A systems approach has been used to assess the needs of the education process and the purposes and roles of the members of the learning community. Roles have been interfaced and overlapped in the learning community. How the components of the model influence and change each other has been evaluated. Premises, assumptions, and constraints have been delineated; they have been used to establish objectives for the learning center and its components. Feedback and monitoring are crucial aspects of the learning center model for both evaluation and adaptation of objectives and function. The learning center would join together people, talents, and resources with a common purpose: educational development. (Author)
THE LEARNING CENTER

a collaborating model for

EDUCATIONAL DEVELOPMENT

Mary Batchelder Koch
The Reference and the Need

Sources for this paper include theories and practices concerned with the need for or the building of organizational links and channels by setting up collaborative relationships between the Federal and state governments, university and teacher-training institutions, the local schools, the community, teachers and their professional associations and students.

These channels, as I envision, would be two-way, correlating service, knowledge and information, communication and dissemination, research and development, all phases of educational personnel training, curricula development and adaption, products and materials.

The premise—single-pronged, imposed efforts of educational development are futile. Filtering down, they diffuse to a waste of time, money and resources.

Seventeen years of teaching in public schools—every grade K-12, one-room rural to inner city schools and nearly every subject have worn a deep groove in the “If Only I Had a Way” sound track—a way to find out, to get help, to understand, to learn more, to talk to or to help someone else.

Of course, there are journals, magazines, courses, organizations—often so specialized, not-easily accessible, irrelevant or unconcerned with the actual work of the classroom—or so time-consuming and comprehensive that a cost/benefit analysis causes the effort to stop or become casual and noncommittal.

And, too, a teacher who is committed to making a difference to his pupils, finds little time and energy left to become an education joiner, leader or organizer for change. Often, these teachers are viewed suspiciously by their compatriots. And, one hears, “I wonder what the kids are getting while he’s empire building”.

Committed, conscientious education personnel often become the most isolated because their pupils and their schools fill most of their world.
But, these people, if convinced that they could "help their kids better" through involvement in an easily-accessible service, information, dissemination and training mechanism, would be there.

Have gratification waxed strong when words like "teacher power", "teacher potential and underutilization", "teacher and school involvement a must", "education reform accomplished only by the people who know the schools and pupils the best" provided the unifying theme through every theory and practice report.

Indeed, setting up collaborative links for teacher-training, dissemination and utilization of knowledge and field-agent servicing were being studied, discussed and tried. The need for teacher/school service is recognized; but the project met small success because the service agent lacked the necessary support mechanisms to be all things to all people. Many are single-pronged, imposed efforts paying lip-service to teacher-involvement. Some renewal and training efforts are sandwiched between serving disadvantaged children and changing teacher methods. One conference where teachers were brought in to "brainstorm" about their needs was noted. One paper noted how difficult it is/as to involve local teachers and schools in education reform and improvement.

If commitment and dedication to make things better has to come from the people who are to be changed, improved or trained, then mechanisms first must be instituted for that to happen. First things have to come first. Crisis-oriented haste to make something happen must give way to comprehensive planning.

Building effective two-way collaborative links between all subsystems comprising the education enterprise is necessary before significant reform will occur. And mechanisms for assessing needs, serving, training, communicating, and evaluating must be implemented "where the action is" by the people involved with the action.
The Learning Center model proposed in this paper might be the vehicle for education development, innovation and reform. It would join together people, talent and resources with a common purpose—learning.

My only fear is that my systems-building and communication skills will belittle the need.

Mary Batchelder Koch
Education is beset with critical problems...where we're going and what we're doing and how we're going to do it. But, my contention is that we cannot begin to solve these problems, even analyze them effectively, until we institute mechanisms for members of the education community to talk, plan and work together. This must be a "bottom up" effort utilizing the vast human resources in education.

Once out of the cottage-industry stage, we can focus collaborating expertise and resources on solutions to problems strangling the efforts now.

The Learning Center model proposed in this paper does this. It takes the splintered efforts of the state, research institutions, teacher-training institutions, the schools, educational practitioners and the community and melds them into a collaborating mechanism which reinforces and complements the efforts of each. It links and utilizes the largest and most potentially useful segment of the education enterprise...the education practitioner.

A systems approach has been used to assess the needs of the education process and the purposes and roles of the members of the learning community. These roles have been interfaced and overlapped in the Learning Center model so they complement and reinforce each other. How the components of the model influence and change each other has been evaluated. Premises, assumptions and constraints have been delineated. These have been used to establish objectives for the Learning Center and its components. Feedback and monitoring are crucial aspects of the Learning Center model for both evaluation and adaptation of objectives and functions.

The Learning Center would join together people, talents and resources with a common purpose...educational development.
The amorphous mass:

People speak glibly, profoundly, expertly, accusingly. They mislead each other. Yes, education is the biggest enterprise in the United States with a budget approaching one hundred billion dollars a year. Yes, the "schooling" industry makes up six to seven percent of the national economy--up from three percent thirty years ago. (Boulding, p.129) And both educators and the public build a General Motors image in their minds. Anguish and analysis follow change efforts one after the other. Educators continue to mislead when they rationalize away the notorious lack of productivity with the "art and craft" mystique of teaching.

Education is not an enterprise or an industry...it is thousands of small cottage industries headed by semi-autonomous school boards with thousands of other "feeder" institutions. Nearly all work with little knowledge of, concern for or collaboration with each other. They may even be working at cross purposes. So education cannot be considered a collective enterprise in the sense that there are common goals and collaborative links or channels. No wonder that "top-down" innovations or change efforts fail. They are dissipated before they get anywhere. Because there are so few collaborative links between members and institutions participating in the education enterprise, the whole splintered effort is reduced...to the detriment and waste of the learner.

The scope and complexity of the education enterprise is so massive and incoherent that it must be organised, not re-organised, from the bottom-up...not from the top-down. Or human resources, effort, time and money will waste away to mediocrity.

Building a setting of need for Local Learning Centers is difficult, not because the need is not overwhelming, but because the number of educators and laymen each discussing some phase of the need, is so great that the mountain of evidence becomes a massive collating problem.
Some of education's leaders and critics are talking about needs of education management, some curriculum, some finance, some systems analysis, some the learner, some the teacher, some teacher-training. Others are discussing needs for innovation, change, reform, information and dissemination, research and development, service, accountability, differentiated staffing, specific objectives. Most of these people take their particular analysis and emphasis of educational need out of context from the whole real school world and exaggerate their perspective.

Education change agents are trying to build collaborative links between participants in the education enterprise between teacher-training institutions and the schools—Teacher Training Complexes(Task Force 72). Others are examining resource and dissemination links(Havelock). And others are working at service to schools and teachers.(Lewis) Most of education's leaders are discussing the need and urgency for involving education personnel in the overall effort, but 99% of the persons making practical attempts to build links are not doing so. Worse, they continue to pay lip service to the effort.

Building single links rather than a network of collaborative links will be like using a thread to anchor a ship. In addition, it will have little impact(soon dissipated), distort the perspective and overstate its "case".

Is changing the "system" being studied and urged? Yes.

Destructive role of the non-system:

Thoughtful people are urging drastic reform and questioning the social and economic organization of the entire process. To a man, from education's leaders to the bewildered man on the street, everyone wants to change something in the rigid, amorphous mass called the "public education system". Education is the most labor-intensive enterprise in the country. Yet, almost no one, including the teachers, believes the service is adequate.
Models for changing the system always stop short of the local school board. Fear of impinging on or corrupting local control lets thousands of local school boards continue the education effort with little direction, support or aid...perpetuating the cottage industry. Admittedly, a few are housed together and loosely correlated for financial and administrative expediency. If these vast financial and human resources could be marshalled with systematic complexity rather than amorphous complexity, local control and participation could be exploited to magnify the effort. With a network of collaborating, clearly-defined channels to work through, local control could be effective...to the advantage of the learner. The present mass is like a hard, dry sponge, soaking up more and more human and economic resources with few observable effects. Droplets from "above" in the form of innovations, money, curriculum efforts, training disappear when they hit the sponge. Force exerted on the sponge by pressure groups, change agents or national emergencies has little impact.

The major forces in the education universe operate with little or no effective concern for each other. (Loughary) "Education must focus on the relationship of things within the education system, between levels and internal working parts and between the education system and the environment." (Coombs, p.166) Future development of education systems must not be sporadic and uncoordinated. They must stop the duplication of effort (Loughary)

Not surprisingly, more thoughtful people find big holes in the sponge. There are no institutional linking mechanisms between government, research and training institutions, schools, education personnel and the local community. Education lacks closely-linked agencies. They need reconciling of approaches and products, testing to demonstrate effects, infusion of new knowledge and modification of products and how to use these in the real-world education system (Ward)
There are no strong links between education, research and the practitioner. (Ward) The prime task of knowledge utilization is to link research, development, practice and user subsystems. (Havelock) Education must build organization links to facilitate the flow of knowledge into practice; they must accelerate education improvement through the activities of a catalyst organization. (Ward) Because much of the educational research is done out of context, it has little value for the real-school world. Education needs an infusion system where new ideas and innovations based on research can be tested and implemented.

Education needs a better manpower delivery system (Smith, R.) They must modernize education management. (Coombs) After teacher-training institutions fill the trainee with concepts and theory, there is no effective mechanism which supports him or aids his skill development while he's learning how to teach.

There are no processes and mechanisms in education for continuing feedback, modification or adaptation. There is no quality control. The present system militates against productivity. There is no reward for doing things better.

No effective vehicle exists for education personnel to share experiences and pool what they do know. They need to work together to accelerate and improve the education process. There is no service mechanism for the practitioner or school which can provide diagnostic or consulting advice when they need it where they need it.

Education has no mechanism for keeping abreast of desirable ways to progress and change. They need to collect, store and distribute information. (Smith, R.) The practitioner in the local schools must be meaningfully related to outside sources of knowledge. Education improvement depends on an adequate diffusion mechanism. (Cuba & Clark, p.5)
Education has no mechanism for originating, disseminating and validating innovations. (Ward) It spends relatively no money on planning, research and development. Education personnel have no effective decision-making tools for evaluating innovations. As a consequence of the highly decentralized governing and financing, it takes twenty years to incorporate education change. There is no mechanism for accelerating the process unless we can find ways to get education practitioners, the community, and schools linked to knowledge-building and product-developing agencies.

The education enterprise is not "tooled up" for change. Let's review a few efforts to change education processes. The Federal government has spent a hundred million dollars developing new science and math curricula, with some additional effort to change teacher's methods and advance their professional development. The Office of Education is spending nearly seventy-five million per year to improve education programs, facilities, methods and to fund analytic task forces. A statement from SEMAC, an ERIC Center newsletter summarizing research on the effectiveness of individualized procedures in the new secondary math curriculum sums up the whole massive effort exquisitely.

"Various types of procedures which attempted to individualize instruction in various ways for various groups of students were studied. Because of the variability, it is difficult to make any generalizations." (V-4, No. 2, p. 1)

You may substitute any or all of the efforts for the word "instruction" and substitute to or for whom/what for the word "student"....and you have said the whole thing over and over again.

Faith, not results, has kept the money and the human resources pouring down. And as the results filter in, the emphasis of change shifts. Plans center around crisis responses, not long-range developing.

We've come through the grand curriculum efforts of the 50's and 60's... first science, then foreign languages, then math, then English, then social studies.... Classrooms, storerooms and teachers were soon chock full with
facilities, gadgets and methods. But, if these efforts made the vast mass self-conscious, aware of its need to change things, it may still be worth the money and the effort. But, has it become ready to change itself?

The curriculum efforts did not stop, but the emphasis switched to Equal Opportunity...Head Start, Advance, Rocket. Millions poured down to develop and implement programs for the disadvantaged and culturally-deprived learner. These social schemes appealed to nearly every American, but, they didn't make "significant differences" in learning. And learning is supposed to be the business education is in. The Right-to-Read programs switched emphasis slightly, but, kept the spotlight focused on the disadvantaged, because that's where the money was. It has done little except organize.

The major impact of all these efforts has been the appalling failure and difficulty of changing teachers' methods. All kinds of "teacher-proof" products have been proliferating the education market. They haven't worked either; the only was to the learner is through the teacher. The inadequacy and incompetency of the teacher is now taking its turn at receiving the unflagging efforts at improvement. Performance-contracting efforts crept in for a brief try. Teacher Training Complexes (Cohen & Schneider reports) and education renewal (in-service training) are the new watchwords.

Three encouraging factors are surfacing with this effort: Change cannot be imposed; it requires the motivation, involvement and participation of the people involved. Second, no one can do it alone; all the splintered efforts of the education enterprise must collaborate with a common purpose. Third, channels will have to be opened and links established to effect any difference. The most critical factor is the involvement and collaboration of education personnel in their own professional destiny. It is being inundated with lip service, but little action.
Rather naturally interest began to develop in studying change itself, people were committed to the value of their efforts; they were goal. Why didn't they infiltrate through the system? Joseph H. Ward in "The Educational Catalyst: An Imperative for Today" offers three reasons why innovations have failed. Merchants oversell their products. Teachers do not resist innovations. Second, innovations displace the orderly and fossilized classroom activities preoccupied with where the teacher is the record-keeper, the traffic-manager and the time-keeper. Third, educators are not goal planners. Both, neither were they involved in assessing the need, planning and developing the programs or in evaluating and modifying them. This may be the major reason innovations made little difference.

And education scholars and researchers began to make models for promoting change. (Guba, Giesert, Havelock). Giesert in developing logical steps for a self-renewal model brings up the increasing pressure to change the education process. But, he states, to reform we must know how to institute change. Ward insists that education must accelerate improvement and reform through catalyst organizations because there must be interaction between education personnel and new ideas. Ronald G. Havelock in Planning for Innovation maintains that education may have to focus change on the structure. He discusses models for change—tthe research, development and diffusion model; the social-interaction model and the problem-solver model. (Should they, or can they be realistically separated?) Havelock stresses that in models for change:

the user must be related to outside sources of information and ideas
there must be contact and interaction to get relevant help
there must be reciprocal relations with the resource system
the research system must stimulate or recapitulate the need-reduction cycle of the user.
the system must interact with the user in developing solutions, then learn if the model is correct
interaction will build a relationship of reciprocity and collaboration by legitimising the role of the consumer and resource person by building a channel.
there must be a chain of knowledge utilization to the university.
A planning and development council has been suggested to increase participation, commitment and responsibility in education and to facilitate the development of education policies. (Larson)

Education appears to have mechanisms for doing very little except remaining static and rigid. Education's non-systems and its failures have precipitated the need for developing models for change. But, we must be careful to keep the focusing on the education enterprise and the education process itself.

Piecemeal improvements or changes—imposed, infused, aimed at one sector of students, teachers, schools or programs should no longer be contemplated or tolerated. Paul Alper sums up the situation when he states that short-term crisis solutions imposed on various segments of the education complex must be replaced by long-term planning for innovation.

A model for change must provide good results in the real system. And, at this point most of the statements about changes the "system" needs or what it lacks are truisms. It is time to begin developing and implementing practical, working models which can be tried, evaluated and modified.

More thoughtful persons are studying the roles and the need of various sectors of the education enterprise; how they can complement and reinforce each other, how they could and do not collaborate.

The role of state government in education:

The MACE Report sponsored by the Massachusetts Advisory Council on Education emphasized that the state has the constitutional authority and the responsibility to seize the initiative in education improvement. (Gibson) The state must accept, not abdicate, its responsibility for assuring quality education. Its role must include more than enforcing regulations and channeling Federal funds.
The NACE Report coincides with what many of education's decision-makers are saying about the state's role. The state must:

- provide diversity in leadership.
- provide organization and support.
- provide financial support.
- set minimum standards and quality control.
- establish long-range planning.
- conduct and cooperate in research.
- stimulate innovation.
- assist in evaluating results.
- develop good information systems.
- provide incentives for excellence.

A report on cooperative teacher education centers between the state department of education, teacher-training institutions and the schools in Maryland stresses the need to involve the state in teacher education. (Behling) The state's role as a leader, partner in change, advisor, arbitrator, catalyst and facilitator is essential to effective improvement. The Delaware state department has cooperated with colleges, universities and the schools and community to effect and institutionalize change in science education through a systems approach. (Purnell, p. 37) Traditionally, the only role of the state in curriculum was to control and regulate the books used.

Some states—like Oregon, Texas and Wisconsin—are collaborating with training institutions and schools to set up training complexes with service components. (Schneider, Task Force '72) A few states are beginning to perceive a strong participating role, while others are letting the Federal Office of Education and training institutions institute training efforts with the schools. South Carolina, Utah and Oregon have piloted educational field agent projects, with a service and resource role. (Poliakoff, p. 23) Others, like Massachusetts and Michigan are reconsidering their regulatory role with studies on differential certification. More are becoming aware of their leadership function to provide their schools with clearly stated goals and specific objectives.

The NACE Report stresses the state's role in consolidating and coordinating
the efforts of the education subsystems within the state and to focus them on the learner. They must also utilize all the human resources in their education enterprise.

Many are taking the state's role apart and setting up models and projects for fulfilling some segment of that role. We must take all the state's responsibilities and correlate them into one effective, cohesive system which will allow its roles to reinforce each other. The state has the responsibility and the authority to insure the maintenance and support of a structure which will provide equal and quality education services for each pupil in every public school.

The role of local schools in education:

The schools lack the same mechanisms and collaborative vehicles the larger enterprise does. But, it is they who stand on the "firing line". They have been rather ineffective pawns in the improvement movement. They bear the brunt of community wrath. They reap the frustration, futility and isolation of the teacher. And they are guilty when the pupil does not learn.

Local schools themselves must become equipped with the means for educational development. The process of planning, innovation and evaluation must become institutionalized. We must develop the methodology and mechanisms for designing local education change...but the major responsibility for change belongs to local educators. Educators must develop a capability for research and development programs.

Simmonds and St. Lawrence identify externally-imposed change without regard for specific local needs as a critical weakness in designing local education changes. They point out that change through an external agent may be adopted but not adapted. Coombs supports this statement. "If proposed innovations come into a system primarily from an outside source, they may be politely received, but then quietly shelved."(Coombs, p.167)
Local schools have a responsibility to actively participate in training potential teachers. They gain the most when they hire a competent, well-trained teacher, the training institution has been paid and today that teacher is paid the same as an ineffective one. They have a responsibility to their pupils and the community to maintain and improve the skills of their staff.

Schools must institute monitoring and quality control processes for all phases of their operations and their personnel.

They are directly responsible to the community and the learner for providing quality education services.

The MAGE Report quotes John Gardiner, New York Commissioner of Education, who contends that within twenty-five years (from 1967) educational facilities will need to be designed and remodeled to permit flexibility for changing curriculum patterns and personal mobility. (Gibson) Couple that with the increase in knowledge, technology, techniques, differential staffing and individualized learning and one must conclude that every local school must be "tooled up" for changing. They must be leaders in their own educational development, with extensive support and service mechanisms.

The schools as institutions must collaborate with the state department of education to specify objectives for their services. They must collaborate to ensure their personnel the necessary resources, service and support to provide learners with quality education. The schools must aid researchers and developers to study the needs of the learner and to identify essential factors in the teaching-learning process. They must help their personnel solve problems. Their personnel must have time to plan, develop, adapt and evaluate programs.

Schools must utilize their human resources. They have the major responsibility to make learning a life-long process.
The impotent teacher cycle perpetuates mediocrity. No one states that the teacher, the largest single input into the education enterprise, is impotent; but, nearly everyone, including the teacher, implies it. And it's true.

Teachers "must accept...accountability, performance contracting, change. Teachers are conformist, middle-of-the-road people who resist change. Teachers do not have a chance to be modern and keep up. (Coombs)

Teachers are tired of being "done to", suspicious and resentful of new panaceas. Teachers have little voice in curriculum development, little control and little responsibility...therefore, little investment in their job. Teachers need to be working on their own problems.

"Teacher-proof" products, curricula and materials are the final insult. (Koch)

Teachers are not aware of alternatives...just advertising. Teachers are not involved in change...just there to be changed. Teachers are not teaching what is relevant to students' needs. Teachers need to be heard more. (Sabine)

Teachers are not given real strategies for measuring or observing what makes a difference.

Educators stress the influence and importance of the teacher in one paragraph. They attempt to move through, around or change him in the next. Then everyone condemns him in the summary when the latest panacea or social change effort does not make a significant difference. It is a vicious cycle.

Teachers take little comfort in the adage "once a teacher, always a teacher", only a teacher. They feel they have low esteem and receive little reward for their efforts. According to a study done by Ser...and, job satisfaction focuses on the nature of the work. Dissatisfaction focuses on the conditions surrounding the work. (Ebel, p.1396) Poor teacher morale appears to be connected with work-related conditions. Achievement, recognition and responsibility affect job satisfaction...and teachers receive little of these when they do earn them. Still, most teachers in the Sabine poll would not choose another profession the second time round.

The capabilities of our teachers limit the capacity of the education "system" to sustain, develop and innovate learning. (Clayton) It is the
teacher who works directly with the learner, no matter what technology is involved. "Devices such as curriculum revision and pupil reassignment that schools can use to bring about change have less effect than the almost uncontrollable, but infinitely more important minute-by-minute relationship between teachers and pupils." (Carnegie Quarterly, p.4) Therefore, it is the teacher who must have the skill to control, diagnose, analyze, process and assess.

It is the teacher who can explore the relationships between student performance and other variables affecting learning. "The classroom teacher is probably the most underutilized resource for change and improvement in American education." (Schaefer, p.1) And, teachers are the most expensive and important input into the labor-intensive education service.

It is the teacher who must be committed to life-long learning for himself first. Teaching is perhaps the most complex task society has ever set for man. As such, education personnel must have a system for knowing and utilizing the accumulated expertise in human relations, systematic planning and the teaching-learning process so they can help the learner effectively.

Teachers and the professional associations which represent them must make new demands on themselves and on the "system" if they are going to break the "impotent teacher" cycle and participate effectively in the education enterprise.

1. They must demand active involvement in education decision-making and planning, in developing and implementing, and in assessing needs and evaluating schools, programs, processes.

2. They must demand support and service functions (information retrieval and dissemination, skill development, applied research and development, problem-solving aid) necessary to work efficiently in the schools with the learner.

3. They must demand performance-based training and a greater range of concrete learning experiences.

4. They must demand time...to change, to plan, to innovate, to evaluate. They must force the "system" to recognize that they must be involved as partners in the education enterprise.
5. They must set performance standards for education personnel and take the lead in doing so.

6. Then, they must demand to be held accountable and responsible for their performance, and set up self-policing policies.

**What teachers are saying they need:**

Most of the comments listed below were culled from several discussions with other teachers about the Learning Center and from the Sabine poll of 2900 teachers. If institutions in the learning community listened to teachers and were familiar with the real school world, they would find direction for teacher-training and research. Education personnel can be objective about what they don't do, can't do or need help to do.

1. help in dealing with learning problems and disruptive students
2. more communication skills, how to talk to kids
3. more involvement in planning and running the school...administrators don't know what's going on.
4. how to use teacher aids and volunteers
5. better interpersonal skills, how to motivate and get along with the kids
6. encouragement and assistance in trying new things
7. skill in asking questions and developing concepts
8. more skill in knowing what a learner can do, measured against what he is doing.
9. need to know what they're supposed to accomplish
10. what's new...in learning, materials, curriculum
11. need to get "cut from under" the patrolling and clerical work
12. should see the parents of the kids who need help, more parents should know what goes on in the schools
13. need to get the "do nothing" culled out of teaching. Over half indicated resentment that these people received the same pay for doing nothing.
14. consistent standards for both teachers and kids, would help everyone's morale.
15. would like to know what's going on in other departments, schools, with other teachers
16. need a sense of humor
17. how to do things, find things for the kids that were good for learning and interesting, takes so much time to hunt down a few things
18. no more education courses, take in self-defense to get the raise, but consider them a waste of time

It is significant that not one teacher mentioned the need for more content courses in his subject matter field. Equally interesting were the comments about education and in-service courses. The NDEA sponsored study to follow-up
Summer institutes for teachers indicated there was no change in teacher behavior after the program, in other words, the teachers didn't do things in the classroom differently after the course. (Perloff) However, teachers most appreciated the opportunity to exchange ideas and share experiences with other teachers, the staff and specialists.

The proposed Learning Center would establish the mechanism for utilizing this pool of human resources and talent to control their own professional destiny and to affect significant learning changes for themselves and their pupils. They would actively participate in the education process. They would be provided with the service and support necessary to function in increasingly-technological education world. Knowledge is power...and the information and the resources would be accessible.
Role of education personnel in education:

Every person directly involved with the learner must become a partner in the education enterprise...actively participating in, and committed to educational development. The James Report for the British Department of Education and Science recommends the involvement of teachers in the whole education process from participating in pre-service training to sharing in educational research. Dr. Don Davies, Deputy Commissioner of Education considers the individual teacher the most important force for meaningful curriculum reform. (Cohen, Ad Hoc Report) He states that we must search for new ways to involve teachers in planning.

Underutilized teacher power to effect educational development must be released and exploited. And, as Charles Silberman in Crisis in the Classroom suggests, "because they're light years ahead of theorists and researchers". Education-trainers, researchers and learning theorists cooperating and collaborating with education personnel and using what they know can accumulate knowledge of the whole teaching-learning process. "Classroom teachers must become partners in developing, implementing and evaluating programs that relate to the teaching-learning process--including teacher training and education research and development." (Schmeider, p.2)

Teachers are "the agents and implementers of any educational enterprise, the ones who know first whether something will or will not work". (Schmeider, p.1) Information and knowledge do not just filter down and through the teacher, and the only way to the child is through the teacher. "Nothing is any use for pupil learning until teachers know about it, understand it and use it." (Dr. Fletcher G. Watson) Of all the factors that constitute a school, the teacher is the single most influential. (Modi) "It is the educators in the schools who can make the school truly effective--an environment in which quality education can take place." (Gibson, p.34)
Chesler and Barakat report that teacher participation in the policy-making process of schools leads to less alienation, greater sharing of ideas, possible better teaching and possibly greater receptivity to change. (Havelock, Ch. 5, p. 5) Individuals who have control over their own work will be more committed to and satisfied with functions they are required to perform as well as with the final product. "The critical variable of teacher change is choice." (Havelock, ch 4, p. 23)

Teachers must identify with change, the education process and continuous education development. "Innovation must fit the need; the user must feel the need." (Havelock, ch 4, p. 7) Competent teachers may resist change from outsiders in an attempt to assert their own feeling. (Havelock) "Major changes in education are the responsibility of the teacher." (Razik, p. 34)

Everyone is "talking" about the strong, collaborative role of teachers in the education enterprise and in educational development...but there is now no way to make it happen. There is no mechanism or vehicle between local schools and their personnel to collaborate with knowledge-builders, researchers, teacher-trainers, education's leaders and planners. No integrated services exist to provide decision-making alternatives. There are no facilities for collaborating with research and development efforts. Resources and information necessary for evaluating and modifying programs to meet the needs of learners are not accessible.

The proposed Learning Center would effect these channels.
Meeting the needs of education personnel to effect educational development:

Providing teachers with interaction and communication links could help remove one of the most excruciatingly frustrating experiences of teaching... being isolated from knowing what others are doing, being insulated from others' problems and solutions and being unable to fit your activities and problems into the wider perspective of the education process. Sharing experiences and exchanging ideas, besides reducing frustrations, could provide teachers opportunities to learn from each other.

Communicating with members of the community, parents and other school personnel could lead to better understanding of and confidence in the whole education complex.

Teachers have few readily accessible information and knowledge centers which could provide them with procedures or guidelines for decision-making. They seldom have available all data relative to an issue, problem, or a program. Random, unevaluated adoption of innovations not specifically adapted to students' needs must be stopped. (Ward) Education personnel need detailed assistance and systematic planning for improvement. They must have resources and facilities to meet increased responsibility for research, development and evaluation.

Education personnel must have open avenues for seeking alternatives and solutions. They must have assistance available when and where they need it, assistance that is supportive, knowledgeable and non-threatening.

They need to have a readily accessible mechanism for continually upgrading their knowledge and skills, to keep abreast of technological changes, and to evaluate curriculum innovations and research findings. Relying on the few who participate in training, innovating and evaluating to "spread the word" has proven ineffective and is far too haphazard for such a complex process.
"Keeping current" must be institutionalized into the education enterprise. It must pervade the teacher "culture".

Competent people, well-trained and provided with extensive support systems, can develop their own ideas for change and improvement. This will be the change that makes a significant difference. First, since they most intimately are aware of pupils' needs, interests and motivations they can be instrumental in setting priorities, developing specific objectives and evaluating the education process. Next, armed with alternatives and assistance, it will be they who try, fail, adapt and try again. Most important, if they are involved and committed to the education process, it will have a chance to succeed...to stand on its own merits.

Coalescing the efforts of over 3,000,000 teachers presents a magnificent organizational challenge. A network of local Learning Centers with service, training, resource and dissemination and research and development components integrated to achieve common goals. Such an organizational link would join together people, talents and resources with a common purpose...effective learning.
Future teacher roles and functions:

Before any development of teacher roles or refinement of teacher functions occur, a few myths perpetuated by the education establishment must be dispelled. That teaching is an art is often an educational rationalization for mediocrity. Another is that, as an art form, teaching cannot be "taught". Unwittingly, educators may be using this rationale when they stamp a twenty-two year old liberal arts graduate with an education major "TEACHER" and let him loose in a classroom. This is comparable to letting a first-year intern perform brain surgery. He has no real techniques or skills for doing his job. He may be filled with theories of learning, but the class is chaos, with no real learning going on. Very few teachers are Grandma Moses. Creative teachers need skills. Skills can be taught. Teachers can learn from each other.

The teacher role as an information provider is inefficient and ineffective. Technology can do it better. The teacher must be less a craftsman and more a controller and developer of resources for learning. (Loughary, p.211) A total concern for pupil learning means increasing the ability of the teacher to assist the learner. The teacher must be less of a craftsman and more of a decision-maker of education. (Loughary)

A single worker called a teacher is no longer qualified to stimulate and direct learners. The cognitive load of individualized instruction is too great for a single person called a teacher to handle. (Baker) He must have management assistance.

Education personnel need new kinds of competencies. They must harness, direct and control the technology of learning. A specialist must be responsible for designing programs for individual pupils. An instructional manager must have skills for decision-making, planning, synthesizing, communicating and making resources available. This specialist will require a support team, a content-research specialist, a media specialist, a systems specialist. (Loughary)
The future will see three classes of educational specialists. (Razik)

a. instructional analysts who identify pupil outcomes and necessary conditions for learning.

b. instructional designers who design systems to affect specific instructional outcomes.

c. instructional managers who create and maintain the environment, diagnose learner readiness for learning, prescribe learning experiences, evaluate effectiveness and prescribe new or next learning steps.

In *A Systems Approach to Teacher Training and Curriculum Development* Taher A. Razik discusses how the responsibilities of teachers will increase. Education personnel must participate in research and evaluation of on-going programs. Their responsibility will increase in the individualization of instruction through the use of pre-designed instructional systems, media and technology. Increasing reliance on para-professional assistance and instructional aids will require new management techniques. Teachers will participate in administrative policy-making, curriculum planning and school management.

Instruction will be individualised for what the student studies, not just the rate at which he learns. Curriculum objectives will need to be defined and specified. Learning will require more meaningful decisions regarding exactly what a pupil should be able to do when he has completed some phase of learning.

Education and learning would be exciting to contemplate if systems and mechanisms were available to affect these changes effectively and efficiently. As it is, it could be a nightmare of wasted learners, time, money and resources. The rate at which the education moves to effect changes now would see 1975 technology being adopted in the year 2000. This is no longer realistic. The education enterprise must be systematised and organised for changing technology.
The role of teacher training in education:

A Turner and Fattu study states four propositions which have critical implications for teacher training: (Ebel, p.1426)

1. Teaching is a form of problem-solving behavior.
2. Problem-solving skills are acquired through training and experience.
3. Problem-solving skills may be measured by performance or simulated teaching tasks.
4. Teaching-task performance is associated with teacher success.

The capabilities of teachers set parameters for the school and the learner. As teaching becomes more complex, it becomes mandatory that teacher trainers analyze the competencies in terms of skills necessary to be a teacher. The education enterprise requires teachers who can promote learning. They must know how to specify outcomes, how they can be realized, how to provide conditions for learning (Razik) and how to know when objectives have been achieved. They must understand how theory integrates with practice.

Teacher trainers must find ways competencies can be developed and build an operationally sound theory of instruction. (Loughary, p.211) They must analyze new kinds of competencies for future teachers. An instructional manager is a controller and developer of resources for learning. (Loughary, p.24)

The teacher will be a receiver, consumer and disseminator of prepared materials and technology. Media, curriculum, systems design and research specialists will need to be trained.

Working with learners requires psycho-personal and socio-cultural skills. Interpersonal competence depends on communication skills, group process skills and management skills. 90% of the teachers interviewed in the Sabine poll of 2700 teachers stated that interpersonal relations training should be a required course for teaching. 87% of these teachers said that teaching was more an emotional experience than an intellectual one.

Skills discussed by educational trainers approaches the awesome end of
the spectrum: analysis, design, development, evaluation, diagnosis, adaptation, prescription, planning, synthesizing, decision-making, research, management, technical, interpersonal, group-process, etc.

Potential teachers should be more carefully screened. And, they should be involved in their own educational development. Experiences in the real school world should be available to them very early in their training so they can screen themselves out before they have a teaching certificate and nothing else they can do. Potential teachers are learners, too, and, as such, should have individually-developed instructional programs which help meet their self-assessed needs and objectives. They must be motivated to continuous learning and committed to life-long growth before they can accomplish this with pupils in schools. They must develop sustaining initiative to solve their own problems and those of learners. They must be able to develop and plan their own ideas for change and improvement.

As learners potential teachers must know what they're expected to do, how to do it, what they're doing and the results of their doing. (Klingstedt) Teacher trainers must systematically review with the learner the results of his performance, the nature of the product and the level of his performance. Both the trainer and the trainee must know what they are assessing. Then, when the trainee works in the real teaching world he can be held accountable for his performance.

In-school experiences for the trainee should include: case studies of students and classes, role playing and simulation, group process discussions, micro-teaching and interaction analysis. Field experience in the real school should begin during the first year with observations and work with individual students. During the four-year period the experiences would include small and large-group work, then total classroom experience. Schools must directly collaborate with teacher training. Supervising teachers must be trained to work with apprentice and intern teachers. No trainee graduate should be
"dumped" into a classroom on unsuspecting and defenseless pupils. They should serve an internship where they work with a supervising teacher. Together with the supervisor, and the training institution the intern would evaluate his competence and performance. A satisfactory experience would result in a "teacher" certificate. His certificate would indicate a level of competence.

Teacher trainees also need to learn about the "tools of the trade". They must have a collection of things to do for specific objectives. They need models, rules, checklists, guides, tests, diagnostic tools and materials. They should be able to work in an educational laboratory developing and adapting their own tools and techniques from models. Practicing teachers must also have a mechanism for continuing the development of skills, techniques and tools. Education should be a continuous process, with no sharp distinction between the trainee and the practitioner. They must be encouraged to try new techniques and learn new skills.

Practitioners should identify and assess their own needs and take the initiative in their own professional growth. After looking at themselves with a critical eye, they should analyze performance skills and techniques they need to learn. They must have more time to be a professional educator. Needs assessment could become the core for building in-service programs. In-service training could be related to specific outcomes. Outputs in student learning, not credit hours, could be evaluated. Responsibility for applying training to student learning would rest with the individual instructor. (Lefforge) Competency-based performance could be evaluated. Salary increments for amassing credits could be discontinued. Poor, do-nothing in-service courses which teachers sneer at could be eliminated. These kind of in-service programs and workshops would mandate close collaboration between practitioners, the schools and training institutions. For both pre-service and in-service training, the potential of the teacher could be an important asset for improving learning.
The scope and complexity of teacher training necessitates a collaborative effort between teacher-training institutions and the schools. National effort of the Office of Education through the Education Development Center has been focusing since 1969 on Teacher Training Complexes. The training center complex was first developed in *Teachers for the Real World.* (Smith, Q.) The National Ad Hoc Committee under the direction of Saul B. Cohen pursued various implications of the training complex concept. (Cohen, Ad Hoc Report) Both Dr. Don Davies, Associate Commissioner of Education and the Ad Hoc Committee have stressed the urgent need for teacher training reform. Dr. Davies has also stressed the need for new organizational strategies and for the participation of all groups. The Ad Hoc Committee envisioned the possibility of training complexes coupled with the notion of education service districts to form a national network.

The training complex is based on the need for a new training mechanism which can "draw on the formal resources of both the school and the university and other professionals in practice and the informal resources of the community." (Schneider, Task Force '72) Pilot training center projects have been implemented in approximately twenty locations throughout the country using various cooperative-effort models. (Schneider, Task Force '72) In-service training is beginning to receive major emphasis in some of the models.

The "Holy Grail" syndrome may be beginning all over again. Roy A. Edefelt in a paper, "The Reform of Education and Teacher Education" warns that renewal centers (emphasizing in-service training) must not become panaceas; that reform in education and teacher education must accompany the establishment of such centers. He maintains that schools and teaching need radical reform. The present effort is beginning to sound like another "top-down" strategy which treats the symptoms rather than the illness...and pays good lip service to involving educators in their own professional development.
Perhaps it is time for members of the education enterprise to concern themselves more with setting up the collaborative mechanisms for participating in the learning community, before any significant improvement in any phase of the operation can occur. First things have to come first.

Utilizing community school volunteers, para-professional and teacher aids also requires a collaborative training effort. They could be extremely valuable to the functioning of a school and the teacher if they had some kind of indoctrination or skill program. As it is now, library volunteers are working in the school library because they like to read and like books. They don't like to, or can't, type catalog cards. Science aids are there because they like biology; they don't like to take inventory or mix solutions. Functions they would work at should be delineated and specified. Then teachers would know what they were supposed to do and that they could do what they were there for.

Collaborative training efforts could utilize and exploit a wide range of human resources. An effective and competent educator could increase the internal efficiency of the school and effect significant increases in the output of the learner.

Teacher-training institutions would be functioning in and participating in much more of the education process. Their personnel would be involved in and understand the real school world. Their research, influence and expertise would be more effectively utilized; they would have a much broader base of operation in the whole teaching-learning process in a cooperative effort.
Role of educational research and development:

"Despite the enormous increase in funds for research in education, the research has not been oriented toward directions which will mean significant and important gains in effectiveness." (Smith, Robt. p.233) So much available research in learning has not been incorporated into the education process.

Educational research is voluminous, part-time, duplicating and non-cumulative. Researchers are often untrained, going through some study or exercise for a thesis or have little contact with the school or the process of teaching and learning. Because so much of it has been done out of context, it has little value for the real school world. That which has value needs to be translated into usable information. Research needs personnel who can translate their results into improved operations.

Educational research must help develop an operationally-sound theory of instruction for teachers of pupils and potential teachers. They must help analyze the competencies necessary to promote learning. Research must explore relations between student performance and other variables. (Gibson) They can study variables other than method which influence student success: the teacher, the instructional activities and the characteristics of the learning situation. (Wood) Research could analyze the way curriculum packages or modules are understood, used and modified by the learner and the teacher.

Research by itself cannot provide answers to educational problems. They must cooperate with, collaborate with and utilize the human resources of the real school world. A total educational laboratory is essential. (Loughary)

Education research institutions, teacher-training institutions and schools have common needs. Linked, they can sustain, complement and reinforce each other. A wealth of basic and applied research could move through open channels between the schools, training and research institutions. Applied research with a comprehensive view of what really goes on in schools could gain perspectives and order priorities for development efforts. A broad range of learning experiences could be validated. Research could become cumulative.
Needs of education personnel for information dissemination & retrieval:

If local education personnel had a system for knowing and utilizing the expertise in human relations, results of research, learning techniques and new materials and products, they could make a difference in learning, theirs and their pupils. Processes like disseminating and installing innovations, planning change and facilitating the flow of knowledge from research to practice require extensive support mechanisms. Innovations and ideas do not diffuse by themselves; nor do the best spread the fastest.

F. W. Blackwell in a Rand Corporation memo on educational systems design states that there must be information inputs and outputs with each facet of the educational process, methods for collecting, permuting and dispersing. The system must be centralized for decreasing duplication of effort, but not so centralized that it can't respond to administrators and teachers. He envisions a complex of curricula, standards, programs, materials, human resources, research and innovative developments information system.

It is not surprising with the present haphazard dissemination and diffusion process that it takes twenty-five years for innovations to permeate the education enterprise. An information system is essential for education policy-making and administration. An innovative education information system can affect the quality of decision-making which determines the success or failure of any school. (Clayton, P.3)

The scope and complexity of knowledge, information and materials is too great for one person to keep up with by himself. An educational practitioner needs help in getting the information, analyzing and evaluating it and determining how it might be useful. Information can be a powerful tool when you know about it, understand it and use it.
Conclusion:

The Learning Center model objectives and roles delineated on the following pages takes the splintered efforts of the state, research institutions, teacher-training institutions, the schools, education practitioners and the community and builds them into a collaborative mechanism for educational development. It involves the largest and potentially most-useful human resources of the education enterprise...the education practitioner. It links together people, expertise and resources with a common purpose—educational development.

The Learning Center would be comprised of four interacting and overlapping components. The Service component would provide problem-solving service and support to education personnel. Learning Center and community resources which could offer skills and knowledge for effecting solutions and changes in school practices would be utilized. Field agents would aid clients to retrieve, translate and use knowledge, techniques and materials which could improve learning outcomes.

The Resource and Dissemination component would provide schools, education personnel and the learning community with the means for collecting, processing, analyzing and evaluating knowledge, information, materials and educational products. It would serve primarily as a knowledge-linker and disseminator. A resource and learning laboratory would be available for the practitioner and the trainee to build and adapt learning materials and programs for learners.

The Research and Development component would design, implement, evaluate and modify projects, materials, studies and programs which could have a foreseeable return to all phases of the teaching-learning process. They would collaborate with the service and training units to develop problem-solving research emanating from the schools, the Service component and the Training component which could improve school practices and the teaching-learning process.
The Training component would be responsible for competency-based training of pre-service, in-service, paraprofessional and Learning Center personnel. They would contract with teacher-training institutions and the schools to provide field experiences and Learning Center programs for potential education personnel. The training unit would collaborate with the service component and the educational practitioner to institute performance-based programs and workshops which would develop skills or techniques and increase the knowledge base of new programs and materials. They would offer training programs to community members which would enable them to become teacher-aides, paraprofessional staff members or school volunteers. The Training component would also be responsible for validating the competency and performance level of the trainees.

Together these units of the Learning Center could provide the foundation for a viable education system.
Learning Center
The purpose of this paper is to develop a model of an organizational structure which will link, support, build collaborative relationships and provide channels for the education enterprise between state, resources, training, local systems, the community and education personnel.

This structure would set up the mechanism for correlating education personnel training and certification, information resources and dissemination, support and service functions and applied research and development programs. This collaborative structure would be the vehicle for systematic educational development and quality control. This local structure would be the foundation for educational planning, development, assessment and research by education personnel.

This structure would focus the vast education resources on the learner through the people most intimately concerned with his learning.

Effort, leadership and expertise would complement and reinforce each other through the collaboration of the State Department of Education, universities and colleges, professional associations, the schools, the community and educational personnel.

The foundation of the Learning Center rests on the premise that education is a service enterprise dedicated to effectively providing learning resources, a learning environment and learning skills to learning clients.

The Learning Center

Purposes

- to improve the quality of learning for each individual by coordinating the efforts of and providing service to members of the learning community.
THE LEARNING CENTER

Objectives

To Build Collaborative Relationships:

- between all members and institutions involved in the education enterprise from the State to the Learner.
- to channel the joint efforts and resources of all members and institutions to effectively improve the quality of learning.
- to correlate and link these efforts and resources so they complement and reinforce each other.
- to guarantee all education personnel participation in and responsibility for the quality of the education enterprise and learning.
- to involve the community in the education enterprise.

To Provide Leadership:

- to accelerate educational development.
- to foster systematic, organized educational planning, development and change.
- to assist the schools in attaining an open climate for educational development.
- to foster awareness of the needs of the learner in education personnel.
- to assign priorities to expressed needs of the education process.

To Plan and Manage:

- use of education resources and the resources of the Learning Center.
- to direct the processes of the Learning Center to coincide with the goals and policies of the Board of Directors.
- to effect the objectives of the components of the Learning Center and to ensure their complementing and reinforcing the purpose of the Learning Center.
- to improve the operation of the Learning Center.
To Develop:

alternatives and decision-making strategies for identifying needs, solving problems and evaluating processes for the components of the Learning Center.

expertise in the field of human relations and to direct these skills to motivate others.

methods for analyzing variables, factors and characteristics involved in processes and functions of the Learning Center which promote the objectives of the Center and to relate this knowledge to the State Department of Education and other Learning Centers.

To Maintain Feedback, Monitoring and Quality Control Systems:

which will provide effective evaluative information to all participating institutions and boards.

which will provide information and data for the adaptation and modification of all objectives, processes and functions of the Learning Center, its collaborating institutions and the State Department of Education to more closely fit and meet the needs and standards of the learning community.

to keep all collaborating institutions, personnel and the community apprised of the activities, functions and effectiveness of the Learning Center.

To Budget:

to develop and implement cost-effectiveness studies for all components of the Learning Center and to provide evaluative data for increasing the effectiveness and efficiency of the Learning Center.

to prepare and implement an operations budget for the Learning Center.

to assist the school in developing cost-effectiveness and operations-analysis programs.
To Support:

the objectives, processes and functions of the components of the Learning Center.

the schools, community and education personnel in their efforts at educational development.

To Identify and Analyze:

systemic constraints and supports which affect the utilization of the Learning Center, its resources and its personnel.

To Maintain:

- a staff who can promote and effect the objectives of the Learning Center.
Premises and assumptions upon which the Learning Center builds:

1. Education, i.e., learning is a life-long process for all members of the learning community.
2. Equal education for all is a right, not a privilege.
3. Education does count; schools and learning can make a difference in the life of each individual.
4. Education is a growing service enterprise.
5. The education enterprise must establish specific goals and objectives based on national and state education policies.
6. The present education systems concerned with the education enterprise and their personnel are not functioning in the most effective and efficient manner.
7. In fact, the lack of a system prohibits originating, disseminating and validating educational development.
8. All institutions concerned with the education enterprise must collaborate and cooperate to attain their common goals and objectives.
9. Education must be systematized and geared for the rapid increase in knowledge and technology of the education-teaching-learning process.
10. The education systems can be coalesced into a comprehensive, cooperating network of subsystems working on common needs if all resources and talents are focused to complement and reinforce each other.
11. Systems must be designed, developed, implemented, evaluated and modified in terms of specific goals and objectives.
12. More competent and better-trained education personnel with proper support functions can raise the internal efficiency of schools and affect their output.
13. Teachers are the most under-utilized pool of human resources engaged in the education enterprise.

14. Externally imposed change cannot work. It is rationally and psychologically untenable.

Constraints impeding the development and implementation of a Learning Center

1. The scope and complexity of the education enterprise and the education process itself presents a formidable structuring and organizing problem.

2. Overcoming the resistance, apathy and vested interests of the education establishment could present a problem.

3. Constraints provided by other systems, institutions and agencies could impede development (for credits, degrees, certification, accreditation, personnel, time).

4. The Learning Center must be accessible, located within easy communication distance from a number of schools.

5. Cooperative decision-making requires an elaborate committee structure with well-delineated roles and responsibilities for all participants and staff.

6. Delivery system strategies must be designed and implemented between all participants in the learning community before the Learning Center could function effectively.

7. The Learning Center would raise the cost of education. Funding must be continuous.
How would the Learning Center be governed?

It would be set up as a cooperative with a Board of Directors as the chief policy-making body. The Board of Directors would be comprised of representatives of the participating groups (universities, teacher-training institutions, schools, professional associations and teachers, community members and parent groups). The State Department of Education would sign a corporation agreement with the Board of Directors establishing the purposes, roles, and functions of the Learning Center.

The agreement would set up parameters for the Learning Center location, operation, budgeting and finance, performance and evaluation. The State Department of Education and the Board of Directors would jointly evaluate the effectiveness and efficiency of the Learning Center. The Board of Directors would adapt and modify the Learning Center objectives, processes and functions to coincide with their joint recommendations.

The Board of Directors would appoint the Learning Center Coordinator and the Resource and Dissemination, Research and Development, Service and Training Directors. They would be responsible for the election of the Advisory Councils serving each of the components of the Learning Center. Each Advisory Council would be comprised of five members, two who represent the specialized functions of the component and three who broadly represent the learning community, to be served.

The Learning Center Coordinator would be responsible for implementing, sustaining and evaluating the policies, goals and standards of the Center to coincide with and complement the objectives of the Center established by the Board of Directors. He would correlate and coordinate all the component processes of the Learning Center with the cooperation of the Component Directors. He would monitor feedback from the Directors concerning all programs, processes and cost-effectiveness. With the Director of each
component, the Coordinator would work to effect adaptations and modifications of the component's role, functions or operations to more closely fit the needs of the learning community.

Each component of the Learning Center would be under the direct supervision of a Director who would be responsible for effecting the purpose and objectives of his component to coincide with and complement the goals and policies of the Center. The Advisory Council would aid him to evolve the roles and functions of the component to best fit the needs of the learning community. He would collaborate with the Learning Center Coordinator to effect evaluated adaptations and modifications.

The Director would correlate and coordinate the activities and programs of his component with the Directors of the other components. He would be responsible for implementing, sustaining and evaluating all operations under his supervision.

In addition, the Director would be responsible for performance contracting within his component for services rendered and received. He would set up a cost/effective budget, feedback and monitoring, evaluation and modification mechanisms for all phases of the component functions and programs.
Who would be the clients of the Learning Center?

teachers and other education personnel: needing knowledge and information requesting services to alleviate needs and solve problems, to inspect curricula materials and products, to work at adapting materials and products, to participate in in-service programs, workshops and seminars, to participate in training programs, to collaborate with research projects and studies, to attend Learning Center board meetings and professional meetings, picking up classroom media and free materials.

schools and their administrative officers: with systems needs and problems, discuss and review policies, alternatives and techniques for effecting change, coordinating efforts, resources, programs, planning and developing with Learning Center personnel, coordinating in-school training efforts, needing knowledge, information and service, participating in administrative training programs, attending Learning Center conferences.

teacher-training institutions and universities: to participate in training, research and development and service activities, to use the facilities and resources of the Learning Center, to use the resources and facilities of the learning community through the coordination efforts of the Learning Center, using the dissemination mechanism of the Learning Center.

trainees: to participate in pre-service, teacher-aid, leadership training, differential certification programs, training Learning Center personnel.

professional associations: needing information and resources, using facilities, participating in conferences, workshops, collaborating in Learning Center efforts to maintain performance standards.

community members: needing knowledge and information, resources, participating in training programs, participating in community-education programs and seminars.
State Department of Education: in improving and maintaining the quality of education, in effecting educational development, receiving evaluative information and data on programs, schools, personnel, certification references, upgrading and training personnel.

School Board: using the resources and facilities of the Learning Center, needing knowledge and information.

Education industry: as a receiver of information and direction, products materials to produce and publish, disseminating services, evaluation services.
How would the Learning Center be financed?

The Learning Center would cost more. But, it would provide more than mediocrity and ineffectiveness.

Federal and state financing would have to be continuous. Education would be a fiscal partnership between the federal, state and local governments.

Collaborators, like the teacher-training institutions and universities, would finance part of the operation. Professional associations would pay a small fee per member.

The Learning Center would charge fees for training, all phases. Fees would be charged for certification.

If new materials or products were developed, manufacturers would pay royalties or fees for outright sales.
LEARNING CENTER

Board of Directors

Coordinator

Advisory Panel

Advisory Panel

Advisory Panel

Advisory Panel

service agent

problem-solver

planner

facilitator

designer

problem-solver

collaborator

evaluator

catalyst

catalyst

analyst

process analyst

knowledge

developer

utilizer

tester

liaison agent

adapter

innovator

researcher

information

retrieval

translator

linker

collaborator

disseminator

knowledge linker

resources

products

media specialist

planner

organizer

leader

evaluator

certifier

regulator
Tales the Learning Center could fulfill and sustain as a mechanism for Educational Development

1. Service agent—providing tools, techniques, information for decision-makers and problem solvers.
2. Retrieval agent—locating tools, techniques, information to aid clients in carrying on the teaching-learning process, to aid clients in the educational development process.
3. Resource linker—between all clients and producers, publishers and educational product manufacturers, between all members of the learning community.
4. Conveyor—of knowledge, information, materials, ideas, products from the producer to the consumer.
5. Linking agent—providing feedback from and between all members of the learning community concerning the education process to aid them in determining their critical path, to open channels for the pooling and sharing of ideas, information and experiences between all members of the learning community.
6. Facilitator—accelerating and easing flow of theory into practice, knowledge, idea and problem exchange, of decision-making alternatives.
7. Diagnostican—aiding the identification and delineation of problems and alternatives, of constraints to the education process and education development.
8. Consultant and expert—to assist clients to identify constraints, problems, resources and alternatives, and to help them define a critical path.
9. Translator—of knowledge into understandable and usable language for all clients.
10. Defender—of the need and the right to try and fail and to try again.
11. support agent—encouraging activities aimed at education development, self-development and systems development.

12. problem-solver—providing solutions as an expert when necessary.

13. renewal agent—providing the mechanism, the support functions and the training for education and education personnel development.

14. knowledge builder—through applied research, product development, curriculum engineering, clinical research and for clients.

15. process analyst—to study the movement of theory into practice, to products, to education development to improvement in learning.

16. stabilizer—institutionalizing education development, utilization of technology and new knowledge and self-development.

17. disseminator and diffusor—spreading knowledge, information, ideas, solutions and products and materials to clients.

18. leader—providing the impetus for educational development, change, improvement, developing priorities for educational development.

19. catalyst—providing the motivation and setting up the environment for seeking improvement, building awareness that problems can be solved, things can be done, to spawn creativity in seeking educational development.

20. change agent—encouraging evaluated change, systematic educational development, maintaining a self-sustaining change and reform mechanism.

21. collaborator—building cooperative relationships for the educational partnership, collaborating with all clients to bring about educational development.

22. planner and designer—developing alternatives for clients, for their systems, for the Learning Center, for the education partnership.

23. organizer—of programs, workshops, cooperative efforts, of educational development.
24. innovator—developing new programs, techniques, processes, products, curricula, and materials feasible for educational development.

25. researcher—for analyzing, testing, piloting, and developing programs, techniques, processes, products, curricula, and materials; for analyzing the teaching-learning process and its concomitant facets (necessary environment, resources, competency, skills, outputs).

26. evaluator—of the Learning Center processes and functions, of schools, of educational development and priorities, of needs, products, knowledge, materials, of self-development and training efforts.

27. regulatory agent—of conformance to policy and performance standards for the State, for the Learning Center, for the training clients, for quality control.

28. certification agent—for the State and the training client, ascertaining levels of performance and competency.

29. trainer—developing skills and techniques, competencies for education personnel, Learning Center personnel, potential education personnel.

30. liaison agent—between components of the Learning Center, between all members of the learning community, between the schools and the State, between schools, between education personnel.
Roles of participating institutions and systems in the Learning Center

The State Department of Education:

would provide leadership and personnel for the development and implementation of the Learning Centers.

would establish criteria for site selection, building, development and implementation.

would contract with the participating institutions and systems concerning their role in the Learning Center and with publishers and producers.

set up and implement delivery strategies for all components of the Learning Center.

would assist the learning community to assess needs, develop programs, set priorities, set up monitoring, feedback and evaluation mechanisms.

supervise the development of all governance machinery of the Learning Center.

provide continuing financial support.

audit all accounts and establish fees.

provide an annual evaluation report on the effectiveness of each Learning Center.

set minimum standards and quality control for all functions of the Learning Center.

DEVELOP SPECIFIC OBJECTIVE GOALS AND STANDARDS FOR EDUCATION

Universities and teacher-training institutions:

participate in governing, leading, staffing of the Learning Center.

collaborating and participating in the development and implementation of the Learning Center.

collaborating and participating in all processes and functions of the Learning Center.

provide technical and theoretical expertise in all processes and functions of the Learning Center.

contract with the Learning Center for services rendered and received for training personnel, trainees and interns, and for all other services contracted.

relate university-based research and development efforts to the applied research and development efforts of the Learning Center.

provide leadership in identifying emerging needs, evolving technology and new knowledge important to the education enterprise.

user of the resources and facilities of the Learning Center for training, research and development, for dissemination, for information and for serving educational development.
The schools:

participate in governing and leading the Learning Center.

collaborating and participating in the development and implementation of the Learning Center.

collaborating and participating in all processes and functions of the Learning Center.

provide facilities and cooperation for in-school training of all trainees from the Learning Center.

cooperate with and assist research and development efforts of the Learning Center, with the service efforts and the dissemination efforts of the Learning Center.

facilitate the use of the Learning Center by education personnel who have a need, who are participants, leaders, or representatives.

to refer education personnel who could benefit or need help to the Learning Center.

contract with the Learning Center for services rendered and received for/by the system.

use the resources of the Learning Center and exploit its services to effect quality education for each pupil.

Professional associations and unions: (as teacher representatives)

to participate in governing and leading the Learning Center.

collaborating and participating in the development and implementation of the Learning Center.

collaborating and participating in all processes and functions of the Learning Center.

collaborate with the Learning Center to develop standards for competency, performance and certification.

to refer educational personnel who might benefit or need help to the Learning Center.

use the services and facilities of the Learning Center.

serve as a liaison between the Learning Center and specific education personnel.

serve as a spokesman and liaison agent for education personnel groups.
The Board of Education:

control the school's role in the Learning Center (as the policy-making body and final decision-maker for the school), within parameters instituted by the State.

support the Learning Center objectives, processes and functions to effect quality education for every individual.

encourage the schools and their personnel to participate in all phases of the Learning Center.

provide leadership in the development and implementation of the Learning Center.

encourage the community to participate and collaborate in the development and implementation of the Learning Center.

The Community:

to participate in governing and leading the Learning Center.

collaborating and participating in the development and implementation of the Learning Center.

collaborating and participating in all processes and functions of the Learning Center.

provide resources to aid the education process.

identify and assess needs of the education process and the learner to which the Learning Center could direct its efforts and resources.

use the Learning Center for training, services and facilities.

The Education Industry:

to receive feedback for evaluating, adapting and changing its products and materials.

to disseminate products and materials for inspection, use, adaptation in the schools.

to publish and manufacture products and materials developed and tested by the Learning Center.

to maintain a liaison with the Learning Center to keep abreast of education needs and evolving directions.
SERVICE CENTER

purpose

to provide problem-solving service and support for teachers, schools, the community and Learning Center components utilizing Service personnel, Learning Center resources and community resources which can offer skills for effecting solutions and changes in learning resources, environment or skills in the school, its personnel or its students.

objectives

to aid education personnel in articulating their needs and problems, in identifying and searching for resources relevant to the problem and in analyzing potentially feasible alternative solutions to the problem.

to aid clients in retrieving, translating and using knowledge, techniques, materials, products and skills which will improve learning outcomes.

to design and implement with the collaboration of the Training Component personnel, education personnel and schools in-service programs, workshops and seminars designed to effect changes in using knowledge, techniques, or skills.

to design and implement with the collaboration of the Resource and Dissemination and Research and Development Components programs, workshops and seminars for apprising education personnel of innovations, new knowledge, products and materials valuable to the schools and education personnel.

to design and implement programs apprising, involving or relating the community to the schools and the Learning Center.

to provide a resource team as a consulting and diagnosing service to education personnel and schools utilizing trained personnel from all components of the Learning Center with resources and skills necessary to offer the client decision-making alternatives.

to provide the services of a learning agent in the field who would respond to requests for information, services and aid who would provide the aid or channel the request to the appropriate Learning Center component.
to identify needs, constraints or deficiencies in the teaching-learning process or system which could help direct the activities of the Resource and Dissemination, Training or Research and Development components of the Learning Center.

to facilitate in cooperation with the Research and Development component the implementation of evaluated change, innovation, product evaluation or pilot programs by maintaining a two-way communication and consultation link between the implementing and developing personnel.

to serve as a catalytic agent by stimulating articulation of needs, problems, ideas, suggestions for adaptation and modification and requests for knowledge and information.

to provide facilities and programs for professional associations and community education association meetings and conferences.

to develop and implement a continuous feedback and monitoring system to provide effective information for evaluation and modification of all activities of the Service Center.

to assist the Training Center in training all education personnel involved in the training programs with specialized knowledge and skills relating to the Service Center.
TRAINING CENTER

**Purpose**

To train educational personnel by enabling them to develop skills necessary to competently function in the many phases of the learning process.

**Objectives**

- To coordinate teacher education resources of the schools, community and the participating degree-granting institutions with the training center to provide an effective skill-building program for each trainee.
- To assess the practical needs of trainees with their participation and to identify the necessary teaching skills and evolving specialized roles which best fit their aptitudes.
- To design and implement with the collaboration of the research and development component and the degree-granting institutions competency-based training programs spanning four years for education trainees.
- To provide these designated varied, multi-skill experiences for education trainees which integrate theory with practice and develop competency-based skills and to evaluate with the candidate when the necessary performance level is reached so he can move to the next experience level.
- To design and implement with the State Department of Education and the cooperation of the schools a teacher-aid training program for non-degree candidates,
- To screen, admit and evaluate these non-degree candidates for certification by the State Department of Education.
- To design and implement with the collaboration of all Learning Center Components, degree-granting institutions and the State Department of Education an intern program for practicing graduated teachers spanning the first three years of work in the schools during which time they shall be termed "interns".
- To evaluate in collaboration with the school and the intern his competency
level and to recommend the candidate for certification as teacher.

to design and implement in collaboration with the degree-granting institutions leadership programs for supervisory teachers in the schools who would help direct and evaluate learning experiences designated by the training center for all trainees.

to evaluate and recommend these supervisory teachers for certification by the State Department of Education as Supervising Teachers.

to design and implement in collaboration with the degree-granting institutions and all components of the Learning Center leadership personnel curricula and programs to train potential Learning Center personnel.

to collaborate with the service component of the Learning Center to design and develop in-service programs fitting the needs of education personnel and to provide skilled personnel necessary for implementing these programs from the education resource pool.

to collaborate with the service component of the Learning Center to present workshops, seminars and conferences concerning the utilization of new knowledge, skills, programs or materials.

to collaborate with the resource and dissemination component of the Learning Center to disseminate new knowledge, skill, programs and materials.

to collaborate with the research and development component of the Learning Center to analyze competencies necessary to function effectively in all phases of the teaching-learning process.

to cooperate with the State Department of Education to determine and institute minimum standards for competency-based, differentiated certification for teacher-aids, interns, teachers and supervisory teachers and other education personnel.

to develop and implement a continuous feedback and monitoring system to provide effective information for evaluation and modification of all activities of the training center.
RESOURCE AND DISSEMINATION CENTER

purpose

to provide education personnel and the learning community with the means, for collecting, processing, analyzing and evaluating knowledge, information, materials and products.

objectives

to maintain a comprehensive education information and media center
to maintain an information retrieval capability to process client requests for information.
to maintain a comprehensive curricula, products and materials laboratory where education personnel may inspect, adapt or modify educational products to meet the specific needs of their pupils.
to identify, collate and index community resources, people and experts who would be available to provide service, aid, information or programs to education personnel and the schools.
to survey, collate, analyze and evaluate with the collaboration of the Learning Center components new knowledge, materials and products which could be valuable to the education process and serve local needs.
to periodically disseminate the survey and analysis as a clearinghouse newsletter to all schools, education personnel and subscribing community members.
to maintain a collating and disseminating mechanism of information regarding other school systems' programs, innovations, changes and solutions which could benefit other systems and their personnel.
to disseminate through the learning laboratory free materials and products provided by the education industry.
to maintain a liaison with the education industry to be apprised of and receive new information, curricula, products and materials.
to collaborate with all Learning Center components to design and implement programs, workshops, seminars and conferences for knowledge dissemination and utilization.

to cooperate with all Learning Center components to meet their needs for knowledge, information and data.

to assist the Training Center in training all education personnel involved in the training programs with specialized knowledge dissemination and utilization skills.

to develop and implement a continuous feedback and monitoring system to provide effective information for evaluation and modification of all activities of the Resource and Dissemination Center.
RESEARCH AND DEVELOPMENT CENTER

Purpose

to design, implement and evaluate research and development studies, projects, materials and programs which could have a foreseeable return to all phases of the teaching-learning process.

Objectives

to design, implement and evaluate applied research evolving from and related to basic research to improve the teaching-learning process and education systems.

to provide a strong link between the practitioner and the research by facilitating the flow of knowledge from theory to practice through collaboration with other Learning Center components.

to provide a strong link between needs of the practitioner and basic research to build the knowledge base of the education enterprise.

to systematically review and analyze research efforts, to complement these efforts and to report their results to endeavor to make both basic and applied research cumulative.

to periodically make these reviews available to the Resource and Dissemination component in language understandable to the practitioner so the information can be disseminated to the schools, education personnel and community.

to provide systematic observations and case studies concerning the learning environment, learning resources, teaching-learning skills to which basic research may be instigated.

to invent, refine and distribute better tools, technology, models and rules for carrying on the teaching-learning process.

to design, implement and evaluate pilot projects, programs, curriculum modules, techniques and models which would improve the teaching-learning process.
to design, implement and evaluate in collaboration with the Training Center research to analyze the competencies necessary to function effectively in the education process.

to collaborate with the Service and Resource and Dissemination component to disseminate and utilize techniques, innovations and ideas which could benefit the teaching-learning process.

to collaborate with the problem-solving efforts of all Learning Center components to design, implement and evaluate research directly bearing on local education problems.

to assist local education personnel and schools to adapt materials, models and techniques to their students' needs ensuring utilization of sound theory.

to assist the Training Center in training all education personnel involved in the training programs with the specialized knowledge and skills of the Research and Development component.

to develop and implement a continuous feedback and monitoring system to provide effective information for evaluation and modification of all activities of the Research and Development Center.
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