DOCUMENT RESUME

ED 096 768 EA 006 447

AUTHOR Pell, Carroll J.
TITLE Accountability, It's People and It's Systems: PPbS. Education Monograph No. 4.
INSTITUTION South-Western City School District, Grove City, Ohio.
PUB DATE [73]
NOTE 85p.; Cassette containing directions for completing PPBS documents in this publication also available ($2.00 each)
AVAILABLE FROM Office of Community Relations, South-Western City Schools, 3708 South Broadway, Grove City, Ohio 43123 ($4.00, payment must accompany order. Quantity discounts)

EDRS PRICE MF-$0.75 HC-$4.20 PLUS POSTAGE
DESCRIPTORS Administrator Guides; Cost Effectiveness; Curriculum Development; Educational Accountability; Educational Objectives; Educational Planning; Inservice Education; Management; Management by Objectives; *Management Systems; Program Budgeting; Program Evaluation; Program Improvement; *Program Planning; *Systems Approach
IDENTIFIERS *Planning Programing Budgeting Systems; PPBS

ABSTRACT

This booklet is designed primarily as an instructional manual for staff inservice training in fulfilling professional obligations for accountability. Important factors in bringing about accountability are people and systems--people assess the need, consent to meet the need, and contract to be responsible for specific standards of performance. The desired performance is best accomplished through the use of a systems approach (PPBS). The mechanics of this system are (1) documenting programs, (2) setting goals, (3) developing objectives, (4) studying alternatives, (5) implementing programed plans, and (6) conducting evaluations. Managing by objectives is considered to be the core of the system. The report contains the documents used by the South-Western City Schools to conduct PPBS activities. (Author/WM)

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ACCOUNTABILITY

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IT'S PEOPLE AND IT'S SYSTEMS

By Carroll J. Pell, Ph.D.

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PUBLISHED BY SOUTH-WESTERN CITY SCHOOLS
GROVE CITY, OHIO
Martin L. Stahl, Ph.D., Superintendent

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ACCOUNTABILITY: ITS PEOPLE AND ITS SYSTEMS

PREFACE

Educational planning is of prime importance in developing excellence in instruction. This educational planning must incorporate procedures which utilize staff effectively, as well as resources effectively. In so doing, many value judgements must be made.

Great import must be given to educational methodology within the realm of personnel and resources. Judgement must be made as to whether additional personnel is required over additional resources, or whether additional resources (teaching aids, etc.) are of more vital importance than additional personnel. Such judgements can be made to produce higher quality and to conserve financial resources.

It is a firm belief that quality of instruction is directly related to instructional methods. Instructional techniques must be a determinate in quality education in an indirect relationship to financial expenditures. Good educational planning is a requirement for excellence in instruction.

Educational planning directly effects budgeting of funds. This is not to say that financial resources are unlimited. It does mean that proper educational planning will allocate financial resources in the proper categories as to personnel, resources, teaching aids, or other budgetary needs.

It should be strongly emphasized that the accent must be on educational planning and not upon financial resources. Budgeting of funds is a by-product of strong educational planning. The evaluation of dollars spent in relationship to value received in quality education can then readily be determined. Educational planning can be directly related to dollars spent. This then can be used as an evaluation procedure to justify dollars spent in relation to program quality.

Program planning through use of behavioral objectives for the individual has direct relationship to department-level goals and group objectives. The purpose of both group and individual objectives is to provide direction at any given time of year.

Group goals and objectives are necessary for a broad general direction, but they must not detract from individual behavioral objectives. Behavioral objectives for each individual may relate to a form of homogeneous grouping for a few. It further must be understood that, for true evaluation and individualization, behavioral objectives must be developed for a good evaluation procedure for both program and individuals.

A prospectus must be developed for each program or level in order to give sound educational direction. This may appear to be something new and something more time consuming; however, if good educational planning has been done in the past - and we are confident that it has been - this may only demand a little more thought and demand that thoughts be written on paper to provide for better direction.

Concrete planning for program improvement is necessary. Planning provides justification for the continuation of certain programs. It is our opinion that program planning is the most important step in achieving true educational accountability.

Martin L. Stahl, Ph.D.
Superintendent

PART I

ACCOUNTABILITY: ITS PEOPLE AND ITS SYSTEMS

INTRODUCTION

Among the many moods of this nation's people, today, is an apprehension and an uneasiness about the way things are going. People believe that at the same time that costs of goods and services are spiraling, quality is declining. As budgets for educational services go higher, both the people and their legislative bodies are insisting upon more accurate, and more supportable reporting of results. The word for the process which has been devised to achieve this result is accountability.

Simply put, people are seeking an answer to the question of whether or not the schools are giving a dollar's worth of education in return for each dollar spent. In responding to the will of the people, The Legislature of the State of Ohio has directed the State Department of Education to devise and establish systems which will improve accountability. The U. S. Government, through its various offices which deal with the schools, is pressing for such systems. Therefore, schools today can not ignore the subject. The law reads:

> The state department of education shall develop a comprehensive system for providing educational management information and accountability capabilities. The system shall be designed for eventual implementation on a statewide basis and shall utilize the technology of the computer and related systems concepts. Developmental work by the department shall utilize pilot school districts and shall strive, with regard to all public and non-public elementary and secondary schools in the state, to (1) define those measurable objectives for which each facet and level of public education is to be held accountable; (2) identify pertinent data elements and devise methods and systems for fairly, accurately and uniformly measuring and reporting the extent to which the defined objectives are met; (3) develop uniform files, methods and systems for collecting, processing, storing and analyzing data which will permit identification of those factors in the teaching-learning process which have the greatest relevance to student performance; (4) develop uniform accounting methods and systems learning outcome; and (5) develop uniform systems of reporting finds of the program to all interested persons.

ACCOUNTABILITY - WHAT IT IS NOT; WHAT IT IS

Many meanings are associated with accountability such as "good management techniques", "answerable for stewardship", "demonstratable performances", interpretable results", etc. We must be wary of this kind of labeling which has brought educators to the point where the public has begun to distrust all education administrators. Such labels are pure educational jargon.

Accountability is not merely performance-contracting arrangements, management by objectives, auditing, professional improvement, interaction, evaluation or testing. Yet it includes some aspects of each of these -- and more -- in the process.

We must accept the process of accountability as an attempt to cut through the jargon and rationally document what it is that we are doing. It has been said that educators have successfully resisted attempts to audit performance in terms of the behavior of students, and that only the fiscal side of the operation of schools can be so checked upon. Hopefully, an educational audit will be possible as an outcome of accountability.

Our expectations for accountability are:

1. Improved student performance in the cognitive and effective, and also in the psychomotor domains at all levels.
2. Comprehensive goals and objectives.
3. Improved performance by the staff members.
4. More comprehensive reporting of the means (input) and ends (output).
5. Acceptable accounting by people and process.
6. Favorable side effects - less absenteeism - fewer drop outs - no failures - lower staff turnover - less fear of being unable to perform - more commitment and self motivation.

We have always had accountability in some form in education. We have reported about facilities, about materials and equipment, about enrollments, about lunches and transportation, about number and kinds of staff, etc. Now we need a plan to expand and improve reporting to include actual

desired behavioral changes in students and the reasons why and how we proceed as we do. Responsibility for student successes will now be shared among the staff, other agencies, the public, parents and the students -- each accepting their rightful share. Ours will be to surmount traditional barriers to successes (broken homes, low I. Q., under achievers, low income, etc.) by planning, programming, budgeting for student successes. Those successes can then be realized by the total population.

The noun accountability is defined here as a person's liability to be called to account, or to be answerable for results gained through use of a system. This definition implies that a person or persons should be held accountable for creating and using an adequate system to produce desirable results, and for producing results effectively.

It is becoming well publicized that the public is demanding this kind of accountability from educators. It is in attempt to meet this demand by the public that the Ohio Legislature has enacted the law which is quoted above, in part.

It is rational to believe that both performances by people and efficiency of the system will be taken into consideration in formulating the concept of accountability. Whenever and wherever accountability is implemented, the people involved and the system used will be the two most important factors.

From the very beginning, educators must realize that accountability in its broadest sense is more than the traditionally held concept of evaluation - i. e., for the purpose of providing feedback for curriculum development, diagnostic and prognostic data, etc. Furnishing this evaluation was the prerogative of the educator. Accountability assumes the relationship today to be a contractual one between the public and educators. Accountability is also an attempt to establish the criteria of responsibility (who, what, where, when, etc.). Accountability is a more positive and a more comprehensive approach to the assessing of results as compared with the commitment of resources than heretofore had been the practice. It requires that educators be more sensitive to the needs of parents, employers, schools, other educators and public agencies. This sensitivity implies (1) use of an instrument to systematically collect and rationalize the needs of the many publics to which the educational establishment must be responsive, (2) the obtaining of consensus from those publics that the need should be met, (3) the re-wording of those needs as goals to be placed in the educational programs, and (4) the conducting of continuous evaluation concerning the progress being made in those programs.

ACCOUNTABILITY BEGINS WITH PEOPLE

Accountability is an activity conducted by people. In the field of education, particularly, much of what is to be accounted for is achievement by people and the cost of that achievement. It is important that prior concepts of accountability be broadened. Accountability is not merely counting. It is not simply a mathematical process involving inanimate objects. It is measurement of activities of people as well as of counting numbers of things and reporting the same.

Who should be held responsible for what? Should teachers, parents or both be responsible for student motivation? Are teachers responsible for supplying the funds to support education? Are students, teachers or both, responsible for skill development? These are important questions needing answers when the term accountability is used.

Many different people or publics are involved in educational accounting. Administrators, staff members, students, parents, taxpayers all have important roles to perform in true educational accounting.

In discovering the needs of the many publics to which the schools must be responsive, the people must be involved. A needs-assessment should be conducted with the aid of an assessment instrument - i. e., survey, test, report, examination, by interaction, etc. The needs assessment may bring to light instructional, operational and staff improvement needs, as well as student needs. Such needs may range from implementation of mandates from State Departments of Education in the subject-matter areas, to needs of individual students such as remedial help, attention, etc.

Different publics may request programs which they see as needs. The music club may see a string instrumental program as a need. The P. T. A. may want intramural programs for all students. Parents and students may want driver education programs extended. Blacks may want a course in black studies. The professional staff may want more materials, or a change in course content, as examples.

In the past, it has been generally assumed that needs of students would be the only classification brough to light. Accountability, however, in its broadest sense, would include all people having any connection with the educational process. It is important to note that if anyone connected in any way with the educational process may establish needs and make requests that these be attended to, that individual or group

must also accept and share the responsibility for the criteria established. It is imperative that this concept be kept in mind when accountability is practiced.

If the concept of a variety of people being responsible in various ways for the educational process is accepted, a place in the system should be provided, and the identity and the responsibility should be recorded. In the approach to accountability being recounted in this publication, this has been done. One of the documents used records the needs-assessment; the individual(s) making the request or bringing to light the need, the rationale proposed by them for assessing it as a need, the methods proposed for meeting the need, and a consensus of constituents who believe the need is a valid one and merits attention.

In this concept, the student will not be excused for non-participation or for non-interest. The parent will not be excused for not being responsive to the needs of the student and of the school. Any of the publics stating needs and participating in the inclusion of those needs in the program will not be excused for non-cooperation or for non-contributory status in programs being operated in response to their requests.

Because it is of greatest importance in the concept of accountability being explored here, we repeat that the people, then, include the school's professional staff and all others who may be involved in the needs assessment process where they declare an accepted responsibility to support the program. The contract to perform, while still a major responsibility of the professional staff, is also broadened to include those other persons who have had a hand in it in any way.

ACCOUNTABILITY DEMANDS SYSTEMATIC PROCEDURE

Planning, programming and budgeting have always been practiced by educators in varying degrees. Schools have always been held accountable. But the type of accountability which was deemed possible was usually 1) of more limited and restricted concept than we now know to be possible, and 2) often conducted without as much corelation and integration of result as we now know can produce superior outcomes.

Perhaps it has been an outgrowth of the computer technology, as much as any other knowledge discovery, which has made possible the broadening of understanding of the components of accountability. Whatever be the reason, we now know that addressing the components in sequence -- assessment, planning,

programming, budgeting, evaluation and reassessment, and recycling following fact-based revision -- creates a systematic approach which yields results superior to the traditional methods.

The evidence gleaned from commercial and industrial experience with systems as a management tool, the new concepts to which systems components have now been expanded, and the increased range of results obtainable through use of systems, are only a few of the reasons why schools must turn to -- and make use of -- this technique. More than any other technique or tool, it enables school administrators to fully meet the demand for greater accountability.

Educators are fortunate that it is not necessary to develop a system from the beginning. Systems are now well beyond the developmental stage and are integral parts of the industrial and commercial programs used by business and industry. The state of Ohio has incorporated a system into its accounting program, and it has stated to school systems that a definite program be used. This program is a planning, programming, budgeting system.

To recapitulate:

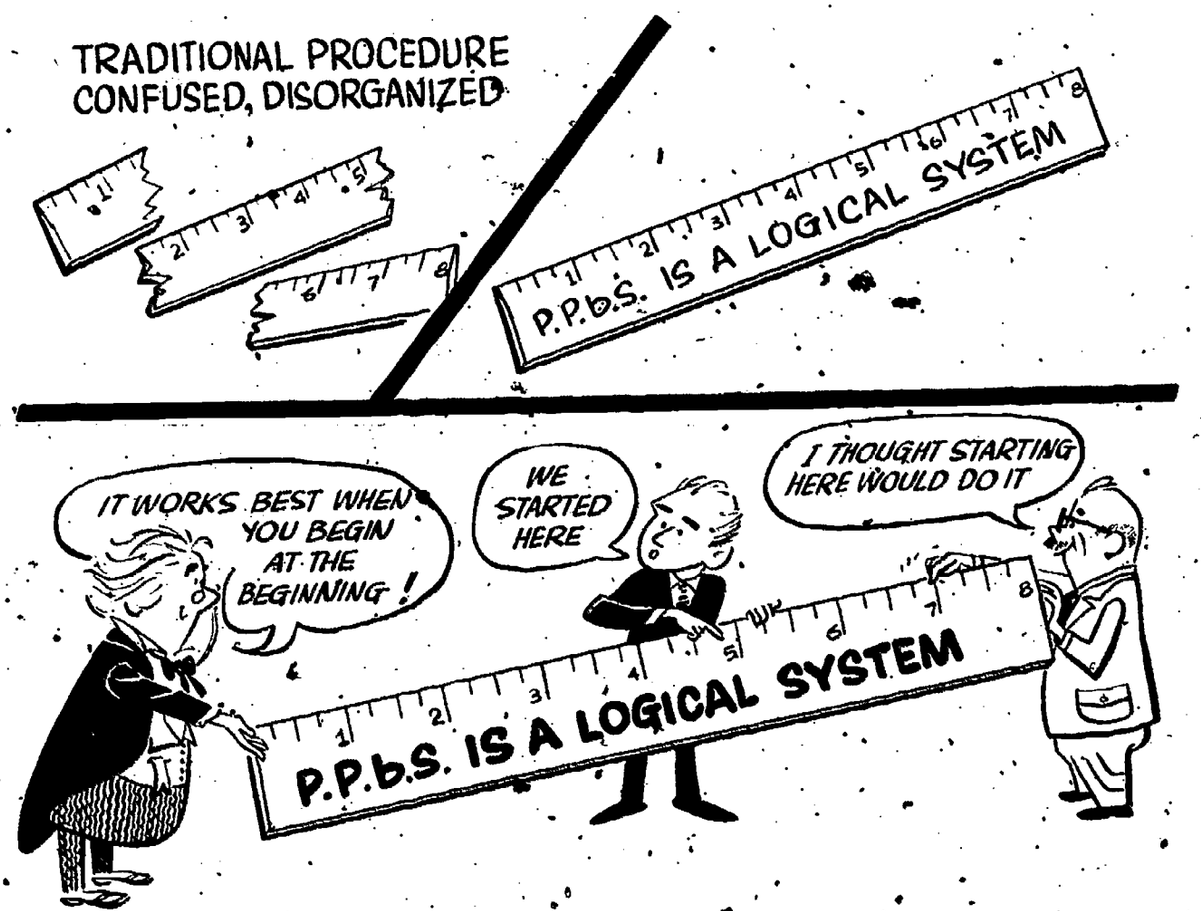
* A system is a sequential plan designed to show indicators of accountability.

* A system enables staff members to show how much learning or services can be accountably measured by staff or student performance in relation to the amount of resource investment.

* A system focuses on output (results) as related to input (resources and strategies).

* A system, on the basis of accepted responsibility, holds each participant accountable for results produced through his applied effort.

* A system eliminates the singling-out of one person or group to be held responsible for all responsibilities. (That approach always did invite failure)


TRADITIONAL PROCEDURE
CONFUSED, DISORGANIZED
P.P.b.S. IS A LOGICAL SYSTEM
IT WORKS BEST WHEN YOU BEGIN AT THE BEGINNING !
WE STARTED HERE
I THOUGHT STARTING HERE WOULD DO IT
P.P.b.S. IS A LOGICAL SYSTEM

THE SYSTEM

The "new" concept of meeting demands for increased accountability through use of a system has created some concern in educational circles. Unanimous agreement has not been, and may never be, achieved. In education, PPBS, PPBES, MBO, ERMS, DEPS and MERS are variations in the words titling systems selected by different school districts. BppS and PPbS are examples of attempts to remain within the general framework of a system but still to indicate differences in emphasis on components.

Whatever the title (dictated by philosophy or vested interest), these systems spring from, and are similar to, that established by the United States Department of Defense during the McNamara years of the middle sixties. That system was titled: "Planning, Programming, Budgeting System (PPBS)".

A PPBS can be developed in any sequence by starting at any particular component. It must be understood, however, that outcomes will differ when the starting point is other than the initial planning, and outcomes differ when a different emphasis is placed on any component.

We see no reason why the elements emphasized should not be stated in capital letters, and the elements de-emphasized stated in lower-case letters. These variations indicate where a school system places emphasis - be it on budgeting, on planning or on programming.

South-Western City Schools writes its title for its system as PPbS. We do this to indicate that our emphasis is placed on planning and programming, and it indicates our belief that budgeting should follow and support - and never dominate - the system sequence.

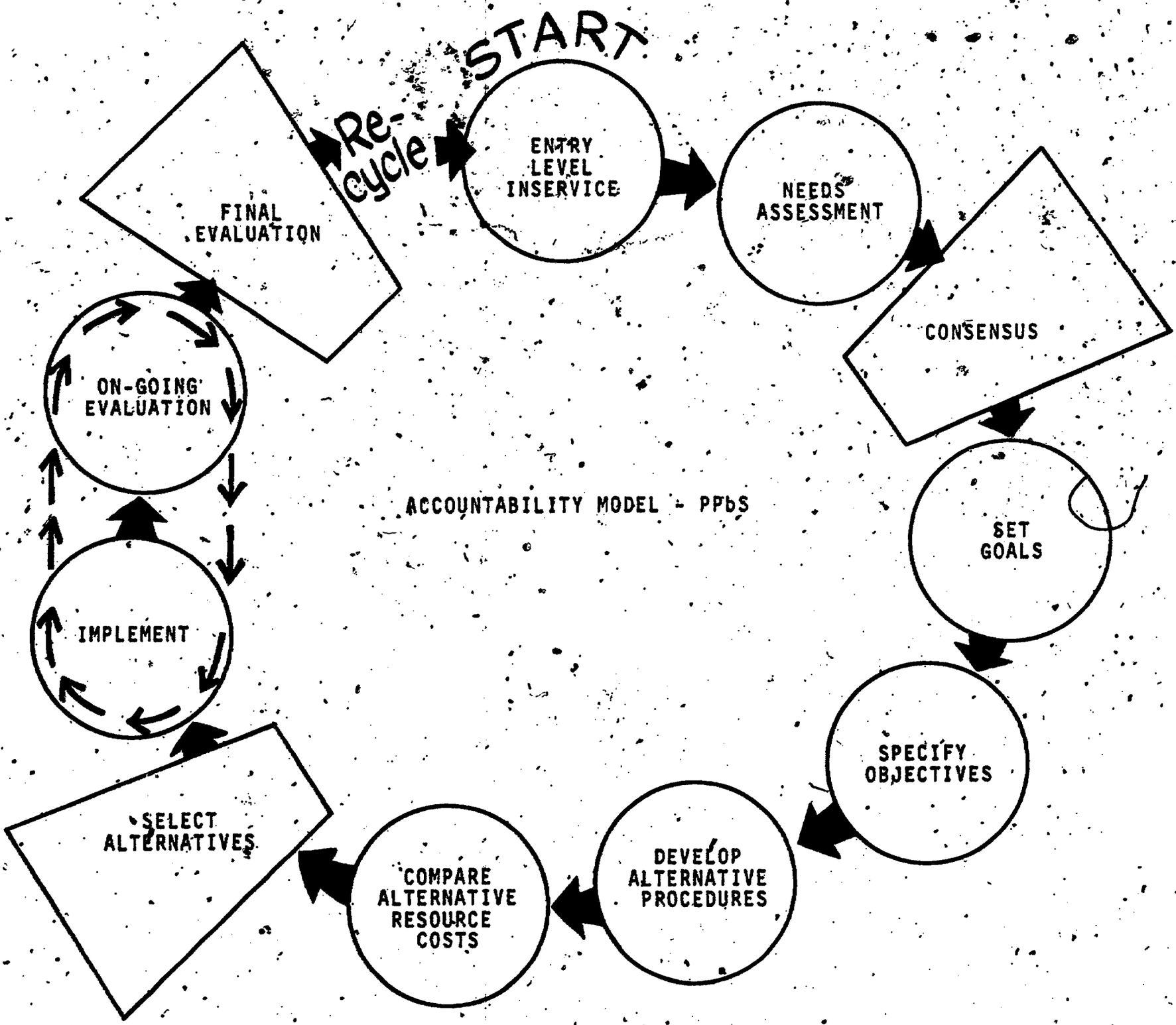
This treatise, then, is addressed to three propositions based on one school district's experience:

1. PPbS provides a system which is most beneficial for reporting curriculum development.

2. The proper approach is the sequence planning, programming, and then budgeting.

3. Emphasis should be placed on planning and programming (PP).

The order of our system is the same as that of the original Pentagon development, and it is the order which many educators have followed and found to be logical.



ACCOUNTABILITY MODEL - PPbS

OUR NEEDS ASSESSMENT

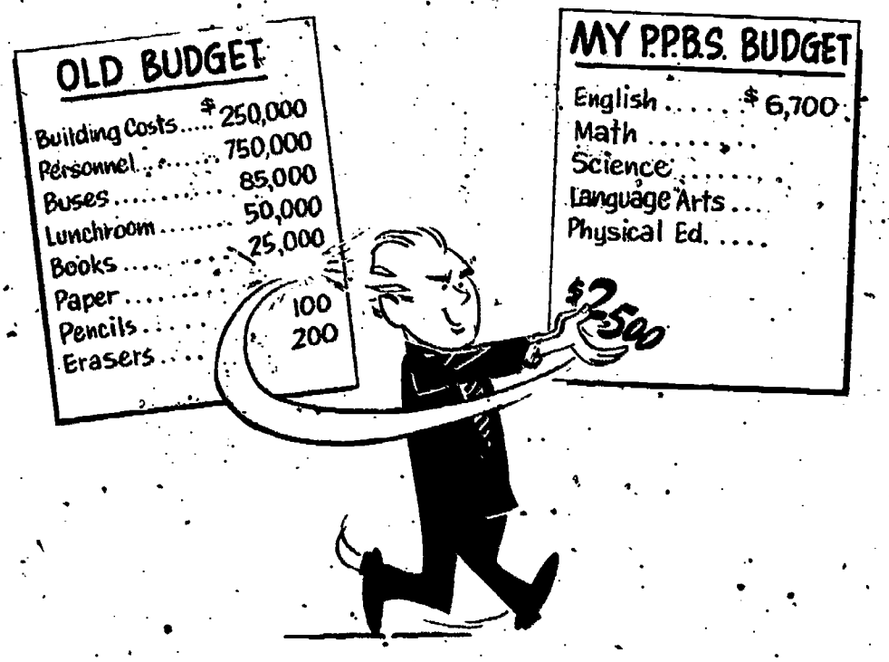
To facilitate change and promote growth in curriculum -- defined here as all instructional and supportive activities sponsored by the school district for the purpose of meeting student needs - i. e., intellectual progress, body management, social skills, comfort, and mental health - every district must plan and program for curriculum development. It is a part of the emphasis coming from all levels -- federal, state and local -- that the systems approach be used. This would include the continuous recycling of goals and objectives, procedures and resources, implementation, and feedback.

Those districts which are moving toward the new horizons in education - i. e., differentiated staffing, a variety of people involved in decision making, individualized instruction and evaluation, process expertise and concept development - are experiencing the need to provide for better management and improved accountability of the many programs.

Innovations such as the growth from library to IMC; from equal-length periods to modular scheduling, from letter or number grading to accumulative objective achievement, from card reporting to frequent parent-teacher conference, from standard-sized classes to multiple grouping, from text dependency to multi-media materials, from grade levels to individualized programs, from single subject to team teaching, from memorizing to employing content, to name only a part of the long list of innovations current, will generate complexities requiring an intricate system for successful implementation. The Planning, Programming, budgeting sequence is such a system.

OUR RATIONALE

The literature indicates that in moving to systems operation, different school districts have approached the move by beginning at different points in the sequence. But it is perhaps at the point of budgeting that the greatest number of these have begun. (By starting with budgeting, those districts may be emphasizing budgeting to such an extent that BppS would be the most accurate way of classifying their approach). We have seen reports in which a rearrangement of budget figures seems to have been the only activity undertaken by the reporting system. It is our opinion that merely rearranging traditional budget figures into systems classifications and systems language does not achieve the rewards which can come from a complete exploration and use of the systems approach.



Responsible budgeting is logically based upon prior planning and programming. The conclusion is easily drawn that budgeting based upon other premises - incremental costs, tradition, or opinion - is not defensible. Where dollar profit is most important, PPBS has been described as a system for budget management (skillful fiscal control). In the field of education, however, where the student is most important, the system should be oriented to planning and programming for improving curriculum. We repeat our firm belief that budgeting should support, not dictate, curriculum.

Even when following the complete pattern of the system in the order of original intention, some overlapping of activities will inevitably occur. And the complete system is not so simple that budgeting alone can bring about results equal to those made possible by the entire sequence. We have in our files some reports labeled PPBS which resemble itemized cost-accounting reports carried out to an almost preposterous degree. These would probably be excellent reports for a bank or such other financial institution. They do not suffice for an educational institution, in our opinion.

In education, costs are often a major constraint to curriculum implementation. Program costs need to be ascertained and often appear to be prohibitive, but a creative and resourceful staff can minimize or eliminate cost constraints by developing alternative procedures and resources.

Several implementation procedures, and the resources needed for implementation, should be researched. In this process, alternatives should be compared to determine the most effective programs at the most prudent cost. Displaying all the data about all the alternatives, and making evaluations to determine the cost versus effectiveness of each, provides comparative information upon which to base decisions. There is much evidence that analysis and comparison of alternatives can reduce costs and produce more effective results.

The ranking and choosing of alternatives results in valid recommendations for program implementation. These recommendations, documented in program memoranda as a prospectus, as description, or as a formal proposal, should be submitted and approved prior to formal budget preparation.

The process leading to approval for federal programs follows the P P B sequence.

1. The required "letter of intent" is similar to the "rationale" required in the initial planning stages, for programs.

2. The preliminary proposal required for approval of federal programs is not unlike the prospectus which is a written statement giving advance information regarding the program in such a way as to arouse interest and earn support for approval.

3. Funding of federal programs is the last activity in the sequence. Here, a meaningful array of figures is displayed in what is called a program budget.

It is generally recognized that most educators give more than lip service to the saying, "A penny saved is a penny earned." The wish to save money is commendable, but that wish must be subject to the quality desired in the product - the educated student. The best way to produce a quality product is by first planning and programming for student successes. Then, and only then, should budgeting be addressed.

As has been stated, development of a program budget which is simply a rearrangement of traditional reporting techniques, is relatively easy. Calculating costs for programs instead of objects is the main task. Accountants are proficient at this activity and data programmers can arrange input for almost any display of data desired.

On the other hand, a well developed PPbS is much more complex. It cannot be simply constructed and it cannot be easily implemented because, in developing a PPb system, several needs must be met:

1. A variety of people, including public, staff and students must be involved in order to provide input and to agree upon reasonable output concerning curriculum. Interaction with others should aid the staff in planning and programming for output (results).

2. For each program, a rationale must be given; an assessment must be conducted; a prospectus must be written; various kinds of goals and objectives (instructional, staff development, and operational) must be stated for the district, the building, the class, the teacher, and the student. Alternative procedures and resources for implementation must be researched, and evaluators must investigate the degree to which objectives are attained.

3. Expertise in more than one discipline is required to implement a PPbS - i. e., instruction, accounting, data processing, supportive services.

It has been shown that two philosophies for PPbS are dominant. Some school districts begin this systems approach with a fixed or estimated budget and plan program around it (BppS). Budgeting is the most familiar territory and the traditional data base for accountability. This approach is more traditional than the one to plan and program curriculum to meet the needs of students and then arrange for fiscal needs. Here the data base would become the needs of students instead of budgeting (PPbS).

THE CONSENSUS

South-Western City Schools, a medium-sized school district of 17,000 students located in Central Ohio (Grove City), has taken the first steps toward implementing a PPB system. The

impetus came from guidelines formulated in 1968 and published in a booklet titled "Initiate Action." The guidelines contained in that publication established direction for curriculum development throughout the system. The rationale was to improve curriculum by providing an individualized program for each student.

From experience in dealing with "Initiate Action," staff members gained the ability to state and organize goals and objectives, and reinforced their knowledge of educational pedagogy. With this curriculum development in progress by 1971, the only element of PPBS which would require additional inservice education was budgeting for implementation. The time-line, as established in "Initiate Action," provided for the initiation of PPBS at this time.

As the staff became involved, it became evident that budgeting was functioning as a constraint and was judged to be of major importance in concept held by staff, whereas it was intended by the administration to be viewed as of minor importance. It was at this time that the capital letter "B" was changed to a lower-case letter "b". This way of expressing PPbS indicated a de-emphasizing of budgeting as a major consideration in curriculum development. The planning and programming elements were emphasized and the letters P, P and S were capitalized (PPbS). Alternative procedures and resources became the forte in dealing with limited funds (budget) for programs, while student needs became the forte for retaining, enlarging and/or initiating programs.

IN-SERVICE

PITFALLS TO IMPLEMENTATION

As might be expected, the usual confusion accompanying the introduction of a different way of doing things was present when PPbS was initiated. During in-service sessions, many pitfalls to implementation were discovered. Blocking progress toward implementation was a lack of expertise, staff commitment to the system, proper allocation of time and staff, and a genuine feeling for the necessity of a move to the system. In the beginning, terms were quickly memorized and spouted without agreed-upon definitions, or hands-on experiences, direction was scattered, in-service was too short, implementation progressed at a slow pace, and all of this added to the confusion, the resistance, the tension of the struggle to successfully and comprehensively implement PPbS. These deterents are being dissipated with time and additional in-service.

AIDS TO IMPLEMENTATION

Many concepts are inherent to a PPbS. Ten for which understanding was deemed to be necessary for implementation emerged from the in-service training experience. These ten are listed below:

Concept 1: This concept has already been stated. It is that of de-emphasizing the budgetary process (input), and emphasizing the planning and programming components for student's successes (output). Input, such as the numbers of teachers, the amount of supplies, the extent of funding, the arrangement of classes and of class periods, and the provisions for space, is important. Output, which can be proved by observable, measurable, behavioral changes in students, is paramount. Examples of program expectations are: Increase individualized instruction in mathematics courses' sections from 21% to 47%; decrease the number of student dropouts by 5%; increase the average grade equivalency in reading by 2.2 years from the 3rd grade to the 5th grade; decrease the turnaround time of educational equipment in repair by 25%.

Concept 2: The concept systems approach needs in-depth explanation. The term "system" was found to be very confusing. In education, it is a systematic way to approach curriculum development. The system is several activities, procedures, components, methods or ways, interlocked in sequence and interwoven in such a way as to be dependent upon each other. The system establishes a framework, a method, a focal point for collating and distributing information from which decisions can be made.

Concept 3: The assessment of needs is an essential part of determining goals, and cannot be over-emphasized. A superficial process of assembling traditional goals and objectives of the staff does little to improve the curriculum. In interaction with others - students, publics - new information and needs are discovered which can be utilized. Needs are then reworded as goals.

Concept 4: In respect to the program structure, the concept of hierarchial levels of programs and

related goals and objectives is not easily understood. Decisions must be made as to whom is responsible for which program at what level. As one example, the programs, goals and objectives of the high school principal encompass a broader and more general scope of responsibility than other high school staff members with more specific responsibilities. In most cases, decisions are made by committees. Committees may include members of the certified and classified staffs, members of various publics, and students. Involvement through committee participation provides for interaction.

Concept 5: Involvement is necessary. Instructional and supportive-staff participation in the decisions which relate to the work which must be performed places more decentralized responsibility which, in turn, brings about increased feelings of responsibility for the production of successful programs. By working a program structure from the grass roots, so to speak, all staff members become involved. Through this involvement, they recognize that they will be held accountable for detailed, integrated, alternative programs which are written and which can be evaluated in terms of student performance (output). Within the parameters of the district's philosophy, goals and objectives, they, as the experts, become the decision makers.

Concept 6: The concept of implementation procedures and resources necessary to conduct the program as planned and programmed should not be, but often is, overlooked. Procedures, as given or implied in the objectives, deal with the duties of staff, the procurement and use of equipment and supplies, and the scheduling of events. Resources, as given or implied in the objectives, include staff, capital outlay, expendibles, time and space. Where action is planned and programmed, but not supported by proper implementation procedures and resources, little happens.

Concept 7: To understand alternatives as important ways to adjust procedures and resources which may become constraints to attaining objectives is important. Many different ways of achieving each set of objectives are possible. The success of planning

and programming (PP) depends upon ingenuity in developing a number of viable ways to conduct a program. The elaborate search for alternative ways of attaining objectives make PPb and innovative system. By analysis of costs and effectiveness, decisions can be improved. A conscious process of choosing alternatives (setting priorities) supported by data based on student needs is the criterion.

Concept 8: Evaluation is mandatory. It is the culminating activity in a PPb system and is the means to accountability as to how well the needs of the students were met in relation to the assigned resources. It is a condition for aid in federal programs; it reveals rationale for changes in program, systems, procedures, policy and legislation. It is a way of comparing planned output (individualized and standardized growth) with actual output. This concept includes a control aspect. Basically, this involves keeping tabs on how well a program is being implemented and recording changes. It is progress reporting and control.

Concept 9: Commitment is essential. An attitudinal change as well as expertise in PPbS implementation is sought.

Concept 10: A minimum of five years is required to gain staff expertise in PPb and to fully implement the system.

SUMMARY

In South-Western City Schools, it is our hope that the days of staff members asking for funds without (1) specifically identifying those student needs to be supported, (2) stating the outputs which can be expected, and (3) being held responsible and accountable for those outputs, are at an end.

Where We Are:

We use the PPb System as a tool for curriculum development and accountability. At this point, in our progress toward full implementation of a PPb System, we have held meetings to establish consensus about needs recognized by our publics, staffs, and students. District-wide goals and objectives have been set. Inservice has been conducted with the staffs concerning the mechanics of the PPb System. A number of programs were chosen, systematized by PPb, and then implementated.

How We Proceed:

Development begins with the identification of a need. Interaction at all levels follows, focusing alternately on goals, objectives, procedures and resources as might be required to meet the need. This assures that planning is taking place.

When abstract deliberation has been exhausted, concrete documentation begins. A formal document has been developed which provides for assessment, rationale, program structure, program description (containing such details as title, identification of the people participating as a committee, program philosophy, teaching strategies, staffing pattern, student make-up, goals, objectives, procedures and resources) and the proposed budget. This is programming in progress.

When an activity is planned and programmed, we enter the formal budgeting stage where constraints of effectiveness and no costs appear. In attempts to maximize effectiveness and to minimize costs (but not at the expense of student output) we must review the goals and objectives, re-define the procedures, and reallocate resources. Alternatives which have been included in the formal document provide much flexibility in the choice of procedures and the allocation of resources.

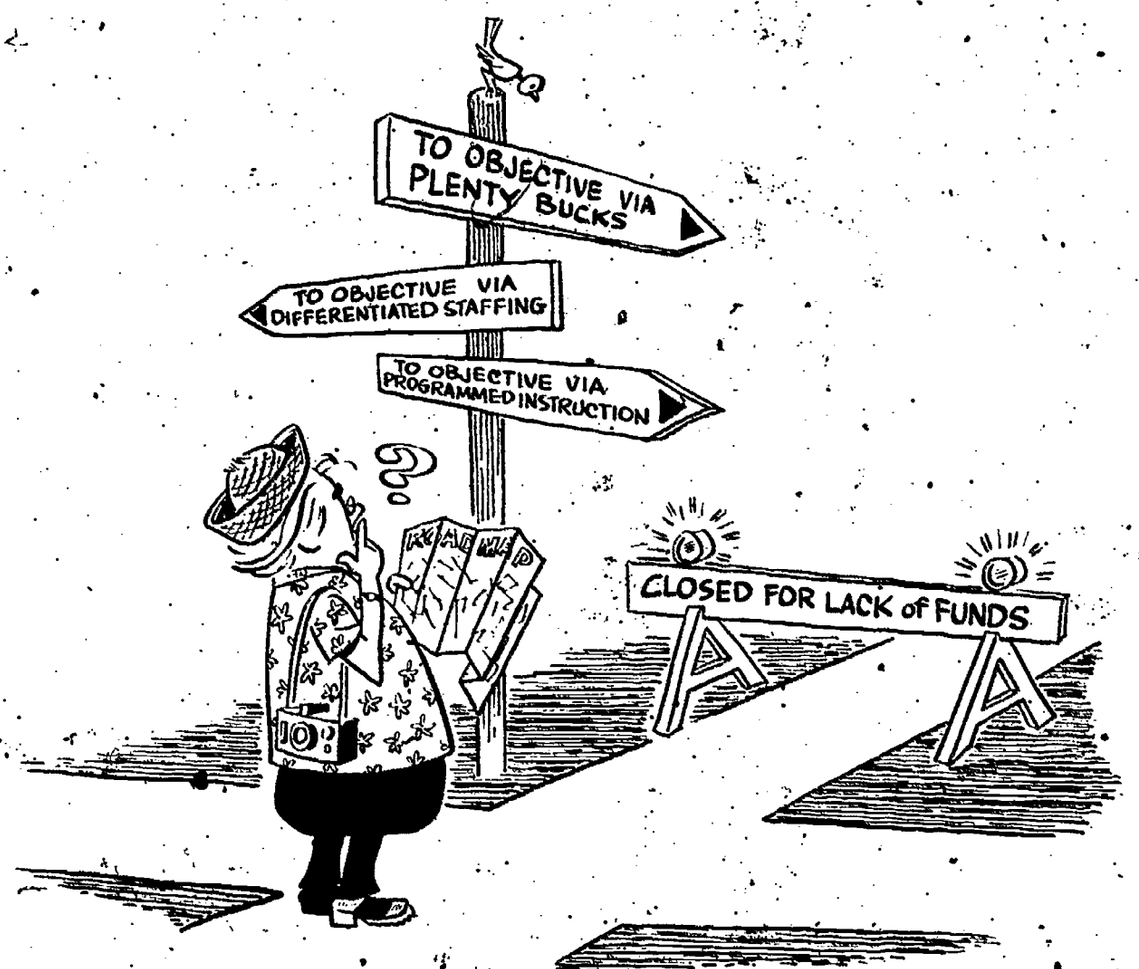
When a program proposal is approved, resources are appropriated and implementation may begin. During, and after, the time allocated for implementation, evaluation is conducted from comparative data (comparing planned with actual results). Every recycling of the process presents new opportunities for change and growth.

Where We Are Planning To Go:

We are directing our efforts toward continuous and comprehensive curriculum development accompanied by total accountability at every step. We interpret this process to mean planning and programming for measurable student successes, budgeting for implementation, and providing, evaluating, and revising (recycling) activities which range from daily lessons in the classroom to society-mandated programs. The accountability for each program is not merely a budgetary one but also includes step-by-step measurement of student progress and easily understandable reporting of the same. The meaning is simplified, but indicates to us that this way of carrying out this intent is more (1) concrete than abstract, (2) systematic than haphazard, and (flexible than rigid).

A method is being utilized which involves all staff in program planning (curriculum development) in order to obtain implementation at the teacher-pupil level (our ultimate goal). Proper implementation will only take place when the teacher has strong commitment to the process. Teacher commitment to curriculum development by utilizing PPbS procedures produces successful teacher-pupil interaction. Administrative commitment to utilizing the process with full-disclosure and reporting of progress brings about total accountability.

PART II


TO OBJECTIVE VIA PLENTY BUCKS
TO OBJECTIVE VIA DIFFERENTIATED STAFFING
TO OBJECTIVE VIA PROGRAMMED INSTRUCTION
CLOSED FOR LACK of FUNDS

D O C U M E N T S

This section contains the documents used by South-Western City Schools to PPb activities. The intent is that they be used as material guides for inservice or work sessions. Excerpts from South-Western City Schools' Program Structure and Coal Structure are in the Appendix as references.

PPbS PROGRAM PROPOSAL: The formal program document is the complete Program Proposal. A completed document has been included as an example.

* * * * * * * * * *

NOTE: Attempting to answer every question which may be asked in working with this PPb system would result in a much larger pamphlet. It is advised that a trained instructor conduct inservice sessions. A cassette tape has been prepared as an aid for inservice or work sessions. It should be used when an experienced instructor is not present; however, it may also be used in conjunction with an instructor.

FORMAL PROGRAM DOCUMENT

SOUTH-WESTERN CITY SCHOOLS

GROVE CITY, OHIO 43123

P R O G R A M

P R O P O S A L

Planning Programming Budgeting System

MARTIN L. STAHL, Ph.D.
Superintendent of Schools

CARROLL J. PELL, Ph.D.
Director of Business Affairs

P R E F A C E

For many years teachers have insisted upon becoming involved in curriculum development. The PP in the PPbS is an excellent opportunity to become involved in curriculum development. The administration wishes the staff to enter into this phase of PP with the attitude of curriculum development instead of a paper and pencil exercise. PP encourages staff participation in curriculum development as stressed by Henry J. Hartley in a recent EDUCATIONAL LEADERSHIP issue, in which the California Teachers' Association stated:

> "Classroom teachers can reject teacher planning implications inherent in the PPbS system. If rejection occurs, then someone else will operate the planning and others removed from the classroom scene will continue to make teacher decisions about children and the program. Our literature is filled with generalities about teachers being placed in a decision-making capacity. Teachers can rise to new heights of professional competence and performance if they seize the opportunity afforded by PPbS. The business office will keep track of costs, but who will do the program planning? Local teacher associations, especially Curriculum and Instruction committees, can struggle with two realitites under PPbS. Namely, what new or modified desicion-making structure do we want in our school district? Secondly, how do we wish to expand the role of the classroom teacher? If associations and their committees think through those two critical questions, they are on their way to making PPbS the servant, not the master."

No doubt the first appearance of PP seems overpowering; however, carefully thinking through the process, each teacher will readily recognize the benefits in developing curriculum. This implies organizing the staffing pattern, determining methodology, and the selecting of supplies and equipment needed. What better opportunities can a teacher have than planning the total program. The opportunity is here. Imagination is the limiting factor when utilizing alternative procedures. The administration urges the attitude of involvement: Failure or success of quality education depends upon YOU, THE TEACHER.

Martin L. Stahl, Ph.D.
Superintendent of Schools

SOUTH-WESTERN CITY SCHOOLS

PROGRAM COMMITTEE REPORT

Date

DEPARTMENT PROGRAM: Code Name

SUB-PROGRAM: Code Name

PLANNING COMMITTEE MEMBERS

Chmn:

DEPARTMENT PROGRAM PHILOSOPHY

(Continue on other side if necessary.)

Rev. 3/20/73
CJP:hgp

I. P R E S E N T P R O G R A M D E S C R I P T I O N, 19___ - ___
School Year

TEACHING OR SERVICE STRATEGIES (Process):

STAFFING PATTERN:

Present Program Description, Contd. Page ____

STUDENT OR GROUP MAKE-UP (Population, level of achievement, and how served):

PRESENT PROGRAM IMPLEMENTATION (Process in relation to district philosophy):

II. DEPARTMENT PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for the program and the objectives for each goal. Use as many sheets as necessary.

GOAL:

OBJECTIVE(S):

GOAL:

OBJECTIVE(S):

GOAL:

OBJECTIVE(S):

II-A. SUB-PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for each sub-program and the objectives for each goal. Use as many sheets as necessary.

GOAL:

OBJECTIVE(S):

GOAL:

OBJECTIVE(S):

GOAL:

OBJECTIVE(S):

III. MODIFICATION OF PROGRAM for School Year, 19___-___.

NOTE: Planned changes in present program in relation to teaching or service strategies, staffing pattern, student or group make-up, and implementation as outlined in I. Include a needs assessment as a rationale. State criteria (projected output) for evaluating output.

IV. ALTERNATIVE PROGRAMMING for School Year, 19___-___.

NOTE: Programming plans to substitute for the modified plan (III) or present program, as outlined in I (teaching or service strategies, staffing pattern, etc.).

S O U T H - W E S T E R N C I T Y S C H O O L S

A D D I T I O N A L R E S O U R C E N E E D S

	ESTIMATED COST
STAFF:	
EXPENDABLES:	
CAPITAL OUTLAY:	
FACILITIES:	
TIME:	
OTHER:	

D E L E T I O N S

	ESTIMATED COST
STAFF:	
EXPENDABLES:	
CAPITAL OUTLAY:	
FACILITIES:	
TIME:	
OTHER:	

SOUTH-WESTERN CITY SCHOOLS

Page ____

APPROPRIATION (RESOURCE) NEEDS: REGULAR INSTRUCTION

Program _____ School Year _____ Enrollment _____

	IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF / ENROLLMENT	DESCRIPTION	SUM of SALARIES	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES				TEACHING STAFF:			
			EN-ROLL-MENT		PRODUCT (Enr. X Rate/Std.)		
EQUIPMENT, SERVICES, SUPPLIES, ETC.							

TOTAL APPROPRIATION: $ _____

ENROLLMENT: _____

COST PER PUPIL, THIS PROGRAM: $ _____

_____
Committee Chairman

SOUTH-WESTERN CITY SCHOOLS

APPROPRIATION (RESOURCE NEEDS: SUPPORTIVE SERVICES/INSTRUCTION

PLEASE NOTE: ALL ENTRIES ON THIS FORM MUST BE CONFINED TO COSTS ACTUALLY ALLOCATED TO THIS SPECIFIC PROGRAM.

Program _____ School Year _____ Enrollment _____

IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF	DESCRIPTION	SUM of SALARIES	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES			CERTIFICATED: (Administrative & Supervisory)			
			Other (Specify):			
			CLASSIFIED (Specify):			
		EN-ROLL-MENT		PRODUCT (Enr. X Rate/Std.		
EQUIPMENT, SERVICES, SUPPLIES, ETC.						

TOTAL APPROPRIATION: $ _____

ENROLLMENT: _____

COST PER PUPIL, THIS PROGRAM: $ _____

_____

Committee Chairman

SOUTH-WESTERN CITY SCHOOLS

APPROPRIATION (RESOURCE) NEEDS: SERVICE/DISTRICT-WIDE

Program/Supportive Services _____ School Year _____ Number Students Serviced _____

IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF	DESCRIPTION	SUM of SALARIES	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES			CERTIFICATED (Specify):			
			CLASSIFIED (Specify):			
		NO. STDS. SERV.		TOTAL COST		APPROPRIATION
EQUIPMENT, SERVICES, SUPPLIES, ETC.						

TOTAL APPROPRIATION: $ _____

ENROLLMENT: _____

COST PER PUPIL, THIS PROGRAM: $ _____

Committee Chairman

SOUTH-WESTERN CITY SCHOOLS

FINAL EVALUATION

OBJECTIVE	STANDARD	
	PLANNED	ACTUAL

Committee Chairman

FINAL EVALUATION

REVIEW OF RESULTS:

CHANGES RECOMMENDED:

Committee Chairman

EXCERPTS FROM A COMPLETED PROGRAM PROPOSAL

SOUTH-WESTERN CITY SCHOOLS

GROVE CITY, OHIO 43123

P R O G R A M

P R O P O S A L

Planning ✦ Programming ✦

Bbudgeting System

MARTIN L. STAHL, Ph.D.
Superintendent of Schools

CARROLL J. PELL, Ph.D.
Director of Business Affairs

SOUTH-WESTERN CITY SCHOOLS

PROGRAM COMMITTEE REPORT

January 19, 1973
Date

DEPARTMENT PROGRAM: (To be assigned) Code — WESTLAND H.S. MATHEMATICS, LEVEL V Name

SUB-PROGRAM: (To be assigned) Code — ALL MATH COURSE OFFERINGS, LEVEL VI Name

PLANNING COMMITTEE MEMBERS

Albert Adcock, Chmn.
Frank Bellew
Rayalene Brizendine
Anne Daum
Robert Frankland
David Gleason
George Gornall
Richard Locke
Dr. Carroll Pell
Fred Slater
Jeff Slawson

All members of the student body presently enrolled in mathematics.

DEPARTMENT PROGRAM PHILOSOPHY

The secondary school mathematics curriculum must be sensitive to the interests, needs, and abilities of its constituency. We believe it must include the necessary variety of courses to challenge the individual to achieve his maximum mathematical development. Within these courses, individualization provides the opportunity for this growth to occur.

CJP:HGP
11/24/72

(Continue on other side if necessary.)

WESTLAND HIGH MATHEMATICS

RELATED TO PPbS MODEL LEVELS

V	Westland High School Math Department												
VI	Algebra						Geometry		Advanced			Pre-Algebra	Con-sumer
VII	Algebra I, Part I	Algebra I, Part II	Algebra I	Acc. Algebra I	Algebra II	Acc. Algebra II	Coll-Tech	Informal	Geometry	Acc. Geometry	Advanced Math	Math-Physics	Special Topics	Basic	General	Consumer
VIII	1-2 3-4 5-6 7-8 11-12 13-14	1-2 5-6 9-10 13-14	1-2 3-4 7-8 11-12 15-16	5-6	3-4 9-10 11-12	5-6	11-12	3-4 9-10 11-12	1-2 13-14 15-16	5-6	3-4	9-12	5-6	1-2 3-4 13-14	3-4 5-6 9-10 11-12 13-14 15-16	1-2 5-6 9-10 13-14

1973 - 1974
School Year

I. PRESENT PROGRAM DESCRIPTION

TEACHING STRATEGIES (Process):

Basic	P.I.	Geometry	L.D.
General	I.	Acc. Geometry	L.D.
Consumer	L.D./S.P.	Algebra II	L.D.
Algebra I, Part I	L.D./S.P.	Acc. Algebra II	P.I.
Algebra I, Part II	L.D.	Coll-Tech	I.
Algebra I	L.D.	Advanced Math	L.D.
Acc. Algebra I	P.I.	Math-Physics	L.D.
Informal Geometry	S.G.	Special Topics	S.G./P.

Key: L.D. = Lecture Discussion
P.I. = Partially Individualized
I. = Individualized
S.G. = Small Group Discussions
P. = Student Presentations
S.P. = Student Projects

In depth study of strategies is reflected in course goals. (Instructional)

For each course, goal 2 represents the affective change desired to occur in the students served.

Goal 3 for each course represents the higher level skills being taught by inductive or deductive strategies or by reasoning and problem solving following the scientific method. Refer to pages 4 thru 12.

STAFFING PATTERN:

Math-Physics: One teacher from math, one from science assigned to two hour block of time.

Math-Science-English Block: Three teachers assigned to freshman two hour block. One math teacher involved.

Special Topics: One teacher, one period but class does not meet daily.

All other math staffing is 1 teacher/1 hour of class.

Student teachers and aids add to the staffing pattern along with the media specialist in IMC-E.

Present Program Description, Contd.

STUDENT MAKE-UP (Population, level of achievement, and how served):

The Westland High School Mathematics Department serves students ranging from those having difficulty with simple whole number computations to those studying elementary calculus, advanced geometry and abstract algebra. The student teacher ratio is approximately 150/1.

Population Served

Level VI Sub-Program	Grades	Number of Sections	Students Enrolled	Staff
Pre-Algebra	9-10	11	273	1 5/6
Consumer	9-12	4	127	2/3
Algebra	9-12	21	591	3 1/2
Geometry	9-12	7	169	1 1/6
Advanced	12	4	31	2/3
		47	1191	7 5/6
Note: Add 1/2 teacher for department head time				8 1/3

PRESENT PROGRAM IMPLEMENTARION - Process in relation to district philosophy:

$$\frac{\text{Number Individualized Sections}}{\text{Total Number of Sections}} = \frac{10}{47} = 21\%$$

(see next page also)

CJP:hgp
11/24/72

PRESENT PROGRAM IMPLEMENTATION WITH RESPECT TO DISTRICT PHILOSOPHY

Course	Administering Entry Level Test	Using Unit Pre-Tests	Using Objectives	Coordinating Objectives with Appropriate Learning Activities	Using Criterion Tests	Re-Testing on Missed Objectives After New Learning Activities	Student Learning at Own Speed
Basic			X	X	X	X	X
General		X	X	X	X	X	X
9th Block			X	X	X	X	
Consumer			X	X	X	X	
Alg. I, Part I			X	X	X	X	
Alg. I, Part II			X	X	X	X	
Algebra I			X	X	X	X	
Acc. Algebra I			X	X	X	X	X
Informal Geom.			X	X	X	X	
Geometry			X	X	X	X	
Acc. Geometry			X	X	X	X	
Algebra II			X	X	X	X	
Acc. Algebra II			X	X	X	X	X
Advanced Math			X	X		X	
Math-Physics			X	X	X	X	
Coll-Tech		X	X	X	X	X	X
Special Topics			X	X	X	X	

II. DEPARTMENT PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for the program and the objectives for each goal. Use as many sheets as needed.

I. GOAL: Construct a micro-model for future implementation of continuous progress curriculum planning.

A. Set up a pilot program involving continuous progress in two courses.

OBJECTIVE(S):

B. The curriculum in the pilot program will be based entirely upon the Westland High School Mathematics Department Individualization Model.

II. GOAL: Continue progress towards a total curriculum constructed upon the Westland High School Mathematics Department Individualization Model.

A. For each course in the curriculum, complete each of the following by the end of school year 1973-74:

OBJECTIVE(S):

1. Construct an entry level test
2. Revise existing behaviorally stated objectives
3. Correlate each objective with at least three learning activities
4. Correlate each objective with at least three criterion test items
5. Construct pre-tests for each unit of study.

B. As of September, 1973, the number of courses placed on the individualization model will be increased from 21% to 47%.

III. GOAL: Increase student interest in the mathematics program at Westland High School

A. As of September, 1973, the number of seniors enrolled in mathematics courses will be increased by 50%.

OBJECTIVE(S):

B. On a survey of future math intentions in December, 1973, there will be 50% increase in the number of students desiring to enroll in semester courses in computer science, probability, and statistics.

II. DEPARTMENT PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for the program and the objectives for each goal. Use as many sheets as needed.

IV. GOAL: Students will be placed in courses most appropriate for their needs.

A. Ninth grade students will be enrolled in courses based on the results of a prognosis test and teacher recommendations.

OBJECTIVE(S): B. Students pursuing additional math courses will be placed based on prior performance and teacher recommendations.

GOAL:

OBJECTIVE(S):

GOAL:

OBJECTIVE(S):

CJP:hgp
11/24/72

II-A. SUB-PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for each sub-program and the objectives for each goal. Use as many sheets as needed.

GOAL: To improve and increase individualization for Acc. Algebra I.

OBJECTIVE(S): 1. To prepare and file a pretest for each unit.

2. To develop an entry level test.

3. To develop three tests on each objective.

GOAL: To improve record keeping and grading processes.

OBJECTIVE(S): 1. Objectives will be distributed six weeks at a time.

2. Existing methods will be revised and improved.

GOAL:

OBJECTIVE(S):

CJP:hgp
11/24/72

II-A. SUB-PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for each sub-program and the objectives for each goal. Use as many sheets as needed.

GOAL: To continue to work towards individualization in the regular geometry course.

OBJECTIVE(S): 1. To increase use of group discussions as a teaching strategy (lecture teaching will be de-emphasized).

2. To refine the objectives developed during the school year 1972-73.

GOAL: To compile resource material for the regular geometry course.

OBJECTIVE(S): 1. To spend several modules in the IMC compiling resources to supplement the textbook.

GOAL:

OBJECTIVE(S):

CJP:hgp
11/24/72

II-A. SUB-PROGRAM GOALS AND OBJECTIVES

NOTE: List the goals for each sub-program and the objectives for each goal. Use as many sheets as needed.

GOAL: To continue processes towards the total individualization of the block.

OBJECTIVE(S):
1. Increase the number of references relating mathematics and physical applications.
2. Increase the number and variety of media related to the courses' objectives.

GOAL: To sustain a high level of interest by providing a variety of capabilities related to sophisicated laboratory techniques.

OBJECTIVE(S):
1. To decrease student turn around time between data generation and data investigation.
2. To initiate student capability for measuring short time intervals.
3. To initiate student capability for measuring high frequency periods.
4. To initiate student capability for measuring nuclear count rates.

GOAL:

OBJECTIVE(S):

CJP:hgp
11/24/72

III. MODIFICATION OF PROGRAM for School Year 1973-74

NOTE: Planned changes in present program in relation to teaching strategies, staffing pattern, student make-up, and implementation as outlined In I.

Teaching Strategies

The following courses not individualized this year will be next year. They are: Basic; Consumer; Algebra I, Part II; Acc. Algebra I; Acc. Geometry; Acc. Algebra II, Advanced Math; Advanced Math Physics. Course instructional goals remain the same.

Staffing Pattern

One addition to that which is mentioned on page 2 is the formation of a General-Basic combination. Six General classes and three Basic classes will be grouped into six larger classes and moved from Room 603 to 602. Instead of 1 1/2 professional staff teaching as is the case this year, one professional teacher and one full time aid will do the same job. Students, after an entry level test, will start wherever in either course is indicated.

As rationale for this program, the 1/2 teacher released for other work is needed for increased load in the program. One full time aide costs less than 1/2 professional staff. Therefore, we feel that this proposal is less expensive this year with respect to staffing.

During the school year 1972-73, the mathematics department has been successful in making its progress known to the department of mathematics education at the Ohio State University. Consequently, at this writing, three student teachers are working here Winter quarter. By continuing to foster this positive relationship, next year should bring more personnel in student teachers.

Finally, Westland math teachers are striving towards the realization of a continuous progress curriculum following the Westland High School Mathematics Department Individualization Model by school year 1976-77. Teachers are working diligently towards this goal while maintaining full schedules. We feel that our progress to date and our definite plans, stage by stage, towards our goal justify supportive staff to the professional teacher providing typing and filing services. Thus, we request one full time secretary to perform these duties. As further rationale, our excellent media specialist, Mrs. Firooz, is the only one in the building expected to serve two academic areas, math and science. We are presently demanding more than half of her time. The secretary would also work in conjunction with her so that she would be better able to help students.

CJP:hgp
11/24/72

III. Modification of Program (cont.)

Needs Assessment

The needs of Westland High School mathematics students are related to their goal orientations and/or their mathematic aptitudes. Students in the pre-algebra level courses are so enrolled because their aptitude or mathematic background is at a level where additional instruction in basic skill and concepts is needed. An additional need at this level is completion of the curricular requirement for one unit in mathematics.

The consumer math program has been designed to meet the needs of the student whose goals are career-related. Consumer math students are prospective business or cooperative program enrollees.

Students served by algebra and subsequent math levels are pursuing these courses because of needs related to college or technical preparation. The needs of these students vary only as to the emphasis and proficiency required in the specific educational program they plan to enter.

Population Served: Student Make-Up

Courses	Grades	Number Sections	Population	Staff
Pre-Algebra	9-10	8	285	1 1/3
Consumer	9-12	4	133	2/3
Algebra	9-12	24	648	4
Geometry	9-12	9	230	1 1/2
Advanced Topics	12	6	127	5/6
		51	1423	8 1/3
Add one-half teacher for department head time				1/2
				8 5/6

Student teacher ratio still approximately 150/1

Because one of our goals is to increase the number of seniors taking a fourth year of mathematics, three semester courses (listed under advanced topics) will be offered, 1/2 credit each. They are: Probability, Statistics, and Computer Science. Interest has been shown for these on a formal student survey. If successful, they will be opened to juniors in 1975-76 school year.

Also, for the first time, we will have classes from the middle school here ready to begin geometry in the 9th grade.

For the next school year, the level of individualization will be as follows:

$$\frac{\text{Number of Individualized Courses' Sections}}{\text{Total Number of Sections}} = \frac{24}{51} = 47\%$$

This will increase the number of students pursuing their own curriculum.

See next page for Westland High School Mathematics Department Individualization Model, a plan for a future continuous progress curriculum improvement.

CRITERIA FOR EVALUATION (Projected Outcomes)

Objectives:

IA 1. The number of students failing to earn at least one math credit in the pilot block at the end of school year 1973-74 will not exceed 5% of the students served.

IB 2. By September 14, 1973, the entry level of each student shall have been determined and appropriate learning activities prescribed.

IIA 3. By May, 1974 each math course will have a completed curriculum program on file and ready for implementation. The program will include an entry level test, behavioral objectives, behavioral objectives correlated with three learning activities and three criterion test items, and pre-tests for each unit of study.

IIB 4. Forty-seven percent of the number of classes will be operating on the individualization model.

IIIA 5. At least 100 seniors will be enrolled in mathematics classes.

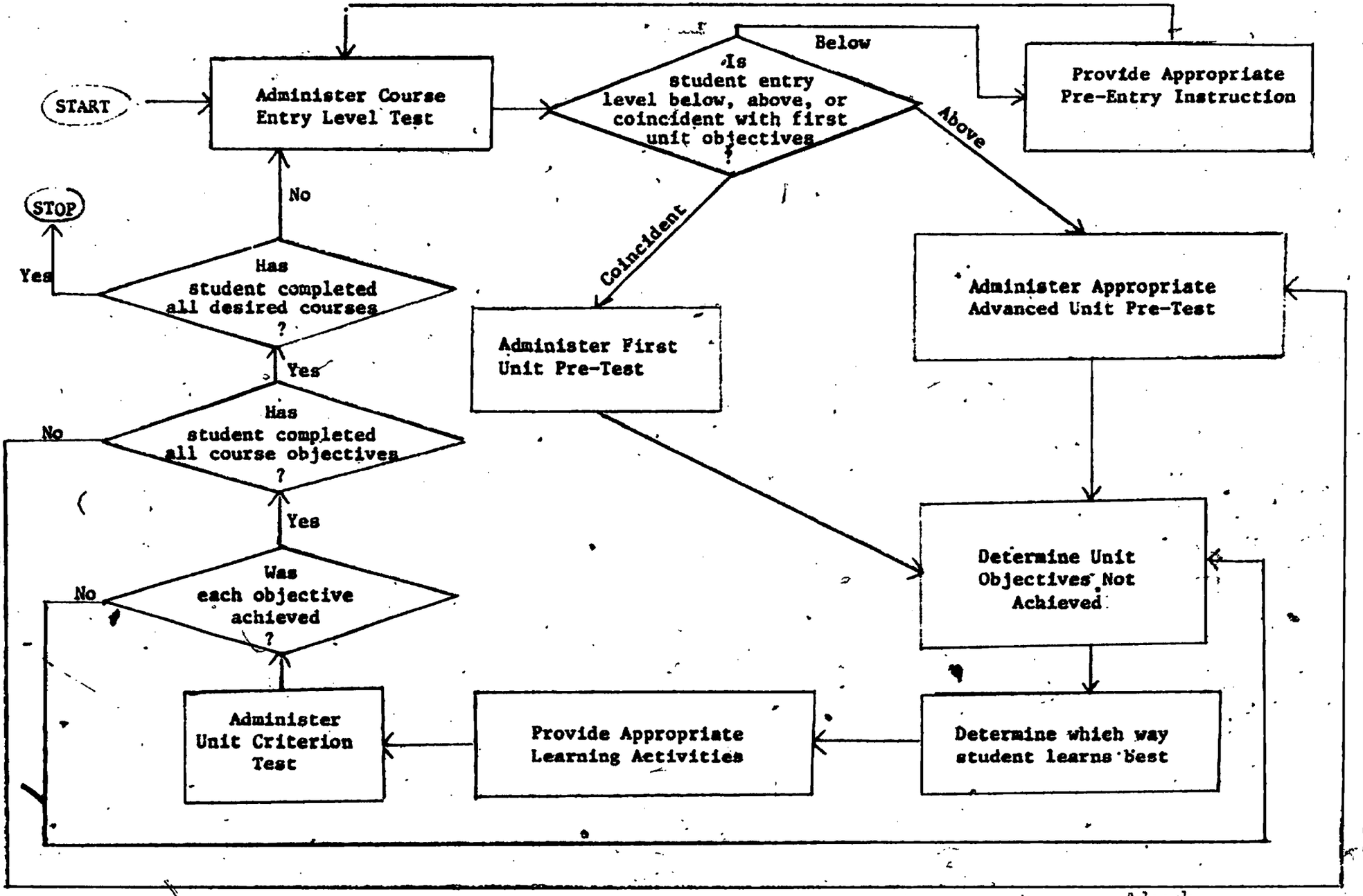
IIIB 6. At least 100 students will indicate the desire to enroll in computer science, probability, and/or statistics for the 1974-75 school year.

IVA 7. The number of freshman students making schedule changes between 9th grade mathematics courses will not exceed 5%.

IVB 8. a. Sixty percent of all students enrolled in accelerated programs beyond the ninth grade will successfully complete at least 90% of the course objectives.

b. Seventy percent of all students enrolled in non-accelerated programs beyond the ninth grade will successfully complete at least 70% of the course objectives.

WESTLAND HIGH SCHOOL MATHEMATICS DEPARTMENT INDIVIDUALIZATION MODEL



Adcock
12/12/72

Modification

ADDITIONAL RESOURCE NEEDS

STAFF: 1 full-time clerk (classified)

1 full-time aid (classified)

1/2 certificated staff for computer science, probability, and statistics

EXPENDABLES: Materials for varied learning activities in ninth grade pilot block; rulers and compasses for geometry classes.

CAPITAL OUTLAY: Classroom tables and chairs; one desk calculator; math typewriter; lab equipment for math-physics block; A-V hard and soft ware for ninth grade block; disc-pack for computer storage; files and shelving.

FACILITIES: Adding use of one classroom for three additional periods.

TIME: None

OTHER: Texts: additional and replacement.

CJP:hgp

D E L E T I O N S

STAFF: 1/2 certificated staff presently teaching basic math

EXPENDABLES: None

CAPITAL OUTLAY: One set of classroom furniture presently used in basic mathematics.

FACILITIES: Releasing one classroom for three periods.

TIME: None

OTHER: None

CJP:hgp

SOUTH-WESTERN CITY SCHOOLS

APPROPRIATION (RESOURCE) NEEDS: REGULAR INSTRUCTION

WESTLAND MATH, MODIFICATION (Program) | 1973-74 (School Year) | 1,423 (Enrollment)

	IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF / ENROLLMENT	DESCRIPTION	SUM of SALARIES / PRODUCT (Enr. X Rate/Std.)	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES		A-16-1	8 1/3	TEACHING STAFF: Professionally certificated math teachers	$75,700.00	100 %	$75,700.00
			ENROLLMENT				
EQUIPMENT, SERVICES, SUPPLIES, ETC.		B 4	1423	Textbooks, High School at $2.21+@	3,150.00	100 %	3,150.00
		B 6	1423	Teaching Materials, High School at .83 @	1,180.00	100%	1,180.00
		H 5a	1423	Furniture & Equipment, new High School at $2.39@	3,400.00	100%	3,400.00

TOTAL APPROPRIATION: $ 83,430.00

ENROLLMENT: 1,423

COST PER PUPIL, THIS PROGRAM: $ 58.63

Albert V. Adams
Committee Chairman

CJP:hgp

APPROPRIATION (RESOURCE) NEEDS: SUPPORTIVE SERVICES/INSTRUCTION

PLEASE NOTE: ALL ENTRIES ON THIS FORM MUST BE CONFINED TO COSTS ACTUALLY ALLOCATED TO THIS SPECIFIC PROGRAM.

WESTLAND MATH, MODIFICATION	1973-74	1,423
Program	School Year	Enrollment

	IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF	DESCRIPTION	SUM of SALARIES	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES				CERTIFICATED: (Administrative & Supervisory)			
				Other (Specify):			
		A-16-1	1	Department Head	11,000.00	50%	$5,500.00
				CLASSIFIED (Specify):			
		A-15	1	Clerk	3,884.31	100%	3,884.31
		A-26	1	Educational Aide	2,948.40	100%	2,948.40
			EN-ROLL-MENT		PRODUCT (Enr. X Rate/Std.)		
EQUIPMENT, SERVICES, SUPPLIES, ETC.							

TOTAL APPROPRIATION: $ $12,332.71

ENROLLMENT: 1,423

COST PER PUPIL, THIS PROGRAM: $ 8.67

Albert V. Adcock

Committee Chairman

CJP:bgp

IV. ALTERNATIVE PROGRAMMING for School Year _____

NOTE: Programming plans to substitute for the modified plan (III) or present program as outlined in I (teaching strategies, staffing pattern, etc.)

The alternative to this modification would be only in the area of the general math block.

Population Served

Courses	Class	Number of Sections	Population	Staff
Pre-Algebra	9-10	11	285	1 5/6
Consumer	9-12	4	133	2/3
Algebra	9-12	24	648	4
Geometry	9-12	9	230	1 1/2
Advanced	12	6	127	5/6
		54	1423	8 5/6
Add 1/2 for department head time:				1/2
				9 1/3

GJP:lhgp
11/24/72

Alternative

ADDITIONAL RESOURCE NEEDS

STAFF: 1 full-time clerk

1/2 certificated staff for computer science, probability, and statistics.

EXPENDABLES: Materials for varied learning activities in basic math and general math; rulers and compasses for geometry classes.

CAPITAL OUTLAY: One desk calculator; math typewriter; lab equipment for math-physics block; A-V hard and soft ware for general math; disc-pack for computer storage.

FACILITIES: Adding use of one classroom for three additional periods.

TIME: None

OTHER: Texts: additional and replacement

JP:hgp

DELETIONS

STAFF: None

EXPENDABLES: None

CAPITAL OUTLAY: None

FACILITIES: None

TIME: None

OTHER: None

CJP:hgp

S O U T H - W E S T E R N C I T Y S C H O O L S

APPROPRIATION (RESOURCE) NEEDS: REGULAR INSTRUCTION

WESTLAND MATH, ALTERNATIVE Program | 1973-74 School Year | 1,423 Enrollment

	IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF / EN-ROLL-MENT	DESCRIPTION	SUM of SALARIES / PRODUCT (Enr. X Rate/Std.)	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES		A-16-1	8 5/6	TEACHING STAFF: Professionally certificated math teachers	79,700.00	100 %	$79,700.00
EQUIPMENT, SERVICES, SUPPLIES, ETC.		B 4	1423	H.S. Textbooks at $2.21+@	3,150.00	100 %	3,150.00
		B 6	1423	H.S. Teaching materials at .83@	1,180.00	100 %	1,180.00
		H 5a	1423	H.S. Furniture & Equipment at $2.12+@	3,025.00	100 %	3,025.00

TOTAL APPROPRIATION: $ 87,055.00

ENROLLMENT: 1,423

COST PER PUPIL THIS PROGRAM: $ 61.18

Albert H. Adcock
Committee Chairman

:hgp

APPROPRIATION (RESOURCE) NEEDS: SUPPORTIVE SERVICES/INSTRUCTION

PLEASE NOTE: ALL ENTRIES ON THIS FORM MUST BE CONFINED TO COSTS ACTUALLY ALLOCATED TO THIS SPECIFIC PROGRAM.

WESTLAND MATH, ALTERNATIVE Program | 1973-74 School Year | 1,423 Enrollment

	IDENTIFICATION CODES: SOUTH-WESTERN PROGRAM NUMBER	IDENTIFICATION CODES: APPROPRIATE ACCOUNT CODE	NUMBER STAFF / ENROLLMENT	DESCRIPTION	SUM of SALARIES / PRODUCT (Enr. X Rate/Std.)	PERCENT PRORATED FOR THIS PROGRAM	APPROPRIATION (Cost for percent allotted this program)
SALARIES				CERTIFICATED: (Administrative & Supervisory)			
				Other (Specify):			
		A-16-1	1	Department Head	11,000.00	50 %	$5,500.00
				CLASSIFIED (Specify):			
		A-15	1	Clerk	3,884.31	100 %	3,884.31
			EN-ROLL-MENT				
EQUIPMENT, SERVICES, SUPPLIES, ETC.							

TOTAL APPROPRIATION: $ 9,384.31

ENROLLMENT: 1,423

COST PER PUPIL, THIS PROGRAM: $ 6.59

Robert V. Adams
Committee Chairman

CJP:hgp

GLOSSARY;

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G L O S S A R Y

Accountability - Subject to giving an accounting or being answerable for agreed upon results in relation to effort and resources.

Alternative - A procedure (et al) for achieving program goals and objectives.

Budgeting - In PPbS - The development of a budget which ties costs to programs and objectives.

Consensus - General agreement or collective opinion that a need is valid and must be met.

Constraint - Limitations imposed by law, public attitudes, political considerations, school policy, staff availability and capabilities, available funds, or other factors.

Effectiveness - The degree to which an objective is achieved.

Entry Level - The level of performance at which a person or group enters an activity.

Goal - A broad statement of intent that is not measurable.

Implement - To carry out the daily tasks of the program, as planned and programmed.

Inservice - The training before and during an activity which is necessary to successfully carry out that activity.

Needs Assessment - The discovery of deficiencies by the use of an instrument or other means.

Object Budget - A budget structured according to inputs, or objects of expenditure, such as salaries, textbooks, travel, equipment, supplies, interest, insurance, etc.

Objective - A specific statement of intent which is measurable.

Planning - The determination of desired results and of alternatives, procedures, and resources to be used to attain those results. Planning is concerned with establishing ends (goals and objectives) and means (procedures and resources) for an organization.

Planning-Programming-B(b)udgeting System (PPbS) - A systems approach focusing on setting goals and attaining objectives in an effective manner by making efficient use of available resources.

Program - An activity containing goals and objectives supported by procedures and resources.

Program Budget - A budget which presents the costs for programs listed in the program structure.

Program Committee Chairman - The person responsible for a specific program proposal.

Program Evaluation - A systematic process for determining the effectiveness of a particular program or program objective based upon a comparison of actual results with planned results.

Program Proposal - The document which presents the program prospectus.

Program Structure - A framework providing for a classification of all the programs of an organization.

Programming - The structuring and documentation of programs.

Rationale - The obvious and underlying reasons for conducting an activity.

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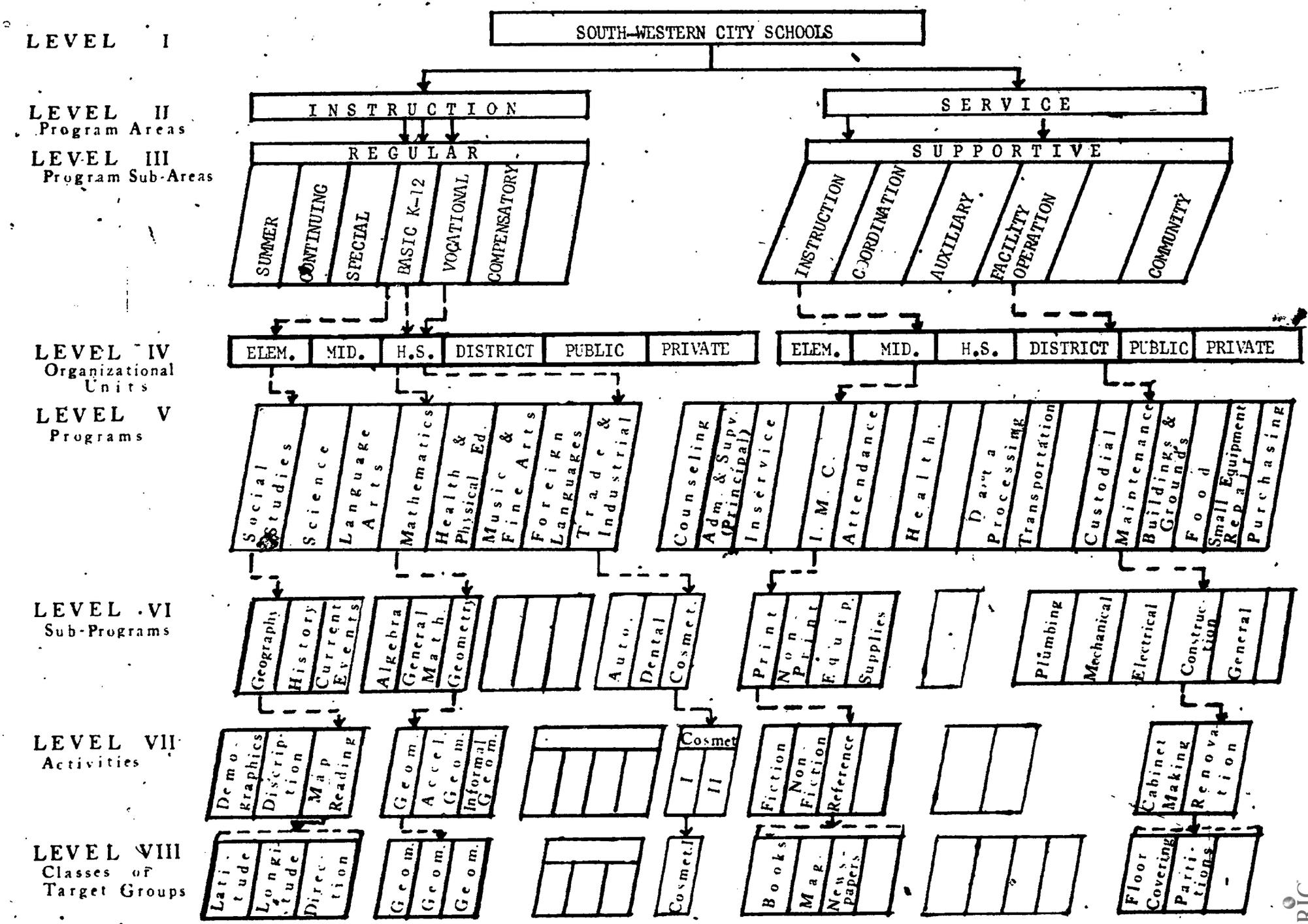
APPENDIX

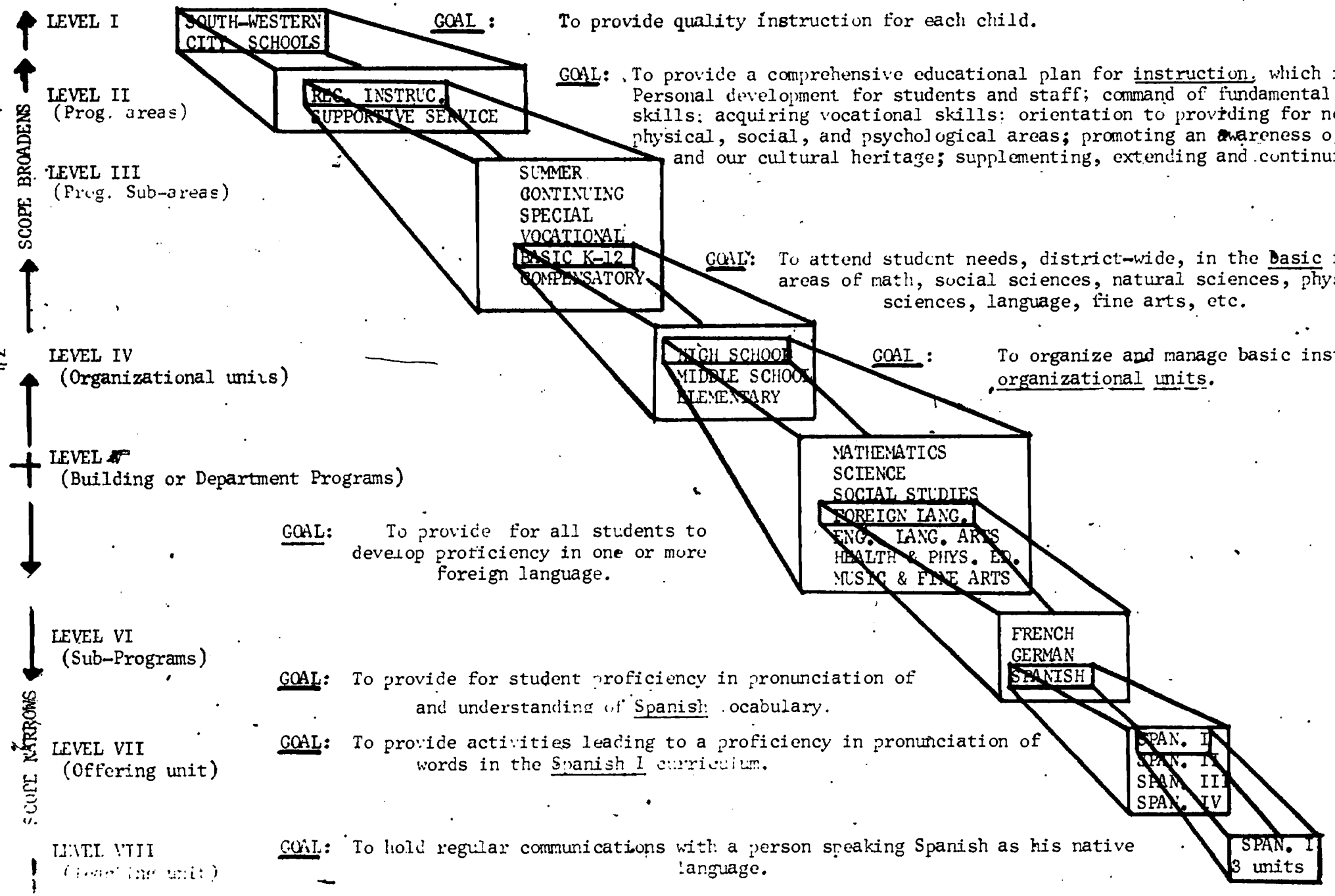
PROGRAM STRUCTURE

APPENDIX A



Note: Arrows indicate top down planning - reverse arrows for bottom up planning

GOAL STRUCTURE



GOAL : To provide quality instruction for each child.

GOAL: To provide a comprehensive educational plan for instruction, which includes: Personal development for students and staff; command of fundamental intellectual skills; acquiring vocational skills; orientation to providing for needs in physical, social, and psychological areas; promoting an awareness of the world and our cultural heritage; supplementing, extending and continuing education.

GOAL: To attend student needs, district-wide, in the basic instruction areas of math, social sciences, natural sciences, physical sciences, language, fine arts, etc.

GOAL : To organize and manage basic instruction within organizational units.

GOAL: To provide for all students to develop proficiency in one or more foreign language.

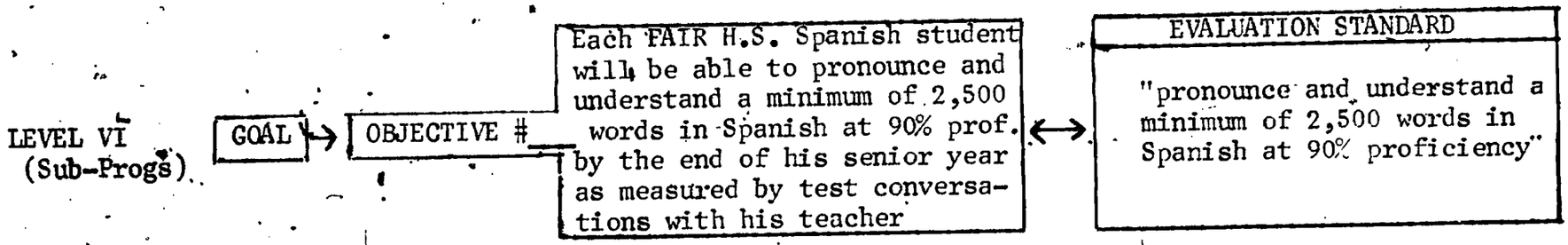
GOAL: To provide for student proficiency in pronunciation of and understanding of Spanish vocabulary.

GOAL: To provide activities leading to a proficiency in pronunciation of words in the Spanish I curriculum.

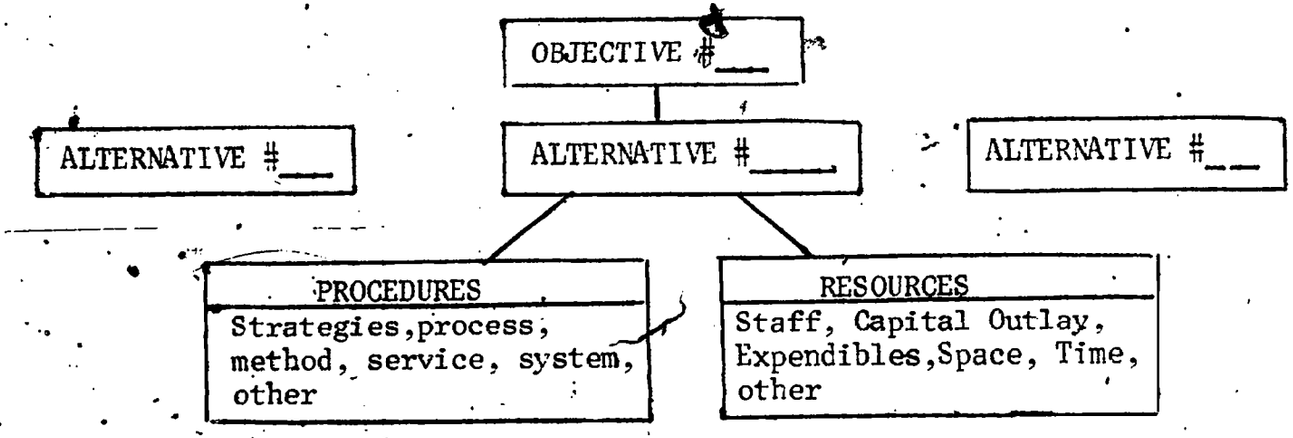
GOAL: To hold regular communications with a person speaking Spanish as his native language.

Appendix C

EVALUATION MODEL



ALTERNATIVE MODEL



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POSTSCRIPT

In any analysis of a complex subject the jargon clouds the message and numerous ways of presenting a point of view, structuring forms, and arranging the format are possible.

In this booklet an attempt has been made to present the "Why" and "How" of fullfilling professional obligations for accountability. Part I is addressed to the "Why" and Part II to the "How".

In bringing about accountability people and systems are important factors. People assess the need, consent to meet the need, and contract to be responsible for specific standards of performance. This performance is best accomplished by using a systems approach (PPbS).

The mechanics of this system are (1) documenting programs, (2) setting goals, (3) developing objectives, (4) studying alternatives, (5) implementing programed plans, and (6) conducting evaluations.

Managing by objectives is considered by many to be the core of the system. The title is different but the parallel to PPbS is obvious. Objectives operationalize goals - - the specifics (variables) of <u>who</u> will accomplish <u>what</u> behavior at what <u>proficiency level</u> (standard) as <u>measured</u> by what <u>means</u> within what <u>timeframe</u> are given- - specifics permit more precise measurement of results - - the reasonableness of standards can be determined by analysis of the specifics - - achieving standards requires studying effective ways to implement within a prescribed timeframe - - the standard to be evaluated and the method of measurement are stated in advance.

The final evaluation results in a documented report. With this information people can systematically account for what they are doing and how well they are doing it.