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CREATING CLIMATES FOR GROWTH.

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THE TEACHER-PUPIL-PARENT RELATIONSHIPS THAT INFLUENCE CHILD DEVELOPMENT ARE EXPLORED IN THIS PAPER. THE ANALYSIS PRESENTED IS BASED UPON THE FINDINGS OF STUDIES CONDUCTED BY THE RESEARCH AND DEVELOPMENT CENTER AT THE UNIVERSITY OF TEXAS AND UPON TWO PRECEDING PROJECTS--THE "MENTAL HEALTH IN TEACHER EDUCATION PROJECT" AND THE "PERSONALITY, TEACHER EDUCATION AND TEACHER BEHAVIOR PROJECT." THE AUTHORS SEE THE COMPLEX TASK OF THE ELEMENTARY SCHOOL TEACHER AS A PRODUCT OF AN INTIMATE, ENDURING, POWERFUL RELATIONSHIP WITH ALL KINDS OF CHILDREN AND ALL KINDS OF PARENTS, AND OF THE COMPLEX NATURE OF EACH INDIVIDUAL WHICH IS ALWAYS PARTIALLY UNKNOWN BOTH TO HIMSELF AND TO THE PERSON WITH WHOM HE INTERACTS. AN UNDERLYING PREMISE OF THE UNIVERSITY OF TEXAS PROJECTS WAS THAT TEACHERS NEED TO FULLY KNOW THEMSELVES AND THEIR ENVIRONMENT. TEACHING DONE BY PROSPECTIVE TEACHERS WAS SCRUTINIZED BY CAMERA, TAPE RECORDER, AND TRAINED OBSERVERS TO DISCOVER HOW THESE TEACHERS INTERACTED WITH CHILDREN, WHAT KIND OF PEOPLE THEY WERE, AND HOW THE CHILDREN RESPONDED TO THEM. THE AUTHORS REPORT FINDINGS ON (1) THE TEACHERS' CONCERNS ABOUT THEMSELVES AND THEIR TASKS AS TEACHERS, (2) INDIVIDUAL TEACHING STYLES, (3) METHODS OF "SOLVING" THE PROBLEM CHILD, (4) METHODS OF GATHERING INFORMATION RELEVANT TO THE STUDENTS AND TEACHING PROBLEMS, (5) FORMULATING HELPFUL HYPOTHESES, (6) TESTING HYPOTHESES, (7) THE USE OF CLASSROOM RESOURCES, AND (8) HOW ADMINISTRATORS CAN HELP. (AL)

Creating Climates for Growth**Frances F. Fuller****Oliver H. Bown****Robert F. Peck****Research and Development Center for Teacher Education****The University of Texas**

No man can be a man alone. Humanness as we know it is possible only in relationships with other humans. The quality of that humanness depends to some extent on the quality of all the human relationships which a man encounters, especially upon the relationships which come early, which are intimate and enduring.

More than any other professional group, teachers bear an awesome responsibility for determining the quality of our humanness. Every person who will ever occupy a bed in a mental hospital, every parent, every professional man, every criminal, every priest, was once in some teacher's first grade. Somewhere, sometime, ~~every-~~one in our society has known a teacher who might have influenced him. The teacher's opportunity for impact is thus both broad and deep.

The teaching task is also enormously complex psychologically. First, teachers have intimate and enduring relationships with all kinds of children. They are the only professional group which comes into contact with all our children. Psychiatrists see a few children, pediatricians see many children, but only teachers see all children. They "take all comers" without self-selection on either side. Neither their pupils nor the parents of their pupils can select them as is true in most other professions. Except for the comparatively few children in privately supported schools, parents must accept the teacher of the classes to which their children are assigned. Consequently, teachers are denied the comforting knowledge that they have, on some private criteria perhaps, been chosen by the people for whom they perform their services. And each parent expects the teacher to understand his special child. Teachers thus have the responsibility for understanding and teaching children of all social and economic classes, all religious persuasions, all background and beliefs.

These teacher-pupil-parent relationships are not brief or superficial. They are deeply personal, down where people really live. Some of us can be objective about our money or even take the news with outward calm that for ourselves surgery is necessary.

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But we are not objective about our children. All parents are, appropriately, emotional about their children's development. Teachers thus work normally in atmospheres which are, overtly or covertly, charged with emotion, pride, disappointment, joy, grief.

When parents place their children in the teacher's care, it is not for an hour when they can stand by to help, encourage or neutralize the teacher's influence. Pupils spend as much time, often more, with their teachers than with their parents. Customarily, children are assigned to the same teacher for a year, a long time in the life of a child. For better or for worse, this long relationship is one that makes a difference. The teacher determines much of what the child sees, hears, says and does. The teacher can place limits on the child's freedom; he is, in fact, society's adult representative to the child, invested with all the power of that society.

This power is magnified in the eyes of young children for the teachers' relationships with children start when adults are most important to the child. A sizeable body of research supports the experience of most people, that during childhood the regard of adults is most important. Later the regard of peers is more valued. Which of us would not have preferred during our adolescence to be class favorite rather than the teacher's favorite? The period of maximum adult impact is relatively short, a few years, and during those few years, teachers are important adults to the children in their classes.

The Complexity of Individuals

Not only is the task of the elementary school teacher complex because it is an intimate, enduring, powerful relationship with all kinds of children and all kinds of parents. It is complex also because each individual in these myriad interactions is himself complex and always partially unknown both to himself and to the person with whom he interacts.

In order to illustrate this, we might represent one individual as he is known and unknown to himself and to others, by a four sector diagram:

		Self	
		Known	Unknown
Others	Known	Public	Incongruent
	Unknown	Private	Unconscious

The public sector is what is known both to me and to those who know me. The color of my hair, my name and my grade in school are public information. I know them about myself and others know them about me.

The private sector is what is known to me but not to another. These are my secrets, the things I could tell if I would, the name of my imaginary companion, how much I am willing to pay for a house and what I dreamt last night.

The incongruent sector is what is known to others but unknown to me. The classic example among children is the transparent lie which others know to be a lie but which the child believes is accepted as truth. But it is not limited to children. When an adult shouts angrily "I am not angry," others laugh because they know what he does not apparently know, that he is angry.

The unconscious sector is what is known neither to me nor to others. Consequently there is no way of knowing what, if anything, is there until it "dawns" on me or someone else. Sometimes experience from this sector moves to the private sector, as when some insight dawns which I feel surely to be true about a past experience but did not "know" before. Sometimes experience moves from the unconscious to the incongruent. Something about me may become known to others without becoming known to me, as when I angrily reveal my anger to others without knowing myself that I am experiencing it.

Each pupil, parent, principal, supervisor to whom a teacher relates has his own public, private, incongruent and unconscious areas of experiencing. The teacher too, has his public, private, incongruent and unconscious areas of experiencing. All may be in evidence in a single teacher-parent conference like this one:

Mrs. Smith, Jenny's mother, told Mr. Volk, Jenny's teacher, that she wanted Jenny to do her best but did not put pressure on her beyond her capacities. (Both Mrs. Smith and Mr. Volk recognized that this was true so this was publicly known to both of them.) Privately, Mrs. Smith hoped she could report to her husband that Jenny did less foot-dragging at school than she did at home so that Mr. Smith would not be so hard on Jenny. (This was private, known to Mrs. Smith but not to Mr. Volk.) Mrs. Smith did not know that Mr. Volk saw that she was tense and not paying full attention to his suggestions about outside activities for Jenny. (Her tenseness and inattention were apparent to Mr. Volk but Mrs. Smith was not aware of them.) Neither of them knew that Mrs. Smith felt as though she and Jenny were almost one person and that Mrs. Smith was tense because whatever was said about Jenny might as well be said about her.

Since this teacher too is a person, he too is aware of some of his experiencing and unaware of some.

Mr. Volk told Mrs. Smith that her daughter was one of the quietest children in the class. Privately, he was anticipating the next parent conference about a child who might have to be retained. Mrs. Smith realized Mr. Volk didn't know Jenny very well because he called her Jinny, probably because her name on the school records was Virginia. However she didn't mention it and slurred the e when she mentioned Jenny's name. Neither of them realized that one reason Mr. Volk was hurrying through the conference was that he didn't want to overcommit himself to Mrs. Smith because he regarded her, without actually thinking about it, as an overprotective mother.

Both Mrs. Smith and Mr. Volk are participating in a complex interaction. Its complexity is compounded when others are involved, if Mr. Smith were present for example. Its complexity is further increased by many when other factors such as the social and economic backgrounds of the participants are different or when some more or less irreversible decision is under discussion.

Such complexities are not limited to parent teacher conferences. The interactions of children with teachers are complex too. The teacher makes choices, "simple" ones like which of 20 waving hands will get the nod to respond or more considered ones like transfer of a child to another classroom. In making such choices, both aware and unaware experiencing is involved. In the act of choosing one waving hand over another, the teacher may awarely be choosing the child who rarely volunteers. The children may be aware that, from these who volunteer least, the teacher generally chooses boys rather than girls and the girls, acting on this feeling, may tend to volunteer less often.

The Texas Project

Until recently, little was known either about the psychological complexities of the teacher's task or about ways of helping teachers cope with these complexities. As late as 1962, Seymour Sarason, in "The Preparation of Teachers, An Unstudied Problem in Education" described the teaching task as "psychologically unknown." So it was, and to some extent, still is.

Funded by a grant first from the National Institute of Mental Health and later by the United States Office of Education, the College of Education of The University of Texas undertook research in this important area. Attempts had been made before to "improve" the mental health of children by instructing teachers in good mental health practices, hoping that if teachers knew intellectually the

results of research, they would be able to apply this knowledge in their interactions with children. Information unfortunately does not always change feelings or behavior and such attempts at changing behavior by imparting information usually fell short of their goals.

The Texas project differed from previous research in that it attempted to understand deeply the teacher herself, her concerns, her potentialities, her limitations, her tasks and the problems she as an individual might encounter in teaching. The objective of the research was to use the information gained to help each prospective teacher anticipate what she might run into in her teaching and to help her cope with problems before they arose.

In terms of the diagram above, what is known and unknown to self and others, one objective of the research was to help the teacher to bring to conscious awareness those aspects of her experiencing of which she was not aware but which might influence her teaching and the responses she elicits from children.

Since 1959, more than 366 prospective elementary and secondary teachers have participated in the Mental Health in Teacher Education Project* and the Personality, Teacher Education and Teacher Behavior Project. These two projects were forerunners of the new (1965) Research and Development Center in Teacher Education at the College of Education of The University of Texas.

One fundamental premise of all the work done under the aegis of these three projects has been that ideally, education is a fruitful dialogue between a fully known self and a fully known environment. On the one hand, the person doing the learning, be he pupil, teacher, administrator, professor or researcher, is, ideally, fully known to himself. This means that if he is a teacher, there are no major areas in which the class is "on to him" but of which he is unaware. It means that he knows his own biases, his limitations, his potentialities. This is, of course, an ideal unlikely of accomplishment but a goal toward which the teacher can move.

Such self awareness has practical rewards. Many so called discipline problems, the bugaboo of new teachers, are symptoms of teacher incongruence, because children know what the teacher does not know: whether he is easy to fool, how much they can "get away with," what will confuse or annoy him.

* (Footnote should indicate what support came from the Hogg Foundation)

If education is a fruitful dialogue between a fully known self and a fully known environment, the teacher must be a scholar who is capable of communication with what is "out there" as well as with what is "in here." He must see himself and the world without distortion, and have the tools, skills and attitudes which make scholarship available.

To implement this underlying purpose, both "in here" and "out there" help was given. Psychologists as well as specialists in content areas such as mathematics, science, reading and so forth, were involved. Content specialists instructed and supervised the teaching of the prospective teachers in this group. Psychologists added something new to the teacher preparation program. Through confidential individual and group counseling, an attempt was made to understand these prospective teachers as individual human beings. These confidential conferences were tape recorded and transcribed, always, of course, with the knowledge and consent of the participants and fully protecting their anonymity.

At the same time, the teaching done by these prospective teachers was placed under the microscope of camera, tape recorder and trained human scrutiny to discover how these teachers interacted with children, what kind of people they were, what they did and how the children responded to them. Teachers were filmed teaching whole classes of children very early in their careers, in some cases almost the first time they stood on their feet before a class. With their counselors, these teachers saw films of themselves teaching. Their reactions to their own films were tape recorded. They were asked to recall what they had been thinking and feeling while they were teaching, why they had responded as they had.

During all these sessions, the counseling psychologist attempted to see the world as each teacher saw it. One objective was to discover more about the subjective experience of teaching, what it felt like to learn to teach. A second hope was that, if teachers themselves experienced increased awareness of themselves and of the world surrounding them, they would, having experienced this (rather than merely being told about such experiencing) be more likely to help their pupils to such awareness.

The Experience of Teaching

One finding was that new teachers have common concerns about themselves and their own adequacy. The first question they try to answer for themselves is "Where do I stand in the school?" They need to know simple things like how to find the classroom to which they are assigned, where the visual aids are stored and whether they can get a seat in the teacher's lounge. They need to resolve complex questions like what is the invisible power structure of the

school, who is highest in the pecking order, what behaviors are really rewarded - as opposed to those which get lip service only. Is the teacher really valued whose children are encouraged to ask cogent questions, or do the nods of approval (and the annual salary increases) go to the teacher who stays until five grading papers and has the neatest (teacher-made) bulletin board. This seems at first glance a self-protecting concern, and it is. But the teacher is asking also, "How can I get things done?" We concluded that a teacher must feel secure herself in the school before she becomes concerned with the subjective experiencing of her pupils. A hungry man may sometimes feed another hungry man but it is hard.

Teachers were next concerned with answering the question, "How adequate am I in the classroom?" They wanted to be able to answer questions children asked, to maintain order in the class. This was a most important concern and many were "stuck" here, unable to interact constructively with children until they had resolved their concern with class control and subject matter adequacy.

Third, teachers were concerned with understanding the behavior of individual children. They asked "Why does he do that?" Fourth, they wondered how they they were being evaluated individually, by the principal, and by parents, colleagues and supervisors.

It should be noticed that none of these are concerns with teaching as we usually think of it. But answering these questions is an important part of learning to teach since it seems that until these questions have been at least minimally resolved, it is difficult for teachers to become concerned with what the child is actually learning.

These concerns need to be resolved individually for each teacher as a person. The concerns themselves seem to be shared by all new teachers, perhaps by new administrators, college instructors and anyone new to an organization whose service involves interpersonal relationships. But the resolution of these concerns seems to involve what each person brings as a unique individual to the new situation.

When these concerns were resolved, teachers then seemed better able to become concerned with what are generally viewed as the "real" tasks of the teacher. Teachers finally asked "Who am I really?" and then "How does what I do influence what they learn?" "How does what I am influence what they are becoming?"

Individual Teaching Styles

Apparently there is no one "effective" teaching style. Different teachers are helpful to different students in different ways. The teacher who can win over a recalcitrant slum child may

not be able to answer the substantive questions of a professor's son, and the teacher who fires the bright child's imagination may be bored with the problems of the recalcitrant or disturbed child. Knowing this seemed to help teachers to accept their limitations and to relieve the disabling guilt some felt because they could not be all things to all children. It also helped some teachers to seek schools and particular classrooms in which they could be most helpful.

Some teachers however, develop teaching styles which seem to reach more children than others. One finding which kept reappearing was that when teachers, even very new and inexperienced teachers, have resolved their concerns about power structure and self-adequacy, and have become aware of their own potentialities and limitations, they are often able to create climates for individual children which are so enhancing that these climates might even be called therapeutic climates. Mike's teacher created such an environment for him.

Mike is a healthy six year old. In some ways he is like most six year olds: sturdy, energetic, active. He likes to please his teacher, tattles on his classmates, is afraid of being late to school, doesn't want to be singled out for either praise or reprimand.

He is also different from the others: he is clumsy, ruthless, anxious, tense sometimes; he swoops down on smaller children; often asks what time it is; has unpredictable bursts of noisy affection and black rage; he tries to take command but no one follows him. He constantly tests the limits of his teacher's authority over him, always pushing to see how far he can go without being stopped.

His teacher recognized his hostility and gave him the means to make it legal. She let him take apart a bird's nest and tell the class about it. He cut in half a tulip bulb and labeled the cross section. He helped her cut construction paper, dig holes for the class garden. In one class play, he was the hunter in the jungle; in rhythmic activities he pretended to be a bulldozer. Sometimes he still needed to fidget, tap or bang distractingly, so she gave him his own box of putty to roll and knead and dig, a satisfying temporary outlet which did not disturb the class.

His teacher recognized his fear of inconsistency, his need for regularity, a need shared by many children. In different content areas she emphasized the rules and regularities within subject matter, in nature and the world to help him feel he lived in a dependable universe. He loved to mix colors to assure himself that the same mixture came out the same way each time.

She recognized his special need for boundaries. In his outbursts she did not hesitate to hold him back physically if necessary, firmly but without hostility of her own, to prevent him from hurting himself or someone else. She set symbolic boundaries in his work, too. In art, he learned to put down a double sheet of newsprint to mark the boundaries where he could paint or color.

His teacher emphasized his strengths. Sometimes even a seeming limitation could be a source of strength. When the class did a mural, he did the sky, sweeping, swooping, ominous at times. But his special project was in wood, an enormous block, deeply cut, smoothly sanded, never quite completed.

She knew he needed a male model she could not supply. She hoped some day he'd have one. Meanwhile, for him and others, she selected heroes with whom they might identify, like Ingri and D'Alaire's "Abraham Lincoln", the story of a boy who channeled his aggressiveness.

An extraordinary teacher? Yes, she is a composite of several teachers who set themselves the task of using themselves and the resources of the classroom to help a child who might well have been a troublesome child, even perhaps a deeply troubled one.

Many teachers are quietly extraordinary in their different ways, with different children. Peter's teacher was such a teacher.

Peter was the child many adults might consider merely well behaved. He was quiet, obedient, did little work but caused no trouble. He never brought his "Show and Tell" and rarely spoke to another child but otherwise was unremarkable. He often didn't seem to hear what went on but his teacher noticed that he could operate the tape recorder with ease and when she brought a wired board to class, only Peter could connect the wires so the light would flash.

His teacher sensed his fear and sat him near the door to ease his feeling of being trapped. She did not try to make him speak but rather created situations in which he had to speak, was caught unawares, or in which his participation would not make him stand out alone.

She sensed that his intense interest in living things was paralyzed by fear of contact with them. When one child brought his dog to school, she let small groups play with him in turn and noticed how Peter both hoped and feared the pet's approach. She let him feed the class' rabbit and noted how protective he became of this other Peter, Peter Rabbit, his first friend who needed him and could not hurt him.

She felt Peter needed to be useful to the other children, to be valued by them. She put him in charge of the tape recorder and one day he even got the stubborn projector to work, a high moment.

She created situations where he had to speak, or communicate in some way to ask for what he needed. She deliberately failed to give him some colors he needed for his art work, so he had to ask for them. She stopped bringing the rabbit's food so he had to get that himself. When the tape recorder wouldn't reach, he had to go to ask for the extension cord himself. His project was to build a telephone, which automatically made him the center of attention the day it was completed. She brought a Polaroid camera to class once and he was transfixed. He even sat down and figured how long it would take him to earn the money necessary to buy one.

What these teachers did not do is as remarkable as what they did. Peter's teacher did not urge him to speak, or call attention to his reticence by some unusual reward when he did. She did not urge other children to befriend him nor protect him from the consequences of his limitations. She did not assume that he was like other children, that he would "grow out of it" or that he was recalcitrant, spoiled or moody.

Mike's teacher did not respond to his hostility with anger, denial or exasperation. She did not fall into the traps he set for her: she knew that his anger came from deep within him and that it was not directed against her, so she was not angry back. She knew his anger was beyond his immediate control so she did not exhort him to behave, but instead she held him back, prevented his transgressions before they occurred rather than allowing them to occur and punishing them afterward. Most of all, she knew that emotions have their own logic and did not try to apply to them the usual logic of the mind.

Both teachers used the resources right at hand: their own perceptiveness; the strengths which Mike and Peter had within them; the other children in the class; the regularities of the world, the tasks, expectations, equipment, the animals, the books, machinery, all the resources of the classroom and of the world of which the school is a part.

SUCCESSIVE HYPOTHESIS TESTING

These teachers did not try to "solve" the problem child, but only to come closer and closer to an appreciation of how the world looked from behind the child's eyes. This method of coming closer and closer to an understanding of the full complexity of another person was found to be helpful to teachers. It relieved them of the

burden of defending actions which are really indefensible. No professional practitioner, or scientist for that matter, can with perfect accuracy "diagnose" a human being. They can use their more sophisticated resources to come closer to understanding others. The teacher has her own resources, herself, her power as the teacher, the child's need to be valued and to develop.

This method for understanding children is an informal adaptation of what a researcher might call successive hypothesis testing. First they look, make observations, try to gather relevant information by listening, looking, sensing. Then they make some surmise about what these observations mean and test their guess out against new observations. The new observations might be consistent with the guess, or they might be partially consistent and partially inconsistent, necessitating that the guess be modified and the new modified guess tried out. Then still more observations cast more light on the problem until the teacher feels more certainty about her guess and is able to say "Perhaps if I do this, that will happen." What happens when she does "this" is another observation which enriches still more her understanding of the child, and enables her to predict with a little more precision what he will do.

Somewhere along the way, she has a notion of causation. She begins to understand why he does what he does and what will help him do what he wants to do but cannot do. From among the resources at her disposal, she chooses for him those which may increase his knowledge, skills, his power. She estimates what tasks he can perform successfully and tries to discover whether her estimate is correct by observing how well he does them. She notes his successes, the satisfactions he experiences. She helps him to make increasingly greater contributions, within his capacities, to the well being of those around him.

This method is, implicitly, what all teachers probably use informally to understand children. First they gather relevant information by observing the child and the child's responses to people, things and tasks. Then they formulate some hypotheses about the child, some guess about why he responds as he does. They try out these guesses by new responses to the child, by giving him some different tasks or by presenting tasks in new ways. They observe how the child responds to these and decide to modify their old guess or to make a new guess on the basis of the child's responses.

This is what many of us feel we do in our contacts with others but usually we do not take into consideration our own biases and the ways in which this influences the kinds of observations we make and the information we get from these observations. Teachers who learned to understand their own biases, who were given opportunities to examine their own expectations, felt more confident as teachers, had more positive attitudes toward their teacher preparation program

and were more likely than other new teachers to plan to remain in teaching.

SEARCHING FOR RELEVANT INFORMATION

Really seeing another human being deeply is not merely a matter of looking. What we see when we look is not just what is out there, but what we have been taught to see, what we are prepared to see, what we can bear to see. We all limit what we perceive and rightly so. If we did not, the world would be a booming, buzzing confusion. But often what we would not be, we are, and what we are limits or distorts what we can observe. We often do not see what we do not wish to see.

Elementary teachers for example rarely "see" masturbation although it occurs in classrooms. Some student behavior is vaguely "seen" somewhere on the edges of consciousness but not attended to sufficiently to furnish information on which action can be based. For example, when student teachers saw films of themselves, they frequently commented that the films were helpful because they pointed up the students who were inattentive. The inattentive student might be a child directly in front of the teacher, one even at whom the teacher seemed to be looking, or an elaborately bored adolescent expansively combing his hair or making mocking grimaces, but the teacher, well within whisper range, often did not "know" the student was acting so.

Even as researchers, professional observers, we often found ourselves so caught up in one aspect of a person's behavior that we could not "see" the person as he really was.

Carlos was an acne-scarred student teacher who rarely made a contribution to the student teaching seminar, saying always that the problems of the other student teachers did not seem relevant to him. The counselor who conducted the seminar, saw him as a deprived young man, a Latin American boy who hadn't had a chance in life, and gently but unsuccessfully tried to encourage him to participate. She went for help to a consultant who listened to the tape recordings of the seminar. He could not see Carlos physically, but he heard his passive hostility very clearly. The counselor realized she had "bought" Carlos' hostility and fallen into the trap of taking responsibility for his participation when this responsibility was his, not hers. She later thought, "How could he expect to get anything out of the seminars when he wasn't putting anything into them?" She had not been able to begin to think how to help him because her preconceptions blinded her to what the problem really was.

Obstacles to Seeing, Hearing

Most of us have preconceptions which color or even distort what we see. We may see a beautiful girl merely as a beauty and be so taken with her outward appearance that we value her for this alone as though her beauty and the pleasure it gives us and others were all the contribution she needed to make. We may make few demands on her and so inadvertently cripple her by stunting her ability to work. On the other hand, if her ability to work, to tolerate the painful or less interesting aspects of life is already stunted, we may resent her habitual use of her good looks to "get by" without effort, and so make demands of her which are beyond her now impaired capacities. The child who is always dependable may be seen by her teachers in terms of her product, valued when she succeeds but rejected when she fails until all her capriciousness, impulsivity and creativity are squeezed away. The babyish one may be excused. Our estimates of each child's potentialities are influenced by our expectations about the child, and may well be underestimates of what the child can do. The child may be trapped by our expectations so that his actual potentialities are not developed.

Concern with Oneself

The most common obstacle to securing relevant information however is not overconcern with the other person, but concern with oneself. One finding which kept reappearing in our research with prospective teachers was that until teachers' own security needs had been satisfied, they did not involve themselves deeply with the needs of their pupils.

Teachers who could observe unselfconsciously and objectively seemed to be those who had found their place in the power structure of the school, who felt sufficiently secure with their colleagues, the parents of their pupils and most important, with their principal and other supervisors, to be able to forget their own needs for security sufficiently, at least temporarily, to concentrate their attention upon what was "out there" instead of just what was "in me." Sometimes a teacher's concern with her own security could be cruelly damaging to a child:

Barbara S. said she wasn't sure the child had cheated: there was no way to prove it. She was afraid that, in case he had and the other children knew it, the class would look down on her for not being smart enough to catch him. If he hadn't and she accused him, his parents might come down and complain to the principal. So she decided to imply she knew he had without actually saying so, to protect herself in case he had.

The child surely felt devalued by the insinuation that he had cheated but he could neither defend himself nor make restitution. The teacher was, understandably, concerned with herself and her own security. She was afraid of censure, of admitting that she did not know whether or not the child had cheated. She could not even begin to understand the child because she did not feel free to have an unsolved problem on her hands, to say "I am not sure, I do not know."

Fear of Emotion

Sharing painful experiences with others is difficult for almost everyone including teachers. When another person expresses feelings of hopelessness, depression, our first impulse is to reassure and comfort him. Sometimes this prevents the unhappy person from saying all he wants to say. An adolescent for example may need to express some deep feeling but he turns it inward because it embarrasses every adult he knows.

Unhappy feelings are not the only kind from which we turn away. Sometimes even subject matter can be embarrassing if it involves deep feelings. Great poetry has a way of getting to our deepest feelings.

In one class, the students sang for St. Patrick's Day, "My Wild Irish Rose."

"And some day for my sake
She may let me take
The bloom from my wild Irish rose."

The student teacher said, "I think that means that she won't be a virgin any more after they are married, but when one of the children asked 'What does 'bloom' mean, I didn't know how to tell them. I said it just means that they would grow old together so she wouldn't be young any more."

Mine Own Net.

Each man is, more or less, trapped by himself, by his past experiences, present vantage point, expectations for the future. Our own experiences furnish guidelines for understanding others. Sometimes our own experiences distort our perceptions of another person's feelings.

Mrs. M. said that Mary constantly procrastinated with her work, but she thought if someone could just get her started, she would be all right. "I've tried to tell her that we are all like that. I do the same thing with my ironing,

but once I get going, it isn't so bad after all."

Mary had a different reason for her procrastination.

Mary: I promise myself I'll do better. I try to do good, but I put it off.

Mrs. M: Sounds like me with my ironing.

Mary: (voice cracking) I keep saying, this is no good.

Counselor: Maybe even if you do it, it won't be good enough?

Mary: (sobbing) I want to make it better.

Counselor: Do you know that if you got all the words wrong, Mrs. M. would still like you? (Mary sobs) She might not like what you did but she'd still like you. (sniff) Ask her if she would.

Mary: Would ya?

Mrs. M: Of course I would. (pause) And I'll bet your mother would too. (Mary sobs again)

Counselor: Well we can't answer for her mother. She's a different person. But Mrs. M. can answer for herself. (sob) Do you believe her?

Mary (sobbing): I made a "C" - a "C" on a notebook!

Mrs. M: Was that this year? (Pause) I don't remember it.

Mary: I do!

Counselor: Do you know that you can get a "C" and still be an "A" person? (long pause) You don't believe that either, huh?

Mary: (not crying) I do, but I didn't know it.

Mary's teacher had assumed that her reasons for procrastinating and Mary's reasons were the same. But Mrs. M. procrastinated with a dull job when she had more interesting, or more pressing, things to do. Once she got started, the job assumed some interest for her, and she could finish it. Mary, on the other hand, was always starting, perhaps writing her name afresh three times, erasing, starting over, upset about a too-tall "t", an "o"

not round enough to suit. Mary tried to tell all this to Mrs. M. but at first Mrs. M. could not hear Mary say "I promise myself I'll do better. I try to do good." She only heard "I put it off," and this rang a bell in Mrs. M's own life.

But Mrs. M's reactions, "Sounds like me with my ironing, 'I'll bet your mother would too" and "I don't remember it" (the "C") were constructive because they were self revealing, self involving and above all, real. She allowed what was truly there to be exposed to view so that the kinks in what was going on might be straightened out. As it turned out, it wasn't like the ironing; Mary's mother didn't like her just as well when Mary got a "C". But Mrs. M. could and did. Further, when she understood Mary's reasons for procrastinating, Mrs. M. could use her own considerable ingenuity and the resources of the classroom to help Mary.

"I told her the grades are like little boxes I use to separate the work she does. Some work goes into the "A" box and some into the "C" box, but that's just where I put the work not her. The other day when she made a mistake, I told her, 'That just makes you more human.' I think she liked that. Some children need more pressure, but she needs less. For her, mistakes are progress. They mean she took a chance!"

Social Class Barriers

Middle class teachers usually see quite clearly the problems of the ambitious, conscientious child. They have often been ambitious, conscientious children themselves, who ascended the social ladder by trying hard, sometimes at the price of headaches and ulcers. The bright, advantaged child who has his own library, swimming pool and horse may be more difficult for them to see and hear as individuals. Such teachers may regard these children as rich, lazy kids who have everything too easy.

One such teacher did escape her own "net" of preconceived ideas about these children when she began to look at her classroom from behind their eyes rather than only through her own. She said:

"The counselor mentioned to me that the children I've been referring to him have been the 'ulcer types'. The bright rich kids with the swimming pools and saddle horses just seemed lazy to me. Last week one yawned right in my face and it struck me that he was bored! Now five of them conduct their own math class outdoors, with a different one in charge each day. They write their own lesson plans.

I o.k. the plans, give them special problems and some wild tests. They'll be two years ahead in math by June and maybe even know a little about responsibility for themselves besides!"

She had previously been concerned primarily with the feelings of children who were much like herself, hard workers. When she looked at the "lazy" ones as individuals, she discovered that the tasks she was setting for them were probably too easy and that they were bored with them and her. In some ways, these children were ahead of her. So she set a new, more difficult but still possible and rewarding task for them.

At the other extreme, middle class teachers who have been taught that one must work for what one gets, express disapproval of lower class children's expectations of getting "handouts." One said:

"He gets his shoes from the PTA, his lunch from the school, his clothes from the other children. He needs to learn that you have to work for what you get. You can't get handouts all your life."

The same teacher would not expect a middle class third grade child to work for his clothes, lunch or shoes. Somehow it seems all right for a child to expect food and clothing from his parents but not for him to expect them from the "welfare".

Middle class teachers, nevertheless, can be extremely insightful about lower class children and their academic disabilities. One teacher had a migrant child who at nine couldn't write his name. When Juan saw a printed word, he covered up his eyes. He and his brother Dan had a Title I teacher who wasn't afraid to start with them where they were. Dan told her, "I can't help my mother any more. She's been promoted to the second grade." Their teacher didn't laugh. She didn't try to teach them to read either. For a long while she just listened. She found that Juan hated the clumsy boots he had to wear to school so she dug up some new black shoes for him. Juan told her his favorite food was Post Toasties which he had once, and his next favorite was peanuts. She brought him some peanut brittle in a can and he learned "Dan" and "can". They were his first two words. He has many words now. He reads, and stamps his new black shoes. He couldn't read before because he was not a person. Non-persons cannot read. Now he is a person and so he can read and do the things that persons do.

Facing the Consequences of Being Informed

Some new teachers did not secure relevant information about a child because they were, without realizing it, afraid of the information. Understanding why a child does what he does may necessitate taking action which will cut off from the teacher satisfactions she gets from the child's behavior.

New teachers for example, want to be liked. To avoid being disliked herself, a teacher may encourage a pattern of behavior which is self defeating for the child. Two student teachers discussed such a situation.

St. T. 1: But I haven't moved him away from his friends. I told him to find a place he thought he could do his work. If he sat on the chandelier, I'd just love it, if he'd pay attention. He says, "Why are you always picking on me?" I said "You're the one I see talking. But you contribute so much when you do contribute." I told him it's constant turmoil and I just can't have it.

St. T. 2: Maybe he knows you are fond of him and he can get away with a little bit. Maybe you should really get tough.

St. T. 1: (sighs) It would be so easy if I didn't like him. So easy to tell him to sit down and shut up, but I'm afraid I'm going to hurt his feelings and squander the little initiative he has.

St. T. 2: Maybe it's not his feelings so much

Student teacher 2 was right: the feelings getting first consideration were not those of the child, but of the teacher. Fearful of alienating him, she could not bear him asking her to set him free of her unwelcome need of him. He had to misbehave to prove he wasn't teacher's pet; she could not free him from being teacher's pet. Because of her own need of him, she could not get the message he was sending, or free herself to look for obvious solutions to her dilemma.

She knew that if she allowed herself to see consciously what she clearly did see, albeit through half-closed eyes, she would have to take some action she was not prepared to take. She said it herself: "It would be so easy if I didn't like him. So easy to tell him to sit down and shut up." The consequences of telling him to sit down and shut up would be a look from him - a look of hate perhaps or of disdain. So she could not get the message, or admit to herself that she had it because if she had the information she would have to act on it.

Sources of Information

Conferences with teachers and observations of the ways through which they came to know children more deeply indicated that teachers secured information from many different sources. One source of information is the child himself, particularly as he reveals himself through his class responses and his classwork. Another source of information is the teacher's own subjective responses to the child. The responses of the other children to a particular child are also a rich source of information for the teacher. Finally, the work of the classroom, its tasks and goals furnish varied resources from which the teacher can draw to test hypotheses and devise methods for helping children.

Attending to the Child

The teacher's principle source of information about the child is the child himself. Some teachers we observed were skilled listeners and really heard what was implicit in a child's remark rather than merely what appeared on the surface. A teacher might ask a child why he had not completed his homework assignment. The child might reply, "My father promised to help me and I waited for him but he didn't come." The teacher might just hear that the child had not done the work and hear nothing else. The attending teacher however could hear the child say that he had not done the homework, that he wondered why his father hadn't come, that he used up the time waiting, that he felt let down, that he felt uncertain about doing this kind of problem on his own.

Because seeing children and listening to them, really attending to what they say and do, is so important, one current research effort is directed toward writing computer programs for teachers in which the computer presents a child's statement and asks the new teacher what the child could have meant. Eventually, it will be possible to have a sound film of a child making the statement so the new teacher can consider how he says it as well as what he says. Such practice in "attending" is probably needed for many teachers.

Preliminary analyses of the sound films of new teachers indicate that teachers do a lot of what we came to call "traveling:" the teacher goes where she intends to go without much regard for the responses of the children. She may be covering a certain amount of material, to reach page 63 before the end of the hour, and if the children show disinterest or lack of understanding, she travels to page 63 even if the children do not reach the same destination.

One common reaction of teachers to their films was surprise at the behavior of the children they were teaching, children at whom they had been looking but had not really seen.

Classwork as a Source of Information

Even when the teacher is able to forget her own needs, to escape her own biases and expectations, merely looking and listening is not always sufficient to understand children deeply. But she has many other avenues close at hand which lead to the child's inner world.

One of these is the child's production in class: his themes, art work, poetry. Psychologists have long used these to deepen their insights, to understand another person so that he can be helped to set upon the path he wants to take. One teacher had her class draw self portraits. Not surprisingly, the most feminine girl portrayed herself in bows and long eyelashes, the meticulous one in painstaking detail. Most children's work confirmed hypotheses that the teacher had already formulated on the basis of other observations. But some surprised the teacher: the vacant Orphan Annie eyes of one, the claw-like hands and long sharp-looking teeth of another. She said, "I don't draw any conclusions from them but the children's work furnishes bits of information which sometimes help me to understand what baffled me before. I get leads and new ideas that would not have occurred to me otherwise."

Having children complete sentences: "When I read...." or "After school...." helps the teacher to enter into the child's world a little more, gives her some information not just about his life outside school, but about his fluency (the length of his sentences), his openness (how often does he leave one blank), his perception of his own adequacy in school work.

Using such techniques knowledgeably does not mean the teacher has to be a junior "psychologist". Children's productions are a commonplace of the classroom and all teachers interpret them according to their proclivities and skills. To those who can "read the writing" they can be a rich source of information about the inner experiencing of the child and of the impact of the world upon him.

The Self as a Source of Information

Listening to oneself is for many people an unaccustomed occupation. Trusting what one hears when one listens to oneself and acting on it requires considerable autonomy. Yet each teacher must be, eventually, his own final authority.

Student teachers told us that this was, not surprisingly, difficult for them. They often looked upon their supervising teachers as models and tried to imitate what they did even when

the supervising teacher was very different from themselves. They took action which they assumed to be "illegal", i.e., disapproved by their supervisors, but which worked. They had interactions with children which were human, tragic, comical, and above all real, which they would not for the world share with an outsider, certainly not with their supervisor. One male student teacher said of a pupil and the classroom teacher:

"Bill and I just understood one another. He was the bane of Mrs. Jones' existence but she tried her best to ignore him. I did too at first, but then I just decided that for me at least it was better to bring his misbehavior out in the open, and handle it directly, with a light touch if I could. When she was out of the room one time, I told him, 'If you do that again, I'll stomp you.' He laughed but he didn't act up again with me. He knew I meant to call his hand, and by gosh, I would have. No one mentioned it to her. She had her way and I had mine."

Sometimes a child would ask student teachers questions of a personal nature: "Who was your date at the circus Saturday night?" The student teacher wanted to tell the child but wondered whether this was "dignified" or "professional". After school, a child might ask a student teacher if he could sit on her lap. The student teacher sometimes felt the child needed the affection at that moment and would feel quite comfortable herself about doing it, but think, "Mrs. Brown would not approve."

Sometimes supervisors of student teachers faced the same kind of problems in dealing with their student teachers. One supervisor told how she learned the hard way to trust her own feelings about a student teacher.

In all my conferences with the school principal, he emphasized what good relationships Lillie had with everyone and what a good job she was doing. My own feeling was that she was competent, so competent that I felt vaguely unnecessary around her, all thumbs. I hated to admit it to anyone, thinking it must reflect some inadequacies of my own. Finally I told the principal that I was afraid that I could not grade her fairly, that I felt uneasy around her, that I did not relate to her as I would like. To my amazement, he admitted that he felt the same way and so, it turned out, did almost everyone. Lillie was competent all right but also competitive and seemed to have to prove her competence by defeating everyone, including the children she was teaching. Until the principal and I could admit to ourselves that this was how she affected us, we could not begin to understand her. When I told Lillie how I felt, I found she was quite a lonely woman. She tried to play it cool, to be even more

efficient, and succeeded only in alienating still further those to whom she really wanted to relate.

Lillie's supervisor had to be aware of and admit her own feelings about Lillie before she could share these feelings with someone else. In the same way, teachers had to be aware of their own real feelings about a child before they could begin to understand how that child affected other teachers and other children. Sometimes they had to fall into the trap he set for everyone. Lillie's efficiency was her smoke screen. Many people undoubtedly avoided relationships with her without knowing why. Similarly, teachers have to acknowledge what the child is doing to them, terrifying them, boring them or just getting no reaction at all, being anonymous bodies. When they know how they feel, they can begin to wonder, is it just me, or is it more than that?

Limitations of Myself

One kind of information each person can get only from himself is information about his own limitations.

"One girl in my senior English class has a crush on me. She writes me poetry, sends me cards, is underfoot every time I turn around. At first I was flattered but then it got to be too much. So I just decided not to let her make me do what I couldn't do willingly. She'd wait outside school for me and say her ride hadn't come and hint that she wanted me to drive her home. I didn't take the hint, just left her there. She was hurt at that moment, but that was better than letting her impose on me until I resented her and treated her like a pest. That she couldn't bear. What I can do with a willing heart I do. I put her in charge of costumes in the senior play so she could make friends with the VIP's in class. I encouraged her to spend time writing a melodrama for class presentation instead of making presents for me. I have my limitations and one of them is my need to leave school at school and not take it home with me."

A teacher who knew herself less well, or was less willing to admit her limits to herself, might have seriously damaged her worshipper when she was eventually caught disdaining her unwelcome attentions. Instead, this teacher could say "This I can do for you and what you need in addition, we will provide elsewhere - from the resources outside me: the senior play, other students, your own talents."

Questions of Values

Sometimes questions arise which leave a teacher in a quandry. She thinks "Am I too old fashioned, not sufficiently shockproof? Is this really unhealthy behavior or am I just not 'with it'?"

"The first time it happened, I thought it was an accident even though I could feel a hand quite distinctly moving down my leg. The next time, in the milling crowd, I knew it was no accident. For a moment, I was paralyzed by surprise. Then I wheeled and glared. 'David you stop that this instant.' It crossed my mind that some psychologist might say I was traumatizing him, but I didn't care. He can't go around doing that and getting by with it."

This teacher trusted her own instinctively healthy reaction and from her own feelings secured information which furnished a first step in helping him.

"I knew I had to do something right away, something fast. He was so quiet, so stealthy. He knew it was wrong. If I had done nothing, it would have been the same as encouraging him. He would have had me hooked as though I were playing some secret game with him. If that had happened, I couldn't even begin to get help for him. I would have just pushed it out of my mind and that would have been bad for me and worse for him!"

Responses of Other Children

One way in which a teacher can see beyond her own biases and limitations is by attending to the reactions of a child's classmates to him. A child's classmates see him more intimately than his teacher does. Children usually know the child to whom they can go for help with a difficult arithmetic problem and who will be the most acceptable leader of the baseball team.

Teachers were often able to correct their misperceptions about a particular child by observing how other children reacted to him. A common example was underestimation of a child's maturity. Student teachers sometimes gave extra help to certain children whose classwork was poor. They might be more permissive, allowing the child to make up work he had missed on the assumption he needed their support.

Paul would finish his work after I had talked to him repeatedly about it, but otherwise he wouldn't do a thing. I thought my encouragement was helping him until he was chosen by the children several times to lead things. Then I realized I was just nagging him. He wasn't insecure at all. He got along just fine without me. He had plenty of friends. He really didn't need my encouragement at all.

FORMULATING FRUITFUL HYPOTHESES

Names of Inside Things

Another person is like a box whose contents we can define only in terms of observations we make about it. We can never open the box to see what really is inside. We may suppose that because some children seem more tense than others that there is something inside the "box" which accounts for the differences we observe. We might call that something "anxiety" if we observe trembling, nail biting or muscle tension. When we observe that some children solve problems more quickly than others, we assume that something inside each child accounts for the differences we observe. We might call that something "intelligence" but that is only a name for something we make up or construct. The "something" may be two things or fifty, or it may be one-fifth or one-thousandth of something else. We give it a name, not because we know it is there, but because giving it a name helps us to think about it. As Alice said to the Gnat, "But what good are names if they don't answer to them?" "No good to them, perhaps" replied the Gnat, "but useful to those who call them." So it is with the qualities in others about which we make guesses. We talk about "intelligence", "anxiety" or "hostility" as though they were real things. Actually, they are merely names we give to cover a constellation of observations which seem to have something in common. But the names are useful to help us think. They may be useful to the child if they help us think of ways to help him. But if the anxiety or hostility seems to disappear, we can not be sure that the child has "changed" or that we were "wrong", only that our new observations may not answer to the name we gave the old ones.

Making Sense Out of Observations

The names we give observations, like "intelligence" and "anxiety" really represent patterns or common elements in the observations. Observations which are relatively undistorted often fall into patterns by themselves. When many observations are made about one child, the internal consistency of the child shows through, so that regularities and common characteristics of different observations become apparent.

Mike's teacher, for example, made many observations about Mike and some of them had some characteristics in common. She noted that he fell on the same level; he tripped over his own feet; he lost his balance on the bars; he ran as though he had weights on each heel: his teacher guessed he was poorly coordinated. Again: his fingers were stiff when they were touched; he gripped a pencil tightly; his calf muscles were often drawn up: his teacher guessed his poor coordination was related to his

tenseness and that if he were less anxious he would be less clumsy.

When no regularities like these are apparent to the teacher, this is the point at which a consultant can be of greatest use. When the teacher has made many accurate, undistorted, documented observations, including perhaps tape recordings and samples of the child's work, a consultant can help the teacher put her observations together so they make sense to her. Of course one observation does not make a diagnosis. The consultant might put the observations the teacher brings to him together in several different ways. He might offer one kind of explanation and then another. Some of these explanations might sound very logical and professional to the teacher but not "make sense" in light of all the other unspoken, even unremembered things she knows about the child. Then a different explanation might make such sense to her so it seems to be speaking about that very child and even accounts for observations she'd forgotten or perhaps hadn't even realized she'd made.

Whether the teacher makes the guess herself or the consultant helps her with it, how much "sense" it seems to make is one way of evaluating its usefulness. If that guess makes sense out of still other observations about the same child, observations which did not go into the construction of the original guess, the teacher can be more certain that it is a useful way of thinking about that child. This fitting more observations to the guess is a small, informal kind of repetition, or replication of the procedure used to formulate the guess in the first place. It's as though we have four pieces of a jigsaw puzzle, an ear, an eye, a hoof and tail and guess it is a horse, and then get a hoof, a mane and an ear. We still are not absolutely sure it is a horse, but the second group of pieces makes us surer that our guess was right.

In general, the most useful guess is the simplest, most economical one which explains the largest number of observations. The most useful set of guesses usually consists of a few simple guesses which are consistent with one another and make sense out of all the observations made about a child.

HYPOTHESIS TESTING

When a teacher has opened herself to a child, has secured information and formulated some hypothesis about his behavior, how does she go about testing her own hypothesis? Here is how one teacher did it:

"Janie does her assignments neatly, but she never smiles. Sometimes I see her mumbling to herself but if she sees me watching her, she quits. I thought at first she might warm up to me if I took the initiative so I talked to her privately,

but she would not look at me and obviously wanted only to get away. Then I looked over her work again and noticed how very very neat it was, how carefully she did every little thing. I thought maybe she was under some kind of pressure and - this sounds silly - that she was afraid of making any mistake. One day I said, 'Someone isn't listening' meaning someone else and she looked as though I meant her. I thought 'She feels guilty. Maybe she feels guilty about any little thing.' I told the class a story about a broken vase in a family and let each student write an ending for it. Janie wrote, "The wind blowed and it fell off by itself. I didn't do it, I didn't NOT."

If we look behind this simple sounding account, and retrace the steps this teacher took to look more deeply into Janie's world, we find first that her teacher was able to make observations without personalizing them. She did not make any premature assumptions: that Janie's avoidance of her was directed against her, that Janie really wanted friends and needed opportunities, that Janie had deep unconscious conflicts, was schizophrenic or pre-psychotic.

Second, the teacher formulated a preliminary hypothesis, that Janie merely felt strange because she did not know her new teacher. The teacher tried this out (most teachers would not call this testing an hypothesis because the title sounds too fancy for so usual a thing). This hypothesis was not supported. It was still a possibility: Janie might just have needed to go to the bathroom and tried to get away for that, or some equally mundane reason. Still, the preliminary hypothesis did not check out on first testing, so the teacher made fresh observations by looking at old evidence again, and found signs she had not noticed before, that Janie was so much neater than the other children, so much more careful that it seemed unusual.

Janie's neatness itself was unimportant. It became a helpful sign, a bit of evidence only because her teacher knew from wide experience what behavior was usual for children of this age, grade, social situation, with these resources. Very few professional persons besides teachers can make such fine judgments so knowledgeably.

The new evidence was not explained by the preliminary hypothesis. New children who just feel strange temporarily are not typically so neat and careful. So the teacher tolerated a period when the problem was unresolved, when she had no hypothesis and when, if she had been asked, "What's wrong with Janie?", she would have had to say, "I don't know - yet."

In the ongoing life of the classroom, new evidence is unavoidable and teachers have available much that is fortuitous.

Janie momentarily exposed her secret to her teacher when she reacted, incorrectly, as though she were being accused by the teacher of not listening.

With this new, fortuitously gained observation, the teacher could formulate a tentative new guess, one which was parsimonious but could account for all her prior observations, that Janie felt guilty all the time, that she was on the qui vive every moment, guarding herself against involvement that might increase the load of guilt which was already too heavy for her to bear.

The teacher tested her hypothesis by presenting the assignment to all the children, an assignment which could be expected to elicit from a guilty child reactions different from those of the other children. Some wrote about what was found inside the vase. Some wrote about where it had come from, who had made it. But Janie wrote what we could predict a child would write who expected to be accused of wrongdoing, and told her teacher indirectly what she did not have the words to say straight out.

USING THE RESOURCES OF THE CLASSROOM

The classroom offers rich resources for hypothesis testing. There are hundreds of stimulating objects, thousands of interactions between people which occur every day. We can see more clearly what these are and how ingenious teachers can use them if we return to the examples of Mike and Peter which were recounted on pages 8, 9 and 10.

Peter was a child who was hard to reach. He might have acted like an inanimate lump in a physical examination and could have refused to respond to a psychological examiner in a one-hour session. But the classroom has temptations which are hard for any child to resist: mechanical gadgets like the tape recorder and projector, problems to be looked into like the wired board, a rabbit with the same name yet! The classroom is no place to hide, even for a child like Peter who wants to pull his shell in after him.

Peter's teacher used many classroom resources and she used them in a particular way. She chose from among the resources in the classroom those which could speak more directly to his particular needs. She used some to gain insight into his peculiar limitations. He spoke so rarely and did so little class work that he could have been anonymous, but he could operate the tape recorder so she knew that even if he did not use words, he was able to solve one kind of problem. She guessed that he could solve other problems of that kind, so she brought in a board which was wired on the back and had lights on the front. The lights would not

flash until the wires were connected in circuit, a non-verbal problem. Peter solved this so she had additional evidence that he could solve a relatively difficult problem if he would. When the film projector would not work, (and what teacher has not faced that embarrassment!) Peter really helped her, not "just pretend" help, but real help she appreciated and to which she could respond.

When it was established that Peter was interested in mechanical problems and had abilities to solve them, she used his interest and ability to start to put him into contact with others. He was assigned to build a telephone, a complex, challenging task, which easily and appropriately brought him into interaction with other children.

If we carefully examine each task she set him, each classroom resource she used - the Polaroid camera, the rabbit, the art work - we see that each task spoke to both his limitations and his abilities, to the areas of life in which he was more capable than other children as well as those in which he was less capable. These areas were not treated as "limitations" and "strengths" though, but rather as a part of a developing human being led in small steps out of incapacity to self realization. This is not just what should happen to a disabled child, but what should happen to all children with their different patterns of power.

Waiting for Growth

Children do not change in a moment. Development of one's powers is a lifelong task and teachers often have to wait for it. Sometimes the results of what a teacher does is not visible for a long time, perhaps not until the child is long gone from that teacher's class.

Janie did not smile while she was in Mrs. Arthur's class nor did she change much during the year Mrs. Arthur knew her. Mrs. Arthur had support for her hypothesis. Janie did feel guilty, not just when she had done something she felt was wrong but even when she knew that she was innocent. Mrs. Arthur used the resources of the classroom to teach Janie some preliminary lessons and just had to hope that some day this solemn child might show some sign that she had learned them:

Mrs. Arthur took to smiling at her often, a reassuring, warming smile to let her know things were all right. She graded Janie's papers by commenting on the ideas rather than concentrating on details. She assigned Janie jobs where details were unimportant. She had a lesson on estimating distances and had the class write up the advantages of

estimation over exact measurement. She taught Janie how to check her own work so she could be fairly sure it was correct before she turned it in.

Since she and Janie have been communicating a little more (mostly in writing!) her teacher has a new hypothesis: she thinks that Jannie cannot ever express even mild annoyance openly, and is afraid to cry even, or release her feelings of frustration in any way. She wonders if Janie uses so much energy to hold herself down that she has no impulses, good or bad.

Mrs. Arthur says that if Janie has a temper outburst, she will not "put her down", but will just be glad to know there's something human down there. If that happens, Mrs. Arthur will try to teach Janie to fight constructively, to teach her that someone, her teacher at least, can accept her negative feelings and that love can survive disagreement, even anger. But that's a long way off.

Real development, growth which starts deep inside, is possible in the school because there is time for it and it is not "made up" but appropriate and rewarded. The classroom is the child's natural habitat where he acts as he typically is. He is there not just for an hour or a day or for a summer camp, but all his child's life. He did not become as he is in a moment and will not change in another one. Teachers need to know that each moment is important but that one great resource of the school is time.

HOW ADMINISTRATORS CAN HELP

Who is important to a teacher in her teaching? For our student teachers, the person most important to them was the someone to whom they could really talk, with whom they could "let down their hair" or "level with." Often it was a spouse or some member of their car pool, the classroom teacher with whom they worked or another student teacher who shared the same concerns, who would listen and understand.

To an overwhelming majority of working teachers, the school principal was the single most important person. More than anyone else teachers seemed to feel the principal created the climate in which they taught, he set the limits upon what they might and might not do, handed out rewards and punishments, and most important, constructed the invisible value and power structures in the school.

Invisible Value Structures

The earliest concern of both new teachers and student teachers was with their own place in the value structure of the school. They needed to discover how to get things done, what they were permitted to do themselves, and what restraints were placed upon them. Most of all, they tried early and persistently to discover what the principal really valued particularly if they sensed that this was different from what the principal said was valued. They noticed if approval was given to teachers who had quiet classrooms and "silent group work" rather than to teachers who allowed children to move about. They noted if neat records were valued more than field trips. Teachers who moved from one school to another said their teaching styles changed, as much because of the new administrative atmosphere as because of the new children.

Teachers generally felt more sure of themselves, more able to be aware of themselves and the children, when administrative policy was verbalized, when the principal himself was an aware person who understood himself and was frank about his expectations and values. Even if the principal did not say what his policies were, teachers could feel secure if the visible and invisible value structures were congruent, i.e., if what the principal said he valued was what he actually rewarded.

Understanding Teachers' Concerns

Some evidence was found to indicate that in many cases, teachers' concerns occur in a sequence and that unless earlier concerns are resolved, teachers cannot become deeply involved with later tasks. In general, until the teacher feels secure herself, she is not likely to help children feel secure. Just understanding that these concerns are usual, that most teachers are at some time concerned with these same problems, may help administrators in orienting new teachers. It may also improve communication between teachers and their principals if both can discuss such professional problems openly.

Understanding that the teacher's tasks is a complex one is important too. Our teachers were often under stress because of the complexity of their jobs. They felt pressure from the parents and from children. They reproached themselves for what they regarded as their inadequacies.

People under stress often act like "sick" people. They appear to be tense, have difficulty concentrating, cry and show other emotion. In our contacts with prospective teachers, many, perhaps half, showed deep emotion. They expressed feelings of

loneliness, anger, depression and indecision. But the vast majority of those who did so were not "emotionally disturbed" as we generally interpret that term. They were simply under stress and appropriately concerned about some problem, frustrated perhaps and expressing their involvement openly.

Administrators probably cannot function as counselors do, but they might secure consultants who can counsel teachers. They can understand that some emotion is appropriate and accept its expression without condemning it or pushing panic buttons.

Freedom to Fail

Some teaching problems are so complex that there seem to be no solutions. Our teachers needed to understand that some problems have many solutions, some have few and some have none, now. They also needed to understand that every teacher who tries to help many children must fail with some. A teacher who has never failed has probably avoided tackling those problems where the probability of failure is high. Tolerating failure is a necessary step in gathering information because information is gathered only when the problem is unresolved. When the solution is apparent, more information is not necessary. If a teacher is not free to fail, he is not free to tackle problems most in need of his professional competence. Easy problems students can solve themselves!

Administrators apparently vary widely in the freedom to fail which they allow teachers. More important, the areas in which the principal allows failure and those where failure is regarded as incompetence, need to be made explicit. If it is not, teachers waste a lot of time and effort trying to discover what the tolerated and punished areas are and often children suffer while they are doing it.

Premature Solutions

"People problems" are complex and the deeper a teacher delves into them, the more complex they sometimes become. Complexity is taxing, so it is natural to try to keep things simple. One way of doing this is by offering or demanding plausible solutions early, before the full complexity of the situation is apparent. In part, this is what Mrs. Martin tried to do with Mary. She suggested an easy solution to her problem of procrastination - just getting started and all would be well.

Complex problems however do not succumb to peremptory command, quick consolation or magical solutions. They require listening

and waiting until a lot of evidence is in. Teachers have to do this in helping children. Administrators may need to tolerate ambiguity and unsolved problems if teachers are expected to do so.

Administrators Are People Too

New administrators may themselves have some of the same concerns new teachers have, and may need help with them just as new teachers do. Sometimes administrators' private motives are as apparent to their teachers as teachers' motives are to pupils. As one teacher said, "The superintendent got us all together because two teachers were persistently late and emphasized the importance of punctuality. The ninety-eight who were on time got mad of course. But I knew he was having trouble with the school board. I guess he thought the meeting was a way to keep from making anybody mad."

Administrators probably run into the same kinds of situations with teachers that teachers encounter with pupils. The Texas Project has not delved into the psychological complexities of the administrator's tasks, but a perceptive, experienced administrator could probably apply much of what has been said of teacher-pupil relationships to principal-teacher relationships.

Teachers have available to them one kind of information of which administrators have very little: normative data about the population they are attempting to service. Much is known about the development of children and instruments are available to predict children's performance. Psychologists have largely ignored the area of teacher education until quite recently. As one administrator succinctly put it, "Psychologists have been like that Fire Department in Westchester that was so exclusive it had an unlisted number." Administrators and others who attempt to help teachers need more such information about teaching so they can themselves become perceptive observers and hypothesis testers.

Establishing such norms is one objective of the Research and Development Center in Teacher Education of The University of Texas. Specifying the components of the psychological complexity of the educator's task is another. And learning how unique individuals can best be taught to teach is still another. Hopefully, its efforts will cast light on these processes to aid both teachers and school administrators with their awesome responsibility.