This paper defines "confluent education" as the integration of the affective and cognitive elements and discusses the complications of over-emphasizing either the affective or cognitive aspect to the detriment of the other. The author presents an overview of techniques in affective learning and suggests ways to integrate such techniques into conventional classroom practice and content. He suggests two general questions for teachers to ask themselves: 1) What possible relevance does this content or material have to the present lives of my students? 2) How do my students feel about this content or material? He cites several programs that are working to emphasize the affective element. These include the Affective Education Project in the Philadelphia public schools and a program called Development and Research in Confluent Education (DRICE) at the University of California at Santa Barbara. Finally, the author suggests the creation of a national clearinghouse for information on introducing affective learning experiences into teaching. (RT)
affectivity, classroom climate, and teaching

establishing the AFT clearinghouse on humanistic education

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INTRODUCTION

Several important new terms have worked their way into the educational vocabulary since Benjamin Bloom and his colleagues published their two handbooks on the taxonomy of educational objectives in 1956 and 1964. I am referring to the words "affective" and "cognitive." Dr. George I. Brown, of the University of California at Santa Barbara and author of this monograph, defines the two concepts in this way:

Affective refers to the feeling or emotional aspect of experience and learning. How a child or adult feels about wanting to learn, how he feels as he learns, and what he feels after he has learned are included in the affective domain.

Cognitive refers to the activity of the mind in knowing an object, to intellectual functioning. What an individual learns and the intellectual process of learning would fall within the cognitive domain.

... from Human Teaching for Human Learning (Viking Press, NY, 1971)

A newer, related, and more complex concept has been called confluent education by Brown and his colleagues. Defined as the integration or flowing together of the affective and cognitive elements, the term also has been called humanistic education. Confluent education, according to Brown, "is the beginning of a serious attempt to renew one of the oldest traditions in Western education - that for the whole man - in a human society now being pulverized by a growing dehumanization."

In Dr. Brown's newest paper, "Affectivity, Classroom Climate, and Teaching," the author discusses the complications of overemphasizing either the affective or cognitive aspect to the detriment of the other. (Or, as a first-grader in the Ford-Esalen Project neatly put it, "My imagination bothers me. It gets into fights with my mind, and then I can't work.") Brown presents an overview of techniques in affective learning and suggests ways to integrate such techniques into conventional classroom practice and content. In his emphasis on the development of two of the major affective components, awareness and responsibility, Brown provides the teacher with a structure which they could use to "hang," as he puts it, their teaching behavior.

Two general questions are suggested for teachers to ask themselves: (1) What possible relevance does this content or material have to the present lives of my students? (2) How do my students feel about this content or material? Working with these questions as a starter, each teacher, no matter what his overall style, should be able to begin to introduce affective components into the classroom.
These few sketchy ideas, obviously, give only a very brief taste of what "Affectivity, Classroom Climate, and Teaching" is all about. I suggest you read it closely, but more than that: respond to it. The monograph is reflective of a previously stated AFT-QuEST objective: "The archives of education are cluttered with thousands of studies which have not filtered down to where they would have the most effect, that is, in classroom practice. To guard against this, the QuEST program has as its goal the implementation of the findings of research. Otherwise, it would be like a scissor with one of the blades missing."

We hope to provide teachers with both parts of that scissor. The monograph, therefore, ends on this note:

For a larger cooperative endeavor through extensive sharing on a national basis, Bob Bhaerman, Director of Research, AFT, has agreed to set up some sort of central clearinghouse for teachers who wish to work in the areas of improved classroom climate and the introduction of affective components and learning experiences into their teaching. The clearinghouse could provide a place for sharing ideas, problems and successes and failures. If there is enough expressed interest, he will follow-up with an appropriate structure which could facilitate meeting your needs. Those of you who are interested might also describe the kinds of service you would like this clearinghouse to provide.

Perhaps it is too wishful to think that teachers can prevent the dehumanization cancer from spreading further. But, I think it can be done -- and only by the classroom teachers in this country.

Dr. Robert D. Bhaerman
Director, Research Department, AFT
April, 1971
When the term "classroom climate" appears before the reader's eyes, there seems an inevitable tendency for most teachers to either put the reading aside or if they are somewhat more perseverant, to at best brace themselves in preparation for a series of admonishments probably carrying one of two polarized messages. The first message is clear; you must love the student more! This means you are to supply him with warmth, nurturance and other good things that would make classroom life more pleasant and more protected from the evils and frustrations of the real world. The other message, also clear but contrariwise, insists you must exert more control or discipline in your classroom. The fundamental implication at this end of the continuum, is that the teacher is the paid adult representative of society who has the obligation and responsibility to "teach" (meaning to indoctrinate) students with rules, regulations, and the implicit and explicit order of that society. And this is to be done for the student's own good. In order for him to fit into society, to be a happy, productive member of the society, he has to know its rules.

Each message contains a number of assumptions based on philosophical values, attitudes, and views of how the world is, or how it should be. We will not pursue these assumptions here, based on our own assumption that the reader is undoubtedly familiar and probably weary of these, and instead will present our own position as to classroom climate. This is based on our work and the shared experiences of classroom teachers with whom we have worked. We will also describe a rationale for this position.
Fundamentally we are concerned with a classroom climate which develops two symbiotic qualities: awareness and responsibility. The awareness of which we speak is an awareness of the reality of the moment, the existential quality of the NOW. This would include the student's awareness of himself, his identity, along with an awareness of his immediate educational universe, composed both of the people who surround him—classmates, teachers, and others, and the materials and content of the curriculum. (For the moment, we will postpone the question of personal relevance of this content and these materials.) In essence, this then is an awareness by the student of what he is doing or what he is not doing and how he experiences it.

This awareness is symbiotically related to responsibility because the responsibility which we have in view is a responsibility that the individual can take for his own actions or lack of action, for all his behavior, for what he does or does not do. In order to be responsible in this way, as a prerequisite, one has to be aware of what he is doing. And an awareness of what one is doing without taking responsibility for it is an anarchistic, amoral and usually useless or perhaps even destructive act. Thus we have a symbiotic relationship between awareness and responsibility.

The next question we must ask of ourselves is: "What is the use or validity of awareness-responsibility as an educational goal?"

Within the context of our own society, the answer is a simple one. We live in what is theoretically designed as a democratic system, one in which the success of the system inevitably depends on the participation of its citizens. The committed, intelligent participation of the citizenry can make the democratic system a dynamic process. The lack of this participation
causes the system to remain a theoretical abstraction, completely non-functional. In its place, then, will be substituted on one end of the political polarity an authoritarian society, or at the other end, anarchy.

In describing congruous citizenship in democracy we used the term "intelligent participation." Intelligent participation can be defined as an ability to select the most appropriate alternative responses to real problems, that is problems which exist in reality. To the reader this might seem obvious, but in practice this may not be so obvious. Discriminating what is real, differentiating between illusion and reality is not that simple. It requires a kind of discipline and sensitivity which has to be learned. Unfortunately, those who do learn how to know what is real often learn this in spite of the schools, not because of them. Overemphasis on the cognitive or intellectual dimension of learning while neglecting emotional or affective components surprisingly can defeat goals such as objectivity, clear thinking, and rationality held by the educators who stress primarily cognitive content and approaches in the teaching-learning process.

Before skills for discriminating and differentiating reality can be used, there must be a commitment to their use by the individual. This is where responsibility as we have defined it comes in. Awareness and responsibility are not easily learned. But they are impossible to learn without an affective component in the learning process. For example, it is in fact true that we "feel" responsible, we do not "think" responsible. And basic to awareness is sensing, sensation and sensibility: All have affective components. Moreover, functioning as an aware and responsible citizen can be unpleasant and frustrating, full of paradoxes, ambiguities and uncertainties, so that often decisions must be based on extrapolations. These extrapolations, however, have more operational validity than the sweet and pleasant delusions created by wishful thinking and
fed by mass media. It can still be satisfying to live in a world of ambiguity, but how to do this has to be learned, too. Again an affective dimension is essential. Getting in touch, mostly affectively, with one's own strength and resilience is crucial here. One has to learn how to achieve personal sufficiency while moving from one part of an ambiguity to another which can result from appreciating the personal strength and resources one has and can bring to this movement.

The neglect of the affective or emotional component in learning seems incredibly shortsighted in terms of what we do know about learning. Yet the situation where interest in affectivity in learning and teaching has been in decline among most groups of researchers and teacher trainers and teachers, may to some extent be the consequence of the past limited availability of theory and methodology. Only recently have behavioral scientists extensively attended to operational theories, most developed by humanistic psychologists, human growth-oriented individuals like Maslow, May, Perls, and Rogers. Although these seem only to be a good beginning, enough theory is available for direct and practical application. On the other hand, application to the educational process has been fomented by the recent explosion in the development of techniques and approaches to affective learning. Though containing some debris, which one might expect from any explosion, there has also been a serious and responsible beginning to utilizing both developing theory and methodology as illustrated by work in schools of Weinstein, the author, and others.

There are two major thrusts for the utilization of the affective domain in classroom climate, (which is, of course, determined by classroom practices), both potentially powerful in terms of educational payoff. First, would be attending to emotional growth as an entity. This is a matter of focus rather
than purity for it is questionable whether there can ever be affective experience without a cognitive component and vice versa. However, most formal educational practice has focused on cognitive functioning; most recent research and most professional training has centered on the cognitive domain, on the intellect. The second thrust finds its basis in this apparent mutuality of the cognitive and the affective and cognitive domains in classroom practice.

The importance of a healthy personality, its relationship to learning, and factors which interfere with its development have been much discussed, thus it is unnecessary to review the literature here. Instead we can comment on how within the educational boundaries of the classroom some theoretical discussion and clinical and experimental findings show promise for use by the teacher.

The concepts of F. S. Perls (1969), founder of Gestalt Therapy, have direct application to the classroom as witnessed by the work of Janet Lederman in her book, *Anger and the Rocking Chair* (1969). Working with ghetto children who were impossible to contain in conventional classrooms, Lederman was able to shape anger, aggression and rebellion into productive and creative processes. She worked with the Gestalt process of reowning projections so that young black children were able to become aware of themselves and what they were doing and, further, learn how to take psychological responsibility for their behavior.

The writing of Richard M. Jones (1968) calls for the wedding of psychotherapy and pedagogy and within Erik Erikson's framework develops a sophisticated theoretical treatment of the use of fantasy and feeling in education. Richard DeMille (1967) has further described the practical use of imagination for young children. (The appendix contains an overall review of the research literature for those who may be interested.)
In Human Teaching for Human Learning, Brown (1971), a description of the Ford-Esalen pilot project carried out by teachers who collected an inventory of affective approaches to learning and then adapted these within the conventional public school curriculum, we present a rationale for the planned integration of the affective and cognitive domains.

A compressed and, as a consequence, somewhat simplified part of the rationale follows:

In terms of the emotional health of the individual and the consequent effect of the state of that health on his behavior as a member of a group, community and society, attention must be paid to the effects, positive or negative, of his socialization process. A major portion of this process is his experience in schools. Schools, which attend primarily to cognitive processes because of their explicit or implicit goals, curriculum or attitudes of the teacher are neglecting the potential for educating for the personal or emotional growth of their students.

Secondly, these schools are probably having negative effects on both emotional and intellectual growth because their focus on cognitive content tends to give minimal attention to the individual student's emotional responses to the learning being structured for him. Although motivation for learning can be a consideration of the highly cognitive oriented teacher or school, in practice this is too often manifested as a procedure to initially gain the student's attention. From an eagerness to get on with the cognitive content the need to sustain that attention can then go unheeded. Students, through extrinsic motivation, are forced to attend to that content, self concepts as learners, or existential emotional states. Along with being "turned off" to the
cognitive content, many kinds of negative effect on the emotional health of the individual can result. This in turn, can affect the individual's further ability to learn and, of course, his productivity and perhaps lead to students' destructive social behavior.

In pursuing the second thrust, let us elaborate on the confluent quality of learning, when the affective domain and the cognitive domain lose their boundaries and become inextricably fused and interdependent on each other.

Just as it is not possible to have an affective experience without some cognitive accompaniment, as in the use of words, verbalized or not, to symbolically translate the affective experience, it is not possible to have cognitive learning without an affective component. Ultimately, even the mathematician dealing with his most abstract cognitive concepts in a most gross sense experiences satisfaction, frustration or boredom.

In pursuit of rational objectivity the subjectivity of knowledge has frequently been condemned. However, this position is too simplistic. While emotions which distort reality are undesirable, emotions which contribute to the experiencing of reality are essential. As Polanyi (1966) points out, it is the passion of the scholar that makes for true scholarship. Besides, as we have said, overemphasis on the cognitive can have deleterious effects on the affective. Krathwohl, Bloom and Masia (1956) comment "that under some conditions the development of cognitive behaviors may actually destroy certain desired affective behaviors and that, instead of a positive relation between growth in cognitive and affective behavior, it is conceivable that there may be an inverse relationship between growth in the two domains." Furthermore, the converse may be stated in that the denial of the development of affective behaviors can in turn
limit or destroy certain desirable or anticipated cognitive behaviors. In the words of a first grader in the Ford-Esalen project, "My imagination bothers me. It gets into fights with my mind, and then I can't work."

Those whose current emphasis is on the improvement of cognitive learning could well profit by consciously incorporating the affective dimension into their teaching methodology and curriculum content. An essential component for genuine learning, i.e., learning that is internalized and becomes a lasting functional determinant of behavior, is the personal relevancy to the learner of what he is to learn. Personal relevancy is wedded to how and what the learner feels about what he is learning. Paul Tillich described what he called the fatal pedagogical error, "To throw answers like stones at the heads of those who have not yet asked the questions." Techniques in affective learning and ways to integrate these techniques into conventional classroom practice and content are becoming available. Their use can become an integral part of content and procedure, what is taught and how it is taught, so that learning becomes more relevant and thus more personally meaningful.

In our emphasis on the development of responsibility and awareness as a focus for the teacher's classroom climate, we hoped to provide a somewhat simplified structure which the teacher could use to hang his teaching behavior on. Otherwise, it would be easy to become overwhelmed by what might seem to be the immense task of integrating affective components with the cognitive content of the curriculum. The affective domain does cover an extremely broad range of emotions, attitudes and values. Attending to the development of responsibility and awareness is a convenient place to start.

Before we provide some practical suggestions on how to begin to do this,
the reader might find some encouragement from what other teachers who have been given the time and opportunity have done.

There are two large school districts which are seriously committed to dealing with emotions as a serious factor in education. In Philadelphia, in the Affective Education Project under the leadership of Terry Borton and Norm Newberg, a number of teachers are involved in designing experimental curricula focusing on pupils' affective concerns.

Contained in a recruitment brochure for Louisville, Kentucky schools, is an unusually enlightened statement by the superintendent, Newman Walker, with regard to affectivity in education. "Louisville seeks to become a national model for humanism in education. We need the help of teachers who agree that a major weakness of our schools today is the failure to provide personally significant relationships among all persons in the educational process—pupils, teachers, parents and administrators. Education's past concern for human relationships has been incidental, informal, unfocused, and lacking in the substantial financial support and planning necessary to implement new programs and processes. Here you will have the opportunity to participate in new programs to grow personally and professionally, and to exercise the freedom to teach creatively in a school organization committed to reducing bureaucratic restrictions and to building a climate of openness and honesty in professional relations. We are committed to a more thorough understanding of human interaction both in and out of the classroom."

What is even more unusual about this statement of school policy by Superintendent Walker is that it is not just rhetoric. As a consultant to the district, we had an opportunity to observe and participate at many levels.
of functioning within the district, and what Walker says is what is being attempted in Louisville.

*Toward Humanistic Education,* Weinstein and Fantini (1970), describes work in the Ford Foundation-sponsored Elementary School Teaching Project which was directed toward designing and field testing curricular in the realm of emotion and feeling. Beginning with work in slum schools, the project was expanded to a more generalized concern for a curriculum of affect. Building on this experience, Gerald Weinstein, one of the authors, is working at the University of Massachusetts with a staff of teachers to develop units in what he calls psychological education. These focus on the "self" of the student, and have three major concerns: the development of self-identity, connectedness and potency. These teachers teach the units they develop in differing educational settings varying from ghetto schools to suburbia. After being "teaching-tested," they are revised and modified, the plan being to have a series of units available as models for other teachers. The intent is not necessarily that other teachers use the units as a prescribed way to teach, but rather that each teacher be stimulated to modify or further elaborate on the ideas and suggestions in the unit according to his own teaching style and values.

The Ford-Esalen project as described in *Human Teaching for Human Learning* has previously been mentioned. In this project elementary and secondary teachers first experienced a variety of affective, Esalen-type experiences in workshop settings. These included such disparate fields as modern dance, contemporary theater, Eastern religions, new group processes and therapies, physical awareness training and corporate creativity training. They then returned to their classrooms to try to integrate these experiences into their classroom teaching.
Given the chance, these teachers were able to develop many exciting and creative lessons, units and other writings describing how they integrated affective experiences with the content of the curriculum. Furthermore, they were soon able to invent their own affective approaches.

A number of the teachers in the original project have since become trainers of other teachers in a larger project currently going on at the University of California, Santa Barbara called DRICE (Development and Research in Confluent Education). Among the subprojects of DRICE are an elementary curriculum project in English and Social Studies curriculum in the secondary schools, and a project focusing exclusively on the use of affective learning approaches in the teaching of reading. Common to all the subprojects is the operational principle that the teachers, themselves, are responsible for what happens. They are all volunteers, and are definitely not involved because of administrative fiat, though they do have administrative support. Because of their own intrinsic commitment, the quality of work of these teachers is inspiring.

There was one characteristic common to all of the original group of teachers that could have provided a base for their success both in the project and later as trainers with other teachers. Each was already considered a good teacher before he entered the project. Along with this recognition of effectiveness as a teacher was an element also common to each teacher. All were dissatisfied with their teaching and wanted to improve. However, they felt at a dead end when limited to cognitive concerns and methodology. They had taken courses in summer school, in graduate school and in in-service training and felt there was nothing left in conventional training or study that could really help them. When confronted with the opportunity to move into the affective domain professionally as well as personally, they were excited and eager even though...
somewhat apprehensive at the prospect. This was an unknown area to them, and the prospect of moving into the unknown tends to awaken catastrophic expectations in nearly all of us.

By the way, this is a good example of how we use our minds to create fantasies, vague though they may be, with which to frighten ourselves and thus often keep ourselves stuck in a status quo existence both personally and professionally. We populate the unknown with dim but threatening ghosts, demons and assorted hobgoblins of what might happen if we were to expose ourselves to new experiences. To be sure each of us has available on call his own personal list of potential weaknesses, failings and pitfalls. And it is with our minds we conjure these up, usually with a disregard for what is happening NOW and how we are NOW but rather base our conjurations on how we used to be and what has happened to us in the past, especially in our childhood, even though we may not be aware that this is our referrent period. Rather than take responsibility for our present strengths, resources and abilities we instead cling to a concept of ourselves out of the past. This concept may possibly be accompanied by such characteristics as weakness, impotency or insufficiencies which though appropriate for the status of children are likely less valid at least in degree for adults. One can see here how a lack of awareness and responsibility can be a detriment to personal and professional growth.

An awareness of this condition as a problem and a willingness to take responsibility to admit that the condition exists is the first step for the teacher. And this can be a giant step. Beyond this point the teacher can work by himself or with colleagues using some of the readings mentioned above as a guide. Or he can seek out experiential workshops or training that can help him
continue his growth in this area. (Further suggestions about this will be made at the end of this paper.)

For his students the teacher can begin to create a classroom climate centering on learning awareness and responsibility. Sometimes, a degree of frustration provided by the teacher is essential to develop increased awareness and responsibility for students. To give support to a student, intentionally or not, when and where it is actually not needed, is to deprive the student of the opportunity to exercise these functions. A good ground rule for teachers is to not do anything for a student that he is capable of doing for himself. There are two dimensions to this ground rule. One is knowing what each student is capable of doing. Both teacher and student often underestimate this. Second is getting in touch with the games and other devices the student may use, often not consciously, to convince others that they have to do things for him that he imagines he cannot do for himself.

Obviously the teacher-student relationship is far more complex than that described above. This, however, does not take away from the consequence of what has been suggested here.

Because of space limitations, it is not possible to elaborate here on related aspects of the suggested use of frustration. We can, nevertheless, provide a description of actual behaviors of the teacher in the classroom who is concerned with the development of awareness and responsibility as part of his classroom climate. These can be used as a check list by the individual teacher for his own use. They also provide a simple and practical elaboration of what we have been proposing.

Some of these teaching behaviors are as follows:
1. Each student is made aware of his strengths, and these strengths are used in class activities.

2. Each student when given a problem situation is helped to be able to pose alternative solutions for himself on the basis of his own needs, at the same time, however, being able to consider the reality of his situation.

3. Each student is helped to choose between the alternatives and, based on his power to discriminate between what is real and what is fantasy, to select the alternative which is most appropriate. The teacher assists the student in learning how to discriminate.

4. Each student is helped to recognize and tolerate disappointment and frustration and then mobilize the energy in these and use it.

5. The teacher is capable of determining when a student is having difficulty and knows when to help the student directly, or to help the student help himself or to keep hands off or even sometimes when constructively to increase the student's frustration. His decision will be based on knowing when a student cannot help himself.

6. Alternative ways of approaching problems are suggested by the teacher only after the student has exhausted his own alternatives.

7. The teacher expresses a realistic view of each student. When a behavioral or learning ability problem occurs, the teacher focuses on the behavior and not on the personality of the student.

8. The teacher has genuine respect for each student. There is no penalty for failure from the teacher, nor does the teacher allow this to be manifested by classmates.
9. The teacher is willing to admit his own ignorance and limitations to his students when this is true.

10. The teacher can discriminate between the degrees of a student's projections and a legitimate criticism.

11. Class lessons are designed in such a way that the students' responsibility for problem solving and learning is emphasized.

12. Some class lessons should be structured to help each student relish challenges so that he will not be afraid to contemplate the difficult.

13. Learning experiences will be provided by the teacher to help each student discriminate between failure due to his own actions and failure caused by events outside his control.

14. The teacher will help the student to avoid becoming "fixated" with his success.

15. The teacher stresses the value of each individual student in his contributions toward the solution of the problems of others and helps all his students to also appreciate this value.

16. The teacher does not usurp or assume responsibility for his students' learning based on the degree to which they are capable of assuming this responsibility themselves. Furthermore, he continually strives in his teaching to develop his students' ability to increasingly assume more responsibility.

17. At the same time, the teacher can attend to his students' needs with a minimal interference from his own needs.
The above are, of course, general behavioral descriptions. The reader might well demand certain specifics which could be used in his own teaching, especially with regard to how the affective can be combined and integrated with the cognitive. The readings mentioned above can be helpful. But for a beginning the following is suggested.

Use as focal points for your lessons and units two questions:

1. What possible relevance could or does this content or material have to the present lives of my students?

2. How do my students feel about this content or material?

Working with these questions as you teach, sometimes directly and sometimes indirectly—each teacher has his own teaching style—you will automatically introduce an affective component in the learning in your classroom. At the same time, you will be creating a climate in your classroom which will greatly increase the relevance of each student's learning and possibly, as a consequence, make this learning more exciting, more meaningful and thus more lasting and useful.

The two questions may not be suitable or appropriate as teaching foci for all subject matter or for some aspects of a subject, or even salient or "right" for some teachers. This is especially true if a teacher feels highly uncomfortable using these questions in his teaching. For other teachers who have not used this approach before it might seem strange and, as a consequence, perhaps a little awkward and uncomfortable at first. Furthermore, focusing on these questions might not work in the beginning. It would be easy then to write them off as not having any use for you in your teaching. Instead, examine what you
are doing and how you are doing it. Then modify your approach, experimenting with different sequences and structures. It also would be very helpful if you can find at least one colleague who at the same time is also trying out the use of these questions in his teaching with whom you can share what you are doing. Obviously, exchanging ideas, problems and critiques can be very helpful. Of equal importance, however, is the affective component of this colleague relationship. As indicated in the Asch (1952) experiments, one person alone when confronted with external pressures, such as those from a group, has great difficulty to avoid being forced to conform to these pressures. If he has even only one other person 'with' him, the two can withstand great external pressure to acquiesce to some external norm. If you are genuinely committed to experimenting with the approaches we have described and have a fellow teacher to work with you, the two of you can strongly resist inevitable pressures from others who may see change as a threat and who would have you compromise your professional integrity. Your emotional strength will emerge from the mutuality of your shared concerns and your professional coaction.

For a larger cooperative endeavor through extensive sharing on a national basis, Bob Bhaerman, Director of Research, AFT, has agreed to set up some sort of central clearinghouse for teachers who wish to work in the areas of improved classroom climate and the introduction of affective components and learning experiences into their teaching. The clearinghouse could provide a place for sharing ideas, problems and successes and failures. If there is enough expressed interest, he will follow-up with an appropriate structure which could facilitate meeting your needs. Those of you who are interested might also describe the kinds of service you would like this clearinghouse to provide.
"Classroom climate" is only recently being taken seriously as a necessary concern in the pursuit of traditional educational goals. Mitzel (1960), in his article on "teacher effectiveness" in the 3rd edition of the Encyclopedia of Educational Research, wrote that the emphasis on social-emotional climate which sprang from Withall's (1949) scheme for analyzing teacher-student interaction "is rationally sound when schooling is viewed within the larger framework of the goals of Western society" (Mitzel, p. 1484). However, recent educational theory and research has suggested that certain classroom characteristics are not merely desirable in their own right but significantly contribute to the educational outcomes we have always sought. For this reason references to classroom climate have begun to appear more frequently in conjunction with research on teacher effectiveness. In this review we shall explore these references. The product variables we shall examine are mostly the traditional learning goals, but attitude variables and other variables also crop up in the research literature.

The reader interested in examining the evidence for himself can find good summary articles in the 3rd and 4th editions of the Encyclopedia of Educational Research (Mitzel, 1960; Flanders, 1969). Also, Gage (1963) provides a helpful collection of articles on research on teaching. These are primarily traditional in their stress on outcomes. Carl Rogers (1969) reviews some of this evidence from the point of view of one deeply committed to goals of creativity and interpersonal growth and thus his arguments include references to both traditional and more recently emphasized goals. It will be well to start with Rogers in order to illustrate the need to clarify the argument by separating these two categories of goals, and then considering the question of whether they reinforce each other.

Rogers states that basically three qualities in a teacher tend to create a facilitative learning environment. They are: (1) realness or genuineness, (2) an attitude of acceptance and trust, and (3) empathic understanding. Rogers begins with emphasis in psychotherapy which shows, in brief, that when a client perceives his therapist as exhibiting these three qualities his self-learning and therapy are improved (Barrett-Lennard, 1962). Emmerling (1961) used Barrett-Lennard's Relationship Inventory to determine that teachers who listed their chief problems as being student-centered were higher in these same three qualities than teachers whose chief problems were stated in terms of students' failures. Bills (1961, 1966) extended these findings by showing that teachers rated as most effective by their superiors were rated higher by their students on the same three factors on the Barrett-Lennard Relationship Inventory. These studies nicely confirm Rogers' predictions, though they do not include direct evidence that learning is facilitated. Aspy (1965) fills in this lack somewhat in a study involving tape-recorded sessions of six 3rd grade classes. Two week-long recordings were made, separated by a two-month interval. These

* The author is indebted to Dennis Ridley for his work on this section.
recordings were rated by independent, naive raters who judged the classes according to the degree of the same three qualities in the teacher as in the above studies. He found that children in the three classes rated highest in these qualities showed significantly greater reading gains during the period studied. This study, though interesting, does not permit conclusions about the contribution of each one of the three factors separately. Other evidence cited by Rogers (Schmuck, 1963, 1966) suggests only that liking by the teacher is important to facilitating learning. Another study, not teacher permissiveness, is significantly related to vocabulary and arithmetic achievement. Goodman (1959) found "classroom atmosphere" the degree to which teachers attempted to relate subject matter to the interests and ability levels of students--student centered--to be significantly linked to pupil performance while Bowles (1968) similarly found a significant relationship between the amount of time teachers spent in guidance activities with 12th grade Negro male students, using the Coleman Report survey date, and student scores on tests of verbal ability.

In summary, Rogers' theory of three distinct factors of which the first, genuineness, is most important, is not strongly supported in reference to learning by the evidence he cites. A further leap is involved from these three factors to his assumption that there is a basic tendency toward actualization of abilities in students and that, given the optimum conditions, the student will realize his potentialities as a learner. As the reader can see, there is a vagueness in this theory which stems from the fact that Rogers is committed to a theory of personality and of the creative or "fully-functioning person," and these goals are seen as equally valid in the educational field. It may be that they are, but it will be less confusing and possibly more fruitful to clearly distinguish the traditional goals and the goals of creativity and personal fulfillment.

Flanders (1969) begins his review of research on teacher effectiveness by pointing out the great strides which research has made since the 1960 review by Mitzel in which he stated: "No standards exist which are commonly agreed upon as the criteria of teacher effectiveness" (Mitzel, 1960). Flanders states that the following tentative generalization can be made: "The percentage of teacher statements that make use of ideas and opinions previously expressed by pupils is directly related to average class scores on teacher attractiveness, liking the class, etc., as well as to average achievement scores adjusted for initial ability" (Flanders, 1969). As the reader can see, a variable of the total classroom climate is analytically defined in terms of a process variable and one or more product variables, so that we can begin to see what is going on. We shall hereafter refer to this relationship as the process-product relationship.

The first evidence for this relationship came from four studies by Flanders (1966). The process-product relationship, both in terms of attitudes and achievements, was found in the classroom observation of 51 high school teachers whose verbal output was coded at a nearly constant rate. These findings were corroborated by a reanalysis of Flanders' data by Furst (1967). Furst contrasted the classroom discourse of the classes which scored highest and lowest on achievement, and found that the highest classes experienced more responsive teacher talk, less teacher talk, and more extended pupil talk.
Cogan (1963) attempted to find evidence of the process-product relationship by means of a questionnaire which was given to junior high school pupils in 33 classes. A score representing the students' perceptions that their ideas were central to the teaching was found to be significantly positively related to scores of how much regular work was done and how much extra work was done. As Flanders points out, the weakness of this study was that teacher behavior was not directly assessed. Additional evidence of the process-product relationship was found in La Shier (1965) and Morrison (1966) with respect to both attitudes and achievements, and in Johns (1966) with respect to attitudes and the asking of thought-provoking questions. Another tack was taken by Pankratz (1967), who identified 5 "high" and 5 "low" teachers in effectiveness according to superiors' ratings, pupil attitudes, and a "teacher-situation reaction" test. These 10 classes were observed during six periods, and systematic ratings were made. The major finding was that the 5 "high" teachers made more use of ideas and opinions expressed by pupils than the 5 "low" teachers at the .01 level of confidence. Still another approach was taken by Flanders et al. (1963), who used role-playing teachers in a 9-week course with adult pupils. They found that those exposed to instructors who made more use of their ideas and opinions saw themselves as becoming more independent and had higher scores on work output.

Two studies failed to verify the process-product relationship. Guggenheim (1961) studied 50 3rd grade classes, and used the Wrightstone Teacher-Pupil Rapport Scale to identify the 11 most "dominative" and 11 most "integrative" teachers. This result was verified by observation. He then failed to find differences in pupil achievement between matched pupils in the two types of classes. Snider (1965) used interaction analysis in studying high school physics classes, but failed to find evidence of the process-product relationship. Flanders (1969) suggested that this result may have been due to a lack of sufficient variation in classroom processes in high school physics classes in general.

Closely related to the studies of the process-product relationship are studies of the effects of teachers' praise. Reed (1961, 1962) explored the effects of teacher warmth, and the relation of praise to product variables among 1,045 ninth grade general science students. He found significant positive correlations (+.20-+.40) between certain teacher behaviors, e.g., warmth, demand, and using intrinsic motivation, and a product variable of "pupil interest in science." Dollins (1960) conducted an experiment of the effects of varying degrees of teacher praise in 4th grade classrooms. Greater amounts of praise were found to help pupil adjustment as assessed by the California Test of Personality, but not arithmetic achievement. An interesting study on praise, but perhaps tangential to our subject, was conducted by Flanders and Havumaki (1960). They divided 330 10th grade students into groups of 10 each. In 17 groups students in odd-numbered seats were praised for group participation; in the remaining 16 groups all students were praised for group participation. They found a significant tendency in the first 17 groups for the praised individuals to receive more sociometric choices, but no such tendency in the remaining groups. This is interesting if one argues that "diffuse liking structures" in a classroom make for more involvement in peer groups and greater utilization of abilities, as does Rogers (1969, p. 119).

Another group of studies comes closer than the preceding studies to Rogers' dichotomy between teacher-centered and student-centered instruction.
This dichotomy grew out of Withall's (1949) pioneering index for measuring classroom climate, and assumes different names, including direct-indirect, directive-responsive, and dominative-integrative. Basically they all refer to an index for classifying classroom interaction which can be reliably used by trained observers. A student-centered climate is characterized by teachers accepting feelings and inviting student response as well as praising and accepting student ideas (which we explored as variables above); a teacher-centered climate is characterized by lecturing, giving directions, and criticizing or justifying authority.

Although this dichotomy lumps together various aspects of the total situation, precluding analysis of these aspects as independent factors, it could be argued that this method nevertheless lends itself more readily, and realistically, to experimentation than a more analytical approach. The reasoning here is that a teacher can more realistically role-play either a teacher-centered or student-centered pattern than he can artificially provide either praise or acceptance of ideas separately; for example, it is difficult to filter out overtones of praise or acceptance of feeling from one's performance while making use of students' ideas.

With this in mind, we shall first examine studies which used role-playing teachers. An old study by Flanders (1951) is interesting to compare with later studies. Flanders exposed students individually to contrasting types of teacher behavior within a laboratory situation. "Dominative" teacher behavior was consistently disliked by pupils, who suffered a reduced ability to recall the material studied and experienced disruptive anxiety as measured by galvanic skin response and faster heartbeat rates. "Integrative" teacher behavior produced the opposite student reactions. The newer study, however, suggests that not all students react alike to these influences, at least in their learning. Amidon and Flanders (1961) used the same role-playing teachers to create both a rigid, direct pattern and an indirect pattern of teaching geometry to junior high school students. It was found that not all students, but those classified as "dependent" by scores on a special scale, learned less geometry under the direct approach. It is possible that the first study showed such pervasive effects of directive behavior because students were exposed one at a time rather than as a group. Two further studies of role-playing teachers investigated primarily the attitude dimension of student reaction. Hoover (1963) contrasted "teacher-centered," "pupil centered," and "group-centered" classroom climates. The Purdue Rating Scale failed to reveal differences in attitude. Miller (1964), however, found in a controlled experiment that junior high school pupils in classes of "responsive" teachers had significantly more positive attitudes and used significantly higher levels of thinking than pupils in classes of "directive" teachers.

In summary, there is a variety of evidence that "student-centered" as opposed to "teacher-centered" instruction produces more positive attitudes and greater learning. It appears also that an important aspect of this climate for learning is "making use of pupil's ideas." Another important aspect is teacher praise or the closely related teacher characteristic of warmth. We must be cautious, however, of equating these dimensions with Rogers' concepts of student- and teacher-centered instruction. Recalling that Rogers described a global concept involving genuineness, trust or warmth, and empathy, of which
the first is the most important, we recognize that the indices of classroom climate used in research do not match these concepts because they do not incorporate the main factor of genuineness. Therefore there is no evidence from the studies of role-playing student- or teacher-centered instruction which exactly confirms his theory, since teachers might have been ingenuine although carrying out a valid performance. None of the other studies have any bearing on genuineness as an aspect of effective teaching, except the study by Aspy (1965) which Rogers cites, and there, as we pointed out earlier, we cannot make definite conclusions about the contribution of each of the three factors, genuineness, warmth, and empathy, to the reported learning gains.

The use of indices of classroom climate in research makes it clear that teachers classified as dominative and integrative, or direct and indirect, differ only in degree, and all teachers use both types of statements at some time (Amidon and Flanders, 1963). Is it accurate then to characterize effective teaching in terms of one pole as against the other? According to Amidon and Flanders, it is necessary to introduce the idea of flexibility of teacher behavior, i.e., that he may need to vary his behavior according to the circumstances to achieve the desired consequences. In other words, it may not be the ability to maintain a particular classroom climate that is key, but instead the ability to shift from one type of influence to another as the occasion demands or warrants. The validity of the findings concerning classroom climate would then stem from the fact that the effective teacher by this latter definition is also one whose classroom is most often characterized by integrative or indirect contacts. All of these thoughts are merely to point out the complexity of the situation.

Perhaps the most basic research relevant to affective components in learning situations may be found in Zubek’s (1969) summary of fifteen years of research in sensory deprivation. "Highly structured performances (retention and learning) seem to be undamaged or even facilitated by sensory deprivation; moderately structured ones such as problem solving on standard IQ and other test items reveal some deficit; while considerable impairment occurs on unstructured behaviors such as projective test performance.”

One concluding thought takes us back to the remark by Mitzel (1960) with which we began this review. If it is true that most of the research we have reviewed is based on a scheme of classification which is "rationally sound within the framework of the goals of Western society," is that research justified in extending its findings to all present and future classrooms in this society, as if the findings had trans-historical validity? We live in a time of severe challenging and testing of the goals and values of Western society. The research instrument on which many of these studies is based was developed, however, during a time when this strain and challenge was much less and unforeseen in its present proportions. Could it not therefore be that the social milieu of which the classroom is but a fragmentary reflection has so changed that the interpretation of the research must change accordingly?
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