organization dilemma.

Examine Evaluation Criteria

Students will need to review the learning needs that have been set up at the beginning of the project, and examine the criteria that will be used to assess their project, as well. It is a complex range of choices, and much reinforcement is needed to keep the students moving to completion of the task.

TRAINING PROCESS

Once the interdisciplinary theme or concept has been chosen, students need to become familiar with the needed elements in the decision-making packet. The following model represents the training phase of the project:
**Training Process**

- Students given list of needed elements
- Examine Phil. Found
- View Action Models
- Brainstorm special intensive sessions
  - Review Components
    - Objectives
    - Skills
  - Use Media
- Presentation Suggestions

---

**Needed Elements**

A list of the necessary elements is given to the students in class where each of the headings and subheadings are discussed, and specific examples are provided. The chosen themes are examined during class sessions when all members explore each theme and make creative suggestions for expanding the theme. Questions are raised by class members in non-threatening sessions where everyone tries to help identify the important concepts in the chosen theme. This is done during a portion of the two long Saturday sessions. Details that are required in each packet are spelled out and demonstrated by the faculty team.

The following list is provided for students:

- Overview of Topic
- Content Outline
- Behavioral Objectives (for Pupils)
- Pre/Post Test
- General Procedure and/or Information Cards
- Contract for Use with Pupils
- Motivator(s) or Opener
- Developmental Activities (Major Portion of Packet)
  - Individual Activities
  - Partner or Small Group Activities
Teacher Directed Activities

Culminating Activity
Assessment (Include Numbers of Activities that Will be Formally Evaluated)

Resources Used
Media
Children's Books
Teacher's Books

Philosophy

The ideas dealing with experimentation, community involvement, and the philosophical foundations of the process are examined by the group, also. The underpinnings of the choices of topic, and the underlying assumptions regarding students and teacher behavior are discussed.

Models Provided

Video examples of materials that have already been produced by previous students are examined, and there are actual packets available for students to examine. It is necessary to model skills and provide practice for university students if they, in turn, are finally able to use such procedures with the pupils they teach.

Brainstorm

Brainstorming is done on a portion of two lengthy, separate sessions (3 hours each) by the faculty team, and by peers as the student's themes are considered. This is done early in the process before the prospective teachers actually begin to develop materials for use with pupils.

Component Review

Objectives/Skills

The objectives and skills required to flesh out the topic are now reviewed, and the media that will be needed to provide information and motivation for pupils is explored. At this time, the students will decide on several ideas that relate directly to the specific objectives being developed. They will:

1) decide on activities that will fulfill objectives (at least one required activity is
needed for each behavioral objective.)

2) determine the number of "choice" activities per outline heading that would be useful.

3) begin to prepare worksheets or specific instructions to correspond with activities where special exercises are needed.

Media

During the brainstorming session, the idea of various presentation strategies is covered by the faculty team. The use of media in the sharing of materials and ideas is emphasized. An opportunity to laminate materials, and develop various related media is part of one Saturday session. Quality is stressed, and many creative activities are shared to motivate and generate ideas for the students. At this stage, the students are advised to develop a system that will be clear to the pupils who will eventually work with the packet. Some students may wish to use color tabs, stars, or computer sketches to mark the component parts of the DMP. Individual, partner/small group, or teacher directed will need to be clearly designated. The required cards must be plainly marked also.

Presentation Suggestions

Specific action models are provided for students to peruse. An average amount of time (5 minutes) is planned for students to share their most significant ideas with their classmates. They are told that their presentation will be videoed, and that the materials they share may be of use to other individuals in the future. At the very least, the video will be useful to other students as they attempt to develop Decision-Making Packets. All students are asked to review their portion of the tape, and they are usually anxious to do so. However, they may request to have their portion eliminated from any further viewing. Most students do not request this, because they are so proud of the work they have done, that they wish to have it shared.

DECISION-MAKING STAGES

A diagram of the Decision-Making Stages may be useful in clarifying the steps in the development of the packet. The steps in decision-making are as follows:
Decision-Making
Stages

1. Develop Content Outline
2. Modify: Based on Research
3. Develop Activities:
   - Science Materials
   - Maps
4. Share presentation w/class
   - Games
   - Puzzles, etc.
5. Present to faculty for evaluation

Content Outline

The content outline is examined by the faculty team. Objectives relating to this are also explored. Suggestions for expanding the outline or more careful integration of content are made by both faculty and peers.

Research Modification

The research involving several different resources is considered. New and/or additional sources of information are suggested by the faculty team, and questions are raised in classes to determine whether other classmates have discovered any materials or research findings that might be useful on the selected topics. If little data has been located, the student may wish to change the general focus of the topic. This might then interact with the outline of the topic, and the type of activities the student would develop for use with children.

Developing Activities

The prospective teacher must now begin to organize the actual materials, and activities that will make up the finished packet. This brings the decision-making process into
full operation. Individual, partner or small group, and teacher directed activities are needed. Sample evaluation sheets are given to students. This is done to make the decision-making process explicit, and to enhance the transfer potential of the procedure to other content areas. (See Appendix A for a detailed copy of the evaluation sheet that is provided for the students.)

**Presenting DMP to Class**

In selecting the mode of presentation for their peers, and finally to the faculty, the student should decide on the use of media, and which activities would be of most interest to the group. Choices and decisions of several sorts are explored, and each student must decide on the way in which s/he will present the code used in the packet and the age/grade level for the packet. At this level consideration should be given to the fact that this brief oral presentation will be videoed. This may affect the way in which the materials are shared.

**Presentation to Faculty**

Finally, the Decision-Making Packet is presented to the faculty team for evaluation. Just before this is done, the students are encouraged to check the evaluation sheet carefully prior to hand-in. The final evaluation will be based on the evaluation sheet that was shared earlier with students. There are no surprises.

**INTERACTION**

A diagram showing the interaction of *choice, decision-making, and training* is shown to the students, and the steps are reviewed with them. When seen as a collected model, it seems almost as though the whole is greater than the sum of the parts. It also makes it clear that several mental operations are happening concurrently. The interaction is shown clearly in the following Model for Developing Skills in Decision-Making:
Model for Developing Decision-Making Skills

Choice of Theme
- Integrated Social Studies/Science
- Age/Grade Level
- Research
  - Library
  - Web
  - ERIC
- Direct Experience
- Organize Data
- Examine Evaluation Criteria

Decision-Making Stages
- Develop Content Outline
- Modify: Based on Research
- Develop Activities: Science Materials Maps
- Share presentation w/class Games Puzzles, etc.
- Present to faculty for evaluation

Training Process
- Students given list of needed elements
- Examine Phil. Found
- View Action Models
- Brainstorm special intensive sessions
- Review Components
  - Objectives
  - Skills
- Use Media
- Presentation Suggestions
Decision-Making for the integrated Social Studies and Science Methods course is highly complex, and has produced some sophisticated materials for use in the schools. Sometimes the students resist the idea of producing a complex body of materials at first. By the time they have completed the work, they are extremely proud of their product. It is a challenging, useful strategy, and provides for much interaction, and group learning. Decision-Making Packets represent the product of the constructivist theory in action. The conscious decision to promote the freedom to choose is obvious, and it is valued by the pupils in the classrooms where it is practice.
REFERENCES


### DECISION-MAKING PACKET CHECKLIST

<table>
<thead>
<tr>
<th>I. CONTENTS</th>
<th>High Quality</th>
<th>Good Quality</th>
<th>Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Overview</td>
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<tr>
<td>B. Content Outline</td>
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<td>C. Behavioral Objectives</td>
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<td>D. Contract</td>
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<td>E. Pre-Test/Post-Test</td>
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<td>F. Motivator(s)</td>
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<td>G. Developmental Activities</td>
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<tr>
<td>1. Individual</td>
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<tr>
<td>2. Partner/Small Group</td>
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<td>3. Teacher Directed</td>
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<tr>
<td>H. Culminating Activities</td>
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<tr>
<td>I. Evaluation</td>
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<td>J. Collected Materials</td>
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<tr>
<td>1. Children's Books</td>
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<tr>
<td>2. Teacher's Books</td>
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<td></td>
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<tr>
<td>3. Media</td>
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</table>

| II. Curricular Design | | | |
| A. "Have to" cards | | | |
| B. Choice cards | | | |
| C. Appropriate for grade level | | | |
| D. Instructions given in command form | | | |
| E. Accompanying handouts | | | |
| F. Cards use sequencing | | | |
| G. Behavioral objectives are assessed | | | |
| H. Motivator can be completed or several alternatives | | | |
| I. Good variety of media and books | | | |

| III. Appearance | | | |
| A. Creative packaging | | | |
| B. Tabs mark sections | | | |
| C. Cards are attractive/neat | | | |
| D. Clearly marked cards (individual/partner, etc.) | | | |
| E. Catchy titles for cards | | | |
| F. Use of color throughout | | | |
| G. Pictures and sketches used on cards | | | |

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TRAINING PROCESS

Martha Tyler John
and
Robert Norton

Decision-Making Packets (DMP) are units of study that allow student choice and require pupils to take responsibility for their own education. They can be developed on almost any topic and are designed to maximize student independence. The packet of material is available for use by the pupils throughout the day. In providing for varying ability levels, each pupil “contracts” a schedule with the teacher, outlining the required and optional activities s/he will complete during the week. The packets allow a wide range of learning environment structures.

Several characteristics make these curricular materials different from others.

1. The Decision Making Packet is a flexible curricular form. It allows the teacher to add or delete activities with greater ease than almost any other curricular design, and this allows the pupils’ needs and interests to be accented.

2. A variety of activities, gives choice to the pupils who are learning about the topic. This idea is a useful one in a democracy where individual differences are recognized as important, and where choice is valued.

3. The activities provide for individual learning differences by offering several grouping structures, including teacher directed, individual, small group and partner activities.

4. In connection with the activities many resources, maps, films, filmstrips, pictures, realia, worksheets, and books are used to help meet the differing learning styles of students (e.g. verbal, visual and kinesthetic).
DECISION-MAKING PACKET

Designed to Motivate and Involve Students

A Decision-Making Packet consists of a collection of activities and resources that provide instruction on specific objectives. It includes a built-in management system (frequently in the form of contracts) and assessment strategies. A DMP is designed for pupil use, and should therefore be located in an easily accessible area in the classroom. Sometimes, realia, pictures and media are placed with the actual instructional cards in a particular spot, on a designated table or in a specific corner where the entire collection is referred to as a Learning Center. The packets can be used in Learning Centers, and added to or changed with relative ease once the overall packet organization has been developed.

It is possible to select a series of cards emphasizing one element of the content outline and post these separate cards on tables. The cards then serve as Learning Stations each with a special focus. The Packets thus provide for a range of learning experiences in that pupils can select the activities that are most meaningful to them. The packet provides a strong learning incentive, and is self-directing once it is complete.

Packet Development

Decision-Making packets have been developed in which the variables of time investment and level of accomplishment are taken into account. You may wish to use the DMP examples given here as models, and then develop your own learning packets in a similar style.
What's Included?

The following list shows parts of a packet. Place tabs or bright colored dividers between sections in the DMP to help students locate the section on which they wish to work. Different titles are given in parentheses because you may have used different headings in the past or have seen other headings in educational literature. An explanation of each section follows the list.

- Overview of Topic
- Content Outline
- Behavioral Objectives
- Pre/Post Test
- General Procedure and/or Information Cards
- Student Contract
- Motivator(s) (Opener)
- Developmental Activities (Learning Experiences)
  (major portion of the packet)
  Individual Activities
  Partner or Small Group
  Teacher Directed
- Culminating Activities
- Assessment (Pretest/Post test and other assessment)
- Resources
  Children's Books
  Teacher's Books
  Media
- Accompanying Worksheets
Overview

An overview is a brief statement about the overall emphasis of the packet, and may include statements about the broad purposes for learning and uses for the knowledge included.

Example:

Why study Africa?

1. Africa is the second largest continent in the world. It is a land of many resources and much potential. American citizens of the future should know about all parts of our world. It is clear that in a very mobile society where one can be in Africa in a matter of eight to ten hours, more emphasis should be placed on understanding the African people. Travel and communication on a world wide basis is already a reality, but our future citizens may have acquired only bits and pieces of information which present a kaleidoscopic view. A careful, systematic study of the African continent based on a comprehensive outline will help to provide a more accurate picture of the land, the people, and the cultures that are Africa.

2. Africa is part of the non-Western world, and because of this it has been much neglected in our elementary school curriculum. African history is important in its own right, and for the fact that Africans have played an important contributory role in building America. Not only has African history been interwoven with American history, but with the history of Western civilization.

3. Africa’s future is inevitably our future. The contemporary problems and tensions of African countries such as apartheid policies, economic underdevelopment, disease eradication, and educational needs, are in truth our problems. Our belief in human dignity and human rights thrusts us head-long into the needs that exist in the countries of Africa. Moreover, our interdependence in trade for products from cocoa and diamonds to coke and computers requires that we maintain open lines of communication. There is little question that the adults of the 21st Century will need to be world-minded. Africa is an important part of that world.
Content Outline

A content outline includes the salient ideas to be considered and provides an advanced organizer so that either student or teacher can check on the information and ideas that will be developed fully in the DMP. A content outline is a written plan that helps organize one's topic. When making an outline, first decide what main ideas you wish to examine. Then, the subtopics are placed in order of importance under the main idea. An outline of the main ideas for Jambo, Africa follows, but the subheadings will be included in each book section:

<table>
<thead>
<tr>
<th>Jambo, Africa!</th>
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</thead>
<tbody>
<tr>
<td>Book I</td>
</tr>
<tr>
<td>Africa is a Wonderful Giant</td>
</tr>
<tr>
<td>Book II</td>
</tr>
<tr>
<td>She Tell Me Thus, People They Fill My House</td>
</tr>
<tr>
<td>Book III</td>
</tr>
<tr>
<td>Don't Tease the Crocodile Until You Have Crossed The Stream</td>
</tr>
<tr>
<td>Book IV</td>
</tr>
<tr>
<td>The Moon Moves Slowly, But It Crosses the Town</td>
</tr>
<tr>
<td>Book V</td>
</tr>
<tr>
<td>No One Is So Clever As to Eat the Meat from His Own Back</td>
</tr>
</tbody>
</table>
Behavioral Objectives

Knowledge, problem-solving skills, and social skills/values are the outcomes we hope that children will develop as a result of exposure to any content. Behavioral objectives are derived from the interaction of the content on Africa and the broad educational goal. See the following examples:

**Bushman Diet**

**Content**

**Behavioral Objective**
Given information about the Bushman Diet, the student will list six foods eaten by the Bushman.

**Knowledgeable Person**

**Educational Goal**

**Problem Solver**

**Educational Goal**

**Social Skills/Values**

**Educational Goal**

**Behavioral Objective**
Given information on the Bushman Diet, the student will role-play a scene in which he is a guest at a Bushman campsite, and must respond to their generous hospitality in offering him food and a place to spend the night.
A behavioral objective is composed of three parts: (1) the entering condition or existing condition; (2) expected student behavior, or terminal behavior; (3) the criterion or level of performance that is acceptable. Below is an example of a behavioral objective with the three parts identified.

a) After viewing . . .
   Having viewed . . .
   Given . . . a film on "The Mighty Nile" and a map of Africa.

b) the student will locate and

c) correctly trace the Nile River from its source to its mouth.

a. After viewing a film on "The Mighty Nile" is the condition under which the specified behavior will occur. It is the entering condition or the existing condition. It answers the question, "What is the student given?"

b. "The student will locate" is the type of student behavior that is to occur as a result of planned instruction. This is sometimes called expected behavior or terminal behavior. It answers the question, "What will the student do?"

c. "Correctly trace . . . from its source to its mouth" is the performance level that will be accepted. It answers the question "How much will the student do?"

In writing a behavioral objective the part that frequently creates problems for the writer is the section referred to as student behavior or expected student behavior. Care must be taken here so that the student behavior is stated in terms that are measurable. Some means of assessing the behavior is required, and this means that the behavior prescribed must be in some way observable. It is possible to read a paragraph that a student has written and assess it. It is much more difficult to assess the student's appreciation of music unless this is represented in some observable manner. It a teacher is satisfied that attendance should be stated as the objective. If something more than attendance is required, what is it; and how will the teacher know
that it has been accomplished? Many behaviors can be assessed and products that are complex and contain multiple behavioral outputs can be examined in small components for purposes of improvement and assessment. Below are examples of some terms that are observable behaviors and some terms that are not observable and are thus difficult to measure. Should you wish to add activities to Jambo, use the observable behaviors for the objectives you create.

**OBSERVABLE BEHAVIORS**

- Reciting
- Writing a paragraph
- Listing
- Describing
- Naming
- Drawing
- Sketching
- Delineating

**DIFFICULT TO MEASURE**

- Understanding
- Gaining insight
- Perceiving
- Feeling
- Enjoying
- Acquiring
- Appreciating
- Comprehending

Specific behavioral objectives have been developed for each book of *Jambo, Africa*. They follow on pp. . . . where the details of each book are described.

**Assessment (Pre/Post Test)**

A beginning bench mark is helpful for planning activities that are appropriate for the children. The pre and post test may be the same test or similar in form. The pretest is given before the pupils commence the packet. Information gained from this cursory examination will help you guide the pupil in filling out the contract of activities. If a child misses all the questions about cities of Africa, for example, then the contract developed by the child and signed by both child and teacher should surely reflect a number of activities on cities. The contract can be checked along with the pretest to see whether or not more activities are needed to strengthen a weak area.
There are several types of test items that can be used. Examples follow:

**Recall and Completion**

Directions: What are the names of the places described below? Write the answers in the space provided.

Example:

1) The country in which the Kalahari Desert is located. ____________

2) The largest river in Africa is the ________________

**True - False**

Directions: Some of the statements below are true. Some are false. Put a plus sign (+) in front of those that are true. Put a zero sign (0) in front of those that are false.

_____ 1) Africa is a large country.

_____ 2) Chad is a country in Northern Africa.

**Matching**

Directions: Put the letter in front of the name in Column I in the space before the item in Column II with which it belongs.

<table>
<thead>
<tr>
<th>Column I</th>
<th>Column II</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Sir Sertse Khama</td>
<td>_____ King of Swaziland for over 50 years</td>
</tr>
<tr>
<td>B. Mansa Musa</td>
<td>_____ Ancient West African Ruler</td>
</tr>
<tr>
<td>C. David Livingston</td>
<td>_____ British missionary to Africa</td>
</tr>
<tr>
<td>D. Haile Selassie</td>
<td>_____ Important ruler in Ethiopia</td>
</tr>
<tr>
<td>E. Sabhouza II</td>
<td>_____ Father of Botswana independence</td>
</tr>
</tbody>
</table>
Multiple Choice

Directions: Pick out the word or phrase that makes the sentence nearly correct, and put the letter in the blank.

1. Oldavie Gorge is an area in East Africa where zinjanthropus (the prehistoric man) was found by:
   a. Dr. Livingston
   b. Dr. Leakey
   c. King Sabhouza
   d. Sir Khama

2. The Bushmen of Africa are one of the last groups of people who have not been greatly changed by technology. They live in:
   a. the Nile Valley
   b. the Sahara Desert
   c. the Republic of South Africa
   d. the Kalahari Desert

Student Contract

DMP's are criticized occasionally because some teachers feel that the structure does not provide a firm type of control. With careful planning, the teacher will find that the packet is relatively simple to use and monitor. If you feel that you do not know what or how much the student is learning, there are three precautions you can take to prevent this “everything going in six directions” feeling.

1. Have the student develop a contract which is countersigned and keep a copy as a progress sheet.
2. Provide “have to” or “required” cards for feedback from every student on each behavioral objective, and
3. Check the products from any card because every card is designed with some specific output activity. You will not have to guess or hope that any given idea has been processed.

A sample student contract has been provided on the following page.
Sample Contract:

CONTRACT

Student:________________________________________

Teacher:________________________________________

HAVE TO CARDS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

OPTIONAL CARDS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

I will do these cards during the week of ____________________________

Date Due:________________________ Evaluation:________________________
Motivator(s) (Opener)

A motivator or opener is an activity that will spark interest in the topic being developed. Two or three alternatives should be provided so that at least one will certainly be carried out. Sometimes films do not arrive when ordered or field trips do not work out. Provide an alternative initially and the problem is resolved. Initiatory Activities should directly relate to the unit of study and provide purpose for the students for studying the unit.

Example:

**MEDIA MAGIC**

Teacher Directed

PURPOSE: To saturate the students with a feeling of Africa.

MATERIALS:
- *African Myths and Legends* by K. Arnott
- *African Music*, Folkways Records and Service Corporation
- "Africa" (Classroom pictures) Informative Classroom Pictures Pub.
- Let's Travel Series: *Let's Travel in Nigeria*, Children's Press
- World map with African continent outlined in red felt tip pen

DIRECTIONS:

1. Place the tape recorder, film projector, book collection, etc. in different areas of the classroom.
2. Turn everything on at once for a bombardment of African sights and sounds.
3. Have the students spend 15-20 minutes in the exploration of materials.
4. Turn off all media. Have each student list four (4) or five (5) questions that they have about Africa based on what they just saw.
5. Collect the question lists.
Teacher Directed

RESEARCH IDEAS'

PURPOSE: To provide organization based on student interests.

MATERIALS: Students questions from “Media Magic” on overhead transparency, chalk board - overhead showing “Research Diary” approach, and overhead.

DIRECTIONS:

1. List on the board the categories you have in mind for studying Africa (e.g. people, myths and legends, geography -- see content outline).
2. Place a sequence of questions on the overhead projector. Have students select the questions that belong with each topic.
3. Have a scribe record their questions in organized columns for group research in selected specialized area.
4. Allow students to choose the area of emphasis where they would like to know more. Record their choices. This will become their special research topic.

Developmental Activities (Learning Experiences)

The largest number of cards and materials in the learning packet are in the developmental activities section where the ideas that have been sketched in the content outline are developed for students. Different kinds of activities and several levels of difficulty are presented in the packet. All cards present a short activity, and the cards are kept somewhere near equal in length. Activities are provided for all topics and subtopics in the content outline.

Individual Activities

It is important that the students know the number of people needed for a given activity. There are Individual Activities where the student can work by himself.
Reports, some worksheets and creative activities can be carried out on an individual basis with a maximum use of time, skill and talents.

**Partners**

Some activities in the learning packet are designed for use with Partners. Partner's activities are based on the assumption that children can learn from one another. The children work together on learning tasks, not on tests.

**Small Group**

Small Group activity cards are frequently used to stimulate discussion, role-playing, or an impromptu group project. The task assignment is usually of short duration, but students may need the teacher's assistance to get the group together initially.

**Teacher Directed**

Teacher Directed activities allow you to begin a unit of content with the whole class and provide an exciting first experience for the students. There are other activities throughout the unit, and perhaps the final assessment that can best be done under your direction.

Students need to learn to work in large groups, and to share ideas with others. The variety of activities and the use of different sized groups is designed to help the student to grow in this way. See the following example of one activity and the accompanying worksheet:
Activity 53

PROVERBS ARE FUN

Partners

PURPOSE: To compare cultural ideas.

MATERIALS: Worksheet 53
Pencil
Crayons
Drawing paper

DIRECTIONS:
1. Do worksheet 53
2. For your favorite proverb, draw a sketch.
3. Give your sketch to the teacher for a bulletin board.
Worksheet 53

PROVERBS ARE FUN

For each proverb listed, try to think of a similar American proverb.

Example:
Ashanti: The poor man and the rich man do not play together.
American: Water always seeks its own level.

Ashanti: He who cannot dance will say: "The drum is bad."
American:_________________________________________

Buganda: When the master is absent, the frog hops around the house.
American:_________________________________________

Buganda: He who hunts two rats, catches none.
American:_________________________________________

Cameroun: Rain does not fall on one roof alone.
American:_________________________________________

Congo: You do not teach the paths of the forest to an old gorilla.
American:_________________________________________

Madagascar: Do not be so much in love that you can't tell when the rain comes.
American:_________________________________________

Mauretania: Two eyes are better than one.
American:_________________________________________

Sudan: A little shrub may grow into a tree.
American:_________________________________________
Culminating Activities

The final activity should bring together a number of concepts and ideas that have been developed throughout the developmental activities section. The activity should provide the student with the opportunity to generalize about the content learned as well as demonstrate a practical application of the content.

Assessment

Often, the pretest is re-administered as the post-test for the packet. For further evaluation, each child's performance throughout the unit should be considered. Factors to consider in performance include the amount of contracted activities completed and the quality of work submitted. Another possibility includes the ability to work in groups or with partners.

Resources

Three separate bibliographies should accompany every DMP. Children's books that are utilized in the course of the unit should be listed. Books that the teacher has used as resources for the packet or as background information should also be made available in the DMP. This will aid the DMP's designer as well as colleagues that use the unit. Finally, media that is used in the unit should be listed.

Children's/Teacher's Books

A bibliography of children's books and one of useful books for you, the teacher, is given. Book and non-book materials will be given at the end of the book rather than at the completion of each chapter since many resources would apply to several chapters.
Media

This category includes films, filmstrips, study prints, records, tape cassettes, and combinations of these. A sub-category in this area might include the names of resource people who would have slides and realia. Another such sub-category might suggest appropriate field trips, and parent helpers for these trips.

Accompanying Worksheets

Some activities will call for completion of a worksheet. All worksheets for the DMP should be completed and available when the child begins work on the packet. There should be some correspondence between the cards and the worksheets that accompany them, a number system, for instance. It is convenient for children if the worksheets are filed neatly and are made available at the learning center along with the activity cards.
DECISION-MAKING PACKET CHECKLIST

<table>
<thead>
<tr>
<th>I. CONTENTS</th>
<th>High Quality</th>
<th>Good Quality</th>
<th>Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Overview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. Content Outline</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. Behavioral Objectives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Contract</td>
<td></td>
<td></td>
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<tr>
<td>E. Pre-Test/Post-Test</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>F. Motivator(s)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>G. Developmental Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Individual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Partner/Small Group</td>
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<td></td>
<td></td>
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<tr>
<td>3. Teacher Directed</td>
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<tr>
<td>H. Culminating Activities</td>
<td></td>
<td></td>
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<tr>
<td>I. Evaluation</td>
<td></td>
<td></td>
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<tr>
<td>J. Collected Materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Children's Books</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Teacher's Books</td>
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<td></td>
<td></td>
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<tr>
<td>3. Media</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>II. Curricular Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. &quot;Have to&quot; cards</td>
<td></td>
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<td></td>
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<tr>
<td>B. Choice cards</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>C. Appropriate for grade level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Instructions given in command form</td>
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</tr>
<tr>
<td>E. Accompanying handouts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. Cards use sequencing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Behavioral objectives are assessed</td>
<td></td>
<td></td>
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<tr>
<td>H. Motivator can be completed or several alternatives</td>
<td></td>
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</tr>
<tr>
<td>I. Good variety of media and books</td>
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<tr>
<td>III. Appearance</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>A. Creative packaging</td>
<td></td>
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</tr>
<tr>
<td>B. Tabs mark sections</td>
<td></td>
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<tr>
<td>C. Cards are attractive/neat</td>
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<tr>
<td>D. Clearly marked cards</td>
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<tr>
<td>(individual/partner, etc.)</td>
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<tr>
<td>E. Catchy titles for cards</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>F. Use of color throughout</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. Pictures and sketches used on cards</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
September 24, 1997

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Should you have further questions, please contact me at 1-800-822-9229; or, e-mail: ljl@aaacte.nche.edu.

Sincerely,

Lois J. Lipson
Acquisitions/Outreach Coordinator