This paper discusses a process model designed for the Kansas City (Missouri) School District. The model attempts to achieve the translation of student learning tasks into an operational and accountable program of instruction on a five year cycle plan. A flow chart of the model is presented and appropriate segments and outcomes of the process model's application are described. (CK)
THE SCHOOL DISTRICT OF KANSAS CITY, MISSOURI

A PLAN FOR CONVERTING STUDENT LEARNING TASKS INTO AN ACCOUNTABLE PROGRAM OF INSTRUCTION
(Including Superintendent's letter to Teachers and Administrators)

Clyde J. Baer, Ed.D.
General Director

DEPARTMENT OF RESEARCH AND DEVELOPMENT
December, 1970
The School District of Kansas City, Missouri

Memorandum

TO: All School Teachers and Administrators  
FROM: Andy Adams, Superintendent of Schools

DATE: December 18, 1970

SUBJECT: Student Learning Tasks

I am again sending you each a copy of the attached Student Learning Tasks. This time they have been approved by our Board of Education as the goals of our instructional programs. I know you are already teaching to these "learning tasks". The action by our Board means that we are now telling all concerned about our schools the specific learning outcomes for which we will be fully responsible. It also means that we are making clear the specific learning outcomes for which we will not hold ourselves fully responsible. As you will know, too often we take the criticism for all kinds of problems in child development for which we cannot be completely responsible. We can only be a partner in the total development process of our students. We are now stating clearly what our major role will be.

The full implementation of the "learning tasks" will not be easy and quick. It will probably take three to five years. The next step will be the development of the Instructional Specifications for each "learning task". This can only be accomplished by you teachers in your various subject fields. I have asked that Task Forces be established for your heavy participation. I hope you will volunteer for one of the Task Forces. Thank you.

After the instructional specifications are developed we will move to the Instructional Delivery Systems necessary to accomplish the "learning tasks". This includes the learning materials, facilities, teaching machines and programs, and instructional teams—all the human and material resources that go into the school environment for positive student learning.

Then we will need the measurements of our progress in terms of student learning, and not of the teacher alone as so often is unfortunately done today. And, if the measurements are not what they should be, we will look at the total "delivery systems"—materials, school facilities and conditions, backgrounds of students, teaching systems, and administrative and community support. Again, we need maximum involvement of you teachers to come up with the measurements needed to assess progress made on the "learning tasks". We will never teach to arbitrary tests, but we will teach to the measurements we all develop to accurately assess our progress.

I hope you all look at these developments in a very positive way as I do. As I have said in the past, the school teacher is the focal point of the student learning process. The direction I am taking in these developments are fully intended to provide the classroom teacher with the instructional support and mechanisms that will make her the professional person she is in providing the setting for maximum student learning.

I can only do these things with your full support and involvement. I have great faith that we can together make Kansas City the best school system in the country. I extend to you the wish that 1971 be a wonderful year, and the Christmas holidays be the joyous for you and your family and friends. This year I am thanking the Lord for the opportunity he has given me to work with you.

Our Goal is

"SUPERIOR EDUCATION, TAILORED FOR EACH STUDENT IN THE KANSAS CITY SCHOOLS"
A PLAN FOR CONVERTING STUDENT LEARNING TASKS INTO AN ACCOUNTABLE PROGRAM OF INSTRUCTION

The Student Learning Tasks were developed and presented to the Board by Dr. Andrew Adams, Superintendent, in September 1970. The Student Learning Tasks were divided into two parts, those for which the school system is fully accountable and those for which the school system is partially accountable. Thousands of copies of the Student Learning Tasks were circulated and publicized throughout the schools and community, encouraging people to respond. The response was universally positive.

The purposes of the presentation today are to present the Student Learning Tasks as they were adopted by the Board and to describe a plan for converting the Student Learning Tasks into an accountable program of instruction.

A Process Model has been designed to achieve the translation of the Student Learning Tasks into an operational and accountable program of instruction on a five year cycle plan. Implementation of the Model will introduce an accountability principle based on assessment and evaluation. The Process Model is included here as Figure 1. This presentation will elaborate and provide examples for appropriate segments of the Process Model.

Central to any consideration here is the nature of the Learning Tasks themselves. They are included here as Figure 2.*

**Baselines**

In initiating any plan such as proposed here it is important to have some baseline from which to assess and evaluate change. The system wide standardized testing program conducted for many years through the Depart-

Figure 1

Instructional Specifications

Assessment Procedures

OEBS Through Fiscal Program

Accounting Data Processing

Applications

Facility Requirements

Instructional Delivery Systems

Apply Assessment Procedures

Instructional Materials Development for SLT-FA*

Evaluate and Feedback

*Student Learning Tasks - Fully Accountable

Introduction of Student Learning Tasks - Partially Accountable

Introduce the variable of Student Learning Tasks when the SLT-PA are in their second cycle.

Initiate Action September 1972 on SLT-PA.

Extent to which SLT-FA Accomplished Objectives -

Evaluation by Coats (OEDS) *

Priorities based on synthesis of SLT-FA Accomplishment and Cost

Modify Instructional Specifications

Modify Instructional Delivery Systems

Modify Assessment Procedures

Modify and Recycle Modified Progress

August '72-July '73

August '73-July '74

August '74-July '75

Time Line
Figure 1

Process model for converting student learning tasks into an operational and accountable program of instruction on a five-year cycle plan (1970-75).

1. Instructional Specifications
2. Instructional Delivery Systems
3. Assessment Procedures
4. Data Processing Applications
5. Instructional Materials Development for SLT-FA*
6. Fiscal Program Accounting
7. Facility Requirements

*SLT-FA: Student Learning Tasks-Fully Accountable

- **Objectives by Evaluation of Cost (OEBS)**
  - Priorities based on synthesis of SLT-FA Accomplishment and Cost

- **Facility Requirements**
  - Evaluate and Feedback

- **Instructional Delivery Systems**
  - Prioritize instruction based on feedback and SLT-FA Accomplishment.

- **Assessment Procedures**
  - Evaluate the effectiveness of instruction and adapt as necessary.

- **Data Processing Applications**
  - Incorporate evaluation data into cost accounting systems.

- **Instructional Materials Development for SLT-FA**
  - Continuously refine instructional materials to improve learning outcomes.

- **OEBS Through Accounting**
  - Use accounting systems to track and analyze expenditure and effectiveness.

- **Student Learning Tasks—Partially Accountable**
  - Introduce the variable of SLT-PA into the process at the beginning of the second cycle.

- **SLT-FA Accomplishment**
  - Evaluate the extent to which SLT-FA objectives are achieved.

- **Modify Instructional Specifications**
  - Adapt instructional goals in response to feedback.

- **Modify Instructional Delivery Systems**
  - Adjust delivery methods to enhance learning.

- **Modify Assessment Procedures**
  - Revise assessment methods to better measure learning outcomes.

- **Modify and Recycle**
  - Reassess effectiveness and refine processes accordingly.

- **Aug. 1970**
  - Dept. of Res. & Dev.

- **Sept. 1970**
  - Student Learning Tasks—Partially Accountable

- **Sept. 1971**
  - Student Learning Tasks—Fully Accountable

- **Aug. 1972**
  - Modify and Recycle

- **Aug. 1973**
  - Adjust processes based on feedback and SLT-FA Accomplishment.

- **Sept. 1974**
  - Evaluate and Feedback

- **Aug. 1975**
  - Adjust processes according to evaluation.

- **Ann Aug.**
  - Continuous cycle of adaptation and improvement.
Figure 2

STUDENT LEARNING TASKS
OF
THE SCHOOL DISTRICT OF KANSAS CITY, MISSOURI
(Adopted by Board of Education, Dec. 10, 1970)

3. In dedication to "Superior Education Tailored for Each Student in the Kansas City Public Schools," the School District accepts responsibility for the following Student Learning Tasks. It holds itself fully or partially accountable for their accomplishment so that each student is prepared for: (1) A wholesome adjustment and survival in a highly technical and ever-changing American society and shrinking world, and (2) An active involvement and participation as a constructive "change agent" in the sociological processes that will result in the solving of local, national and international problems to make a better world for himself and all peoples.

I. Student Learning Tasks for which the District is fully accountable:

1. Communication skills in reading, writing, speaking and listening developed through the studies of language arts, foreign language, and all learning experiences.

2. Numerical skills developed through the studies of arithmetic, mathematics, science, economics, and all learning experiences.

3. Time and Place conceptual skills developed through the studies of social science, history, geography, government, civics, international relations, fine arts, and all learning experiences.

4. Scientific comprehension skills developed through the studies of biology, botany, physiology, chemistry, physics, and all learning experiences.

5. Critical and Creative thinking skills developed through problem solving in all learning experiences.

6. Study and Research skills developed through disciplined work habits and directed projects in all learning experiences.

II. Student Learning Tasks for which the District is partially accountable in cooperation with the home, religious institutions, civic and youth organizations, business, industry, government, and other institutions:

1. Occupational, Homemaking, Consumer, and Leisure Time skills developed through activities in industrial arts, home economics, business education, agriculture education, fine arts, data processing, electronics, driver education, and all learning experiences.

2. Health and Physical skills developed through activities in health education, physical education, sports, athletics, and recreation.

3. Fine Arts skills developed through activities in music, art, and other experiences in the fine arts.

4. Personal Adjustment, Human Relations, and Social skills developed through individual and group learning experiences aimed at self-concept, morals, and character; and acceptance, inter-relationships, and equality of all persons of any race, color, creed, or gender.

The District furthermore recognizes that the Learning Tasks under Categories I and II are of equal importance in the full education of children and youth, but accepts its unique role in accomplishing the Learning Tasks under Category I.
ment of Educational Testing has provided measures of academic achievement in basic skills sampled at grades three, six, eight and ten. Data from the testing program system wide have been used to arrive at comparisons of Kansas City pupils with national norms and expected levels of measured achievement based on measures of scholastic aptitude.

Test results in basic skill areas for the elementary and secondary grades tested are reported here as Figures 3 and 4.

The test results presented will be used as the baselines against which to compare subsequent measures taken at those grades or through appropriate interpolation and/or extrapolation.

No claim is made that these test results encompass all of the fully accountable skills to be learned or that the measures are absolute. It would be desirable to have the skills measured sampled at additional grade levels, and to have other measures added, but fiscal restrictions have further emaciated an already skeletal program.

It should be noted that some of the fully accountable skills require measures for which there are no acceptable standardized tests presently available.

**Instructional Specifications**

This phase requires that each of the six fully accountable Learning Tasks be defined and described in detail. It is necessary that each skill be delineated in a testable format. The steps in doing so are listed below.

Form a task force to organize and direct the approach to the problem of determining instructional specifications for SLT-FA.*

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*Student Learning Tasks-Fully Accountable*
Figure 3
STATUS OF MEASURED PUPIL ACHIEVEMENT IN BASIC ACADEMIC SKILLS, GRADES 3 & 6

Information Source:
Department of Educational Testing

Instruments:
- Iowa Tests of Basic Skills administered April 1970 (Gd. 3) and March 1970 (Gd. 6)
- Lorge-Thorndike Intelligence Test

Number tested:
- Grade 3 Reading 5,723, Arith. 5,690, Language 5,481, Work-Study 5,451
- Grade 6 Reading 5,528, Arith. 5,427, Language 5,481

Highlights:
* A generalized depression of accomplishment among the basic skills tested is apparent within grades, indicated by measured achievement below both national norm and K.C. expectancy.
* For Grade 3 Reading and Arithmetic the expectancy is 95% of national norm—measured achievement is 86% of national norm and 91% of expectancy.
* For Grade 6 Reading, Arithmetic, and Work-Study Skills the expectancy is 95% of national norm—measured achievement is 84% of national norm and 83% of expectancy.
* For Grade 6 Language the expectancy is 95% of national norm—measured achievement is 81% of national norm and 84% of expectancy.
Appoint a sub-unit for each SLT-FA to develop instructional specifications appropriate for each task.

Produce written statements of specifications for each task individually and all SLT-FA collectively.

Publicize and receive feedback on specifications produced.

Adopt instructional specifications for trial use.

**Assessment Procedures**

This phase requires that each Instructional Specification be considered as an evaluation objective and appropriate measurement procedures defined and structured. A thorough review and assessment of available measuring instruments would be made. Mastery tests, sometimes referred to as criterion referenced measures, would need to be developed and refined in terms of the Instructional Specifications provided. The sequence in the development of assessment procedures is given below.

Form a task force to conceptualize and structure a viable approach to assessment and evaluation.

Survey all known instruments, techniques and procedures that appear to have applicability for measurement and appraisal of progress toward the accomplishment of SLT-FA.

Utilize the instructional specifications produced by the IS task force as the basis for structuring criterion referenced measurements.

Create, research and develop new evaluative models, instruments and procedures for each SLT-FA.

Assemble all evaluative instruments and procedures adopted and planned and develop a design schedule for data collection.

Train staff to implement evaluative design.

Publish Program Evaluation research design.
Not all measures need to be paper and pencil tests. The Assessment Procedures task force would also concern itself with performance measures and any other evaluative procedures appropriate and feasible.

Objectives By Evaluation Budgeting System (OEBS)

One of the obstacles to adequate program evaluation has long been the inability to provide cost data in terms of program accomplishment. Cost factors considered in relation to other indices of program accomplishment might provide the policy/administrative decision makers with more adequate bases for arriving at budget priorities.

Steps in arriving at a functional fiscal program accounting procedure are listed below.

- Appoint a task force to include representatives of all operational segments involved.
- Develop a comprehensive listing of all programs to be included.
- Devise a coding system for all programs listed to include amounts by source and expenditure, including usable identifiers.
- Plan for accommodation of fiscal sources and expenditures that may not be distributed by program, but are demonstrable components of the total (probable proration problem).
- Define, describe and schedule precise data collection necessary to accomplish purpose.

Data Processing Applications

Throughout the development application of this plan it will be necessary to obtain, record and store data from many sources and in many forms. An adequate Data Processing system is necessary. The present data processing capability needs to be strengthened in both machines and staff to function.
adequately for the purposes inherent in this plan.

Planning for the full use of machine processing involves the steps listed below.

Form a task force to develop and coordinate data processing applications pertaining to all forms of data collection, to encompass coding, collection, processing, storage and retrieval.

Data processing support for all phases of program accounting including pupils, staff, facilities, fiscal, instructional specifications, program characteristics and evaluation data is integral to the implementation of the whole plan. Data manipulation requirements would be so massive that hand manipulation would be virtually impossible.

After the operations procedures have produced a multi-faceted program to be implemented, a translation to functional status stage becomes mandatory.

Facility Requirements

One of the translation steps is an appraisal of the existing physical facilities in terms of their appropriateness to support the instructional and evaluation program proposed. Any necessary alterations would be noted and effected if possible within budgetary limitations. The steps for this component are listed below.

Form a task force to conceptualize the approach to evaluation of the instructional significance of the existing physical plant, and organize and implement the consideration of alternatives.

Survey the existing physical plant to inventory and store for retrieval and manipulation all characteristics relevant to instruction, operation, maintenance and replacement.

Relate the existing physical plant to the educational needs of the instructional program.

Determine modifications required to support the
Instructional Delivery Systems and Instructional Materials Development

Another translation step is to link pupils with effective instructional techniques and materials. Steps involved in such delivery systems and instructional materials development are listed below.

Identify and implement instructional delivery systems deemed relevant for the accomplishment of SLT-FA.

Locate, select and/or develop materials in support of instruction.

Example of relationships:

<table>
<thead>
<tr>
<th>Task</th>
<th>Delivery System</th>
<th>Materials Needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication: Reading</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modular Scheduling, small group</td>
<td>Team Teaching</td>
<td>Books, slides, tapes</td>
</tr>
<tr>
<td>Corrective Reading</td>
<td>Individualized instruction</td>
<td>Programmed materials</td>
</tr>
<tr>
<td>OUT (Our Urgent Task)</td>
<td></td>
<td>Selections to read, discussion guides</td>
</tr>
<tr>
<td></td>
<td>BWP (Building Word Power) Development Reading</td>
<td>Teacher constructed sight word vocabulary cards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher constructed basic text series</td>
</tr>
<tr>
<td></td>
<td></td>
<td>extension materials</td>
</tr>
</tbody>
</table>

Evaluation

The application of assessment procedures to determine the extent to which the SLT-FA as defined by the instructional specifications have been accomplished, the cost by task, and the identification of any other sig-
significant variables, all related to one another, are the main thrusts of evaluation. The step sequence involved is given below.

- Apply assessment procedures and analyze the data therefrom to determine the extent to which the SLT-FA have been accomplished.
- Extract cost factors by program to estimate the cost of accomplishment achieved on each SLT-FA.
- Analyze data to discover if significant related variables emerge.
- Relate SLT-FA accomplishment, cost factors and any other significant variables.
- Display relationships reported above for use by policy/administrative decision makers.

Synthesis of Evaluation and Program Priorities

As evaluation and cost data are used to arrive at program priorities it may be indicated that modifications in the instructional specifications and/or assessment procedures are desirable. When indicated modifications have been made the program would begin a recycle of the modified program.

Priority statements → Modify Instructional Specifications →
Modify Assessment Procedures → Recycle Modified Program

Outcomes

Among the outcomes of the application of the process model described above are:

1. instructional specifications stated in evalutable terms,
2. assessment procedures identified, defined, structured and applied to assess the accomplishment of Student Learning Tasks,
3. budgeting system based on the evaluation of learning
task skills,

4. systematic operations with built-in provision for responsive change.

PARTIALLY ACCOUNTABLE STUDENT LEARNING TASKS

The other part of the Student Learning Tasks pertains to those for which the school system is only partially accountable. Some have read the statement of Student Learning Tasks as though the partially accountable tasks are less important than the fully accountable tasks. Such is not the intent. The differentiating factor is that the school must regard itself as a partner with church, family, and other social institutions in fostering skill development in the partially accountable tasks.

Beginning with the implementation of the fully accountable Student Learning Tasks into a functioning program, the application of the process model to the partially accountable tasks would be initiated. The same steps that were applied in the model for the fully accountable tasks would then be applied for the partially accountable tasks. Task forces concerned with instructional specifications, assessment procedures, fiscal program accounting and data processing applications would be established. Delivery systems, assessment procedures, instructional materials and necessary facility requirements would be identified and structured.

Particular note should be taken of the partnership quality of the SLT-PA* involving both school and community accountability. As task forces are formed to consider the various components of the process model there should be representatives from all segments of the community holding a stake

*Student Learning Tasks—Partially Accountable
in the program. Through cooperative effort the program should be strengthened and polished at the time of its inception.

When evaluative feedback, including the extent to which the partially accountable skills have been accomplished and statements of program costs, has been received and integrated into program priorities a modified program may be available for recycle. Recycling for both the fully accountable and partially accountable tasks might or might not begin the same year, depending on the circumstances then obtaining.

It should be noted that no baseline data are proposed for the Partially Accountable Learning Tasks at this time. The application of standardized tests in the assessment of the Partially Accountable Student Learning Tasks bears less direct relevance than with the fully accountable Student Learning Tasks. For reasons such as these it is imperative that the instructional specifications for the partially accountable tasks be stated in terms that will allow evaluation of the extent to which they have been accomplished.

SCHEDULE FOR IMPLEMENTATION

The plan and process model presented here are posed to cover a five year period. This period of time was arbitrarily selected as a convenient interval. Actually the process is a dynamic one which can be renewed and modified in response to changing conditions. The process components provide conceptualizations that can be utilized as developmental markers and check points in almost any developmental program.

An implementation schedule sequence is included here as Figure 5.
Figure 5

A PLAN FOR CONVERTING STUDENT LEARNING TASKS INTO AN ACCOUNTABLE PROGRAM OF INSTRUCTION

1. Distribute Student Learning Tasks Statement

2. Receive feedback

3. Report to Board
   3.1 Review Student Learning Tasks
   3.2 Present standardized test results related to fully accountable Learning Tasks
   3.3 Use of test results as baseline data for future comparisons

4. Operations Procedures
   4.1 Organize to Develop Instructional Specifications based on fully accountable Student Learning Tasks and operationalize
   4.2 Organize to develop Assessment Procedures to appraise accomplishment of Student Learning Tasks - Fully Accountable* and operationalize
   4.3 Organize to develop Objectives by Evaluation Budgeting System through Fiscal Program Accounting and operationalize
   4.4 Organize to develop Data Processing applications to support and relate all aspects of data collection and operationalize.

*SLT - FA

Schedule
October 1970
Oct./Nov. 1970
December 1970

December 1970 - March 1971
December 1970 - July 1971
December 1970 - May 1972
December 1970 - May 1972
5. Operational Implementation
   5.1 Determine and provide Facility Requirements
   5.2 Implement Instructional Delivery systems
   5.3 Apply Assessment Procedures
   5.4 Instructional Materials development for SLT - FA

6. Evaluate and Feedback
   6.1 Summarize and report extent to which SLT - FA have been accomplished
   6.2 Relate the extent to which SLT - FA have been accomplished to differential fiscal effort

7. Determine priorities of budget based on synthesis of SLT - FA accomplishment and differential cost

8. Revise Program
   8.1 Modify Instructional Specifications
   8.2 Modify Instructional Delivery Systems
   8.3 Modify Assessment Procedures

9. Recycle Modified Program - reenter cycle at Operational Implementation phase
   (Modify and Recycle)

Schedule

March 1971 - May 1972
August 1971 - May 1972
March 1971 - May 1972

June 1972
June 1972
July 1972
July 1972
July 1972
July 1972

July 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972

July-August 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972
July-August 1972

August 1972 -
August 1973-July 1974
August 1974-July 1975

CJB:bc
Dept. of Accountability and Assessment
November, 1970