ABSTRACT

Effective curriculum development and implementation may be achieved by considering the multidimensional nature of the term "curriculum." A definition of curriculum should be considered in terms of its intended, implied, and erroneous functions. The expressed dimensions of the written and implied learning objectives, sequence of contents, link to opportunities, and evaluation procedures all call for "incident." Curricular content consists of unstated messages or value systems. The "agenda" curriculum, derived from examining teacher, student, and student needs, includes unstated alterations, adaptations, an addendum to the expressed and implied teacher-developed curriculum, expressed dimension calls for revising a curriculum, organizing current content, and creating learning situations. Collected values of student perceptions for a transformed curriculum. The current dimension involves a process in which the teacher decides what to take effective action to motivate student behavior or begin action to eliminate socio-emotional disconnection between the student and the curriculum. Implementation of curriculum is enhanced through receiving teacher as leader in curriculum improvement and the classroom as agent for curricular implementation, and assuring that a positive match exists between what the school requires of the teacher and what the pupils need. (Author/KC)
CURRICULUM + ENVIRONMENTS FOR LEARNING: A PRACTICAL MEANING AND MODEL

Presented at the Annual Meeting of the American Educational Research Association in San Francisco, California

April 1979

Not to be reproduced without permission of the authors.
CURRICULUM AS ENVIRONMENTS FOR LEARNING: 
A PRACTICAL MEANING AND MODEL

In the catalogue of education's more curious creatures, few are as complex as the curriculum. Although the word curriculum is casually used in the literature and in discussions about schooling and education as though its meaning were common, a more careful consideration shows that curriculum commands different and distinct meanings. Scholars are far from agreement as to how the term should be defined.

Our analysis of perceptions of students, teachers, principals, and parents suggests that in the practical reality of schools and classrooms, curriculum means different things to different people. To students curriculum seems to signify homework, tests, and "all those classes." To many teachers it means printed materials, textbooks, goals, objectives, lesson plans, study sheets, and tests. Principals tend to view curriculum as what is taught by teachers and the packaged curriculum programs and materials produced by publishing companies or curriculum committees. Parents consider the number and types of courses offered by the school to be the curriculum. The intention here is not to argue that unless we have one fixed definition there will be little if any progress toward improving the quality of curriculum. Indeed, we agree with Tanner that conflicting definitions may stimulate continued inquiry and may help illuminate philosophical differences that are the sources of conflict.

The purpose of this paper is four-fold. First, we advocate a multi-dimensional definition of curriculum. Second, our definition is contrasted with four existing views of curriculum. Next, we
describe a curriculum development model that reflects the definition. Fourth, we discuss three practical considerations for developing and implementing curriculum in schools and classrooms.

DEFINITION: CURRICULUM AS ENVIRONMENTS FOR LEARNING

In overview, the curriculum consists of both external and perceived environmental conditions for learning. Considered in the external aspect, the curriculum acts as a complex network of determinants exerting an influence on the behavior of individuals. These determinants are physical, social and intellectual conditions that shape and reinforce behavior. For example, within the school setting learners are exposed to a sequence of learning tasks, a collection of learning materials and the influence of individual personalities and collective norms.

Although many writers have described the learning environment as a powerful determinant of pupil behavior, we caution that of the school's environment should be considered "curriculum." External sources of a school's environment are multiple and complex, from the influence of the physical plant, to the social and economic conditions of the neighborhood group, to the historic and economic conditions of schooling, to the pressures from the Central Office, to the availability of resources, and so on. We reserve the term "curriculum" for the environmental ingredients that have been deliberately shaped to create a context for learning. Freud's dictum, "Where id is, there ego be," urged his patients to seize hold of the impulsive, contradictory and irrational mix of pressures ruling their lives. In an analogous way, we urge "where unexamined environment is, let curriculum be" to suggest
that curriculum consists of external conditions for learning that result from the participative process of constructing and reconstructing school environments.

Furthermore, the curriculum consists of environmental stimuli as perceived or interpreted by participating individuals. As Murray suggests, it is the learner's perceptions of environmental conditions that guides his or her behavior. Individuals actively respond to environmental demands and expectations according to the ways they perceive them. Because the individual's perceptions of school environment also serve as determinants of behavior, in our definition, curriculum consists of the internal (or perceived), as well as the external conditions that either foster or hinder learning.

When we nudge this general part of the definition deeper into the practical settings of schools, we find that curriculum can be more specifically characterized by three separate yet interrelated parts—the expressed, the implied, and the emergent. The connections among these dimensions contributes to the dynamic nature of curriculum. Our definition of curriculum as environments for learning, then, consists of external and perceived conditions for learning that can be further described in terms of their expressed, implied and emergent dimensions.

The Expressed

This dimension of curriculum is a written statement expressed in terms of intended learning objectives, learning opportunities, a sequence of content, and evaluation procedures. The expressed dimension is the
course of study or the syllabus, an acknowledged plan stating what is to be learned and describing how to teach and evaluate. The academic disciplines are often the major data source of the expressed curriculum. This dimension is the "planned for" or determined part of curriculum.

The Implied

This dimension of curriculum consists of hints or wily messages received by learners from the physical, social and intellectual environment of the school. Similar to what is known as the hidden curriculum, this dimension includes the unstated and unplanned messages given off by the rules and traditions embedded as regularities in the ongoing way of life in a school and in its classrooms. Also, the implied dimension refers to unintended learning that results because of what is included or omitted in the content that is taught. The conditions of the implied are further spelled out in those actions of students and adults which are only rarely verbalized or explained. The implied dimension is critical because the learners' perceptions of the conditions that make up the habitat of the school and classrooms result in a personal view that influences either positive or negative learning. For this reason, the perceptions of students toward the school and classroom environment are the central data source for developing the implied curriculum.

The Emergent

This dimension of curriculum includes the ongoing alterations, adjustments and additions that are made in the expressed and implied
curriculum in order to insure harmony between the uniqueness of the individual learner and the character of the curriculum. The emergent serves as a corrective measure to smooth out and put the expressed and implied parts of the curriculum in line with each other and with learners. In other words, the emergent dimension intervenes when there are excessive gaps between learners and the curriculum to reduce chances of disconnection, unnecessary failure and unintended boredom. For this reason, the needs of the learner are the major data source for the emergent dimension.

In sum, deliberately constructed environments for learning take into account these three related dimensions of curriculum. While the expressed curriculum is traditionally the most prominent, in the present definition it is primarily the initial dimension or starting point. Immediately, its implications are felt. The lessons the resulting implied dimension teaches are long remembered because it is so persuasive and consistent over the many years in which our students attend school.

In fact, where the expressed and implied curriculum are consistent and support each other, learning is most powerful. It is here that attitudes and values are probably learned most effectively. Where the expressed and implied curriculum are in conflict, one would expect the implied dimension to become dominant. It is not what is intended (what we talk about) but what we do (action we take) that becomes compelling. Also, where the expressed and the implied run counter to each other, contradictory messages are likely to be received by learners. What is learned at one time is stifled or unlearned at another. In this case, the emergent dimension takes precedence, calling for teacher
decisions that correct the disconnections between expressed and implied dimensions or between the curriculum and the learner. In short, the definition of curriculum as environments for learning opens a multidimensional perspective on curriculum development and school practice.

DEFINITION: IN CONTEXT

One way to probe the usefulness of the definition we advance is to contrast it with other conceptions of curriculum. In this way, shadows are cast across previous attempts, which in turn illuminate points of emphasis or potential oversights in our definition. We trace four prominent views of the nature of curriculum, and relate these to the three dimensions characterizing our definition.

The Latin origins of curriculum (from curro, cucurri, cursus) bring to mind the act of running, especially on a race course. Perhaps this indicates that curriculum is thought to be the quickest, simplest, most organized and efficient fashion for presenting and receiving knowledge. An image is conjured up of a series of laps with prescribed obstacles to be overcome in a set time. These laps are undertaken to reach the intended and final goal: The student (runner) starts at one point in his learning and reaches the second point by following a set course from which he does not deviate. Such an image has not been lost to curriculum scholars, including researchers, teachers, and administrators.

One common conception of curriculum that adheres to this image is that of a course of study. The definition includes clearly defined subjects (laps) which each student must successfully complete within
a specified time frame in order to successfully reach the goal of graduation (with its attendant social rewards). Due to its simplicity in the sense of being so clearly content- or subject matter oriented, this definition is still attractive to many curriculum theorists and practitioners.\(^5\)

Somewhat less externally determined, though still linked to the race course principle, is the view of curriculum as intended learning experiences. This perspective is appealing to curriculum developers who opt for a predetermined framework that provides limits to the experiences but does not dictate all experiences possible within the established borders.\(^6\)

Still another conception of curriculum defines it as all of the experiences had under the auspices of the school. From this point of view, curriculum includes the known and unknown conditions that foster experiences. This approach is considered more extreme than the previous two because planned and unplanned conditions are considered.\(^7\)

Finally, a fourth view of curriculum turns to what is perceived by the learner. The meaning moves away from the external setting toward the learner's interpretations of what has been planned or unplanned. The perceptions of the learners make up the curriculum. Not only is there the possibility that the learners will redesign the race course but they might also perceive that running is not necessary or that flying is the way to go.\(^8\)

The four general meanings of curriculum mentioned above are understandable as possible definitions. Yet, when considered separately they can lead to a way of thinking that is disconnected form the three
Curriculum dimensions we believe exist in the reality of schools and classrooms. The definitions are shown graphically in Figure 1 as a continuum of thinking that runs from externally decided curriculum to internally perceived curriculum.

FIGURE 1
A Continuum of Curriculum Definitions

<table>
<thead>
<tr>
<th>Curriculum As A Course of Study</th>
<th>Curriculum As Intended Learning Experiences</th>
<th>Curriculum As All School Experiences</th>
<th>Curriculum As The Perceptions Of Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externally Decided Curriculum</td>
<td></td>
<td></td>
<td>Internally Perceived Curriculum</td>
</tr>
</tbody>
</table>

Next, Figure 2 presents a grid that links these four general definitions of curriculum with the expressed, implied and emergent dimensions of curriculum advanced by our definition. The grid shows the major (●) or minor (○) emphasis of interplay among the four views and the three dimensions.

FIGURE 2
Grid of Definitions Related to Dimensions

<table>
<thead>
<tr>
<th>Definitions</th>
<th>The Expressed</th>
<th>The Implied</th>
<th>The Emergent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum as a Course of Study</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Curriculum as Intended Learning Experiences</td>
<td>●</td>
<td></td>
<td>○</td>
</tr>
<tr>
<td>Curriculum as All School Experiences</td>
<td>●</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Curriculum as the Perceptions of Learning</td>
<td>○</td>
<td>●</td>
<td>__________</td>
</tr>
</tbody>
</table>

● = major emphasis
○ = minor emphasis
Curriculum viewed as a course of study emphasizes the expressed dimension. It focuses on the necessity of covering certain subject matter and minimizes the importance of considering student perceptions of the relevance of the instructional content. Curriculum considered as intended learnings also emphasizes the expressed dimension, and opens in a minor way to the emergent by recognizing the possible need for altering set content sequences if other learning approaches are required to attain clearly defined ends. Curriculum defined as all the experiences students have under the guidance of the school also retains its primary allegiance to the expressed dimension. However, this view both acknowledges the potential hazard presented by unplanned consequences of school organization and touts unreflectively the mystified process by which the curriculum perpetuates "the American way." For these reasons, the implied dimension is secondarily considered by this approach. The possibility of unanticipated learning also suggests a minor association with the emergent dimension. Because of the acknowledgement of negative consequences resulting from unplanned experiences, it becomes necessary to make additions or alterations in the expressed and implied conditions. Finally, curriculum viewed solely as the perceptions of learners insists on the primacy of student interests and world-views in determining what is to be taught. By declaring the curriculum open to interpretation by individuals and to revision based on student perceptions, this definition emphasizes in a major way the implied and emergent dimensions. Nevertheless, since students react to the external school environment and since educators advocating this perceptual approach often maintain a political or academic orientation in uneasy balance with their child-centered views, the expressed
dimension plays a key but more minor rôle in curriculum developed by advocates of this position.

In a sense, Figure 2 implies that a multidimensional definition of curriculum offers a possible way for absorbing the best from other selected curriculum definitions. Those definitions that were placed toward the "external" end of the continuum in Figure 1 relate to the expressed dimension of curriculum. As one moves toward the "perceived" end of the previous continuum, the implied and emergent dimensions tend to be considered in the definition. We advance for your consideration that many existing definitions insufficiently consider important dimensions of the reality of curriculum practice. Moreover, they foster either-or thinking about curriculum that needs to be corrected so that limited views can incorporate the strengths of numerous definitions.

Instead of a continuum of discrete curriculum definitions ranging from externally derived to internally perceived, a more comprehensive approach is needed to reconceptualize the meaning of curriculum. Our definition of curriculum as external and perceived environmental conditions for learning bends the ends of the continuum closer to form a "curriculum circuit", as shown in Figure 3.

When we describe the expressed, implied and emergent dimensions, we are attempting to interrelate the practical realities of curriculum as it exists for teachers and pupils in schools. Moving through the circuit, learning conditions created by teachers have expressed elements (intended learnings, major concepts, planned learning opportunities and so on) with implied messages and consequences for learners. When
teachers recognize serious gaps between their constructed learning environment and the desired perceptions and behaviors of their students; they act in an emergent fashion to revise the curriculum. Curriculum making becomes the creation of conditions for learning.

With our definition, we expand the input-output notion that considers curriculum as the variable occurring prior to instruction and student achievement as the related outcome of instruction. In its place, we propose a more ecological view of curriculum based on a multidimensional curriculum definition.
Dominance by one dimensional views of curriculum contributes in a major way to the narrow, reductionist approaches for developing curriculum that we think have currently over-extended their usefulness. Linear curriculum models that result in objectives to be achieved, means to reach the objectives, and evaluations to determine the extent to which objectives were accomplished assume that in the practical reality of schools purpose precedes activity, when the reverse is also true. We suggest in our definition that a more ecological view of curriculum demands recognition. This ecological perspective means teachers have the responsibility for creating learning environments that link pupils to curriculum. Again, and in simple words, our definition of curriculum opens the way for the reconstruction of curriculum through ongoing refinement and alteration of its expressed, implied and emergent dimensions.

THE CURRICULUM DEVELOPMENT MODEL

The curriculum development model advanced here is presented in three parts of equal influence, one part for each of the three dimensions of curriculum included in the above definition. The model conceptualizes one decision-making system that describes the interaction among elements of curriculum as a product, and two decision-making systems that describe deliberations of curriculum as a process.

The system for the expressed dimension describes elements of curriculum that result in tangible products, written and intended to be a direct guide for instruction. The system for the implied dimension consists of steps teachers can take to identify positive and negative
implications of the curriculum for individual learners. This decision-making system does not result directly in a written product. Rather, it is a process that uses perceptions of learners to determine congruence or disconnection between the learners and the curriculum conditions. The positive conditions identified in this fashion are maintained, while the disconnections are corrected by the remaining system for the emergent dimension.

The model makes purchase on the practical reality in schools and classrooms in three major ways. First, the model is grounded in a definition that resulted from observations of the actual dynamics that take place when teachers attempt to develop and implement improved learning conditions. Second, the three dimensions of curriculum included in the definition resulted from an analysis of conditions in schools that forced elementary and secondary students to live and learn on the margins of the environment. These conditions were identified by means of collecting students perceptions and observations about the milieu of schools and classrooms. Third, the model makes the teacher the key decision maker for curriculum development, particularly for the implied and emergent dimensions. In other words, those educators who are closest to the learners are responsible for developing the curriculum and for insuring that curriculum conditions are in harmony with the learners.

The decision-making system for each curriculum dimension is now presented, followed by a brief description of how the systems are intended to work in the practical. Finally, associations among the three systems are explained.
Decision Making for the Expressed Dimension

The decision-making system for the expressed dimension will be the most familiar to curriculum theorists, since it is closest to Tyler's classical curriculum development process. Figure 4 presents the decision-making system. Building from a platform of shared values, images and beliefs, this system identifies and organizes intended learnings and desirable environmental conditions, leading to planned learning opportunities for students. The system continues by initiating the collection of perceptual and other evaluation data to determine the effectiveness of the expressed curriculum with learners.

The starting point, then, is a curriculum platform, defined as the system of beliefs and values used to guide the development of curriculum. Through a process of deliberation among educators, students, parents and community representatives, decisions are made concerning both the intended learnings and the desirable educational conditions in the school. These intended learnings may be cognitive, affective and/or psychomotor, but will be content-oriented in nature. A statement of desirable educational conditions should also be produced by the deliberative process, describing in general terms the kind of individuals the school seeks to develop and the intended character of the institution as a learning community.

The next step in the decision-making process is to organize the subject content, and the school and classrooms in line with the platform and the stated aims. The processes and considerations at this stage are too multiple and complex for a detailed set of recommendations to be advanced in this paper. Nevertheless, it should be said
CURRICULUM DECISION MAKING FOR THE EXPRESSED DIMENSION

- Implied dimension
- Emergent dimension

CURRICULUM CONDITIONS

Evaluation/perceptual data

planned learning opportunities

subject content organization

intended student learnings

school and classroom organization

desirable educational environments

Curriculum platform
that this is the point for the structures of the academic disciplines to be considered, and for the intended learnings to take on appropriate scope, sequence, and integration. Similarly, careful attention is due the consequences of different forms of school and classroom organization, which are means to the ends that have been set. Each school environment is created, often unknowingly, by decisions made about school rules and traditions, physical setting and institutional roles or relationships. In our model of curriculum as environmental conditions, this arena will be stable in important ways yet also subject to ongoing reorganization.

Once subject matter and environment have been organized, the teacher creates planned learning opportunities for students. Whether course syllabi, instructional units or lesson plans, these learning opportunities are the last product of expressed curriculum before instruction. When the plan is implemented in the classroom, a changing set of curriculum conditions is created. The expressed decision-making system ends with the decisions about evaluation and assessment approaches for determining both the results of instruction and the match between the curriculum and learner. Thus, the expressed decision-making system leads directly to both the implied and emergent decision-making systems which center on reinforcing and improving the ongoing implementation of expressed curriculum.

Decision Making for the Implied Dimension

The decision-making system for the implied dimension of curriculum is entered when the perceptions of students are collected. The perceptions of students toward curriculum conditions can be important sources
of information about the ways the planned environments influence student behavior. Student perceptions provide cues and clues as to how the press of different environments in the form of curriculum conditions affect the conduct of different individuals. Using perceptual data, the implied decision-making system determines whether curriculum conditions create situations of congruence or disconnection for learners.

As Figure 5 indicates, the first step is to collect perceptual data concerning the match between curriculum conditions and learners. While an effective teacher is constantly weighing the implications of student responses to learning activities, sensitive instruments have also been developed to collect and summarize student perceptions toward key dimensions of a learning environment. We suggest that special attention be paid to student responses to the rules and regularities of the school, to unanticipated or incidental outcomes of the learning opportunities, and to the nonverbal actions of students and teachers. Perceptual data are used to identify positive or negative implications of the curriculum conditions for individuals.

The purpose of collecting and assessing perceptual data is for teachers to reach a conscious recognition about the relationship between each pupil and the curriculum environment. We have in mind here something akin to Dewey's concept of problem-definition, in which the transformation of an indeterminate situation into "a problem" is seen as the first step in inquiry. The decision made during consideration of the implied curriculum dimension is clear cut—a situation of relative disconnection or relative congruence exists for individuals. With this decision reached, teacher inquiry has begun. The teacher now moves to the emergent decision-making system.
CURRICULUM DECISION MAKING
FOR THE IMPLIED DIMENSION

**figure 5**

CURRICULUM CONDITIONS

- emergent dimension
- disconnection
- congruence
- negative implications
- positive implications
- implications for individuals
- evaluation/perceptual data
Decision Making for the Emergent Dimension

Figure 6 presents the inquiry process involved in the emergent dimension. Based on a recognition of the disconnection or congruence between learners and curriculum, decision making for emergent curriculum reflects a critical consciousness of the sources of congruence or disconnection, and implements supportive or corrective action to create more effective curriculum conditions.

As we have seen, perceptions are an important data source for judging the association between curriculum and students. Other evaluation data like achievement tests, aptitude tests, interest inventories, or attitude scales can also indirectly suggest disconnection or congruence. In either event, recognition of a problem or desirable condition launches inquiry. The next step is to identify the curriculum conditions that are influencing disconnection or congruence. Using Freire's term "naming," this step includes the formation of hypotheses concerning why a learner is disconnected or successful. For example, if student perceptions indicate that a learning environment is not serving them adequately, their perceptions of the specific curriculum conditions which affect them provide a starting point for the inquiry into what can be done about the mismatch between the curriculum and the student. The naming process could determine whether it is an external condition contributing to disconnection or a misunderstanding or an internal characteristic leading to the problem. Depending on the result of this inquiry, the learning environment could be altered through corrective action that either removes the problematic element or induces the learner to confront and alter his or her own limiting.
figure 6
CURRICULUM DECISION MAKING
FOR THE EMERGENT DIMENSION

- effective curriculum conditions
- corrective action
- supportive action
- critical consciousness
- disconnection
- congruence
- naming
- naming
- evaluation perceptual data
- evaluation other data

CURRICULUM CONDITIONS
perceptions or self-defeating behaviors. It is important to check if the behavior of the learner is indeed the result of disconnection or congruence with the curriculum. The possibility of the quality of student effort contributing to positive or negative action is also considered. Further, attention is given to the off-chance of congruence nourishing the negative or disconnection aiding the positive. The hypotheses formed during the naming process are not likely to define causal relationships in the strict sense of predictability. Rather, a critical consciousness of the curriculum context in which learning occurs for individual pupils should result in the identification of possible links among curriculum conditions, student characteristics, and student behavior.

Based on a growing understanding of curriculum conditions, a teacher can take supportive action to reinforce and motivate successful student behavior, or the teacher can begin corrective action to reduce or eliminate possible sources of disconnection between student and curriculum. As Dewey points out, alterations in a learning environment are experimental in nature, especially at first. Based on exploratory hypotheses, possibly relevant solutions come to mind. Emergent ideas that "pop out" during the determination of factual conditions are, in Dewey's terms, anticipated consequences (forecasts) of what will happen when certain operations are executed under and with respect to observed conditions. . . . The more the facts of the case come to light in consequence of being subjected to observation, the clearer and more pertinent become the conceptions of the way the problem constituted by these facts is to be dealt with.
In fact, as critical consciousness of curriculum conditions develops, the functional fitness of emergent solutions becomes easier for the teacher to assess. The experienced environmentalist teacher, after viewing behavior and considering perceptual data from a learner, can make highly accurate forecasts as to the effectiveness of possible curriculum approaches. Since the end of the emergent decision-making system is more effective curriculum conditions, the process of curriculum reconstruction should be an ongoing series of increasingly accurate emergent decisions concerning ways to increase the match between the learner and the curriculum.

**Decision-making Among the Curriculum Systems**

As Figure 7 shows, the three dimensions of curriculum development are inter-related systems each contributing to effective curriculum conditions. The decisions in the expressed dimension, curriculum's classical starting point, create planned learning opportunities. Once instruction has begun, the implied curriculum becomes increasingly salient, and learner's perceptions are collected in an ongoing monitoring of the fit between students and the curriculum environment. From this problem recognition process (including acknowledgement of successful fit), emergent curriculum decisions are made to correct or reinforce key curriculum conditions.

In sum, a multi-dimensional definition of curriculum has led to this kaleidoscope type model for curriculum development. Thinking back to Figure 3, where the ends of one continuum of curriculum definitions were turned to form a circle, the comprehensive and versatile nature of
this curriculum approach becomes more clear. Too often, curriculum
development models based on one-dimensional definitions of curriculum
have turned a blind eye to the effects of the implied dimension and
overlooked the importance of the emergent curriculum. The expressed
curriculum, on the other hand, has dominated school practice, leading
to a situation where much of the expressed curriculum comes into being
in response to demands for efficiency and convenience. While a multi-
dimensional approach is comprehensive and responsive, it is not simple
or easy to put into practice. For this reason, we now turn to some
considerations for the implementation of this curriculum development
model.

**figure 7**

MULTI-DIMENSIONAL DECISION-MAKING

---

**Diagram:**

- Implied decision making
- Effective curriculum conditions
- Emergent decision making
- Expressed decision making

---
CONSIDERATIONS FOR DECISION MAKING IN THE PRACTICAL

A definition of curriculum and a model for curriculum decision-making contribute to, but do not insure, development and implementation of curriculum. The chances for successful decision making are enhanced, however, when consideration is given to the practical realities necessary for teacher action. Three considerations likely to enhance teacher decision making in schools and classrooms are presented in this final section. The following considerations were identified as a result of talks with teachers about the barriers they face when trying to bring about curriculum improvement.16

The teacher should be the key leader for implementing curriculum improvement, including alteration and elimination of existing curriculum or development and adoption of new curriculum.

Teachers perceive that one of their major responsibilities is to create curriculum in the form of conditions that assist pupils to succeed in their learning in classrooms. It is the classroom as a set of curriculum conditions, with the teacher as a major influential factor, that interacts with the uniqueness of the student. Teachers readily acknowledge that they are closest to students and that they spend the most time with students. It follows, then, that teachers would likely be most informed about student academic needs, personal interests, and learning styles. In plain words, teachers are in the best position to make decisions about the setting for learning. Yet, teachers' reports and experiences show us that many important curriculum decisions are made by people who are far removed from the day-to-day reality of the classroom, and who are without current data about students. Our talks with teachers suggest that they have limited involvement in
curriculum decision-making concerning the social and intellectual conditions for learning (and for their daily work). In effect, teachers perceive that they are usually in a position of accepting or rejecting what others have decided for them.

*The single classroom should serve as a powerful unit for curriculum implementation.*

Unfortunately, decisions to implement curriculum change made by legislators, members of the state department of education, members of the school board, or principals are often viewed by teachers as externally imposed demands that can cause them to perform in ways that are contrary to the needs of learners. Teachers seem to adjust to external decisions by simply retreating to the classroom. Thus many of the curriculum changes thought to be implemented in classrooms have ricocheted from the closed door to rest mainly in the minds of the originators. Possibly the starting point for curriculum implementation should be behind the classroom door with the teacher in the classroom, and then work out to the total school so that conditions for success can be better established. By understanding the nature of existing classroom conditions and the priorities of teachers, appropriate plans for implementation can be developed so that teachers are part of the plan rather than part of the problem of resistance.

*The single classroom is also important for implementation because most encounters between teachers and students intended to promote learning take place in this setting. It is here that students are likely to engage or disconnect from the curriculum. Of course many factors outside the classroom (including home, school, local community) also encourage or impede learning. Yet, it is in the classroom where*
teachers are best able to intensify positive conditions and soften negative forces that make a difference in learning for individual students.

A positive match should exist between teacher behaviors required by the school and behaviors required by student demands in the classroom.

Teachers and the principal working in concert can build a total school environment that supports curriculum efforts and insures an opportunity for success. However, a positive match between the school and the classroom is seen as more of an exception than a norm. Under "out-of-joint" conditions, teachers perceive that survival depends on doing more of what is required by the school and less of what is needed by the pupils. In the process of getting by (and on and up), teachers can develop a mistaken perception of their responsibility for changing the forces they experience. Decisions to improve the curriculum go begging, and the students are presented with curriculum conditions that reflect the incongruence experienced by the teacher. If this circumstance continues, teachers seem to become more willing to accept mismatches between school and learning and less willing to initiate action that will make the school more responsive. Gradually, they become mere spectators in the life of the school.

Teachers who decide to act to eliminate counter-productive external conditions often become "marginal" people living on the fringes of the school. On the other hand, those who decide to adapt to the incongruence survive by being absorbed into the structures that reduce their effectiveness in the classroom. Learning to live with or accept conflict between school requirements and student demands
for learning can make teachers lose awareness of their right and capacity to improve the curriculum environment. Deciding and acting on the reality in which one lives and works are necessary for individual and institutional improvement.

Teachers report that they no longer nod politely and smile at announcements of external decisions that misdirect precious energy that could otherwise be used to foster meaningful learning environments. Yet, they do not seem to take the lead in constructively identifying and eliminating school conditions that sap teacher energy away from assisting pupils to learn. It is necessary to establish the complex connecting tissues that link the teacher with the school and the students. It is the unproductive tension between the teachers and the school environment that must be reduced so that the school can be more responsive and supportive, and so that the curriculum can be a better means for making the classroom an effective place for learning.

CLOSING

This paper establishes a way of thinking about curriculum as environments for learning. The definition and the model for decision-making are intended to generate an intensity of purpose and provide directions for making our schools better. We suggest for your consideration that the ideas about curriculum held by many educators are so limited as to place constraints on achieving the very goals they profess. A change in conceptual attitudes might lead to making the existence of the school more compatible with the people who live and learn within its environment.
The environmentalist approach advanced in this paper places teachers in a central leadership position for initiating needed curriculum improvement. The starting place can be made clear because curriculum decision-making serves as a critical entry point into the improvement process. Yet, teachers must act in order to close the persistent gaps between students and the habitat of our schools and classrooms. This paper was developed in the course of such practice, and it is intended to guide future efforts to improve conditions for learning. Possibly the time is now right for curriculum to be less of a curious creature and more of a responsibility.
REFERENCES

Perceptions of students, teachers, principals, and parents were gathered by means of informal discussions between the authors and the participants. Care was given to insure that various grade levels, different cultures, and social class backgrounds, were represented. Data were collected in different settings, including schools and classrooms, grocery stores, food cooperatives, homes, athletic events, and shopping malls. We simply asked people to tell us what they thought curriculum means. The responses were written down and patterns among various groups were identified. Also, fifty statements describing the meaning of curriculum written by teachers and principals were reviewed to determine patterns. We did not intend to conduct a highly structured and controlled data collection and analysis. Rather, our purpose was simply to gain some insight into how various people viewed the meaning of curriculum.

For a comprehensive overview of the problem of defining curriculum, see Daniel and Laurel Tanner, Curriculum Development: Theory into Practice (New York: Macmillan Publishing Co., Inc., 1975), Chapter I.


Further, the staff of the Center for Curriculum Studies for the past ten years has worked with school systems across the country to involve teachers in curriculum decision-making. These efforts resulted in access to the successes and failures of teachers working with the institutional forces that encourage or hinder curriculum improvement in the practical settings of schools and classrooms. Attempts to solve persistent curriculum problems in the practical context contributed in a systematic and intuitive way to the curriculum decision-making systems and to the definition of curriculum advanced in the present paper. The varied participants in this effort come from schools in the backwoods of Virginia serving children from economically poor families, and from schools in fashionable locations in New Jersey and California, serving children from financially abundant home environments. Following is a list of some of the school systems that worked to have the teacher become a leader in curriculum improvement at the school level:

- Palmer Public Schools, Palmer, Massachusetts
- Montclair Public Schools, Montclair, New Jersey
- Bangor Public Schools, Bangor, Maine
- Pasadena Public Schools, Pasadena, California
- Rockbridge County Public Schools, Lexington, Virginia
- Prince William County Public Schools, Manassas, Virginia
- Rockingham County Public Schools, Harrisonburg, Virginia
- Winston-Salem Public Schools, Winston-Salem, North Carolina
- Leonia Public Schools, Leonia, New Jersey


Sinclair and Sadker, op. cit., Ghory, op. cit.

15 Ibid., p. 109.