jnd

a students' journal of psychology

published by

the department of psychology at

saint mary's university

halifax, nova scotia

Contents:

Editorial

Problem

We wanted to be able to read a Canadian Psychological Journal composed of students' efforts in psychology -- a journal which could be utilized for research purposes while, simultaneously, being of interest to the casual reader. We looked around and didn't see any. Fully realizing that anything worthwhile has to be earned, we immediately tackled this unique problem which called for persistence, energy, and imagination. The result?

Method

Simple: 1) make a journal!

2) convince the psychology department of the need for a student journal and ask them for a wee loan to tide you over for a while.

3) take two psychology majors who know nothing about what an editor does and make them editors.

4) try to act nonchalant when asking students if you can use their papers in a new psychological journal that may not even reach the press.

5) maintain a confident appearance when things go wrong and at the same time sincerely believe that blood, sweat, and beer, will solve all of one's journalistic problems.

Result

This is it! The cumulative efforts of two very green editors who believe that they have something unique to offer to Canadian students of psychology.

Conclusion

McLuhan said it: "The medium is the message".

We hope that the articles in this first issue of j.n.d. will be of general interest to all of our readers. Of greater importance to the editors is the very fact that this journal is now officially born. We, as the editors, have accepted the challenge of beginning this original and exciting project. We hope that our successors, along with your contributions as readers, will nurture it to a long and happy life.

To our rookie readers from your rookie staff -- Welcome!

P.S. We would like to express our sincere gratitude to the members of the Department of Psychology, and in particular to Dr. Gerry Gordon and his secretary, Miss Dora Warren, for their kind cooperation.

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LETTERS TO THE EDITOR

Sir:

I was delighted to hear of your intention to publish j.n.d. -
a students' journal of psychology.

If one cannot effectively communicate, the knowledge gained
as the result of experiment and study is lost to the profession at
large. Your new journal is indeed an excellent vehicle for the stud-
ents to practice the art of communication and at the same time advise
the student body across the country of the current research interests
of the young psychologists.

The staff and students of this department wish you every
success in your commendable endeavour.

<div style="text-align:right">

Yours sincerely,

C. J. Brimer,
Acting Chairman
Department of Psychology
Dalhousie University
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CJB/rd

A Message of Goodwill from the Department of Psychology,
Saint Mary's University

Sir:

        The idea of students publishing their own journal is not new.
Nor is the idea of students publishing their own psychology journal.
For example the Edinburgh Psychology Review enabled a number of students
to cut their publishing teeth, so to speak.

        What is new is that a group of psychology students in a Canadian
university should go ahead on their own initiative, and (with a little
help from their Department) publish a journal of their own.

        j.n.d. is the outcome of a series of discussions in between
faculty and students in the Department of Psychology at Saint Mary's
University which had two main aims in mind:

        a.   to involve students in research in such a way that they
        could practice writing for journals, editing journals and
        exchanging results

        b.   to provide a forum of mistakes

        Ultimately we hope that through the experience and the mistakes
a quality of thought and writing will emerge which will not only be
reflected in subsequent issues of j.n.d. but also in the future work of
the present students.

        I wish j.n.d. just noticeable luck.

                                Gerry Gordon
                                Chairman
                                Department of Psychology

The Territorial Imperative

Robert Ardrey's book "The Territorial Imperative" is an attempt to discover the animal origins of Man's possessiveness for land. The author contends that for the majority of vertebrates while the size and position of his home territory is learned, the behavior of possessing and defending land is innate. This genetically determined behavior is exhibited most forcefully in arena behavior, that is, that behavior characterized by animals who exhibit a show of strength on a well-defined stamping ground. Citing Beuchner's studies on the Uganda kob, Ardrey states that males compete for territory and never directly for females and that this inspiration of ownership seems necessary to stimulate sexual desire in both male and female. He also claims that the owner of the territory will always win in a contest and similarly that once off his territory, the male will exhibit no antagonism towards another male. In a small way, this is demonstrated by a soldiers increased fighting capacity as he fights closer to his home.

Defining a biological nation as a territory defended by at least two males, Ardrey goes on to explain the origins of nations. Leadership, to operation, and equalitarianism arose through joint defense of a territory and eventually evolved into the modern states.

The Territorial Imperative is an easily digested book that
sheds much light on the phenomenon of territory. However, as in his
"African Genesis", Ardrey attempts to bridge too many gaps at once
with the effect that some of them are bridged very well. The reader is
left with the uneasy feeling that somehow, scientific inquiry has been
sacrificed for the sake of drama.

Ardrey's format of The Territorial Imperative can be likened
to that of a spy thriller. The effect is too much emphasis on sen-
sationalism, and not enough on scientific experimentation. However,
the book is of general interest and could be easily read in one sitting.

j.n.c.

Fashion forecasts say the short skirt trend will continue, but from here it looks as though the end already is in sight.

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Even in our great cities, Nature adds her bounty.
Where else could one wake each morning to the sound of songbirds coughing?

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PLAY THERAPY
Psychotherapy and the Child
Joan E. MacLeod
St. Mary's University

Various aspects of play therapy used with children are
explored and its applications in different settings and
situations is explained. The emphasis throughout is on
the uses of play therapy with disturbed children as a
learning process conducive to better adaptation for
these children. Wide references are made to V. M .
Axline's book "Dibs: In Search of Self".

Serious emotional problems in children may require special psy-

chological treatment--psychotherapy--for their alleviation and elimin-

ation. Although there are many "schools" of psychotherapy, they all

agree that most important to the therapy is the establishment of a

close relationship between the patient and a highly trained therapist

(psychiatrist, clinical psychologist, social worker). Psychotherapy,

basically a learning process, helps the child to learn "new adaptive

attitudes and behaviour which may replace older, less adequate responses

learned in the family setting". (Mussen et al., 1963, p. 338)

> If neurotic behaviour is learned, it should be unlearned
> by some combination of the same principles by which it
> was taught. We believe this to be the case. Psycho-
> therapy establishes a set of conditions by which neurotic
> habits may be unlearned and non-neurotic habits learned.
> Therefore, we view the therapist as a kind of teacher
> and the patient as a learner. (Mussen, et al.,1963 p.338)

Inevitably, all who care for young children come to realize
that in play activities the child is engaged not in self-expression
only but also, and this is most significant, in self discovery--
exploring and experimenting with sensations, movements, and relation-
ship through which he gets to know himself and to form his own concepts
of the world. (Hartley, et. al., 1963)

> Play techniques have been developed as a means of creating
> rapport, as well as for analysis of the inner conflicts
> and personality dynamics of the child. Children prefer
> the use of play as a language to describe their problems.
> When a child is supplied with appropriate play materials,
> such as a doll family or puppets, he conveys symbolically
> his preoccupations and the phantasies that have reference
> to his inner conflicts or frustrations. These materials
> stimulate him to dramatize and reproduce experiences that
> have been etiological factors in his difficulty or dis-
> orders and to clarify the unconsciously motivating dynam-
> isms that underlie his behavior disorders. Since self-
> expression, abreaction, and tension release are inherent
> in play activity, its use favors the establishment of a
> therapeutic relationship, and facilitates dynamic and
> clinical diagnosis. (Pikunas, 1957, P. 157)

Play Therapy is based upon the fact that play is the child's
natural medium of self-expression. The child "plays out" his feel-
ings and problems, just as, in adult therapy, an individual "talks
out" his difficulties.

It takes a long time for a child to organize his experiences,
to fit people, objects, and events into categories and concepts so
familiar to adults. His fumbling efforts often frustrate a child who

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lives in a world too big and resistant. But in play he can manipulate, organize, rapidly change and rearrange his smaller world of toys and materials; and, if given the time, materials, and opportunity to experiment in his own way, he finds himself, rights himself when he has gone astray, and gradually learns how to get along with himself and with others in a large and complex world. (Hartley, et al., 1963;)

Play Therapy may be directive in form or non-directive; applied to the individual or group.

Exponents of the directive approach--E. Williamson, J. Darley-- prefer structured and controlled play, in which the therapist partici- pates actively, interpreting and intervening when necessary. The non- directives--C. Rogers, V. Axline, W. Snyder and C. Currant--work with a free and spontaneous play. In the psychoanalytic approach the play technique substitutes for the free association of adults.

Virginia M. Axline (1947) is the author of Play Therapy and the acknowledged authority on the technique of play therapy in the treat- ment of emotionally disturbed children. She studied at Ohio State University and Columbia University; taught for six years at New York University's School of Medicine and School of Education; for seven

years she was on the faculty of Columbia University Teachers College
and, prior to that, spent three years as a research associate and
faculty member at the University of Chicago. Presently she is engaged
in private practice in New York City.

The play approach can be utilized successfully with children
whose mental age ranges from three years up to eleven or twelve,
while the verbal approach of adult-like counselling is more successful
when the mental age approaches eight years.

Non-directive therapy, as used by Axline, is based on the non-
directive counselling of Dr. Carl R. Rogers.

> Non-directive counselling is really more than a technique.
> It is a basic philosophy of human capacities which stresses
> the ability within the individual to be self-directive.
>
> It is an experience which involves two persons and which
> gives unity of purpose to the one who is seeking help--
> that of realizing as completely as possible his self-
> concept and of becoming the kind of a person that satisfies
> the self, that merges into an integrated whole any con-
> flicting concepts between the I and the me, or between the
> inner self-concept and the outer-self behavior.
>
> Because primary emphasis is placed upon the active partici-
> pation of the self in this growth experience, the term
> non-directive seems inadequate. ... Instead, self-directive
> therapy seems to be a more accurate and more honestly
> descriptive term. (Axline, 1947, p. 27)

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Dr. Axline presents the following explanation of personality structure, based upon observation and study of both children and adults during and after a non-directive therapeutic experience.

> There seems to be a powerful force within each individual which strives continuously for complete self-realization. This force may be characterized as a drive toward maturity, independence and self-direction. It goes on relentlessly to achieve consummation, but it needs good "growing ground" to develop a well-balanced structure.

> ...Growth is a spiraling process of change.
> ...Everything is relative and the pattern is a changing, reorganizing sort of thing--like the pattern one sees in a kaleidoscope, a tube in which you look, through a tiny peep-hole, down upon odd-shaped pieces of colored glass; as you turn the tube, the pattern falls apart and reorganizes itself into something quite different. As different parts of the design touch, they form a new configuration. No matter how the tube is turned, the design maintains balance, the difference being in the design itself, which is sometimes compact and indicative of strength and sometimes spread out and seemingly frail and without much body. There is always rhythm and harmony in the design. Each pattern is different from every other, and the difference is caused by the way the light shines through and by the steadiness of the hand that holds the keleidoscope as well as by the interchanging positions of the bits of colored glass.

> So, it seems, is personality. The living organism has within it the "bits of colored Glass" and the personality is "structured" by the organization of these "bits".

> It is this observable flexibility of the personality and behavior of the individual that has opened the door to admit the element of hope and a positive way of looking at the individuals who seem to have three strikes against them from the beginning. When the individual becomes aware of the

part he can play in directing his own life—and when he accepts the responsibility that goes with the freedom of this inner authority—then he is better able to sight his course of action with more accuracy. (Axline 1947, p. 10-11).

A child is usually quick to forgive and forget negative experiences, accepting life as he finds it, and the people with whom he lives. He is growing in experience, growing in understanding and growing in acceptance of himself and of his world. He is assimilating all the ingredients that come to make up his personality.

There are certain basic needs within each individual and he is constantly striving to satisfy these needs, the results of which determine whether or not the individual is well adjusted or maladjusted. "The behavior of the individual at all times seems to be caused by one drive, the drive for complete self-realization." (Axline, 1947, p. 12)

Dr. Axline explains the difference between well adjusted and maladjusted behavior as follows: "When there is a relatively direct satisfaction, the individual is said to be well adjusted. When the seeking-effort to satisfy the needs is blocked, devious paths are taken to bring about satisfaction, and the individual is said to be maladjusted." (Axline, 1947, p. 14)

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When the individual develops sufficient self-confidence to
bring his self-concept out of the shadow land and into
the sun and consciously and purposefully to direct his
behavior by evaluation, selectivity, and application to
achieve his ultimate goal in life--complete self-relaization--
then he seems to be well adjusted.

On the other hand, when the individual lacks sufficient self-
confidence to chart his course of actions openly, seems
content to grow in self-realization vicariously rather than
directly, and does little or nothing about channeling this
drive in more constructive and productive directions, then he
is said to be maladjusted. (Axline, 1947, P. 14)

All children need to have a feeling of self-esteem. Sometimes

this feeling is created in the child by love and security and a sense

that he belongs, but in all cases he must feel a satisfaction of love

for love's sake and security for security's sake. Some children never

experience the above relationships and yet, through the process of

therapy, they acquire the necessary feeling of worth, that they are

capable of direction, have the ability to stand on their own two feet,

can accept themselves, assume the responsibility for their conscious

personalities; or as Axline describes it, they "synchronize the two

projections of their personalities--what the individual is within him-

self and how he outwardly manifests this inner self". (Axline,1947,p.15)

Even a child who seems beyond repair may possess potentialities
for health and growth. A child who has suffered rejection may
still retain, within the desert of his life, a small green patch
that can be cultivated. (Jersild, 1964,p.141)

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Non-directive therapy is based on the assumption that the individual has within himself, not only the ability to solve his own problems satisfactorily, but also this growth impulse that makes mature behavior more satisfying than immature behavior.

Non-directive therapy: (1) grants the individual the permissiveness to be himself; (2) it accepts that self completely, without evaluation, or pressure, or change; (3) it recognizes and clarifies the expressed emotionalized attitudes by a reflection of what the individual has expressed: (4) it offers the individual the opportunity to be himself, to know himself, to chart his own course openly and aboveboard--thereby enabling him to form a more satisfactory design for living.

Where does the child have an opportunity to discover his real self? In the Play Therapy Room--here the child is the most important person; he is in command of the situation; here there is a feeling of freedom, no outward interference; he can look at himself squarely; he is accepted completely; he can test out his ideas, express himself fully; this is his world--there is no adult authority, no rival contemporaries, he is not the butt of someone else's frustrations--he is an individual in his own right, treated with dignity and respect, accepted completely; neither restrained nor hurried.

Confronted with this complete acceptance and permissiveness to be himself the child may at first be bewildered, suspicious, curious, but above all, it is a challenge, a chance to be. There are no barriers to stop his drive for growth.

What is the role of the therapist? The therapist, accepting, understanding, friendly--adds to the child's sense of security. The limitations she sets (few as they are) add to this feeling of security and reality.

The therapist is sensitive to what the child is feeling and expressing through his play and verbalization, and reflects them back to him so that he better understands himself. "Children communicate, however, more in symbolic acts than in language, and the clinician must be able to respond to such symbolic behavior with sensitivity and appropriateness." (Shaffea, et al., 1956, p. 543)

She respects the child's abilities and gives him the feeling that she is understanding him and accepting him at all time regardless of what he says or does, thus encouraging him to go deeper into his innermost world and bring out into the open--his real self.

> To the therapist, it is an opportunity to test out the hypothesis that, given a chance the child can and does become more mature, more positive in his attitudes, and more constructive in the way he expresses this inner drive. (Axline, 1947, p. 18).

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One little boy expressed his feelings about the therapist and the therapy room: "I don't know what she does. She doesn't seem to do anything. Only all of a sudden, I'm free. Inside me, I'm free." (Axline, 1947, p. 20.)

> Feeling their way, testing themselves, unfolding their personalities, taking the responsibility for themselves-- that is what happens during therapy. (Axline, 1947, P. 20)

From every therapy experience one observation remains constant: the child gains the courage to move ahead, to become a more mature and independent individual. (Mussen, et al., 1963,p.339)

The element of complete acceptance of the child seems to be a very important part in Play Therapy. There must be respect for the child's ability to be a thinking, independent, constructive human being, and this acceptance seems to imply to the child that he is capable of complete fulfillment of himself, free to function at his maximum capacity.

The toys in the Play Room are the child's medium of expression; they are his property and his free play is an expression of what he wants to do. He controls this world of his, he expresses his own personality--a period of independent action and thought, letting out those feelings inside that have been pushing to get out in the open. This type of therapy:

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...is based upon a positive theory of the individual's
ability. It is not limiting to any individual's growth.
It is outgoing. It starts where the individual is and lets
that individual go as far as he is able to go.

There are no diagnostic interviews before the therapy, the

individual is met by the therapist where he is. Difficulties and

problems which arise during play are discussed in terms of what is

happening at the moment. The sessions are regarded as "growth experi-

ences", giving the child the opportunity to experience a unique emotion-

al relationship in which he is completely accepted. Hence he may try

new solutions to problems and learn to deal adequately with previously

upsetting situations. (Mussen, et al., 1963, p. 340)

In this age of rush and pressure, it is often difficult for a

child to establish an intimate relationship with the adult. Very often

the child lives in a world of his own and very few adults really under-

stand him or take the time to try. Bent intently on some simple thing,

the child indulges his insatiable curiosity and sensory interests.

Adults are very often in so much of a hurry "doing things for the child"

that they cannot take time to appreciate the child or get to know him

as an individual.

In the therapy hour--once the child has established confidence
in the therapist and has accepted the therapist even as she has
accepted him--he shares his inner world with her and, by the
sharing, extends the horizons of both their worlds. (Axline, 1947,
p. 26.)

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As a result of a successful non-directive counselling experience, the child gains respect for himself as an individual of value, he learns to accept himself, to use all his capacities and to assume responsibility for himself. In turn, he applies this philosophy in his relationships with others. It is a real belief in the integrity of the individual--in a positive and constructive way of life.

PLAY THERAPY - Education

The basic principles of non-directive therapy seem to have far-reaching implications for educators. It is a well known fact, today, that the primary need for the successful education of children is sound mental health. A teacher whose mind is occupied with anxieties, fears and frustrations cannot do a satisfactory teaching job; nor is a child, whose emotional life is in a turmoil, a satisfactory pupil.

Just as in play Therapy the relationship between the therapist and the child is all important, so it is with the teacher-child relationship.

It is the permissiveness to be themselves, the under-
standing, the acceptance, the recognition of feelings, the
clarification of what they think and feel, that helps
children retain their self-respect; and the possibilities
of growth and change are forthcoming as they all develop
insight. (Axline, 1947, p. 142)

A feeling of friendliness and warmth on the part of the

teacher will establish the type of rapport between her and a child

that will seem to individualize the instruction even though there

are forty other pupils in the class. The child knows that he is ac-

cepted exactly as he is. (Allowing for necessary limits.)

If there is a feeling of permissiveness in the relationship,

then the child feels free to express his feelings and to be himself.

(Again, allowing for necessary limits.)

Progressive educators have recognized the value of releasing

the feelings of the child in some tangible expression--painting, clay

work, drawing, creative writing, music, rhythms, drama, free play--all

of these mediums are used as an outlet for the child's feelings.

Despert observes that drawing is a good outlet for active

children because it provides a means for pure motor expression. Bland

also is convinced that art can be a safety valve for the explosive

child, who paints and splashes out feelings of aggressiveness and

hostility that would be far more dangerous if expressed in other ways.

For the withdrawn or constricted child, it is agreed that painting can also have a stimulating and wholesome effect. Because there are no rules about how to say what you need to say through painting, the timid child need not be afraid to approach this medium. Those who have been made afraid of dirt and mess can find in it an outlet that does not violate their established controls. Through this medium many of these children make their first step toward free expression without feeling a sense of guilt. (Hartley, et al., 1967, p. 231)

The child's manner of approaching and manipulating the clay seem to be characteristic of his whole approach to life. There is a striking difference between aggressive and well-adjusted children on this score. More actual molding is found among well adjusted children, than among either the aggressive or the inhibited children, but by and large the aggressive children tend to create and name more products than does any other group. (Hartley, et al., 1967, p. 213)

If the teacher is alert to recognize the feelings the child is expressing and reflects those feelings back to the child, then the child gains insight into his behavior. This can be done to a great extent in any classroom situation if the teacher has an understanding of her pupils and an insight into human behavior. In this manner, a child may be helped to handle his problem before it can cause serious maladjustment.

Many teachers in the school set-up today would no doubt like to do all these things but because of the large classes and the necessity to cover certain required work, are unable to do so.

A school curriculum that is worthy of a place in our educational system provides an opportunity to enrich the child's life far beyond the academic requirements. True education does not turn its back to the critical needs of the individual. "The individual to be truly educated must be considered a person entitled to respect and understanding and be given the opportunity to develop his fullest capacities." (Axline, 1947, p. 154)

The responsibility to make choices and to institute change should be the child's as often as possible, taking into consideration the limitations required.

If the rules of expected behavior in a classroom are clearly drawn up and the child is given an opportunity to act in the classroom like an intelligent individual, this type of treatment becomes a technique by which the child may develop self-reliance, dependability, and initiative.

Arguments and differences of opinion between children may be controlled and settled by the teacher, acting not as a symbol of authority, but as an arbitrator. When a teacher respects the

dignity of a child, whether he be six or sixteen, and treats the
child with understanding, kindliness, and constructive help, she
is developing in him an ability to look within himself for the
answers to his problems, and to become responsible for himself as
an independent individual in his own right. (Axline, 1947, p. 156)

Possibly the greatest contribution that educators can make
to the younger generation is the type of guidance that places the
emphasis upon self-initiative and transmits to the young people
by living example the fact that each individual is responsible for
himself.

> In the final analysis, it is the ability to think con-
> structively and independently that marks the educated man.
> Growth is a gradual process. It cannot be hurried. It
> comes from within the individual and cannot be imposed by
> force from without. (Axline, 1947, p. 157)

The techniques of Play Therapy appear to have helpful impli-
cations for teachers.

At the very beginning of the book, Dibs: In Search of Self,
one is drawn to the importance of the teacher-child relationship.
Dibs had attended private school for two years: he was not rejected
by his teachers (difficult as he was to cope with). In this case,
the teachers had formed a policy "they would always invite him to
join the group but never try to force him to do anything unless it

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was absolutely necessary." (Axline, 1967, p. 15) They showed

great patience and understanding of Dibs and his actions; never

giving up.

> Sometimes a teacher would sit near him and read a story or
> talk about something while Dibs lay face down on the floor,
> never moving away--but never looking up or showing any
> overt interest. Miss Jane had often spent time with Dibs
> in this way. ...She talked about anything she hoped might
> spark an interest. She said she often felt like a fool--
> as though she were sitting there talking to herself, but
> something about his prone position gave her the impression
> that he was listening. Besides, she often asked, what did
> she have to lose? (Axline, 1967, p. 16)

As Dibs progressed in Play Therapy we were able to discover

the answer to the many questions Miss Jane must have asked herself.

Even though Dibs' outward behavior at school might not indicate it,

school meant much to him. His teachers had gotten through to him--

the marching song, and Marshmallow--were part of the school experience.

> We never know how much of what we present to children is
> accepted by them, each in his own way, and becomes some
> part of the experiences with which they learn to cope with
> their worlds. (Axline, 1967, p. 78)

Some schools offer a program in Play Therapy for all children

enrolled in nursery school. Those children with disturbing emotions

have a chance to work them out. The program is a cooperative effort

between the nursery school and the guidance service. Parents, too,

play an important role in this program. Play Therapy is a type of

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preventive program of mental hygiene for normal children. They use it as a way of growing in their own self-acceptance and respect and also as a way of looking at attitudes that might not be easily explored in school or at home.

This type of Play Therapy assisted the school staff and therapist in determining which children were beset with temporarily threatening situations and attitudes and which were the victim of chronic emotional impoverishments. It allowed the child to have a therapeutic relationship with a member of the adult world, in and through which the child's life adjustments--including his regressive and aggressive pattern of behavior, were freely expressed and explored in his own way. (Moustakas, 1953, p. 41)

Dr. Saidullah Khan (1969), chief psychologist for the Nepean Township public school board, which administers schools in an area southwest of Ottawa, states that Nepean has the only school system in Canada with comprehensive psychological services that include not only diagnostic and assessment facilities but also therapy clinics. He believes that treatment for disturbed or problem children should be available no later than one week after diagnosis. Dr. Khan claims that the child has three environments, that of his home, his school, and his peers and that:

Unless you attack all three environments, behavior motivation can't be lasting. Psychological treatment remote and divorced from school environment just could not be efficient. (Khan, 1969)

In the Halifax-Dartmouth area, children having emotional problems in school are usually discovered by the classroom teacher or guidance teacher and directed to the school psychologist or social worker. Following their assessment, if treatment is indicated, it is received through the Atlantic Child Guidance Centre, Halifax, N. S. Here close liaison is established with the parents and the school.

PLAY THERAPY - The Parents

In examining child study cases, it is quickly realized the important role the parent plays in child therapy. Indeed in many cases the parent is the cause of the child's problem. While therapy might go ahead more quickly if the parents were also receiving therapy, "it is not necessary for the adults to be helped in order to insure successful Play Therapy results." (Axline, 1947, p. 68) It has been found that children alone can work out an adjustment to their problems.

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In some instances where play therapy was done in schools where only the child was involved, the results indicated not only an improvement in school relationships but in the home relationships, indicating that curative forces within the child are potent.

As parents supply most of the child's rewards and punishments, gains made in therapy could be eliminated without the parents' co-operation. Many child therapists agree that the fullest cooperation from parents is essential if the child is to benefit from therapy.

The insight and self-understanding achieved by the child in therapy, helps him to cope with conditions at hand, often resulting in a change in the attitudes of the parents. This can be readily observed in Dibs and his parents as he progressed. Only when Dibs began to emerge as a person, were they able to admit their inability to relate affectively to him, and this was a turning point in their relationship.

> Two frightened, lonely, unhappy people with their defenses
> crumpled and deserted..a relief to know that we could
> be human, and could fail and admit that we had failed.
> (Axline, 1967, p. 93)

One of the mother's statements--"I have done everything I could for Dibs. We have given him everything money could buy, hoping it would help."--seems to have a message for all parents if they are inclined to give things instead of themselves to their children.

Many psychologists view the greatest human hunger as a
hunger for love. The normal child will take all he can
get and ask for more. It is not known how much affection
from others is needed to keep a child's capacity for affection
alive, but their capacity is hard to destroy. (Jersild,
1964, p. 140)

Another fault, prevalent today in the parent-child relation-

ship, shows up with Dibs and his father: " 'Come Dibs,' Papa said,

embarrassed to death by Dibs' conversation that probably seemed very

bizarre to him--if, indeed, he was listening to it."

Listening to children is also a parental duty. A child
always has something to say and frequently something
to ask. The act of confiding always brings some dis-
charges of tension, some relief or catharsis. It is
practically impossible to share experiences without
developing feelings and sentiments of belonging, of sympathy,
love and loyalty which provide the necessary atmosphere and
bonds in family life and outside of it. (Pikunas, 1957, p.154)

Dibs worked out many of his feelings concerning his family in

the play room--using the toy soldiers, the dolls, the doll house, the

sand, the toy dishes. Through these mediums he was able to rebuild

his world, to state himself through his play and to emerge a happy,

capable child able to relate to his parents and causing them to

relate to him.

The role of the therapist, though non-directive, is one
which requires alertness, sensitivity and an ever-present apprec-
iation of what the child is (1) doing and (2) saying. "What the
therapist says and does is important. How he feels is even more
important." (Moustakas, 1953, p. 1) There must be understanding
and a genuine interest in the child, accompanied by permissiveness
and acceptance at all times.

> It is enough of a job to keep us busy for a long time
> to come--hoping that some day we can answer little seven
> year old Jack's question, "What is it? What is it? In
> here I just spill out all over myself." He plunges his arms
> down deep in the sand, looks up at the therapist with a
> grin. He reaches over to a nearby table and runs his
> hand through the thick oozy black finger paint with which
> he has been working. It is still wet and he smears it on
> his face and rubs his face down in the white sand and it
> sticks to his face. He casts an oblique look at the
> therapist. He smiles quite happily and stretches out
> full length in the sand.
>
> "You sure ain't no don't person," he observes with a sigh.
> And he can relax and be himself as long as he is in the
> playroom." (Gorlow, 1959, p. 458-9)

There is respect for the child shown by sincerity and honesty
and a straight forward approach. The therapist is careful not to
patronize, laugh at, show impatience with the child, but puts him

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at ease and encourages him to share his inner world with her.

> Then Billy came in--blank stare, drooping figure,
> dragging shuffling gate. He went back to the
> play room, stood in the middle of the room and looked
> straight ahead. The therapist explained to him that
> he might play with any of the toys in the room if he
> wanted to. Then the therapist sat down by the sandbox
> and let Billy go on from there. He stood there for a
> long time. Finally he dropped down on his knees beside the
> sandbox and sifted the sand through his hands. That was
> all he did during the 45 minute period. (Garlow, 1959,
> p. 454-5).

To keep the therapy alive takes steadiness, sensitivity and
resourcefulness on the part of the therapist. There is no rushing.
Dibs was given time to look around the playroom and explore. "I
didn't want to rush him. Give him time to look around and explore.
Every child needs time to explore his world in his own way."
(Axline, 1967, p. 42)

Children communicate more in symbolic acts than in language,
and the therapist must be able to respond to such symbolic behavior
with sensitivity and appropriateness. (Shaffer, 1956, p. 543)

As for the therapist herself, she is a mature person who
accepts her responsibilities and the confidence of the child,
keeping a professional attitude toward her work. It is truly the
child's hour, and the strictest adherence is maintained to the
principle that what he says or does during his hour is confidential.

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Someone walked down the hall. Dibs heard their foot-
steps.
"Someone is walking down the hall," he said.
"But this is our room, They won't come in here, will they?"
"I don't think they will," I said.
"This is just for me, isn't it?", Dibs asked.
"Just for me. Not for anyone else. Isn't it?"
"It's just for you at this time every week if you want
it that way," I said.
"For Dibs and Miss A"," said Dibs, "Not just for me.
For you, too,"
"For both of us, then," I said. (Axline, 1967, p. 121)

As with all persons working with children, the therapist

must really like children. Her knowledge extends beyond the realm

of the clinic to a broader, personal knowledge and experience with

children. It is one thing to study and learn about children, it is

another to become involved in their thinking and actions, to accept

them as they are.

I looked at him, sitting on the ledge of the sandbox,
radiating the sense of peace he was feeling now. He
looked so small, and yet so filled with hope and courage
and confidence that I could feel the power of his dignity
and assurance. (Axline, 1967, p. 77)

Not so important is the age or sex of the therapist--"the

important element seems to be the underlying attitude toward the child

and the therapy in the mind of the therapist."

Respect and acceptance--so important in the successful teacher-

pupil relationship--indeed in any relationship, must be an integral

part of the therapist's personality.

Not until she fully realizes the significance of what it
really means to be completely accepting of another person,
and has sufficient understanding of all the implications of
this term, is she able to be permissive so that the child can
be himself, can express himself fully, and she can accept him
without passing judgment. (Axline, 1947, p. 65)

That the therapist was able to establish this relationship

with Dibs can best be seen through Dibs' own expressions:

"Miss A will not turn you down."
"You think I'll fix it for you?"
"That's right," said Dibs. "I know you will." (Axline, 1967,
p. 145)

"However I feel. However I feel. I will be." (Axline, 1967, p. 155

"What can't you figure out?" I asked.
"All this. And you. You're not a mother, You're not a teacher.
You're not a member of mother's bridge club. What are you?"
"You can't quite figure out just what kind of a person I am,
h'm?" I said.
"No, I can't," Dibs said. He shrugged his shoulders.
"But it really doesn't matter," he said, slowly gazing straight
into my eyes. "You are the lady of the wonderful playroom."
(Axline, 1967, p. 204)

There is nothing passive in the role of the therapist, she must

be ever alert to catch and reflect back accurately the feelings the

child is expressing in his play or conversation—calling for complete

participation during the entire period of the session. Successful

therapy begins with the therapist.

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> "Do you weep because the mother and father are locked in
> the house and can't get out and the house is burning?" I
> asked.
> "Oh, no! I weep because I feel again the hurt of doors
> closed and locked against me," he sobbed. I put my arm
> around him.
> "You are feeling again the way you used to feel when you
> were alone?" I said. (Axline, 1967, p. 154)

The therapist takes care not to become emotionally involved

with the child by assimilating the basic principles and attitudes

and making sure what the limitations shall be.

> He dabbed clumsily at his tear-streaked face.
> It would have been so easy to take him in my arms and
> console him, to extend the hour, to try overtly to give
> him a demonstration affection and sympathy. But of what
> value would it have been to add additional emotional
> problems to this child's life? He did have to get back to
> his home no matter how he felt about it. To avoid facing
> the reality factor would not help him. He needed to
> develop strength to cope with is world as it was. Any
> meaningful changes for Dibs would have to come from
> within him. We could not hope to make over his external
> world. (Axline, 1967, p. 46)

PLAY THERAPY - The Play Room

It is desirable to have a room set aside and furnished for

the Play Room, however, in some instances Play Therapy can take place

in the corner of the classroom; nursery; in which case the therapist

brings the play materials with her--these might include a doll family, often pieces of doll furniture (beds, tables and chairs), nursing bottles; clay; paints; drawing paper; crayons; toy gun; toy soldiers; toy car; puppets; a rag doll baby; and a telephone. The material can be placed in a suitcase and carried about by the therapist,--thus an important characteristic of Play Therapy, the ability to operate on a small budget and space appropriations.

In addition to the above toys, a regular Play Room could have a doll house (made of light weight wood with removeable partitions): toy animals; stove; dishes; finger paints; sand; peg-pounding sets; pictures. Mechanical toys are not used because the mechanics often get in the way of creative play.

All playthings should be simple in construction and easily manipulated by the child so as to diminish frustrations. They should be durable with the ability to withstand strenuous handling. The doll families should include all possible family characters. A large sandbox is beneficial, the sand being an excellent medium for the children's aggressive play.

The play materials are kept on shelves in the Play Room where the child may choose his own medium for expression or the therapist may make the selection.

In regular Play Therapy Rooms the room is sound-proofed
if at all possible; there is a sink with running water (hot and cold);
the windows are protected; the floors are easily cleaned. For the
furtherance of research and as a teaching aid for student therapists,
it is helpful if the room can be wired for recordings and provided with
a one-way screen for observations. Parents are not encouraged to
observe the therapy contacts or to listen to the recordings of the
session.

Responsibility for the replacement and care of the toys
belongs to the therapist who takes care that the Play Room is left in
order.

> There was nothing about the room or the materials in it
> that would tend to restrain the activities of a child.
> Nothing seemed to be either too fragile or too good to
> touch or knock about. The room provided space and some
> materials that might lend themselves to the emergency of
> the personalities of the children who might spend some time
> there. The ingredients of experience would make the room
> uniquely different for each child. Here a child might
> search the silence for old sounds, shout out his discoveries
> of a self momentarily captured, and so escape from the prison
> of his uncertainties, anxieties, and fears. He brings into
> this room the impact of all the shapes and sounds and colors
> and movements, and rebuilds his world, reduced to a size he
> can handle. (Axline, 1967, p. 28)

PLAY THERAPY - Its Value

Play Therapy has been used with children:

      emotionally disturbed
      feeble minded
      physically handicapped
      retarded in reading or other subjects
      having situation problems
      normal

The therapeutic value of Play Therapy is based upon the child's experiencing himself as a capable, responsible person in a relationship that tries to communicate to him two basic truths: that no one ever really knows as much about any human being's inner world as does the individual himself; and that responsible freedom grows and develops from inside the person. The child must first learn self-respect and a sense of dignity that grows out of his increasing self-understanding before he can learn to respect the personalities and rights and differences of others. (Axline, 1967, p. 67)

Perhaps this type of treatment conveys to the child, in a way that he understands, that whatever comes out is him--as he sees it--and avoids the confusion caused by mixing the way things appear to him and the perceptions of others. Perhaps that is a necessary part of the treatment--and once he gets himself lined up, then he can be free to see how things look to others. (Gorlow, 1959, p. 452)

If we take a completely recorded series of play therapy con-
tacts we can see a pattern in them--a decrease of negative feelings
and an increase of positive feelings towards the self and towards
others. We can see the child emerge from restriction of his behavior
to a more relaxed spontaneous behavior. We can see the child leave
one tract and become a more complete individual and this occurs in
a very interesting manner. (Gorlow, 1959, p. 452)

Here we see Play Therapy working for Dibs: During the early
sessions Dibs referred to himself as "you". He seldom had been
heard to refer to himself as "I". However, as early as the second
therapy session, he began to use the pronoun "I". We can sense with
Dibs his happiness as he begins to find himself--"I am Dibs. I am
Dibs. I am Dibs." "I like Dibs. You like Dibs. We both like Dibs."
And later, when he says: "I am Dibs. I can do things. I like Dibs.
I like me." Dibs smiles happily as he makes this discovery and the
reader finds he is doing likewise.

As Dibs entered the play room for his tenth therapy session,
his greeting showed how much his behavior had changed--from a little
boy who would not speak to anyone, who crawled around the floor, on
the edge of things--to "Oh, look Mother," Dibs cried. "The pretty

colored dress. Aren't those pretty? Isn't the dress pretty? "Yes",
his mother said. "It is a very pretty dress." "Colors," Dibs said.
"Beautiful colors."

Quite different from his usual quiet entrance!

The locked doors in Dib's young life had brought him intense,
suffering. Not the locked door of his room at home, but all the doors
of acceptance that had been closed and locked against him, depriving
him of the love, respect, and understanding he needed so desperately.
Many times in the play room he had referred to the locked door--"Dibs
no like locked doors." --He pointed to the door in the picture. "It's
got a lock on it," he said. "It locks fast with a key." The expression
on his face was one of unhappiness and fear. --"They used to lock
me in my room," he said.

Gradually, in his play with the soldiers, the dolls, the play-
house, Dibs was able to overcome his fear of locked doors and what
they represented to him.

He was relaxed and happy now. When he left the play
room he seemed to leave behind him the sorrowful
feelings he had uprooted there. (Axline, 1967, p. 155)

Dibs had, in Play Therapy, come to terms with himself. In his
symbolic play he had poured out his hurt, bruised feelings, and had
emerged with feelings of strength and security.

It is interesting to note that in a Stanford-Binet Intelligence Test given to Dibs a week after the Play Therapy sessions ended, he established a good relationship with the examiner, whom he had never seen before, was very interested and cooperative, and scored an I.Q. of 168.

A reading test was also given at this time and indicated that Dibs was an exceptionally gifted child who was using his intelligence capacities effectively.

Previous to therapy Dibs had been observed by the school psychologist, who tried several times to test him, without success. He had been considered "a strange one" by the school pediatrician, who questioned whether he might be mentally retarded, psychotic, brain damaged.

In the case of Billy, he was given a Stanford-Binet Intelligence Test at three different intervals—
(1) before therapy; (2) tenth session of therapy; (3) one year after therapy. He scored respectively I.Q.'s of 68; 96; 105. (Gorlow, 1959, p. 454-459)

> The child not only maintains the gains, but continues on
> to more and more mature behavior in keeping with his age.
> (Gorlow, 1959, p. 457)

The description of Dibs at age fifteen seems to bear this out:

> "He is a brilliant boy. Full of ideas. Concerned about
> everybody and everything. Very sensitive. A real leader.
> ...And he acts on the things he believes in. The school
> wouldn't want to lose him." (Axline, 1967, p. 218)

According to some therapists, spontaneous play techniques
are particularly indicated with children whose neurotic traits are
of long standing. They maintain that youngsters who are inhibited,
repressed, extremely hostile, excessively timid, or overly meticulous,
are most likely to benefit from this kind of treatment. (Mussen,
et al., 1963, p. 340)

Here are the results of non-directive Play Therapy used with
two blind children:

> An academically retarded boy in the first grade of an
> institution for the blind was seen 35 times. Nocturnal
> enuresis diminished, his attention span increased
> allowing him to concentrate on several pages of reading
> at a time, he showed progress in social behavior, and in
> the ability to be independent.
> The other case was that of a highly withdrawn girl who
> during the course of therapy exhibited an increased desire
> for social contacts and enough willingness to relate to
> somebody to enable an intelligence test to be administered
> to her, previously found impossible. (Jones, 1952)

To test the time required for therapy, brief Play Therapy for
younger children was given for an average of six - 1/2 hour sessions.

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At discharge, 1/2 were recovered and only 28% unimproved. Two years
later, 75% were recovered, with outcomes best for girls, older children,
and neurotic cases, while the outcome for conduct disorders was worse.
Besides this favorable rate, short methods of treatment at clinics
have advantages in avoiding either boredom or dependence. (Hare, 1966)

The experimental investigations of Play Therapy, while suggestive,
have shortcomings: (1) small number of cases studied; (2) limited
scope of the procedures for evaluation and control. Although
they do not provide strong positive evidence for the effectiveness of
Play Therapy, neither do they prove that Play Therapy fails to achieve
its goals. Until definite research can settle this one way or the
other, both the available findings and the accumulated experience
of clinicians make it possible to assume that Play Therapy is a useful
method of helping children lead happier, more integrative lives.

PLAY THERAPY - Dibs: In Search of Self

Play Therapy comes to life in Virginia M. Axline's book--Dibs:
In Search of Self. As Leonard Carmichael states in his editor's
introduction, this little book "presents a case which cannot fail to
become classic."

Most chapters consist of slightly abridged tape recordings

of Dr. Axline's Play Therapy sessions with Dibs, of a few interviews

with Dibs' mother, plus insightful comments by the author. Parents

might well make a mental note of some of the latter. To quote a few:

> To avoid facing the reality factors would not help him.
> He needed to develop strength to cope with is world, but that
> strength had to come from within him and he had to experience
> personally his ability to cope with his world as it was.
> Any meaningful changes for Dibs would have to come from within
> him. We could not hope to make over his external world.
> (Axline, 1967, p. 47)

> Here was a child very capable of great intellectual achieve-
> ment whose abilities were dominated by his emotional distur-
> bance. (Axline, 1967, p. 47)

> Intellectual achievement without the attendant emotional and
> social maturity was not enough. (Axline, 1967, p. 61)

> I wanted him to learn that he was a person of many parts,
> with his ups and downs, his loves and hates, his fears and
> courage, his infantile desires and his more mature interests.
> I wanted him to learn by experience the responsibility of
> assuming the initiative to use his capacities in his relation-
> ships with people. I did not want to direct it into any
> single channel by praise, suggestion, questions. I might
> miss completely the essence of this child's total person-
> ality if I jumped to any premature conclusions.

> It seemed important for Dibs, as all children, to learn by
> experience that no part of his world is static and controll-
> able. (Axline, 1967, p. 68)
> There is no single isolated experience or feeling that
> triggers reaction patterns. There is always an accumulation
> of experiences intertwined with highly personal emotions, goals,
> values, that motivate the person and that determine his reaction.
>
> (Axline, 1967, p. 91)

Fundamental processes of human development are treated in such a way that this book will appeal, and be useful, to the educated layman as well as to students and professionals.

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DICTATION--LEARNING?
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Dictation is given to 10 university students at various
speeds to determine if dictated information is forgotten
or just not received. The problems of transmission of
information into the individual and critical speed of
information intake are examined. By the use of taped
dictation of random words and completed sentences at
different speeds, the findings, interpreted on the
basis of Miller's Information Theory, indicated that
there is a progressive breakdown of word intake at about
45 wpm followed by the complete closure of the information
filter of the brain.

INTRODUCTION

Man is continually communicating with the external world. This

is done through the senses. Communication implies a two-way transmission

of information. This communication is carried on at varying speeds.

Sometimes the input exceeds the speed at which it is readily accepted

and some of it is "forgotten".

My question is:

Is this information forgotten or simply not received? This
study then shall be confined to the transmission of information
into an individual. It shall endeavour to discover the speeds at
which the information acceptance begins to falter and where and if it
ceases totally.

G. A. Miller (1957) in his paper The Magic Number Seven, Plus
or Minus Two, states that a human can increase his amount of inform-
ation transmitted (i.e. information which after having been received
can be given out in response) at first, but after it has increased
more a levelling off occurs. Thus further increase of input does not
produce a corresponding increase in transmitted information. At this
point the "channel capacity" is reached; channel capacity being defined
as the greatest amount of information that one can give about a
stimulus on the basis of an absolute judgement, that is the upper
limit on the extent to which the observer can match his responses to
the stimuli given.

In order to understand Miller's theory a second term must be
defined, namely, a "bit" of information. It is the amount of inform-
ation needed to make a decision between two equally likely alter-
natives. The rule for the use of these bits of information is simply,

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"every time the number of alternatives is increased by a factor of two, one bit of information is added".

Input of information may be increased in one of two manners: by increasing the amount of information per unit time and by increasing the number of alternatives irrespective of time.

Experimentation by Miller and a host of other experimenters dealt with the first of these two alternatives. Their findings seemed to show that the number of bits of information capable of being used, either for decision making or recognition was in fact seven plus or minus two.

A second line of experimentation was carried out by Hayes (1952) in which he gave the stimulus at the rate of one item per second, and the subjects were required to remember these items. After the stimuli were given, these subjects were to respond by repeating the items mentioned. Various test materials were used: binary digits, decimal digits, letters of the alphabet, letters plus decimal digits and mono-syllabic words. These items were listed in their increasing difficulty and the memory span was found to be nine with the binary digits (the easiest), and five for the words (the most difficult). Here a new term is introduced--"chunk". It refers to one item--for example, a

Summarizing their findings then, we can say that the number of bits of information remains constant for absolute judgment and so also do the the chunks of information for immediate memory span. It appears that the number of bits of information per chunk is insignificant.

H. Goldstein (1940) experimented using varying speeds of talking as stimuli. The subject was required to answer questions on material presented at speeds of 100, 137, 174, 248,285, and 322 words per minute. Comprehension was high at the lower speeds but even at 322 it was not zero.

A type of information filter has been postulated. It acts similar to an ordinary filter allowing all to pass through it when the amount (rate) is slow enough. As the speed increases however, the mind is unable to process this information and the filter begins to block some of the incoming information. When the brain becomes overworked by excessive rates of input the filter closes completely, becoming impermeable to input of any information.

PROBLEM

The problem this experiment has set out to solve is: at what rate of input does the information filter begin to stop information flow,

and at what rate it stops the input completely.

Previous experimentation by Miller has proceeded in the direction of increasing the number of alternatives. Hayes followed up this line and tested immediate memory which does not measure rate but merely capacity.

Goldstein's experiment pursued the second direction, namely that of increasing the rate or the number of stimuli per unit time.

It is along the design of Goldstein that this experiment shall proceed.

A problem facing the college student every day is that of dictation and its value or lack of value. It is a truly frustrating experience to sit in a classroom for fifty minutes and write as fast as one is capable, missing thoughts and sentences and then at the end of this time not having anything but the slightest idea of the subject matter covered.

Hypothesis

1. As the rate of input increases, the information filter becomes closed to more and more information. When an overwhelming rate is reached, the information filter becomes totally impermeable to information input.

2. Response, in the form of written recording, to dictation is irrespective of sense of dictation given.

Design

The experiment was of simple design. It consisted of presenting each subject individually with dictation at varying speeds. The dictation was pre-taped to ensure constant stimuli. Each section was one minute of dictation. Speeds used were in five word intervals ranging from 25-65 words per minute. Sections were spaced by one minute intervals. Subjects were to respond by writing those words which were dictated. To account and control for the effect of practice and learning trial runs were performed previous to the actual testing.

These were two types of dictation, random words and complete sentences. The random words and sentences were presented at the same speeds in the above range, and both speeds and sequence of words-sentences were randomized. As there were nine speeds, there were 18 sections, nine random words and nine sentences.

The actual test period was followed by questioning for introspective views of the subjects.

Subjects

The subjects were white male and female university students. There were four male and six female subjects. They ranged in age from 18-22 years, and with the exception of one (a Freshman), all were fourth year students. Two subjects were disqualified since they used shorthand, thus reducing the number participating to eight.

All subjects were naïve as to the nature of the experiment, but were all practised in the taking of dictation.

Procedure

The subject was taken to a quiet room and the only persons present were the subject and the experimenter. The subject was seated and given the following instructions:

"For this test you are required to take dictation. You have been provided with pen and paper. The dictation is one minute sections and there are 20 sections. You may begin to write immediately upon hearing the dictation, however you are asked not to use any shorthand or abbreviations.

The dictation may or may not make sense but you are asked to write as much as possible. You will be given a short period to rest after each section during which time you may continue to write but do not go back and fill in.

Please do not worry about spelling or neatness.

Are there any questions?

We will now begin."

There was a pre-trial testing period which consisted of two consecutive trails.

Sections 1-17 were given with no further instructions.

"This is the last section."

Section 18 was given.

"Thank you".

"1. What was your impression of the experiment?

2. What do you feel it measured?

3. Did you experience frustration?

4. What do you remember of the dictation?

(Brief explanation of experiment, theory and purpose,)

5. Did you experience the complete blocking of stimulus?"

The sequence of stimuli given was as follows:

Section	Type	Speed[1]
1	Sentences	25
2	Sentences	50
3	Sentences	30
4	Random	50
5	Random	35
6	Sentences	55
7	Random	30
8	Sentences	40
9	Random	45
10	Random	25
11	Sentences	60
12	Sentences	45
13	Random	55
14	Sentences	35
15	Random	65
16	Random	40
17	Sentences	65
18	Random	60

[1] Speed is in words per minute

The results were calculated in the following manner:
As the average English word contains five letters, the letters of the
words omitted or misplaced were counted and divided by five. This
gave the number of mistakes for each section. Percentage of errors for
each speed was calculated by dividing the number of errors by the
number of stimuli given and multiplying by 100%.

The results in tabular form are:

A. Sentences:

Percentage of Errors for Each Subject.

Speed[1]	I	II	III	IV	V	VI	VII	VIII	Mean
25 wpm	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
30 "	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
35 "	0 %	17.1%	0 %	0 %	2.8%	0 %	0 %	0 %	3.7%
40 "	22.5%	35 %	7.5%	7.5%	10 %	20 %	5 %	32.5%	17.5%
45 "	22.2%	22.2%	40 %	24.4%	8.9%	28.9%	8.9%	25.5%	22.7%
50 "	34 %	40 %	32 %	28 %	38 %	30 %	18 %	36 %	32 %
55 "	34.6%	31 %	40 %	34.5%	32.7%	36.4%	14.5%	21.8%	30.7%
60 "	45 %	40 %	38.3%	43.4%	33.3%	48.4%	31.6%	43.3%	40.4%
65 "	52.3%	37.5%	57 %	49.2%	44.6%	61.5%	49.2%	49.2%	55 %

[1]Speed given in words per minute.

B. Random Words: Percentage of Errors for Each Subject.

Speed[1]	I	II	III	IV	V	VI	VII	VIII	Mean
25 wpm	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
30 "	0 %	6.7%	6.7%	6.7%	10 %	6.6%	3.3%	0 %	5 %
35 "	14.3%	20 %	14.3%	5.7%	8.6%	14.6%	2.9%	17.1%	12.4%
40 "	27.5%	42.5%	22.5%	22.5%	25 %	32.5%	12.5%	35 %	27.2%
45 "	29 %	40 %	35.6%	26.7%	22.2%	28.9%	17.8%	24.4%	28.1%
50 "	28 %	44 %	38 %	38 %	40 %	38 %	42 %	36 %	38 %
55 "	43 %	49 %	41.8%	40 %	32.7%	40 %	30.9%	38.2%	38.2%
60 "	46.7%	51.6%	45 %	51.6%	46.7%	55 %	43.3%	50 %	48.7%
65 "	56.8%	49.2%	52.3%	49.2%	41.5%	50.7%	38.4%	53.9%	49 %

[1]Speeds given in words per minute.

The points given in these tables are plotted on the graphs
on subsequent pages. In these and all following graphs the points and
lines referring to the "random" trails are in black.

The following is a table of the scores of output in words per
minute. Calculations were performed in the following manner:

(WORDS GIVEN PER MINUTE)-

(NUMBER OF MISTAKES)

Values obtained from stimulus 25 words per minute were discarded:
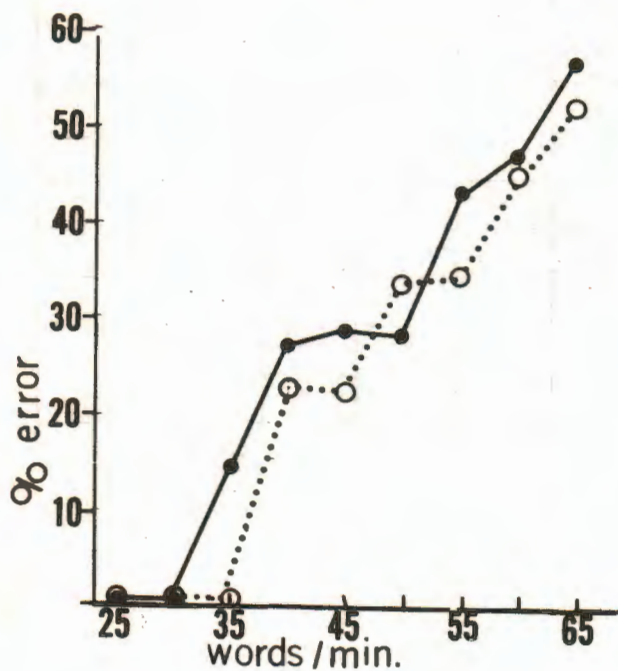
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Sentences:

Speed	I	II	III	IV	V	VI	VII	VIII	MEAN
30	30	30	30	30	30	30	30	30	30
35	35	29	35	35	35	35	35	35	34.3
40	31	26	37	37	36	32	38	27	33
45	35	35	27	34	32	32	41	38	34.3
50	33	30	34	36	31	35	41	32	34
55	36	38	33	36	37	35	47	43	38.1
60	33	36	27	34	31	31	40	34	34.5
65	31	25	28	33	25	25	33	33	29.1

Random Words:

Speed	I	II	III	IV	V	VI	VII	VIII	MEAN
30	30	28	28	28	27	28	29	30	28.5
35	30	28	30	33	32	30	34	29	30.8
40	29	25	31	31	27	27	35	26	28.9
45	32	27	29	33	35	32	37	34	32.4
50	36	28	31	31	30	31	29	32	31
55	31	28	32	33	32	33	38	34	32.6
60	32	29	33	29	27	27	34	30	30.1
65	30	33	31	33	32	32	40	30	31.4

These values are plotted in graph form. Variance indicates extreme
values.

Subject I

Subject II

% error

words/min.

words/min.

output (wpm)

variance: ○⋯○ 30 – 36
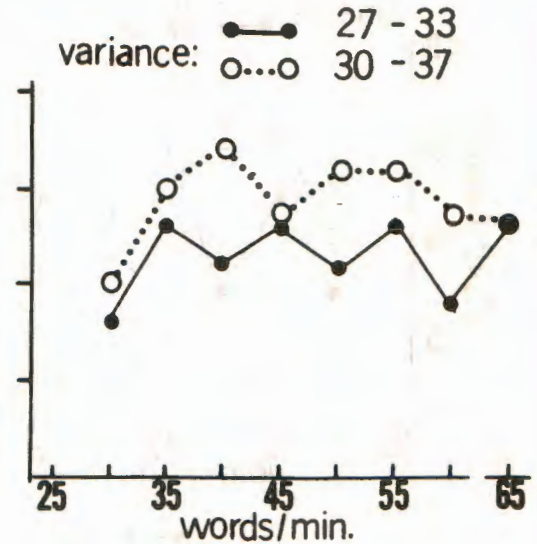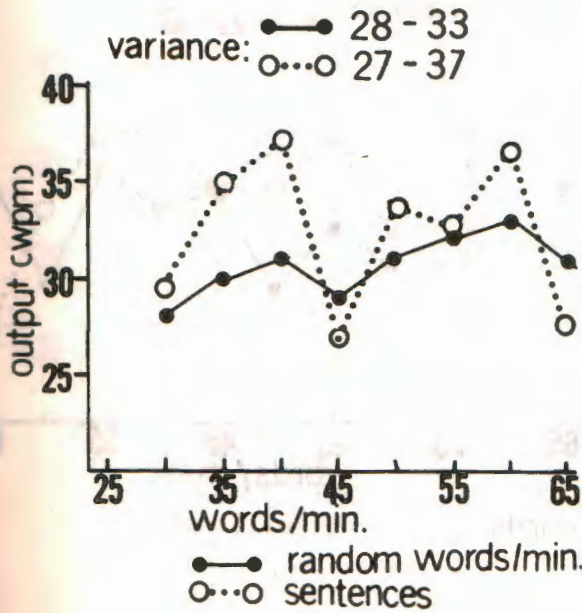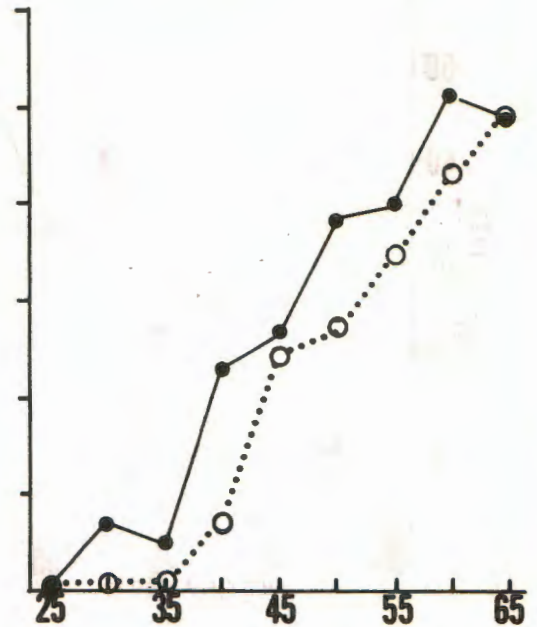   ●—● 28 – 36

variance: ○⋯○ 25 – 38
         ●—● 25 – 33

words/min.

words/min.
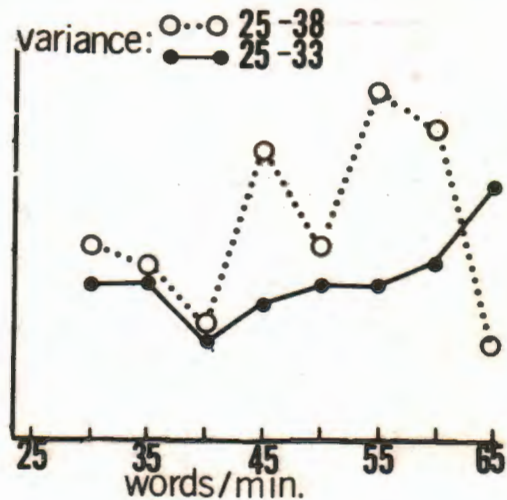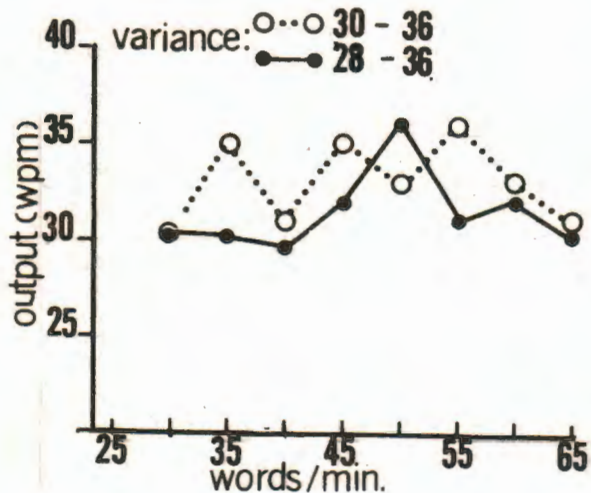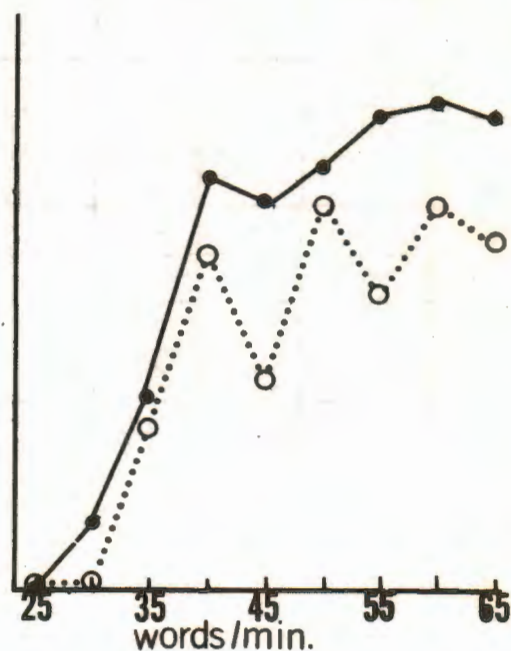
●—● random words
○⋯○ sentences

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Subject III Subject IV

% error

variance: •—• 28 - 33   variance: •—• 27 - 33
        o···o 27 - 37   o···o 30 - 37

output (wpm)

words/min.

•—• random words/min.
o···o sentences

Subject Ⅴ

Subject Ⅵ

% error

words/min.

variance: o··o 25-37
          •—• 27-35

variance: o··o 25-35
          •—• 27-33

output (wpm)

words/min.
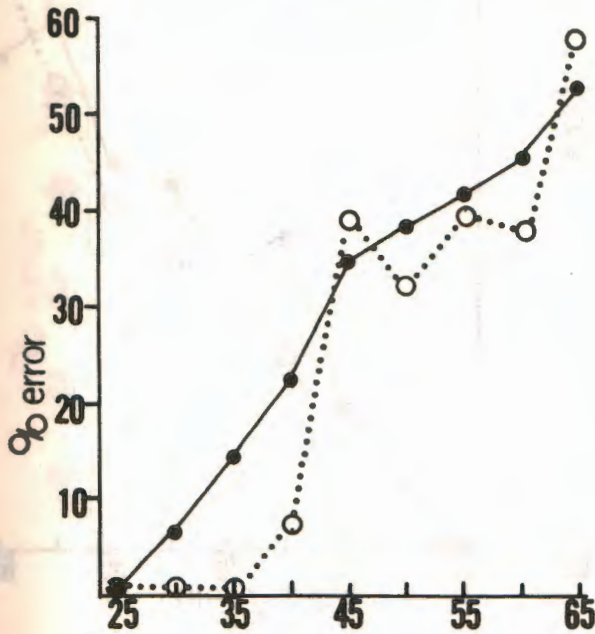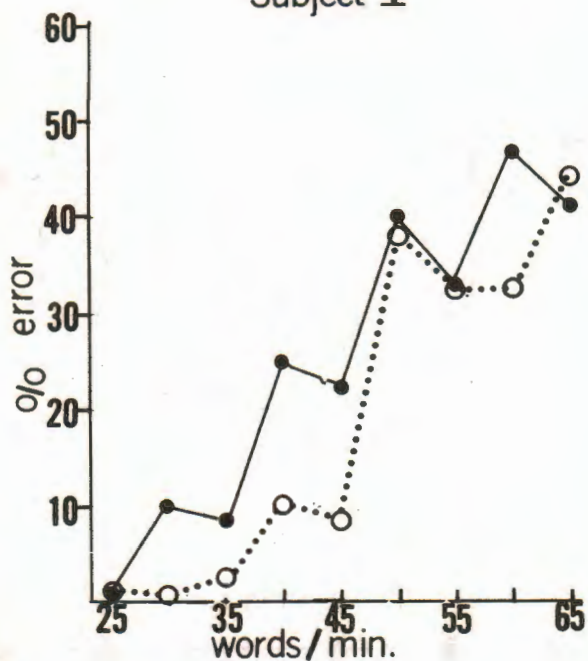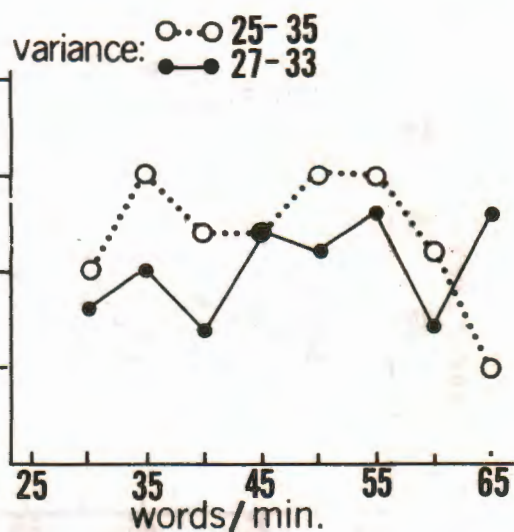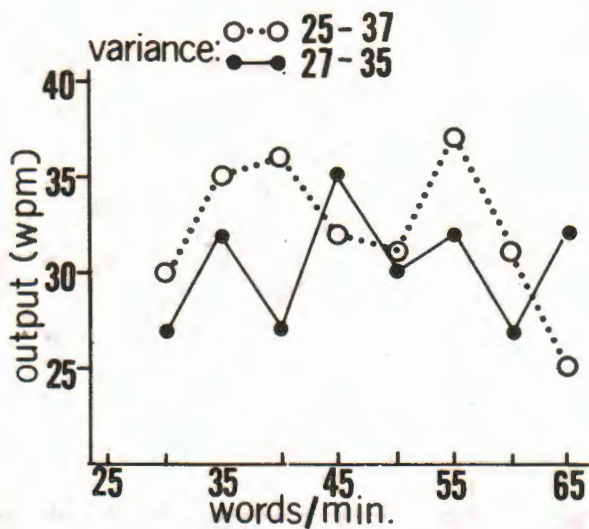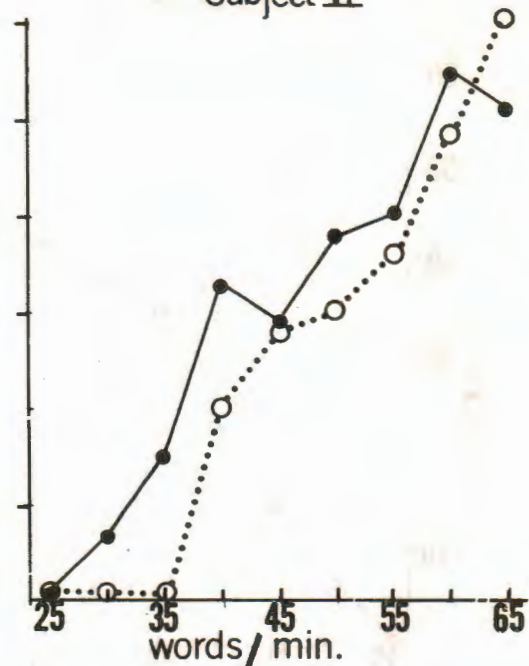
•—• random words
o··o sentences

Subject VII   Subject VIII

var.: o···o 30 - 47   var.: o···o 27 - 43
       •—• 29 - 40   •—• 26 - 34

•—• random words
o···o sentences

Mean Values for Ss

Variance: o··o 29.1 - 38.1
· · 28.5 - 32.6

random words
o···o sentences

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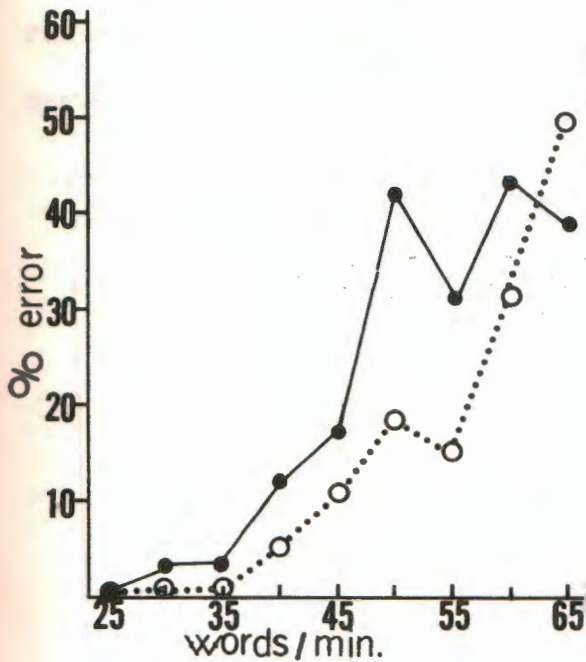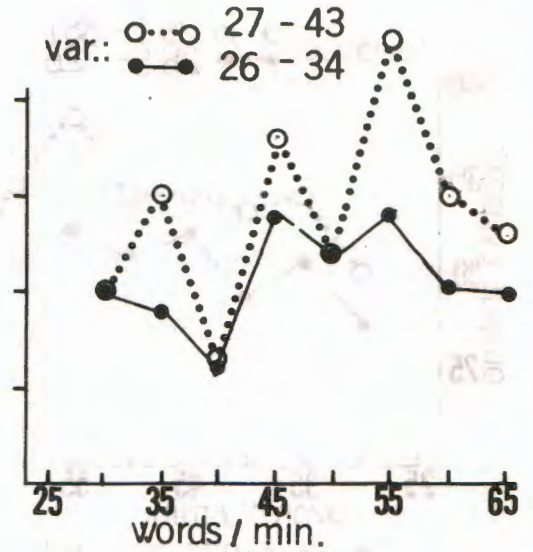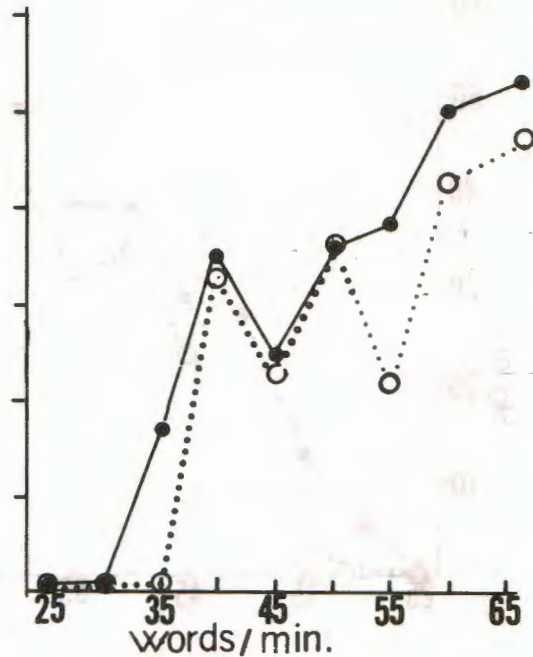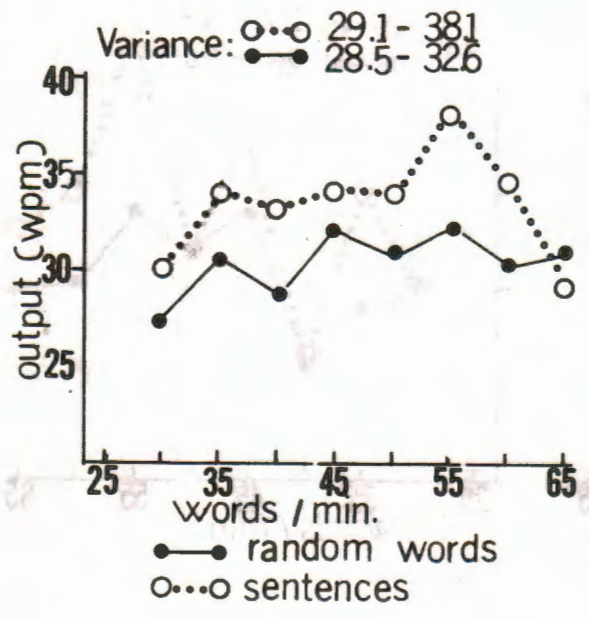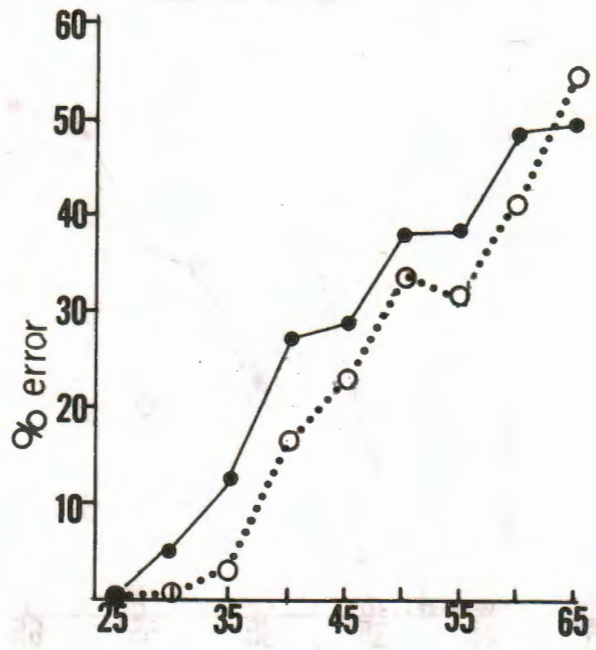
The points or speeds at which the break down occurred are as follows;

Sentences:

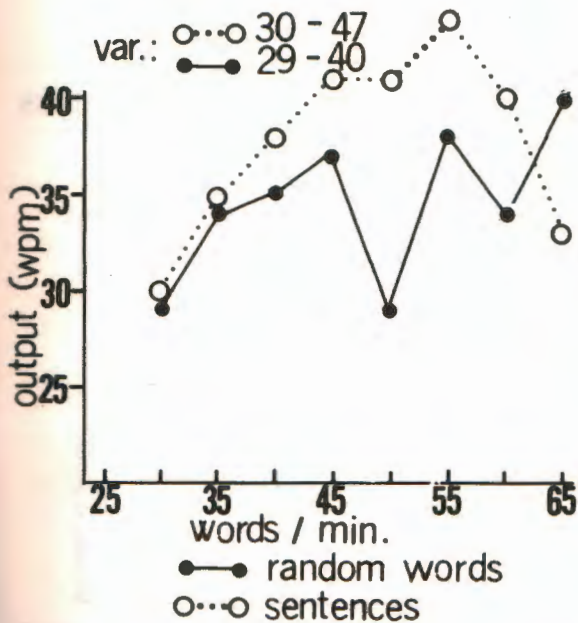| Speed	Partial Break	Complete Break
35	II, V,	II,
40	I, III, IV, VI, VII, VIII	
45		I, III, IV,V,VI, VII, VIII
50		
55		
60		
65		

Random:

Speed	Partial Break	Complete Break
35	I, II, III, IV, V, VI, VII, VIII	
40		VIII
45		III
50		IV, V, VI, VII,
55		I,
60		II,

Complete break was considered as 5 consecutive mistakes or more (1 word - 1 mistake).

Complete breaks ranged from 5-19 consecutive mistakes for the sentences. Range of random words was from 5-11 consecutive mistakes.

In the introspective questioning answers were very homogeneous. Subjects felt that the test was one of memory, all experienced frust- ration, some to a great extent--(feelings of hostility toward experimenter and experiment). Memory of the subject matter was very slight in most cases and either nil or wrong in others.

Subjects developed different methods of responding when speeds were too great. Two methods were described. The first was to write every second or even third word.The second method was to write what could be remembered while closing off input, then when finished the subject began to listen again. Subject VIII used the first method while the others used the second.

DISCUSSION

The results bear out the belief of the information filter. At speeds of 25 and 30 words per minute, and even 35 in some cases, there was no filtering; information was readily accepted and processed thus eliciting the necessary response.

As speeds increased to 40 words per minute, the filter began to slow down the input by blocking out some of the input information. This speed was tolerable however, and only two or three words were blocked out at one time.

It was at this point of partial blocking that a difference was seen in the sentences and random words. The sentences were tolerated at rates of 35 words per minute without filtering in most cases. Random words however began to be partially filtered at the rate of 35 words per minute in every case.

This difference is easily explained in that sentences at low speeds were more easily remembered because of the thought content but this same factor at greater speeds was a hindrance and caused a complete break. That is, the mind was unable to cope with the input speed and thus the filter closed completely, at a lower speed than the random words.

The complete closing of the information filter occurred at the speed of 45 words per minute in most cases when the stimulus was in sentence form. Random words were tolerated at a higher speed before the closure of the filter at a speed of 50 words per minute in most cases and as high as 60 words per minute with Subject II.

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It was clear that different subjects accepted information at the varying speeds with different responses. It is for this reason that I shall generalize on these results as if a greater number of subjects had been used.

It might be said that the speed of complete tolerance, that is no mistakes, was at speed of 31.9 words per minute (mean value). The speed of complete tolerance, that is the speed at which the complete break occurs, is 40.6 words per minute (mean value).

One last point with respect to speeds or filter operation: all subjects stated that once the information had ceased to be processed, it actually took a thought on their part to begin to listen again. It may be said then that the "off" switch is automatic but, it must be manually turned "on" again.

The second part of the experiment was to try to evaluate the use of dictation. It can be seen by looking at the graphs that Random words and Sentences scored fairly closely in the individual cases. Of greater importance is the graph depicting the mean values of mistakes it is only an increase of 8% at the greatest difference. This coupled with the almost negative retention of the dictated material, I feel has shown that dictation is merely a process of

transcribing the notes of the dictator into the notebooks of the autience, with no learning and very little remembering occurring.

In plotting input against output, an interesting feature was noticed. By subtracting the number of mistakes from the number of words given, one obtains the output and this output borders on being a constant. In the eight cases shown here, wide variances are seen, however, even in the widest ranges most points centre around one number. The mean values show a greater degree of this constant and possible further experimentation with a greater number of subjects would result in more conclusive values. For my part, I would venture to state that regardless of the speed of input, output for Sentences is 34 words per minute, and 30 words per minute for Random words.

SUMMARY AND CONCLUSIONS

1. The speed at which the information filter begins to close is 31.9 words per minute.
The speed at which the information filter closes completely is 40.6 words per minute.

In addition to the hypothesis, two additional points have been noted. There is reason to postulate a constant output value which is irrespective of the input, provided the input reaches this value. This

constant (varying in individuals slightly) would substantiate the

information filter concept, in that the circuit would only carry

this number of pieces of information, and the remaining input is

filtered out.

The second point is the "on-off" mechanism of the filter.

The "off" switch appears to be automatic--a type of circuit breaker,

while the "on" switch is manual and requires an action of the oper-

ator, that is, the receiver, to "turn on".

REFERENCES

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Miller, George A. Language and Communication.
     McGraw-Hill Book Company, Inc.: New York, Toronto, London, 1951.

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j.n.c.

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A job applicant, we're told, came to the question, "Do you advocate the overthrow of the government by subversion or violence?" and wrote in "Violence."

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One thing is different in 1969. Those who last year advised us not to trust anybody over 30 advise not trusting anybody over 31.

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HE WHO KNOWS

- Persian Proverb

He who knows not, and knows

not that he knows not, is a fool;

shun him.

He who knows not, and knows

that he knows not, he is a child;

teach him.

He who knows, and knows not

that he knows, is asleep;

wake him.

He who knows, and knows

that he knows, is wise:

follow him.

CHILDREN'S DRAWINGS AS A MEASURE OF PERSONALITY

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St. Mary's University

Significance and utility of children's drawings as related
to personality development are examined. A general explanation
and significance of research done on children's drawings is
used for explanation. The author explains and differentiates
between several types of scales by which it is possible to
score a drawing for personality traits.

It is interesting to note that children's drawings have been
an object for study since the child first achieved the status of an
individual around the turn of the 20th century. Since that time there
has been a continuing interest in the drawings of children and a
corresponding proliferation of theories regarding the psychological
aspects of this activity.

Although the earliest recorded study dates back to 1887 when
Corrado Ricci published an article containing his observations of
children's drawings, the greatest interest during the early period
occurred between 1890 and 1910 when the study chiefly concerned
the developmental character of drawings. In 1921 Cyril Burt published

his analysis of the developmental stages observed, perhaps the first important work on the subject.

Following this primitive beginning in the psychological study of children's drawings, Florence Goodenough (1963) added a new dimension to the field when she introduced the theory that the drawings produced by children contained an intellectual component. She developed the Draw-a-Man Test on this assumption and successfully demonstrated its usefulness in 1926. Although the psychological study of children's drawings has taken many directions since her test was introduced, it is still considered to be a useful and valid psychometric device. (Harris, 1963).

Although Goodenough recognized "qualitative differences" in the drawings of children, she concerned herself chiefly with the measurement of intelligence and did not formulate any theories of personality behaviour on the basis of her observations.

Karen Machover, a psychologist who worked extensively with children in mental hospitals and clinics, made use of the Goodenough test to measure the intelligence of her patients. She found that children with equivalent mental age ratings frequently produced strikingly different drawings and that quite often socially inhibited, non-verbal

children produced drawings in which they unburdened their private
fantasies, anxieties and guilt upon the figures which they drew.
Moreover, they made little attempt to disguise these "self-portraits"
and seemed eager to express themselves in this way. (Machover, 1950).
On the basis of fifteen years experience in this work using drawings
as measures of intelligence and as a method of graphic communication,
Machover devised the Draw-A-Person Test and derived a system for inter-
preting drawings of the human figure. She states:

> "Incentive for, and primary focus of, investigation centered
> around perfection of the drawing technique as a clinical tool
> for personality analysis, rather than around any theoretical
> hypothesis." (Machover, 1950)

Although Machover discovered rather than theorized that children
project themselves in their drawings of the human figure, she does
not deny that the basis for this conclusion rests on psychoanalytic
theory, and in fact she states a sound knowledge of personality dynamics
and clinical syndromes to be absolutely necessary for the interpre-
tation of such drawings. (Machover, 1950)

The assumption that drawings reflect the body image of self was
made by others who worked primarily from the psychoanalytic point of
view. (Holtzman, 1967). As a result, many methods of interpreting
the significance of drawings have been evolved. Since all theories
rely on the phenomenon of "projection", a definition would appear use-

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ful at this point. It has been described as "a substitute adjust-ment mechanism" or more specifically, "a means by which a person may disown, by attributing to objects or to other people, characteristics which he does not like to admit to himself." (Branca, 1968, p. 466)

Since 1940 when Machover developed the Draw-a-Person Test and its scoring formula, many other tests have appeared based on the premise of projection. Some of the more important "personality tests" based on drawings and their interpretations will be discussed here although no attempt will be made to cover the entire field in view of its complexity and the divergence of opinion which prevades the literature.

The most outstanding proponent of the Draw-a-Person Test is its author, Karen Machover. This test is administered in an almost com-pletely unstructured fashion and simply assigns the subject the ambig-uous task of drawing a person, on completion of which the subject is asked to draw a person of the opposite sex. Like the Goodenough test, Machover's method can be used to examine children of any age, intell-igence, or level of education. In addition, it is easily administered to the emotionally disturbed and can be utilized to diagnose or assess the therapeutic progress of such subjects.

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The interpretation of this test has been the subject of a great deal of controversy which to date has not been resolved although it is generally agreed that the principles on which the test is based are sound. Machover's method of determining the meaning of drawings in terms of projection is based primarily on the clinical study of patients' drawings in combination with a comparative study of the case histories of these patients, supplemented by other test data and psychiatric and psychological opinion. These interpretations, she states, "have met and are continuing to meet rigorous standards of specific Clinical Validation in each case studied." (Machover, 1959, p. 345-6).

Machover describes the drawing of a person as a "creative experience" in which the subject expresses graphically in explicit areas of the figure certain conflicts which he may or may not be aware of. Further, she indicates that:

> "....the distribution of graphic energy as indicated by
> omissions, disturbance of line, perspective, reinforcement,
> erasures or shading, must be interpreted in the light of
> the meanings that one attaches to the various parts of the body.
> The drawing gives location of conflict." (Machover, 1959,
> p. 350).

On the basis of this assumption, Machover has evolved a set of interpretations for indications of "graphic energy" in each major area of the figure.

She attributes to the head and facial features the expression of social needs and responsiveness. Drawings of this area are supposed to project intellectual aspirations, the drive for rational control of impulses as well as fantasy elaboration of the personality. An overly large head may reflect frustration due to mental retardation, educational disability or organic injury. It may indicate intellectual or moral vanity, fantasy preoccupation or dependence.

The eyes are thought to refer to social communication. Generally, large eyes project a desire to absorb the world visually while small eyes exclude it. Sexual exitation or voyeurism is indicated by a "popeyed" appearance, wariness indicates paranoia, and crossed eyes indicate quilt. If the pupil is omitted, the subject may be egocentric or hysterical.

The treatment of the ear is considered important, though not a conspicuous organ, since it is involved to the "viligant economy of the body." Disturbances or distortion, depending upon the degree, may indicate a sensitivity to social criticism or systemized paranoia. Size and reinforcement here is not considered to be as indicative of pathology as displacement, distortion or odd detailing.

The nose is thought to be a male sex symbol and its treatment may include shading, deletion or cutting which is related to castration;

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it may be over extended in the impotent male.

The hair also is designated as a sex symbol. It is thought
to relate to sensual needs or possibly indirectly to sexual vitality.
It is considered to be a primitive or childish projection frequently
used by pubertal girls. In adults, hair emphasis is an expression
of sexual preoccupation but is usually seen in the drawings of in-
fantile or regressed persons. It is thought to be primarily concerned
with infantile sexual drives.

Emphasis on the mouth is associated with feeding difficulties,
speech distrubances, profane language, intemperate outbursts, alcohol-
ism, excessive eating and, to some extent, verbal sadism.

Although some differentiation between male and female has been
indicated in the interpretation of the symbolism of the head and its
related parts, it is considered generally to be an area subject to
intellectual projection, and because of this, male and female inter-
pretatinns are often similar. Other body features, according to Mach-
over's interpretation, reveal projections specifically related to
masculine or feminine characteristics.

Emphasis of the chest, shoulders and muscles in the drawing of
a male is interpreted as a preoccupation with physical power and
depending on the physique of the subject, can indicate one of two

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things. If the drawing was made by a frail, effeminate adolescent, it is likely to represent a compensation for reality. If, on the other hand, the drawing was made by a rugged adolescent, it is possibly a true self-portrait and not an uncommon occurrence. Extreme emphasis, however, may be indicative of a pathological degree of body concentration.

In drawings of the female figure, the chest is primarily related to breast development. Emphasis of this characteristic in drawings made by growing girls is considered to be a healthy sign of the acceptance of a feminine role and indicates an identification with a dominant mother. Breast emphasis in drawings made by males can indicate an attachment to a dominant mother figure or, when combined with emphasis on the buttocks, a tendency toward homosexuality. Also, when a male draws the male figure with effeminate features, high heels and dandy clothing, homosexuality is indicated, as is the case when emphasis on the hipline is shown in drawings by a male of the self-sex. Hipline emphasis in the female self-sex is attributed to an interest in childbearing.

Machover has emphasized the importance of the neck and waistline because of their strategic positions as dividing lines between three main body areas, the head, the trunk and the area below the trunk.

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The corresponding functions of these regions are intellectual, physical power or nourishment, and genital.

Conflict can be expressed in the neck where the control of impulses is a problem for ego integration. A tight waistline is thought indicative of restraint and inhibition. Subjects who refuse to proceed beyong the waistline, or who dim out or reinforce the area below it are suspected of aggressive reaction to conflict.

Restraint and efforts at control are connected with items of dress added to the figure which generally serve this functional purpose. Such items include barrettes, bows, shoe laces and mittens.

The stance of the figure is considered important as an indication of the subject's sense of security. The foot is of primary importance in stance since it is in direct contact with the ground and, as such, a direct contact with the environment. In addition to these interpretations, the foot is thought to have sexual connotations, and unusual treatment of this area of the figure is linked with guilt and impotence. The hand lends itself to a similar interpretation. Clothing is thought to convey the surface personality. (Machover, 1959).

The foregoing briefly summarizes Machover's drawing interpretation. It is presented here since it is the most comprehensive system yet

evolved for this test. It should be noted, however, that although Machover is quite satisfied with the validity of her interpretation, it does not meet the usual standards for psychological tests. As a result, her interpretation has been questioned on many occasions and several attempts have been made to subject it to statistical analysis. Dale B. Harris (1963) questions the self-image theory and is critical of the lack of controlled testing to which it has been subject, as well as the large number of variables involved. He states:

> "The case for unconscious representation of the 'self'
> in human figure drawings has not been firmly established.
> But the very nature of the concept defies objective
> validation."   (Harris, 1963, p. 48).

This, then, is the chief problem facing those wishing to use the test. Does it or doesn't it reveal the personality?

Mention has been made of the variety of variables involved in drawing. Handler and Reyher (1964) attempted to assess the effect of one variable - stress- in the drawing situation by testing the following two hypotheses:

1. Externally induced anxiety increases manifestations of
   anxiety on figure drawings.

2. There are two sources of these manifestations of
   anxiety:

(a) the laboratory stress situation

(b) anxiety producing intra-psychic processes,

activated by drawing the human figure. (Handler and

Reyher, 1964, p. 259).

Both hypotheses were considered proved and, in addition, it
was found that shading, erasures and reinforcement were absent from
the drawing when anxiety was produced. (Handler and Reyher, 1964,
p. 260).

These findings do not support the Machover view and, in addition,
point out the difficulty of testing validity by clinical means.

Another criticism of the figure drawing technique is expressed
by Seymour Fisher (1967) who quotes a study which correlates drawing
attributes with drawing skill. He is of the opinion that rather than
the portrayal of personality variables such as adjustment, dependency
and intelligence, the drawing merely portrays the subject's skill in
proportion and his neatness. He suggests that the drawing performance
of psychotics may be a function of decreased motivation rather than
projections of personality. (Fisher, 1967, p. 183).

One of the most important variables in the Draw-a-Picture Test
is the interpreter, since the test does not have a structured scoring

formula such as the Rorschach or other popular projective methods.
This is complicated by the fact that the interpreter, in Harris'
view, is permitted to "project" as much as his subject. He states:

> "....projection is a mechanism that cuts two ways. All
> too frequently, adult associations and concept have been
> projected into the interpretation of children's 'projections.'
> This fact may be construed as evidence for the general sound-
> ness of projective theory, but it does not induce confidence
> in the accuracy of interpretation." (Harris, 1963, p. 62)

The ability of the interpreter to evaluate drawings has been
the subject of experiments where the case histories of the subjects
were unknown. Results of these experiments indicate that clinical
psychologists were unable to identify to a greater degree than chance
the drawings of psychotics, neurotics, or normals. (Schaeffer, 1964).
This was also the case with sociability and emotional adjustment.
(Stoltz and Coltharp, 1961).

Many other tests have been devised on the principle of project-
ion of the self in drawings, such as the House-Tree-Person Test, Draw
A Family Test, and the rather unusual technique of making a self
portrait while blind-folded. Although differences in interpretation
are legion, these tests appear to be modified versions of the Draw-a-
Person Test and for this reason they will not be discussed further.

Free drawings are frequently analyzed in studying children since many children enjoy drawing, and if allowed to draw freely, often project their unique problems in their choice of subject. Charlotte Buhler (1967) and her associates stress the need for workers to be thoroughly familiar with the child's background but appear to place less stress on the interpreter's knowledge of personality dynamics. This matter is discussed in an article in which is included several samples of drawings made by children whose background was known to the authors. It appears from the specimens and case histories given that a good deal of information can be obtained about the sociability and emotional stability of the subject through the analysis of unstructured drawings. Loneliness, personal attachment, guilt, anxiety and withdrawal are some of the characteristics portrayed in these drawings. (Buhler, et al., 1967, p. 75-87).

Some other hypotheses have been developed which are of interest although they have not been widely applied or tested. One advanced by Bender and Schilder in 1951 makes a connection between reading disability and graphic art, suggesting that drawings may provide the key to the problem underlying reading difficulty. The hypothesis is based on the belief that poor readers have difficulty in patterning their optic perceptions and in differentiating foreground from back-

ground. The theory and the use of drawings in diagnosing reading prob-

lems have not yet been verified. (Harris, 1963, p. 48)

Some theories have been advanced which suggest that drawings

can be useful in assessing levels of psychological development in

children. Luquet and Lowenfeld (1963) believe that children move

through stages of "emotional unrealism" to stages of "intellectual

realism" and that this evolution is evident in their drawings. A pop-

ular hypothesis which has been advanced by many prominent writers on

children's drawings alleges that the size of the figure drawn by a

child is a reflection of his self concept. More explicitly, they

propose that if a child draws a small figure, he may have a "low self

concept" or if an oversize figure is drawn, this may also indicate a

"low self concept" being compensated by the large drawing. The

theory was tested by Virginia Bennett (1964) who used 198 sixth grade

children as subjects. Her method consisted of administering a self-

concept test and a drawing and comparing the results. She found no

significant difference in the size of drawings made by children show-

ing low self concept in the control test. (Bennett, 1964, p. 285).

Another common interpretation of children's drawings is that

the sex of the first figure drawn, when no specific instructions have

been given, designates the sex identification of the drawer. Experiments

have been carried out to determine the validity of this contention
and the results generally support the theory although it is noted that
pre-school children make very little attempt to differentiate sex
in drawings. (Harris, 1963, p. 45).

Despite the interest which has been exhibited in children's
drawings over the past twenty-five years, there appears to be much
disagreement among the experts as to what drawings actually reveal.
This is in part the result of the difficulty inherent in the technique,
of finding ways to identify and control the variables which may influ-
ence the act of drawing. Another problem which has hindered the
development of an acceptable means of interpreting drawings has been
the unsystemized approach of those attempting to assess the technique.
Machover is satisfied with clinical comparisons. Others, do do not
accept this method as valid, test certain hypothesis; but one one has
been able as yet to test enough of the variables involved to render a
decision on the usefulness of the method either as a screening device
where little is known of the subject or as an indicator of the psycho-
logical development of an individual.

Although the test is no doubt useful in some instances where
serious character disorders are present, it has not achieved sufficient
respectability to be used as a reliable method of measuring personality.

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PREJUDICE IN THE INTEGRATED AND NON-INTEGRATED CLASSROOM

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Two groups of thirty white pupils, from grades 3, 4, 5 are used as subjects to determine what effects integrated classrooms have on children's attitudes towards Negroes. One group was in an all-white area school while the other was in a mixed-area school. Osgood's Semantic Differential was used to measure attitudes and a significant difference ($p < .05$) in view points was found with the group in the mixed school. The authors concluded that a mixed school does help to alleviate prejudice vut the contact with those of an unequal socio-economic status heightens prejudice.

Gathering experimental evidence would indicate that children as young as 4 and 5 years can make ethnic distinctions and have clearly established racial preferences - (Ammons 1950, Clark and Clark 1939, Clark and Clark 1947, Clark and Clark 1950, Crooks 1966, Horowitz 1939).

This experiment, involving black and white children, will attempt, by way of the Osgood Semantic Differential, to determine what effect an integrated school environment will have on the ethnic attitudes of the white children involved.

The experiment is exploratory in nature and therefore, no explicit hypothesis will be offered. The variable, integration, may possibly increase, decrease, or have no significant effect on ethnic attitudes.

It is not within the scope of the experiment to determine the reason for the particular outcome, the nature of the attitudes, or the learning processes involved.

METHOD

Subject

Two experimental groups of children were chosen from two rural communities in Halifax County: - Upper Sackville and Hammond's Plains. Each group was comprised of 30 white children from Grades 3, 4, 5. The school in Upper Sackville has had no experience with integration; the Hammond's Plains School has been integrated for three years.

(White, Negro ratio approximately 3:1)

Ideally, the experiment should have tested the Hammond's Plains Ss before integration. Since this was impossible, a community (Upper Sackville) deemed similar to Hammond's Plains, was chosen to fulfil this condition.

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A rough comparison of the two communities revealed major similarities. Historically, each has had a small farm - lumber ecomomy. Both economies have been predominately Protestant. There has been little participation in higher education. Each community is near to, although socially isolated from, a Negro community.

It must be pointed out that no test was administered to determine the actual degree of similarity of the two communities. Therefore, it may be presumptuous to assume the similarity of each communicty to the point of producing identical racial attitudes. However, it may not be unnatural to assume that two rural communities in Halifax County would have different racial attitudes.

Procedure

The type of test used for this experiment was Osgood's Semantic Differential. Osgood (1967) explains the validity of this type of test on the grounds that meanings with which we are interested are "those cognitive states of human language users which are necessary ante-cedent conditions for selective encoding of lexical signs and necessary subsequent conditions in selective decoding of lexical signs of messages." Further, within the general framework of learning theory,

the meaning of a sign is identified as a representational mediational process - representational by virtue of comprising some portion of the total behavior elicited by the significate and mediating because this process as a kind of self-stimulation serves to elicit overt behaviors, both linguistic and non-linguistic, that are appropriate to the things signified.

The test will consist of a series of word pairs which are opposite in meaning and also semantically antagonistic on a different-ial scale of size seven. The scale is shown by the following model:

<u>CONCEPT</u>

polar term X___:___:___:___:___:___:_____ polar term Y
      (1) (2) (3) (4) (5) (6) (7)

The concept used was "Negro" and the polar terms X and Y showed how the individual related the concept to the particular adjective. The numbers (1) to (7) represent the following distribution of meanings:

(1) extremely X   (5) slightly Y
(2) quite   X   (6) quite   Y
(3) slightly X   (7) extremely Y
(4) neither X nor Y; equally X and Y

The test was administered to each child individually, and after making sure he understood basically what the word Negro meant, was given the following instructions. He was told that the purpose of this experiment is to measure the meaning of Negro to various people by having them judge them against a series of descriptive scales. In taking this

test, he was asked to make his judgemwnts on the basis of what these things mena to him.

Instructions given to Ss follow:

If you feel that the idea you have of a Negro is very closely related to one end of the scale, you should place your check mark as follows:

fair __X__:_____:_____:_____:_____:_____:_____ unfair

fair _____:_____:_____:_____:_____:_____:__X__ unfair

If you feel that the idea is quite closely related to one or to the other end of the scale (but not extremely), you should place your check mark as follows:

fair_____:__X__:_____:_____:_____:_____:_____ unfair

or

fair_____:_____:_____:_____:_____:__X__:_____ unfair

If you feel that the idea is only slightly related to one side then, you should mark as follows:

fair _____:_____:__X__:_____:_____:_____:_____ unfair

or

fair _____:_____:_____:__X__:_____:_____:_____ unfair

If the idea of Negro has no particular meaning as far as some adjectives are concerned; then, place your mark in the middle.

IMPORTANT: (1) Place your check marks in the middle of the boundaries, not on them.
(2) Be sure you check every scale.
(3) Never put more than one mark on a single scale.

Sometimes you may feel as though you have had the same item before on the test. This will not be the case so do not look back and forth among the items. Do not try to remember how you checked similar items earlier in the test. Judge each item separately. Work at fairly high speed through the test. Do not worry or puzzle over individual items.

It is your first impression, your immediate feelings about the idea that we want. On the other hand, do not be careless. We want your true impressions.

The test follows (divisions have been added to make the distribution of factors).

NEGRO

good								bad
sweet								sour
beautiful								ugly
clean								dirty
kind								cruel
pleasant								unpleasant
happy								sad
nice								awful
honest								dishonest
rich								poor
fresh								stale
healthy								sick
like								dislike
large								small
strong								weak
heavy								light
thick								thin
hard								soft
rough								smooth
fast								slow
hot								cold
sharp								dull
young								old

evaluative

potency

activity

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RESULTS

The scales used in the questionnaire are divided into three relevant parts (1) the evaluative factors, identified by such scales good - bad and pleasant - unpleasant; (2) the potency factor, identified by such scales as strong - weak and heavy - light; (3) the activity factor, identified by such scales as fast - slow and sharp - dull.

The mean, mode, and median were found for all scales of the Hammond's Plains (integrated) school are shown in TABLE I. Similarly, the mean, mode, and median were found for all scales of the Upper Sackville school and are shown in TABLE II. The means of each scale were also compared as shown in TABLE III, where the average or relative dispersion of the average responses can be seen. For the segregrated school there seems to be a negatively oriented trend (to the right) at least more so than the integrated school in regards to the evaluative factors (denoted by E). By this observation, a general bias, for the segregated school can be estimated, but to this point, it is only a speculation. As far as the potency factors (denoted by P) and the activity factors (denoted by A) are concerned, they seem to be more in balance than the evaluative factors.

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These three factors were then analized in three applications of the Mann-Whitney U-test. The null hypothesis for all three tests was that the two groups of data (dispersions of mean responses) came from the same population. For the evaluative factors, it was found that the null hypothesis could be rejected for a significance level of 0.05 with direction unpredicted; in other words, it can be stated with assurance that the mean dispersions of evaluative factors are significantly different and, therefore, a difference in attitude exists.

For both the potency and activity factors; however, no difference was found for a significance level of .05.

As can be seen in TABLE III, there is an independent factor which is neither an evaluative, activity not potency factor; the like-dislike scale. This seale was inserted to see if there could possibly be some sort of correlation between general attitude and like-dislike. It was found by using Spearman's r that for the integrated school, the mean of the evaluative factors and the like-dislike scale have a correlation of 0.88, which is significant to a level of 0.01 and that for the segregated school, the evaluative factors and the like-dislike scale have a correlation factor of 0.87 to a signifance level

of 0.01, showing that there is a very high agreement between the general
attitudes and the like-dislike scale. This scale was compared to the
evaluative factors because, as Osgood (1957) says, the evaluative
factor measures the valence of attitudes and hence, is the most import-
ant of all three factors.

HAMMOND PLAINS
Table 1   NEGRO   Mean _____
                                               Mode ‑ ‑ ‑ ‑
                                               Median ○ ○ ○ ○ ○

good							bad
sweet							sour
beautiful							ugly
clean							dirty
kind							cruel
pleasant							unpleasant
happy							sad
nice							awful
honest							dishonest
rich							poor
fresh							stale
healthy							sick
like							dislike
large							small
strong							weak
heavy							light
thick							thin
hard							soft
rough							smooth
fast							slow
hot							cold
sharp							dull
young							old

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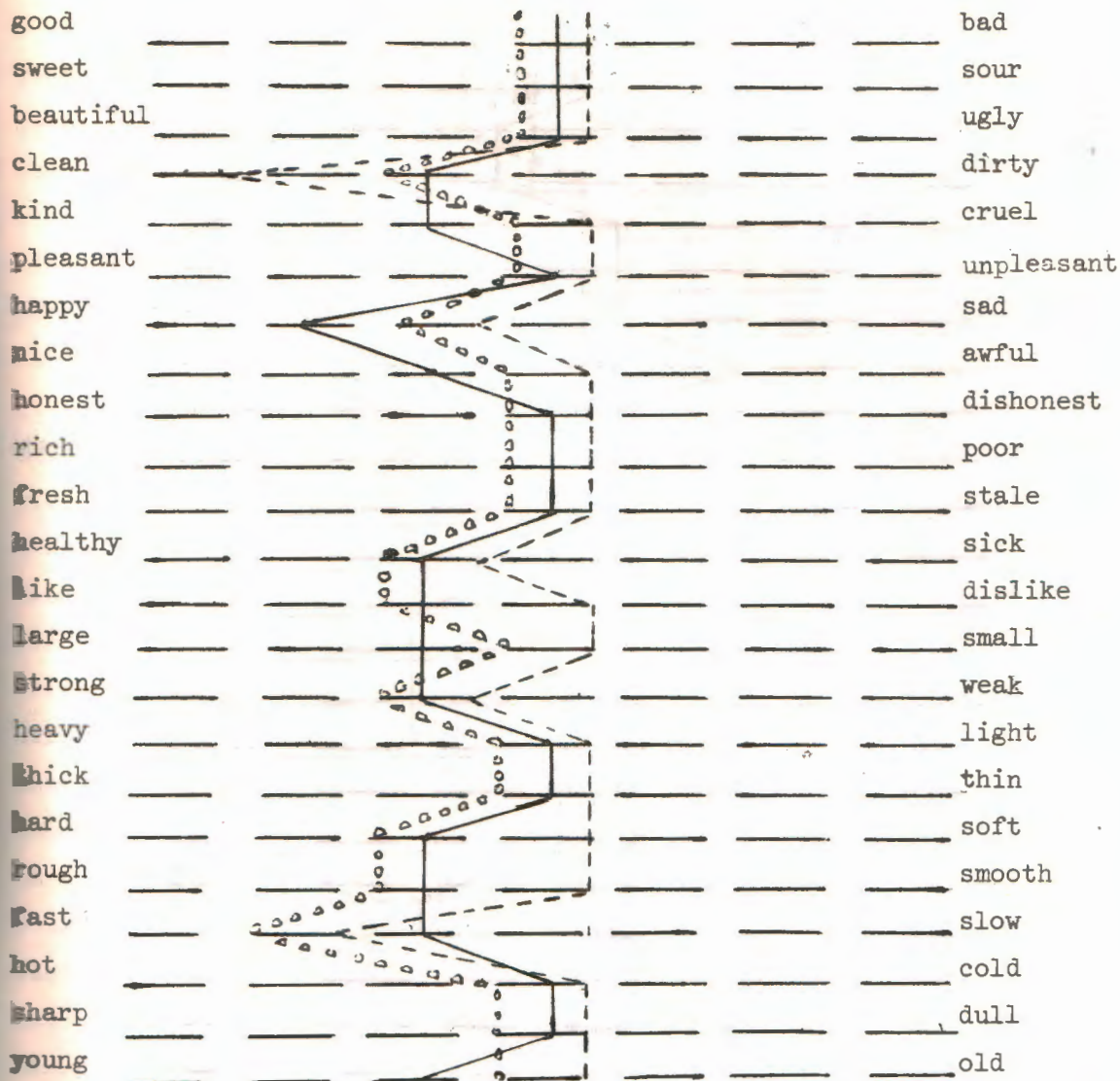
UPPER SACKVILLE

Table 2   NEGRO   Mean _____
                                                 Mode _ _ _ _
                                                 Median ⊙ ⊙ ⊙ ⊙

good							bad
sweet							sour
beautiful							ugly
clean							dirty
kind							cruel
pleasant							unpleasant
happy							sad
nice							awful
honest							dishonest
rich							poor
fresh							stale
healthy							sick
like							dislike
large							small
strong							weak
heavy							light
thick							thin
hard							soft
rough							smooth
fast							slow
hot							cold
sharp							dull
young							old
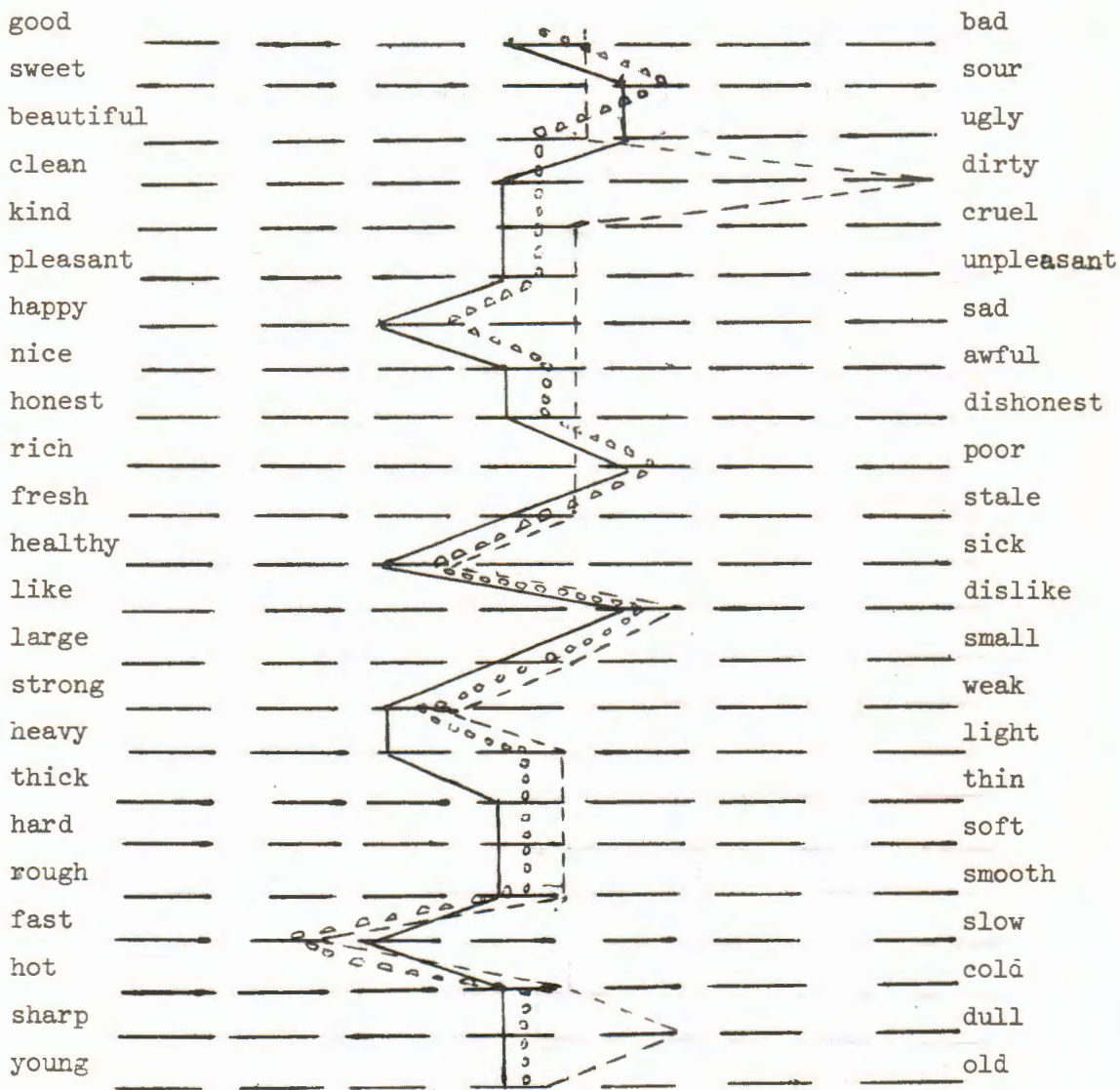
TABLE 3   NEGRO   Upper Sackville ————

                          Hammond Plains ————

good	bad
sweet	sour
beautiful	ugly
clean	dirty
kind	cruel
pleasant	unpleasant
happy	sad
nice	awful
honest	dishonest
rich	poor
fresh	stale
healthy	sick
like	dislike
large	small
strong	weak
heavy	light
thick	thin
hard	soft
rough	smooth
fast	slow
hot	cold
sharp	dull
young	old
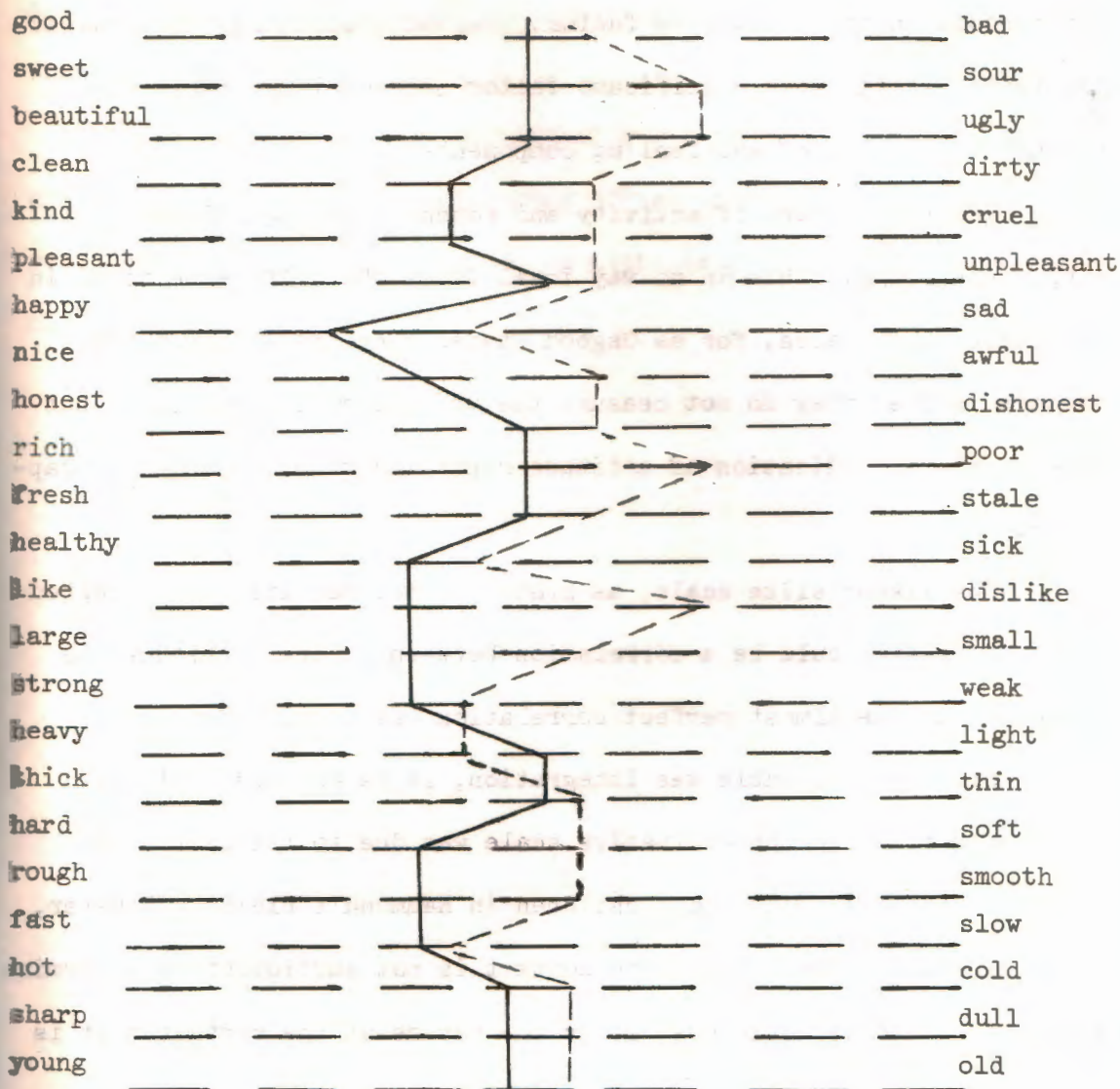
DISCUSSION

Our experiment indicates a significant difference between the two schools on the evaluative factor. Osgood states that the evaluative factor is the most significant factor because it measures the valence of the belief and feeling components.

For the factors of activity and potency, no significant difference was found. This in no way invalidates the difference found in the evaluative scales, for as Osgood states they are less important factors in that they do not measure the valence of the attitude, but give a general indication of attitude regarding size and movement capacity.

The like-dislike scale, as stated in the results, was inserted to see if there would be a correlation between general attitude and like-dislike; an almost perfect correlation was found.

Since the variable was integration, it is assumed that the difference found in the evaluative scale was due to the contact of the white children with black children in Hammond's Plains. However, it is generally agreed that mere contact is not sufficient to determine a change in ethnic attitudes, it is the nature of the contact that is

important. Contact where statuses are unequal tends to increase

prejudice, while contact on an equal status basis tends to decrease

prejudice. At this point this is no more than an interesting

assumption, as it was not within the scope of the experiment to test

these factors.

The results of this experiment would indicate that the inte-

grated school does work a lessening effect on ethnics attitudes; how-

ever, a more comprehensive study into the processes that effect this

change is needed.

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