

1976

The effects of the Lozanov method for teaching word meaning to fifth and sixth graders

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The effects of the Lozanov method for teaching word
meaning to fifth and sixth graders

by

Dean Francis Held

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of
The Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies
Major: Education

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For the Graduate College

Iowa State University
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I. INTRODUCTION

A. General Statement of Problem

This investigation tested the effectiveness of certain components of the Lozanov method for teaching word meaning to elementary school age children at the fifth and sixth grade level.

B. Purpose

There appears to be a need for new approaches to teaching reading in the elementary school. This is evidenced by the current national interest, Right to Read Programs, Title I and Head Start Projects (Ottina, 65). Furthermore, the accountability trends, as related to educators, provide additional thrust on the development of new programs and research (Lessinger, 50).

Since vocabulary development is essential to reading acquisition and the lack of this development can lead to reading failure (Bond and Tinker, 11), this study seemed worthwhile.

The improvement in the setting of conditions for teaching reading or any subject matter appears to be an important task for educators today. Marcia M. Buchanan (16)

indicated this when she wrote that, "Ultimately, our attempts to change are merely a manipulation of the internals, institutionally and socially accepted placebos, which seldom treat the illness and never seem to effect a cure."

The following statement by Fattu (28) supports Buchanan's contention also:

It is commonplace but not very flattering to this commentator to deplore the fact that more than half a century of research effort has not yielded mean, measurable criteria around which the majority of the nation's educators can rally.

Since the Lozanov method emphasizes the teacher-pupil interaction on two planes, that is: double planeness, it is indicated that he is concerned with more than just the internal aspect of feeling, personality and attitudes that belong to the human psyche. If the study of external factors alone have not produced the key to what makes an effective teacher perhaps researchers must look in another direction. Koff (48) who did an extensive review of teacher practices found personality development theory most seriously lacking in teacher training programs. He felt that teacher training institutions must consider in their programs the trainee's personality and the impact it has on teacher effectiveness.

Combs and others (24) have engaged in extensive research using counselors, teachers and other professionals

in an attempt to differentiate between effective and noneffective practitioners. Combs, Avila and Purkey (24, pp. 12-16) concluded that this differentiation can be identified in their perceptual organization. People who are effective professionals:

(1) Have internal rather than external frames of reference; (2) were more concerned with people than things; (3) were concerned with perceptual meanings rather than facts, e.g., more concerned with persons and reactions rather than material presented; (4) see others as capable, friendly, well-intentioned; (5) are not hampered by insecurities, doubt and fears.

The above, supportive views, recapitulate Lozanov's suggestopaedic practice whose thesis lies in making learning a pleasant, rewarding experience through proper teacher-student interaction by taking cognizance of both the verbal (external) and the nonverbal (internal) aspects of teaching. Thus, the human potential is more fully realized and the reserve capacity of the brain is stimulated by an induced or naturally produced learning environment (Lozanov, 54).

It would appear, then, that the significance of this study lies not so much in the fact that it is a different approach, but in the fact that it is humanistic and tends to seek answers in another dimension than usually sought.

C. Objectives

Lozanov uses a holistic approach with many components and facilitators used to reach his goals (Lozanov, 54).

The purpose of this study was to experiment only with certain aspects of the suggestopaedic approach in an attempt to determine which components are most effective. Since Lozanov (54) presents many primary and secondary components it is not within the scope of this to include them all. The objectives of this particular study were to experiment with the effects of these independent variables on learning word meaning:

1. Mind calming treatments prior to word lessons,
2. Early Pleasant Learning Recall prior to the word lesson,
3. Combinations of the above two treatments prior to word lesson,
4. Grade level, sex and reading level.

D. Scope of the Study

1. The subjects were limited to a population of fifth and sixth graders, randomly assigned to three treatment groups and one No Treatment group.

2. The treatments used during this study were limited to a Mind calming exercise and Early Pleasant Learning Recall and combinations of the two with the differentiated treatment groups.

3. The subjects were randomly assigned to groups considering sex, grade and reading level.

4a. This study was concerned only with the teaching of word meaning.

4b. Words were limited to rare words with common synonyms ranging from 20 to 40 on the Standard Frequency Index.

5. The criteria or dependent variables were the number of words remembered correctly from a list of twelve rare words as tested immediately after learning (acquisition) or as tested nine days later (retention).

E. Statement of Hypotheses

1. There will be no significant differences in the learning criteria for the main effect of the Mind calming exercise.

2. There will be no significant differences in the learning criteria for the main effect of the Early Pleasant Learning Recall exercise.

3. There will be no significant differences in the learning criteria for the interaction of Mind calming and Early Pleasant Learning Recall exercise.

4. There will be no significant differences in the learning criteria for the main effect of fifth and sixth grade levels.

5. There will be no significant differences in the learning criteria for the main effect of the two sexes.

6. There will be no significant differences in the learning criteria for the main effect of upper and lower reading levels.

7. There will be no significant differences in the learning criteria for any of the possible interaction effects of the independent variables.

F. Definition of Terms

The following terms are used frequently throughout this report.

1. Perception

This term denotes sensory experience which has gained meaning or significance. When, as the result of learning experiences, one understands the relationship of objects which were previously merely raw, undifferentiated sensory experiences, he is said to perceive these objects. The nonsensory learning experience which is essential to transforming meaningless sensory experiences into perceptions involves the development of concepts or ideas about the sensory experiences (Gould and Kolb, 32).

2. Suggestion

Since, according to Lozanov (54), primary and secondary suggestion are poorly defined it is better to stay with a more popular and empirical concept:

Suggestion is a form of mental reorganization in which a psychological setup is created for the development of the human psyche by way of unconscious mental activity. It contains the information and the reprogramming aspects.

3. Suggestibility

Suggestibility, according to Lozanov, is one's readiness for perception and realization of suggestion. The degree of readiness is related to anti-suggestive barriers an individual has in his current setup. (See anti-suggestive barriers.)

4. Suggestopaedia

Suggestopaedia is the application in general teaching practice of suggestive-desuggestive theory. That is: A liberation from past suggestive complexes and a new reprogramming adaptation or creation of a new setup by which the reserve areas of the mind are called to function (Lozanov, 54).

5. Anti-suggestive barriers

- a. Critical thinking - Is the conscious assessment of stimuli (Lozanov, 54).
- b. Intuitive (infantile) - One rejects that which fails to create confidence and a feeling of security in the individual (Lozanov, 54).

- c. Ethical considerations - That which leads to rejection of suggestions that are contradictory to the ethical nucleus of the personality (Lozanov, 54).

6. Suggestology

Suggestology is the science of suggestion through which one studies the boundless world of psychic reactions which pass unnoticed and unconsciously for the individual (Lozanov, 54).

7. Standard frequency index (S.F.I.)

An index based on the frequency of word usage in the English language. It is often used to determine grade level designation in the writing of a textbook, i.e.: An S.F.I. value of 80 would mean that a word is very common and would appear once in every 100 words. An S.F.I. value of 40 means a word is rare or would appear only once in every million words. As the numerical value decreases the word becomes more rare in its usage (Carroll, Davies and Richman, 18).

8. Zen breathing

This term refers to deep attentive breathing designed to calm the mind. The subject concentrates on three processes: Inhale, hold and exhale. The subject does not try to control the rate (Schuster, 77). (See

Appendix D.

10. Active session

The active session is that part of the suggestopaedic session where, while relaxed, subjects actively participate in what is going on by being required to do more than just listen, i.e., repeat phrases, react to visual stimuli or interact with the instructor or peers in some way (Bancroft, 6).

11. Passive session

The passive session is often referred to as "concert like pseudopassivity". The subject is passive but listening with expectation and with a feeling of security and relaxation (Yotsukura, 98).

12. Physical exercises (Schuster, Bordon and Gritton, 82)

- a. Bend-overs: Students are asked to stand erect and touch their toes or come as close as possible, three attempts are sufficient.
- b. Side bends: Students are requested to stand erect and move sideways, reaching down as far as possible. Some will be able to reach the knee or even further, without bending them. This exercise should take place three times on both the right and the left sides.

- c. Turtle-neck: First the students are asked to tense the left side of the neck, then the right side and lastly, the center. This exercise should be done sequentially three times. Students are then asked to drop their heads to the chest in a relaxed way and pull back up in a tensed way. This exercise is repeated three times. The third part of the turtle-neck exercise involves having the subject tense his neck moderately, turn it clockwise and counter-clockwise and then in a relaxed way relieve tension.
- d. Whole body tension: Subjects are asked to put their hands out directly in front of them and tense the whole body. Once the body is completely tensed, subjects move their arms from the front to the sides maintaining the tension. Tension is not relaxed until the hands are returned to the front position. Again, this should be repeated three times.

II. REVIEW OF THE LITERATURE

The purpose of this chapter is to take a look at suggestopaedia in depth and present research directly related to this approach and supportive, related information that has more familiar overtones. This outline will be followed.

- A. Definition
- B. Need for a Humanistic Approach
- C. Components of Suggestopaedia
- D. Anti-Suggestive Barriers
- E. Suggestopaedic Facilitators
- F. The Suggestopaedic Session
- G. Pertinent Research Data

A. Definition

Suggestology is defined by Lozanov (54) as the science of suggestion through which we study the boundless world of psychic reactions which pass unnoticed and unconsciously for the individual. Yotsukura (98) refers to suggestion merely as an important function of the human mind which plays a vital role in learning.

The purpose of suggestopaedia, according to Yotsukura, is to apply suggestology to pedagogy so as to

create learning environments that will activate the reserve capacity of the brain. Or as Lozanov (54) states it, suggestion is the liberation from past suggestive complexes and a new reprogramming by which the reserve areas of the mind are called to function. The reprogramming utilizes the individual's nonspecific mental reactivity, to counteract anti-suggestive barriers and facilitates establishment of a new suggestive setup (Lozanov, 54). Anti-suggestive barriers will be discussed later since they play a key role in the suggestopaedic practices.

Schuster, Bordon and Gritton (82) define suggestopaedia simply as a method that utilizes aspects of human suggestion and unusual styles of presentation to accelerate learning.

Lozanov cautions, however, that at this time one cannot say that suggestion is purely an unconscious activity. He states that it is impossible to separate the conscious and the unconscious since the information stream leading to the brain is cognitive, intuitive, emotional and subsensory. This information stream sets up conditions that affect motives, decisions and the general conscious reserves of the brain and overcomes socio-suggestive norms that are already there.

Suggestopaedic practice, then, is a vehicle by which students are conditioned to react to positive suggestions

in a learning situation so as to open the human potential and by-pass current negative setup regarding learning ease and efficiency (Racle, 72).

It will be well to note here that a society to study Lozanov style suggestopaedia was instituted in August of 1975 under the name Suggestive-Accelerative Learning and Teaching (S.A.L.T.). Heretofore, this acronym will often be used when making reference to that organization. The purpose of that society is to experiment the Lozanov methodology and make available data and information to educators, counselors, psychologists and other professionals not to exclude the general public. The society is making available a journal called The Journal of Suggestive-Accelerative Learning and Teaching along with a manual and other technical information. The society conducts workshops to deal with the basic theory of suggestology. Workshops are also being conducted to give members and other interested parties an opportunity to see how the method works.

B. A Need for a Humanistic Approach

On May 9, 1974, at the International Symposium on Suggestology, in Arlington, Virginia, Dr. Georgii Lozanov of the University of Sofia, Bulgaria and founder of the

suggestological approach, said this: "In many parts of the world, learning is a disease. We suggest to children, directly and indirectly, that learning is difficult and unpleasant." To paraphrase him further, he reported a great need to provide, for students, proper conditions for learning which are truly humanistic and are in themselves loaded with positive suggestions which lead to proper expectation of all the learners. This concept is certainly not new in our country but often appears to be overlooked.

According to Lozanov, expectation plays a key role in suggestopaedia in a truly humanistic way. The expectation is positive, "Anyone can learn; learning is fun and is easy"; this expectation belongs not only to the learner, but also the instructor and the group as a whole. Nystrand and Cunningham (63) suggest that individuals are fully functioning when they are self-understanding, secure, sensitive, open to others, compassionate, searching, purposeful, enlightened and responsible both to themselves and to others. They go on to say that fully functioning individuals become such by maximizing their own capabilities and aspirations through interchange with others.

The Maslow theory (59) holds that individuals must satisfy the lower level needs before higher needs even emerge. Since learning about the environment is stated as a higher need, Maslow's work appears to be supportive of

the Lozanov method whereby proper conditions must be present to put students in the proper frame of mind prior to teaching the lesson content. Lozanov asserts that when a student is secure and relaxed the mind opens up if accompanied by proper expectation of himself, the teacher and others in the class. The Lozanov method makes use of techniques to facilitate or induce this in a calm, suggestive learning atmosphere.

Usher and Hanke (96, pp. 2-10) also support Lozanov's thinking quite directly when they listed the following basic principles that deal with man and his behavior:

- (1) People behave according to their personal perceptions at the moment,
- (2) the perception one has of himself is the most important and influential of all his perceptions relative to his behavior,
- and (3) man is continually engaged in the concrete search for self-actualization.

The forementioned concepts are important to the Lozanov session in that students are put through exercises, both physical and mental to provide for the relaxed, self-assured open-mindedness needed to learn well. The Lozanov techniques, which will be discussed later, are used throughout the learning session to assure continuation of a relaxed and positive suggestive learning atmosphere.

The suggestopaedic approach appears to be humanistic because of certain features that Lozanov discusses.

First, it is a direct method because it by-passes critical logical thinking and/or anxiety which a student might have. Secondly, the method is essentially automatic and effortless. Students are asked not to try too hard to learn (Schuster, Bordon and Gritton, 82). A third feature is its efficiency because of the directness and automation which is a result of lack of learning anxiety. The fourth feature is referred to by Lozanov as accuracy and is considered a direct result of suggestion that learning is fast and easy. Economy is the fifth feature and points to lack of student fatigue upon completion of the suggestopaedic session; that is, the learning takes place in a completely relaxed, nonthreatening way.

Lozanov (56), Bancroft (6), and others stress the importance of proper teacher training to become an effective practitioner in the Lozanov method. The stress is put on the verbal qualities of instruction and student-teacher interaction as well as the nonverbal behavior of all involved.

Robert Blume (10), in his article, "Humanizing Teacher Education" summarizes so very well what is required of an effective teacher. This seems to parallel very closely the Lozanov ideology;

The results of these (his) studies consistently indicated that effective helpers saw people from the inside rather than the outside. They were more sensitive to the feelings of students. They were

more concerned with people than things. They saw behavior as caused by the here-and-now perceptions, rather than by historical events. They saw others and themselves as able, worthy and dependable; they saw their task as freeing rather than controlling, and as an involved, revealing, and encouraging process. (Blume, 10, p. 413)

At the International Symposium of Suggestology (May 9, 1975), Lozanov described what a suggestopaedic teacher must be like. Combs (23) described it similarly when he listed the four qualities of effective teachers his research pointed to:

1. They tend to see themselves in essentially positive ways. That is to say, they see themselves as generally liked, wanted, successful, able persons of dignity, worth and intensity.
2. They perceive themselves and their world accurately and realistically. These people do not kid themselves. They are able to confront the world with openness and acceptance, seeing both themselves and external events with a minimum of distortion or defensiveness.
3. They have deep feelings of identification with other people. They feel at one with large numbers of persons of all kinds and varieties. This is not simply a surface manifestation of liking people or being a hail-fellow-well-met type of person. Identification is not a matter of polished social graces, but a feeling of oneness in the human condition.
4. They are well informed. Adequate people are not stupid. They have perceptual fields which are rich and varied, and available for use when needed. (Combs, 23, p. 70)

Combs (23) goes on to draw further research conclusions regarding effective teachers that recapitulate very well Lozanov's ideology regarding the role of the

teacher in providing a healthy suggestive learning atmosphere:

1. Good teachers perceive their purpose in teaching as being one of freeing, rather than controlling students. That is to say, the teacher perceives the purpose of the helping task as one of freeing, assisting, releasing, facilitating, rather than as a matter of controlling, manipulating, coercing, blocking or inhibiting behavior.
2. Good teachers tend to be more concerned with larger rather than smaller issues. They tend to view events in a broad rather than a narrow perspective. They are concerned with the broad connotations of events, with larger, more extensive implications, rather than with the immediate and specific.
3. Good teachers are more likely to be self-revealing than self-concealing. They are willing to disclose self. They can treat their feelings and shortcomings as important and significant rather than hiding or covering them up. They seem willing to be themselves.
4. Good teachers tend to be personally involved rather than alienated. The teacher sees his appropriate role as one of commitment to the helping process, a willingness to enter into interaction, as opposed to being inert . . . or remote from action.
5. Good teachers are concerned with further processes rather than achieving goals. They seem to see their appropriate role as one of encouraging and facilitating the process of search and discovery as opposed to promoting or working for a personal goal or a preconceived solution. (Combs, 23, p. 85)

Other characteristics of good teaching that Lozanov emphasizes are further supported by DeBruin (26, p. 243) when he concluded that:

- (1) good teachers are knowledgeable, (2) good teachers are sensitive to the individual student, (3) good

teachers feel students are able and have the desire to learn, (4) good teachers are enthusiastic, no matter what technique or method of teaching is used.

Moustakas (61) describes a good learning session in terms of what a teacher must do: "He must reduce learner threats, enhance individuality, give learner respect and allow the learner to explore his own interests."

The Lozanov (53) method shows high concern for the affective domain and provides a sequence of techniques that will assure a comfortable and motivated affect which, according to Lozanov, is essential to learning.

Fromm supports this contention when he spoke of the split between the intellect and the affect.

Anyone who wants to achieve must struggle against many basic trends of modern culture. One, the idea of a split between intellect and affect. This dogma of the split between affect and thought does not correspond to the reality of human existence, and is destructive to human growth. We cannot understand man fully nor achieve the aim of well-being unless we overcome the idea of this split, restore to man his unity, and recognize that the split between affect and thought, body and mind, is nothing but a product of our own thought and does not correspond to the reality of man. (Fromm, 30, p. 163)

To facilitate this change in the teaching process appears to demand a change in thinking among the many professionals in the teaching profession. While considerable research is available in humanistic psychology and its application to education, little is available to the practitioner about the Lozanov method regarding its

efforts toward humanism and an effective way to operationalize it. The only known teacher's manual available in the Western World was written in Iowa by members of the S.A.L.T. society (Schuster, Bordon and Gritton, 83).

C. Components of Suggestopaedia

The previous section discussed suggestopaedia in terms of humanism since the suggestive learning atmosphere must, according to Lozanov, be permeated with security, self-confidence and positive expectation about learning. The methodology which is designed to create this type of learning atmosphere and maintain it over long periods of time became known to the Western World through the works of Tashev and Natan (91) along with the work of writers Ostrander and Schroeder (64). It becomes evident in these works that the Lozanov method is not only designed to be economical in the human sense but to accelerate learning and improve memory. Dr. Georgii Lozanov of the University of Sophia, Bulgaria has spent the past decade applying the science of suggestion to teaching practices in order to create conditions conducive to accelerated learning with improved retention. His work centered around changing the use of suggestion in an hypnotic state to the use of suggestion in the relaxed awake state, (alpha). His work essentially involved two parts: One

of them being the exhaustive study of the suggestive phenomena and secondly the application of this phenomena to educational practice (Wolkowski, 97).

Lozanov proceeded to describe anti-suggestive barriers and ways to overcome these so as to make learning easy. This concept of creating a positive suggestive atmosphere and the process of breaking down learning barriers becomes the suggestive-desuggestive process called suggestopaedia (Wolkowski, 97).

This suggestive positive atmosphere is designed to make use of what Lozanov calls nonspecific-mental reactivity which is the awakening of the reserve capacity of the brain (Lozanov, 54). The specific purpose is to utilize a higher percentage of the brain power and reach out toward the person's total mental capacity (Schuster, Bordon and Gritton, 82).

Lozanov lists two complicated and four elementary mechanisms to utilize nonspecific mental ractivity in the suggestive learning atmosphere. These will be described, in order, as follows. (Also see Appendix A for schematic drawing of the Lozanov components.) It must be remembered that these components interact to achieve what Lozanov calls hypermnesia or heightened memory. While they can be defined, it is hard to separate them in actual practice since each component interacts so closely with the other

(Lozanov, 56).

1. Authority

This element belongs to the instructor and refers to prestige and knowledgeability rather than the traditional meaning often assigned. It assures the instructor that the student will accept what he is saying as a suggestion and that the student will act upon it. It is an important factor in reaching the second component of infantilization (Schuster, Bordon and Gritton, 82). Lozanov considers authority important since it raises students' expectation levels and gives validity to content being taught.

DeBruin (26) also identified knowledgeability as an important characteristic of a good teacher and asserts that this factor affects how students view him.

When speaking about the authority component it is important to distinguish between the authoritative and the authoritarian teacher. Katz (42) makes a distinction by calling the authoritarian a demanding teacher, while the authoritative teacher is strong, warm, encouraging, exact in explanation and demands conformity when necessary.

2. Infantilization

Authority leads to the second important component in the Lozanov approach which is called infantilization. Lozanov and others feel that during the teaching session,

if the student is in a childlike state (not childish), they are more open to learning suggestions; learning is accelerated and memory is improved. Thus, the right type of authority enhances the infantile feeling and along with other elements facilitates a pseudopassive state in which students listen and learn without reserve and without feelings of insecurity. This state of infantilization might be likened to the openness and curiosity of the intuitive stage of learning Piaget talks about (Charles, 20). It appears to be the state that facilitates learning something without going through the analytic steps; that is: intuitive learning. Kneller (47) and Holt (34), insist that students learn more unconsciously than they do consciously and teachers repeatedly convince students they are unable to learn. This supports Lozanov's contention that there are socio-suggestive norms powerful enough to dictate one's reaction to suggestion and thus learning. These anti-suggestive barriers, such as critical thinking, must be overcome to provide a direct information stream to the brain. Other components follow that play lesser roles, yet important ones, in creating a positive suggestive learning atmosphere to open the reserve capacities of the mind.

3. Double planeness

Double planeness merely refers to communication on two planes. The first plane is the verbal while the second plane is the nonverbal. Schuster, Bordon and Gritton (82) pointed out that how an instructor says something is as important as what he says. Lozanov (56) suggests that the second plane or the nonverbal level of communication is very often underestimated or overlooked completely. It is important that both the verbal and the nonverbal are saying the same thing. The instructor must feel that the content he is teaching is important to him as well to the student. He must show this by enthusiasm in his voice as well as in his expression and gesture. Yotsukura (98) supports Lozanov's theory that each mental activity has central and peripheral parts. The center bears the semantic content upon which the learner acts, but the learner also reacts to the entire complexity of the mental activity. The latter is indicative of the second plane activity or nonverbal communication, such as gestures, gait, mimics, eye movement and facial expression. The second plane, then, is an enormous signaling system radiated from a person unconsciously or not sufficiently conscious. It has been indicated by Lozanov (54) that the two planes must be harmonized in the learning setting. Peter Kline's work as reported in The Washington Post (92), reflects the

same thinking in his efforts to integrate the body, mind, emotion and spirit into the learning process. There is further support concerning the power of the second plane.

Church (21) speaks at length about the concept of behavior mobilization and the contagiousness of moods, emotions and atmospheres which belong to many group situations and probably the classroom. Lowen (52, p. 15) speaks about the second plane when he said:

The character of the individual as it is manifested in his typical pattern of behavior is also portrayed on the somatic level by the form and movement of the body.

4. Intonation

Another primary mechanism in the Lozanov approach is intonation. This is often, according to Lozanov (53), an element of double planeness in that various intonations indirectly suggest authority, mood, attitude and can create an atmosphere of expectation. With every intonation there is a release of unconscious mental power since it is considered an expression of internal feeling. Students also seem to prefer it because it limits boredom and is more pleasant. Thus, in content presentation, material is given not only in a natural voice but also in a loud authoritative voice as well as in whispered tones. This dynamic presentation with creative variation helps keep the students' attention over a longer period of time

(Schuster, Bordon and Gritton, 82).

It is well known in the reading field that intonation helps students grasp full meaning and feeling when learning new words. Burrton and Claybaugh (17) imply that intonation gives the content being presented an artistic or emotional tone. Trauger (95) said that a listener responds first to intonation signals rather than to words; he also responds to rhythm, stress patterns and tones of people around him before he responds to the words. According to Pettinger (66), spoken language is very complex and subtle with much being communicated by intonation. The before-mentioned supports Lozanov's thesis that intonation is vital to the suggestive learning atmosphere since it helps set the emotional tone, facilitate double planeness and provides for expectation.

5. Rhythm

Lozanov considers rhythm a basic biological principle of our everyday life such as the annual seasonal changes and of day and night itself. Rhythm is widespread in the arts and advertising and has in itself suggestive value.

Rhythm, when combined with intonation, provides for ease of learning and memorization as when a child learns a song (Lozanov, 54).

In the Lozanov approach, the instructor presents his material with rhythm while synchronizing it with the students' breathing or background music (Schuster, Bordon and Gritton, 82). This further enhances the suggestive relaxed atmosphere, increases attention and opens the mind to learning. It seems apparent that intonation and rhythm are used extensively to awaken the senses in such areas as advertising, song and drama. As Siks (84, p. 152) explained:

Everything in life has rhythm--a graceful swallow, a swiftly darting king salmon and a willow tree. Every child is a rhythmic being, each with his own unique rhythm and pace. A child's rhythm begins with the beat of his heart which sends the surge of life through his entire being. He breathes, eats, sleeps, walks, thinks, feels and talks in rhythmic patterns.

Siks goes on to say that rhythmic movement is a child's natural way of expression and thus becomes a way of expression and thus becomes a natural way to learn. It appears that all good primary teachers have made this discovery and the suggestopaedic method uses the rhythmic tool to provide very effective teaching for people of all ages.

The poet Langston Hughes (36) said, "Deep inside of men and animals there are rhythms we cannot explain, but they are part of life."

6. Pseudopassivity

Research shows that a passive mind enhances suggestion and its effects on learning (Schuster, Bordon

and Gritton, 82). It has been shown that when students are in a calm state their learning capacity is substantially increased (Lozanov, 56).

The aforementioned components appear to be a unified concept with one component supporting, facilitating or even being an outcome of the other. According to Lozanov (56), the authority component facilitates infantilization which in turn has the outcome of the pseudopassive component. Pseudopassivity, ease of learning and volume of material learned are also aided by intonation, rhythm and double planeness. The students' level of expectation in the learning session is also created by the proper utilization of the basic complicated and elementary components just mentioned.

Lozanov (54), Bancroft (6) and Schuster, Bordon and Gritton (82) and others provide support that the complicated and elementary components of suggestopaedia provide a suggestive positive learning atmosphere which in turn provides for desuggestion of former negative attitudes about learning, fears of failure and opens the mind to a fuller capacity to learn. It results, according to Lozanov, in hypermnesia or heightened memory with an activation of the reserve capacity of the brain. Specific data which apparently supports this heightened ability to learn appears in section D.

D. Anti-Suggestive Barriers

Lozanov (54) lists three barriers which, according to him, hinder suggestion or the ability of the individual to accept the instructor's suggestion that learning is easy and pleasant. The entire suggestopaedic process is designed to break down these barriers and thus open the student to easy learning and raise expectations. It also provides for a direct information stream that by-passes logical-critical thinking and relies more on the archaic emotional and infantile mechanisms (Lozanov, 54). Thus, suggestopaedia is, according to Lozanov, a suggestive-desuggestive phenomenon designed to desuggest the barriers which are reportedly as follows: critical-logical thinking, an intuitive-emotional barrier and ethical-moral considerations.

1. Critical-logical thinking

This barrier of critical-logical thinking is not making reference to critical thinking as discussed by Guilford in his Thinking Process Model (Klausmeier and Goodwin, 45). Nor does it appear that Lozanov is demeaning the important skill of evaluative thinking as described in Spache's model (Spache and Spache, 87). It refers, rather, to the personalized norm that is created in each individual as to how easy or how fast one can learn based on past experience. It has to do with the analysis of one's own

ability to learn which has been suggested by former teachers or parents. Thus, according to Lozanov, the learning atmosphere must be filled with positive suggestion and a structure that will desuggest this personalized norm. Rosenberg (74) discusses the rigid-inhibited learner as having a strong need for structure and confidence and tends to adhere to preestablished value systems. This type of learner becomes disoriented when confronted with a complex situation and often withdraws. It is Lozanov's thesis that this type of critical-logical thinking about one's self must be desuggested. This problem is countered by suggesting that the child will be successful. It must be stated in an authoritative manner and the student must be assured that future results will prove it (Schuster, Bordon and Gritton, 82). Lozanov states that the teacher must also sincerely believe in his own suggestions.

Blitz (9) feels that some teachers may be so out of touch with their own feelings that they cannot tolerate feelings of others. It is thus possible, she goes on to say, that some teachers suppress students' feelings and interests in subject areas because they are not able to face their own feelings in those areas. Blitz suggests that teachers should not encourage the original feelings but to find modes to help a child to overcome them. Lozanov presents his model as a possible mode.

2. Intuitive-emotional barrier

Lozanov states that the intuitive barrier is more prevalent in children. The child will reject any suggestion that doesn't create confidence or security in the learning situation. Again, the learning atmosphere must directly or indirectly suggest confidence and security. The child must be assisted to reject the idea that he is unable to learn well. He must be put into a state that will help him listen and learn without reserves or fear. It must be stated and felt that learning will be easy and all will succeed in learning the content. Schuster, Bordon and Gritton (82) suggest that this must be stated firmly and without deception. Blitz (9) insists that the honesty and directness with which children are treated in the classroom enables them to use honesty and directness in their thinking and feeling.

3. Ethical principles

The third anti-suggestive barrier has to do with the values and mores of a given society. The induced feelings that learning is unpleasant, hard work and tedious must be overcome (Lozanov, 54).

Blitz cites educators who believe that children in our society have been conditioned to believe, because of existing conditions, that school and thus learning is full

of boredom, hypocrisy and hopelessness. School for many students is equated with confusion, hatred and despair (Jackson, 38; Silberman, 85). Students exposed to, or having, this type of attitude toward school harbor feelings of insecurity in the school setting and lack confidence and expectation. The learning atmosphere must desuggest these feelings and attitudes. A direct suggestion to counter this barrier might proceed as follows:

In the past many of you have felt that learning is hard work, drudgery and a bore. Here in this course you have to work but you will find that learning is easy for the effort you are putting in. You will learn very efficiently for that amount of effort. (Schuster, Bordon and Gritton, 82, p. 16)

The Lozanov suggestopaedic approach or S.A.L.T. as the approach is called in the midwestern United States is designed specifically to overcome the anti-suggestive barriers of critical logical thinking, intuitive-emotional barriers and ethical considerations. The essential components that authorities in this field indicate must be present in the learning situation have been discussed in order: Authority (prestige), infantilization (intuitive childlike openness), double planeness (consideration of verbal and nonverbal behavior), intonation and rhythm (to facilitate infantilization dramatic presentation and expectation) and pseudopassivity (a relaxed, secure state).

Through the use of these components, proper conditions are created whereby students are more open to the instructor's suggestion with the result of accelerated learning and heightened memory (Lozanov, 56; Bancroft, 6; Kline, 46; Schuster, Bordon and Gritton, 82; and others).

It is crucial that the aforementioned components exist in the teaching session. According to Lozanov and other authorities these components must be maintained over time. Teacher excellence is required not only in terms of his authority, verbal and nonverbal language, but in his ability to facilitate an infantile pseudopassive state as well as delivering a creative and dramatic presentation. Other tools are currently in use to assist the instructor in the maintenance of these essential features of the suggestopaedic approach.

E. Suggestopaedic Facilitators

1. Music

Music is used extensively to facilitate rhythm in the presentation and to provide for a more creative learning style. Presentation of material is often orchestrated with the time of the music. Music containing 60 beats per minute is often used in presentation with selections from Bach or Mozart. Intonation is often coupled with this rhythm as the instructor raises and lowers his voice

(Schuster, Bordon and Gritton, 82; Bancroft, 6; Lozanov, 54).

Use of music in instruction is not, of course, a new concept in this country and has a strong rationale that is not unlike Lozanov's. Siks (84, p. 157) can be quoted as saying:

Music has power. It arouses feeling that surge through old and young alike. Marching music almost always quickens the blood, stirs imaginations and causes an irrepressible urge to move into action. Lullabies are soothing in their gentle rhythm and have a quieting effect. Music stirs many different feelings.

Music also has the effect, according to Siks, of motivating or suggesting a specific environment and arouses thinking and feeling.

Lozanov recommends the creative presentation as a way not only to maintain pseudopassiveness but to raise expectation. As Siks concludes, music is always associated with such events as parades, the circus, rodeos, parties and festivities. Materials that center in an imaginative realm may be heightened by music which provides a mood as well as a rhythmic pattern.

Lozanov (56) does not suggest that music alone provides for easier memorization. But he hypothesizes that it is also the rhythmic presentation of material that increases volume of learning. Schleicher (76) states that music distracts the learner's attention, thus, opening a

direct route to the brain. Music, therefore, is just a facilitator or a vehicle to enhance the learning atmosphere in the above mentioned ways and provides for a creative approach. Blitz (9) indicated that a creative learning style maximally allows the learner's openness to perceive his environment and his own feelings.

2. Relaxation techniques

Lozanov's (54) primary objective is to induce a state of openness to suggestion, and thus learning, during his teaching session. Physical relaxation, according to him, is a must since it precedes a calm relaxed mind. Studies by Chaney and Andreasen (19) indicated that students recall on random numbers was significantly better when physical relaxation exercises preceded the memorization session.

Kline (46) in his experimentation with physical and mental relaxation found Silva Mind Control methods effective when working with students. In his experiments at Sandy Springs School, Sandy Springs, Maryland, Kline found students more receptive to materials presented following Silva Mind Control exercises (see part G).

Astor (1) recommends meditation and relaxation to reach transcendence or higher levels of expectation and performance. The concept of transcendence in education is not new. Maslow (59) described it as "peaking" or a

transcendence of dichotomies, polarities and conflicts.

One of Lozanov's (56) objectives for the state of relaxation during the learning session is to produce a calm mind devoid of fear. While he does not use meditative approaches, it is recommended, according to Astor, by Nidich, Greaves and others to increase control and reduce fear (Nidich, Seeman and Dreskin, 62).

Lozanov (56) encourages physical exercise prior to or during the learning lesson itself. This recommendation for muscle tension exercises has the purpose of inducing relaxation rather than the "muscle education" concept as proposed by Montessori (60) although it could have similar effects.

Blitz (9) states that good teachers recognize the need for periodic release of physical tension by allowing intermittent periods of physical exercise for their students. These are usually informally prescribed activities to quiet students and help them tune in and listen to the lesson. Lozanov suggests that external passiveness produces internal superactivity of the mind.

Lozanov recommends Yoga type exercises to induce physical relaxation. Some exercises that appear to be effective are: bend overs, side bends, turtle neck exercises, whole body tension, and others (Schuster, Bordon and Gritton, 82). (See the Definitions Section, Chapter I for descriptions of these exercises.)

Hewitt (33) recommends "step-by-step" exercises that is, to begin with the lower legs, induce tension and then release; one then moves on to the upper legs inducing and releasing tension one leg at a time. The subject moves upward through all of the body, one set of muscles at a time until the top of the head is reached. This is accomplished in a prone position. Schuster, Bordon and Gritton (82) suggest a wave of tension exercise which would appear to be less time consuming and more practical in the classroom setting. It is accomplished by beginning with the feet and inducing tension in all sets of muscles simultaneously until the top of the head is reached. The entire body is held in tension for a few seconds and then released. This exercise can be accomplished three times in approximately fifteen to twenty seconds.

Petty, Petty and Becking (67) suggest physical exercise techniques such as dropping relaxed into a chair, dropping head, letting arms dangle, shaking arms and hands, rotating head on chest or shoulders and various other physical movements to relieve tension when working with communication disorders in children.

Lozanov does not imply physical relaxation alone leads to hypermnesia but it is necessary to calm the mind and make the student more susceptible to suggestion and thus pave the road to a setup that frees and activates

reserve capabilities of the mind.

3. Mind calming

Suggestibility is related, according to Lozanov, to the attitudes and moods of the subjects. Following physical exercise to relax the body, mind calming activities will further assure heightened suggestibility.

One of the techniques discussed by Schuster (77) is Zen breathing. It is merely paying attention to breathing as the subject inhales, holds and exhales. It is sometimes used as a pre-class treatment to assist pseudopassivity or used during the teaching session. In this case, students breathe in unison and the presentation of material is often synchronized with it (Schuster and Hasbrook, 80). Lozanov holds that it enhances suggestibility and keeps the mind clear. That is, students will receive suggestions more easily when anxiety is not present. These suggestions are directed toward ideas that learning is fun and easy.

According to Lindgren (51), anxiety is an emotional state characterized by fear, apprehension or tension. It is also the anticipated fear of failure brought on possibly by former learning experiences. He feels that some anxiety is necessary because it leads to a wish to avoid anxiety and thus the individual learns to be careful and considerate in his relationships to others and conforms to laws and customs of the society. Our anxiety, however, leads to

a negative direction in human development and causes one to dwell on avoidance of anxiety and thus reducing productivity. Lindgren (51) insists that every action one makes is carefully calculated to avoid anxiety or at least to forestall it.

While Lozanov attempts to totally desuggest anxiety in the learning setting, Sullivan (90) feels it would be overprotective to shield the child from all that is negative. It appears that it is not Lozanov's purpose to shield but rather to remove the critical barriers to suggestion and learning that already exist.

Lindgren (51, p. 278) states:

One of the outstanding characteristics of experienced teachers is their ability to sense the anxiety level in the classroom group. They are aware that little learning will take place if the group is more concerned about its anxiety than it is about learning.

There is further support to this contention: To paraphrase Flanders (29), students who are anxious often give the problem of anxiety priority over the learning task at hand.

Lindgren also suggests teachers can assist students in overcoming anxiety in the classroom by having a gripe session, changing the scene or restructuring the learning situation. It appears that these tactics might merely result in reconstructing or reorganizing the anxiety. The gripe session appears, in itself, to be negative and could

suggest further anxiety in the student.

Once physical relaxation is accomplished, mind calming exercises should be pursued. Schuster, Bordon and Gritton (82) suggest some excellent mind calming exercises in the S.A.L.T. Teaching Manual. They are: Zen breathing, which has already been discussed, white cloud and climbing the mountain exercises. For sake of standardization, the descriptions that follow are taken from the S.A.L.T. manual, pages 24-25.

The white cloud exercise starts this way: Imagine that you are lying on your back on the grass on a warm summer day, and that you are watching the clear blue sky without a single cloud in it (pause). You are lying there very comfortably, very relaxed, quite happy with yourself (pause). You simply are enjoying the beauty of watching the clear, beautiful, blue sky (pause). As you are lying there completely relaxed, enjoying yourself (pause) way off on the horizon you note a tiny white cloud (pause). You are fascinated by the simple beauty of the small white cloud against the clear blue sky background (pause). The little white cloud starts to move slowly towards you (pause). You are lying there completely relaxed, very much at peace with yourself, watching the little white cloud drift slowly toward you (pause). The little white cloud drifts slowly toward you (pause). Completely relaxed and at peace with yourself, you watch the little white cloud slowly come toward you (pause). You are enjoying the beauty of the clear blue sky and the tiny white cloud (pause). Finally the little white cloud comes to a stop overhead (pause). Completely relaxed, you are enjoying this beautiful scene (pause). You are very relaxed, very much at home with yourself, and simply enjoying the beauty of the little white cloud in the blue sky (pause). Now become the little white cloud. Project yourself into it (pause). You are the little white cloud, completely diffused, puffy, relaxed, very much at home with yourself (pause). Now you are completely relaxed, your mind is completely calm (pause), you

are pleasantly relaxed, ready to proceed with the lesson (pause).

The mountain top sunrise is another mind calming exercise. Typical instructions for this experience are as follows.

Imagine you are climbing a mountain, you are near the top and it is just before dawn (pause). You are walking easily towards the top of the mountain and enjoying the scenery (pause). You are walking through a forest and about to come out to a clearing on top (pause). This is beautiful scenery around you and a beautiful view is about to unfold (pause). You are walking along quite easily just about at the top now, quite relaxed and comfortable (pause). The dawn is about to break on a pretty day (pause). Now you reach the top of the mountain and you see as you reach the top, the sun is just coming up (pause). You look down and see the first rays of the sun hitting the valley. It is a beautiful, peaceful sight before you (pause). Now at the top of the mountain, you relax and enjoy yourself and really appreciate the beautiful view in front of you (pause). It's a very calm, beautiful scene; the sun is shining now brilliantly into the valley (pause). Although much of the valley is yet in shadow, it is beautifully illuminated. It is a very pretty scene (pause). Drink in the beauty of this scene. Enjoy it to the maximum (pause). Now get ready to learn the material for today with this same calm, peaceful feeling (pause). (Schuster, Bordon and Gritton, 82, p. 26)

4. Early pleasant learning recall (E.P.L.R.)

This particular exercise is related to indirect suggestion and is the recalling of a past pleasant learning experience. Lozanov cautions that it is not age regression but rather the reliving of an early, satisfying learning experience. The subject is asked to relive the experience in every way physically, emotionally and as sensorily as

possible. Once this is accomplished it is suggested that the student will learn just as easily and with as much pleasure in the current situation.

The instructions for this follow a Gestalt pattern since one focuses first on the nonverbal aspects with the cognitive aspects following rather spontaneously (Schuster, Bordon and Gritton, 82). Again for the sake of S.A.L.T. uniformity, the sequence of E.P.L.R. instructions will be taken directly from the S.A.L.T. manual, page 31.

Pick some early pleasant learning situation, some time in your life previously when you were learning something that you realized you liked and you really enjoyed it. This may be as early as several years of age when your mother was reading to you or it might be as recently as reading your best liked fiction story only a year ago. Everybody got one? (If not, wait.) Be back there again and find yourself enjoying learning. Think about where you were (pause). Was anyone with you (pause)? What was your attitude or how did you feel about what you were reading or learning (pause)? Now take a look at yourself in this learning situation and how your mouth and throat felt (pause). Recall now how your stomach felt (pause). Recall how your whole body felt (pause). Take a look at how your head felt (pause). Now think about the thoughts you were thinking (pause). Take a look at the eager feelings you had about learning and reading (pause). Maximize that feeling, hang onto it, and learn the material you are about to hear in exactly the same way. Retain that eagerness to learn and top memory skill.

Other than the work of Lozanov (54), Schuster (77), Schuster, Bordon and Gritton (82) there is little information available in direct relation to this concept. Due to the fact that E.P.L.R. is a suggestive stimulus, it could

perhaps be related to the associationistic theory. Biehler (8) discusses this theory in his book, Psychology Applied to Teaching. The associative theory studied by Watson and later Thorndike and Skinner has to do with making associations between the stimulus and the response. The connection here might be that if E.P.L.R. is a stimulus and if the subject responds successfully or the learning becomes easy, the suggested behavior is thus reinforced. If the response of easy learning is reinforced and strengthened over time, it is likely to be retained.

It appears, however, that Lozanov also agrees with the cognitive field theory as described by Bruner (15). He is concerned with underlying mental processes that cause behavior, gaining new insights or changing old ideas and perceptions. The Field theorist encourages learning by the way he arranges the environment. The Associationists, on the other hand, manipulate and control the environment (Biehler, 8). It appears that Lozanov does both.

The basic idea regarding E.P.L.R., according to Lozanov and others, is to assist the student in developing a more positive attitude toward learning by returning subjects to an earlier learning behavior. It follows, then, that this concept reinforces infantilization.

5. New names

It is common for Lozanov to provide new names for students in his classes. Along with the new name, the student is given a complete new biography. This practice is used, according to Lozanov, to reduce inhibition in the learning situation and thus making the person more confident and secure. It further facilitates suggestions that the learner will certainly succeed. The new biography also fits students needs and goals.

6. Expectation

While expectation of the learner appears to be of prime importance in the learning situation it cannot be classified solely as a facilitator of learning but also as an outcome of suggestion. As mentioned earlier, expectation belongs not only to the student but to the instructor. In other words, it is not only how the learner feels in regard to his ability to learn but also how the instructor perceives the ability of the student. This expectation is transmitted verbally and nonverbally (Lozanov, 56).

Leonard's book, Education and Ecstasy (49) is permeated with ideas that the human potential is greater than most educators at this time even imagine. He demands that educators begin to recognize this and consider

learning as a delight and as life's very purpose thus raising the learner's expectation.

Kelley (43) talks about the uniqueness of every individual and the special contribution each individual can make if he is allowed to function.

For sometime educators have been concerned about curriculum development and its importance to motivation (Frost and Rowland, 31). Kelley charges that our schools cherish conformity and teachers for centuries have striven to bring everyone through our schools knowing the same things, thus perpetuating the idea that learning is a bore and as Katz (42) indicated, offering no motivation for sustained interest and effort.

Furthermore, students have been, according to Lozanov, Holt and others, lead to believe they are dumb and expectations are thus lowered and productivity hindered.

Frost and Rowland (31) state that each learner has acquired and is cued by expectancies of the supportive or the nonsupportive behavior of the cultural agents. Thus, learning involves the changing of the drive structure, habit patterns and expectancies. These authors support Goodlad's negative philosophies regarding the graded grouping plan, lock step curriculum and promotion policies which bore the fast student and frustrate the slower learners.

Coleman (22, p. 98) discusses the negative results of non-promotion policies and its effect on the learner.

He is likely, in contrast to his having been promoted, to have: a less healthy self-concept, take a more negative view of school, take part in fewer school activities, have fewer companions in his grade, and be viewed less favorably by his teacher.

The Lozanov method was designed, through positive suggestion, to raise the learner's expectancies and thus motivate him to learn better. It is designed, in particular, to desuggest the self-suggested or socio-suggested norms he has internalized or been cued to.

Once the expectations are raised, the entire suggestive process must be maintained. The aforementioned mechanisms and facilitators are designed to do just that. It is interesting to note that this subtle transmission of expectancy to the subjects is likened to the Hawthorne effect. Biehler (8, p. 21) calls it "the subtle and unintentional transmission of an expectancy of the experimenter to the subjects of a study" or the experimenter bias effect. This phenomenon was first identified by Roethlisberger and Dickson (73).

Rosenthal and Jacobson (75) in their book Pygmalion in the Classroom, reported a study where students made significant gain in IQ standings because teacher expectations of certain pupils were raised. This phenomenon is explained

by what is called self-fulfilling prophecy. In other words, "One person's prediction to another's behavior somehow comes to be realized. It is operated by teachers communicating their enthusiasm and faith to the pupil" (Biehler, 8, p. 23).

According to Biehler, Barber and Silver and others in their research discredit the impact of expectation. But, Biehler (8) merely suggests that neither the Hawthorne effect nor the Pygmalion effect are yet clearly established. It was further suggested here that in future research emphasis should not be put on whether expectancy exists but rather how it operates. They go on to suggest that educators must at least be aware that expectancies may lead to the "self-fulfilling prophecy" in relation to what's expected of a student.

Lozanov (56) in his approach, supports the Hawthorne and Pygmalion effects and attempts to explain them through the science of suggestion. The aforementioned components of his method, when applied properly in the classroom, are claimed to support the expectancy phenomenon as not only achievable, but maintainable. Other studies appear to give added support to his unique methodology. (See part G.)

7. Imagery and sensory elements

It is common in the Lozanov methodology for the instructor to suggest that students develop deep imagery

and sensory feelings about what is being taught. According to Lozanov, this facilitates learning and aids retention.

Strang (88, p. 29) defines imagery as the ability to create mental images or "to see it in the mind's eye." According to Strang, imagery has been referred to with many terms: visual memory, mental imagery, inner perception, re-perception and visualization. Strang cites Radaker's studies in 1962 regarding the importance of imagery to memory: fourth grade social studies students were given practice in assignments containing vivid descriptions whereby they had to describe, in writing, mental pictures created and do illustrations about them. The students who had imagery practice consistently did better on memory tests than control groups not having this practice. The Stanford-Binet Memory for Designs Test and the Graham and Kendall Memory Tests were used.

Dilley (27, p. 110) supports mental imagery (M.I.) as a powerful tool, "Mental imagery can be a powerful ally in personal efforts to achieve life's goals." He goes on to state that mental imagery not only develops the memory but is a tool for reducing fear and aiding relaxation. He suggests imagining as sensorily as possible "a favorite place" to relieve tension.

Dilley (27) in his article also discusses the use of M.I., to improve memory, that goes as far back as Cicero.

Cicero recommended an association approach of vividly imagining familiar objects in a certain sequence and then associating unfamiliar things one needs to memorize with the familiar. Dilley cites other researchers who recognize the power of M.I. and its value in memory growth, relaxation and desensitization, i.e., Maltz (58).

Montessori (60) assigns great importance to sensory functions as a process through which a child lays the foundations of intelligence by receiving sensations from his environment and thereby making observations, comparisons and judgments.

Accordingly, a person becomes acquainted with the environment and develops intelligence. Lozanov, likewise, puts importance on sensory activity for creating vivid imagery as a memory aid. The imagery desired is to be pleasant and sensory enough so the subject develops strong feelings about what is being taught and assures meaningfulness.

Beery (7) states that words with pleasant and meaningful associations are more easily learned. Lindgren (51) proposes that material be presented in a way that allows students to make their own vivid associations with minimum help from the teacher. This involvement enables materials to gain a degree of importance to the learner and enhances retention.

According to Johnson and Myklebust (39) imagery, as a process, has been neglected in education and psychology. Imagery pertains to sensation, and information that has already been perceived and received. He considers imagery as one process of memory and when engaging in imagery, the student is recalling not only sounds but making visualizations. The inability to do so, according to Myklebust, hinders the memory process.

Schuster, Bordon and Gritton (82) in the S.A.L.T. manual discuss a two step process making use of mental imagery and auditory association in the teaching of new words. The instructor is thus providing a visual image for a sound or syllable in a word. Schuster gives this example. In the case of the Spanish word for horse, caballo (kah-bye-yoh) the student would be instructed to associate the key syllable "bye" with the word eye. Then imagine the horse kicking this eye. This association approach is not too unlike the mnemonic method recommended by Karlin (41) for teaching spelling of new words. In actual practice, these key words and images should be worked out ahead of time.

Schuster (77) in his research, has documented that when students are told to fully experience new words being taught, they appear to learn them better. The added feature to this approach according to Lozanov is that

students become more perceptive and stimulated.

8. Psychodrama

Psychodrama is an important part of the Lozanov method. It is, according to Racle (72), the reinforcement session used not only to strengthen memory of what has been learned but also to provide for creative stimulation and group interaction. Lindgren (51) has indicated that reinforcement of what has been taught is important to retention but goes on to shun meaningless, repetitious drill. In accordance with this thinking, Lozanov recommends creative activity as a vehicle of practice.

Numerous writers have spoken about the importance and power of creativity in the classroom. E. Paul Torrance (94) feels that nothing could contribute more to our nation, satisfaction and mental health of our people than creative behavior. It needs to be energized and guided from birth. Joyce (40, p. 403) recommends creative activity in the classroom. "Where the classroom climate is open and encourages the unusual and the creative, then that kind of behavior is likely to flourish."

Lozanov (54) recommends role playing skits, plays and games as the proper reinforcement tools which at the same time to foster creativity and a relaxed learning atmosphere.

Joyce (40, p. 176) calls role playing, "The enactment of situations by individuals. The participants act out social situations designed to help them open up specific aspects of interpersonal relations." It can be used, he goes on to say, for skill and attitude development and many other purposes. Lozanov often assigns students new names and new roles to play to reduce inhibition.

Since much of Lozanov's experimentation with his method has been in the teaching of foreign languages, role playing appears to be a natural way to practice dialogues and at the same time act out situations, feelings, and provide for group interaction. Joyce (40) points out that instructional material can provide the information but it is the teaching strategy that assures meaningfulness and true understanding. Joyce (40, p. 399) goes on to state that, "game-type simulations provide a good setting for testing whether students can apply knowledge, principles and theories to real life social situations."

Creative dramatics is used most frequently in the Lozanov method as reinforcement for material learned and for the purpose of fostering a creative atmosphere. This concept is not new in western education. Ruth Strickland (89, p. 458) had this to say about the value of creative dramatics:

Drama, especially for older children involves people and their behavior and emotions. In playing a part the child steps out of himself, his own personality and into the personality of someone else. He is freed from his own limitations and inhibitions.

Hudnut (35) also gives support to what Lozanov calls psychodrama when he said, "The creative impulse, which is concerned with making and doing, gives direction and meaning to our activities and transforms life into an art."

There appears to be strong implications in the above statement in that it might be ineffective for teachers to direct learning activities for the purpose of conformity. Some researchers feel that rigidity in the learning climate might be more detrimental than helpful since all learners have their own field perceptions and must act them out accordingly. Some modern researchers who are attempting to support this contention are: Kelley (43), Combs (23, 25), Purkey (69).

F. The Suggestopaedic Session

In the previous section, the major components and facilitators of suggestopaedia were presented individually in definition and an attempt was made to discuss the Lozanov approach in terms of what has already been recognized in American educational practice by some educators. It appears that some components of the Lozanov methodology

have already been recognized by many educators but emphasis on certain components is often lacking. It appears that an emphasis on maintenance of a positive suggestive learning atmosphere over time is not always emphasized. A conscious effort to desuggest reduced learning potential in the students has also been absent along with efforts to maintain learning expectancy. As mentioned earlier, the components are so interrelated that it appears difficult to separate them in practice. Appendix A schematically shows the major components and facilitators. This section will discuss the methodology as it is practiced and how the components are applied.

At the International Symposium of Suggestology (May 9-10, 1974) in Arlington, Virginia, Dr. Gabriel Racle disclosed to the writer the sequence and organization of the Lozanov session. Appendix B schematically illustrates this sequence. This particular organization of suggestopaedia as presented, is used for teaching Spanish or French to English-speaking students, college age or older. Racle studied under Dr. Lozanov and is Director of Suggestopaedia Program for the Canadian Public Service-Staff Development Branch in Ottawa, Ontario.

1. Review session

The daily language sessions usually run from three to four hours with short breaks between sessions. The

review portion is a rather traditional review of the former day's material which lasts about thirty minutes each day (Racle, 72).

However, according to Schuster, Bordon and Gritton (82) it might also include the acting out of dialogues through use of skits and paired conversation. Usually the printed material is directly in front of the learner during this review session. The particular objectives of the review session are to summarize the previous lesson and give added opportunity for reinforcement. It is important, according to Schuster, Bordon and Gritton (82), that the student be properly prepared prior to this beginning session. Physical exercise and mind calming activities such as discussed earlier are participated in to properly assure a relaxed state and an openness to suggestion. These suggestions are positive and the student is assured that learning will take place and their inhibitions toward learning have been overcome. It might be suggested that they will learn with the openness of the mind of a child. This was referred to earlier as infantilization; or, it might be suggested that this learning experience will be as pleasant as an earlier learning experience they have been asked to recall (E.P.L.R.).

The levels of expectations must originate from the instructor and be maintained by his behavior both at the

verbal and the nonverbal levels. Lozanov (54) refers to this as double planeness as was discussed previously.

Bancroft (6) states that beginning with this review session, the student is encouraged by a positive yet authoritative instructor. He is given a new name and a new role to play at the beginning of the course to further reduce learning inhibition and is encouraged to accept this role during all sessions.

2. The active session

It is during the active session that the new language material is presented, both visually and auditorily, usually in the form of dialogues. The content begins with familiar things the student sees about him. Material is arranged in triads which facilitates intonation and rhythm. The first phrase is given in a whispered tone, the second is natural and the third phrase in a loud voice. Furthermore, the three phrases are presented in exact rhythm (Bancroft, 6). According to Lozanov (54), this whispered tone imitates the experiments his staff is carrying on with subliminal suggestion.

Schuster, Bordon and Gritton (82) stress the importance of utilizing the dramatic and dynamic style of teaching. They feel that parrot-like repetition is non-inspiring and the learning process should be an enthusiastic, creative process. The emotion is more important

than the exercise. Joyce (40) and Torrance (94) support this contention. The varied rhythm and intonations used in the Lozanov method, then, are vehicles for this dynamic creative presentation of materials during the active session.

Bancroft (6) discusses the importance of the outward concentration toward the printed text being presented as well as the inner repetition of the words or phrases being taught. Inner speech is considered to be of prime importance in Soviet psycholinguistics.

The triad organization of material has value beyond that of facilitating a rhythm. Enough time must be allowed within the triad for words to be thought about and repeated in whispered tones. It is further suggested that students be trained to make use of vivid imagery and word association techniques to aid the learning and retention of the new material being present (Schuster, Bordon and Gritton, 82).

Research at Iowa State University (Schuster, 77) suggests that words sensorily experienced with all modalities are more easily learned and retained. That is, students are asked to experience the material as fully as possible, to hear, see, feel and taste the words. Day and Beach in research reported by the International Reading Association (37) also support the multi-modal approach.

Bancroft (6) states that the rhythm most commonly used for presented materials during the active session is 2:4:2. That is, two seconds are used to state a phrase in the known language. Then the phrase is repeated in the foreign language being taught in the next four seconds. Then there is a two second pause. Thus, there is a time span of eight seconds per reading of the known language phrase and the foreign translation for each of a triad of three phrases. Twenty-four seconds would then be used for one triad. This rhythm is maintained throughout the presentation during the active session. Schuster, Bordon and Gritton (82) recommend that the instructor vary the rhythm only as the occasion dictates. They reserve the exact rhythmic pattern for the next session which is called the pseudo-passive session or passive concertlike phase.

3. Pseudo-passive session

Yotsukura (98) enlikens concertlike pseudo-passivity to the unrestrained perception of the environment as that of a child. This student is in a state similar to one attending a concert and listening to music. In a classroom, the students relax, breathe deeply and listen to music while the instructors act out or read lesson dialogues with intonation and deep feeling. According to Yotsukura, Mozart music seems to be most appropriate.

Schuster, Bordon and Gritton (82) describe this pseudo-passive state of mind as being relaxed and full of stimulation and expectancy. While Bancroft (6) suggests dynamic presentation during the pseudo-passive session, Schuster recommends that the instructor speak in a normal authoritative tone of voice. But in accordance with the Lozanov recommendations, both of these authorities use the same 2:4:2 rhythmic pattern as during the active session. However, during this passive session, the rhythmic presentation of content is synchronized with breathing and music. Thus, the student inhales for two seconds. An example for teaching a Spanish word would be as follows: "Breathe in (1-2), mesa (may-sah) - table - mesa (1-4), breathe out (1-2)."

At the same time, the instructor orchestrates his delivery to the rhythm of the music. Bancroft (6), Schuster, Bordon and Gritton (82) recommend baroque music. In any case, music selected should have about sixty beats per minute. Music, then, seems to serve several purposes during this passive session. It provides a relaxed concertlike atmosphere, facilitates the rhythmic presentation and as Bancroft states, "Liberates the mind from earthly concerns." Students are requested to use the same imagery and sensory feeling as during the active session.

4. Psychodramatic session

This session is allowed the largest time block and has as its purpose reinforcement and practice of dialogues learned during the active and passive sessions. It consists of plays, skits and paired discussions. The dialogues are practiced in a realistic way by acting out true life situations. Students may actually go out to cooperating stores, restaurants, hotels or to other appropriate establishments to practice and get first hand experience in practicing the language.

5. Some conclusions

Yotsukura (98, p. 5) had this conclusion about the Lozanov method:

As mentioned previously, I see the outline of Lozanov's language teaching method quite similar to our American practice, except the use of classical music and 'seance' in comfortable furniture. I see similarity only, probably because the outline has been given through the eye of Westerners. We are limited beings in the sense that we can only live in the world of perception. And we can perceive only through our own 'filters', formed as a totality of our individual experiences. Thus, when we discuss something like suggestology, all we can do is to grasp the parts of suggestology that have filtrated through the network of our understanding. It may well be said that what we are doing is no better than a blind man asserting that an elephant is like a pillar, while another blind man thinks it is like a wall. Thus, I am anxious to observe myself how the suggestopaedic system works.

Language is a means of communication. It does not merely consist of sequences of words. In speech activity, we react to the totality of emitting and receiving not only semantic carriers but also those

factors that are reserved in the unnoticed part of our psychic reactions. Some American linguists may think of deep structure in this connection, and some Russian psycholinguists may remember to say that 'inner speech' is most important. And I say that language is only the visible part of an iceberg, with nine tenths invisible under the water. Thus, if a method of language teaching is effective, it must take into consideration this unnoticed part where a vast amount of reserves are operating their multiple missions. In this respect, suggestopaedy is very sound and prospective. Language instruction should aim at facilitating students in acquiring competence in another language without losing their competence in the original language. This is not accomplished by mere memorization of words and/or grammar, not to mention by translation. This is precisely the place where double planeness comes into the picture. I have much expectation for the suggestopaedic teaching system to be fruitful inasmuch as this is exactly the point about which I have been trying to raise my voice in the past several years. Further, I should like to see the system applied to subjects such as history, geography, law, medical sciences, physics, chemistry -- in other words, any subject, since information accumulated in any field should first be acquired before students can proceed.

Dr. Jane Bancroft (5, p. 13) who visited the University of Sophia, Bulgaria, to observe the Lozanov method, summarized the approach as follows in the Canadian Modern Language Review (March, 1972).

While the class generally follows a ritualistic pattern in which the new material is 'reinforced' three times, once the students have achieved a certain command of the foreign language, they go 'into the street' to practice it. They must be able to describe their environment in the foreign tongue. Since the language material is presented to them in dialogue form, students are also asked to present simple plays in class. Although the classrooms in the institute are small, an area in front is set aside for the acting out of plays.

Dr. Lozanov and his colleagues have found that their system speeds up the assimilation of a foreign language and that, because of the 'relaxation' session, course members feel little or no fatigue after a four-hour class. Vocabulary and grammar are 'absorbed' without the intense effort normally required for memorization. Students are able to converse easily. (I conducted part of an English class in which the students could carry on a good, if elementary, conversation after five days classwork.) They are also apparently able to recall their verbal knowledge on tests administered up to a year after a given session.

Whether language classes in Bulgaria are 'traditional' or 'experimental' in nature, their success can be attributed in large measure to the motivation of the students and the training and enthusiasm of the teachers. Instructors put in long hours; students are obliged to attend every class. The authoritarian atmosphere does not appear, however, to dampen the teaching process. Indeed, according to language teachers of various 'schools', authority, when used in a positive manner, increases the expectancy of the students and furthers their learning of the foreign language.

G. Pertinent Research Data

Research implies that the primary emphasis in the Lozanov method is to create a suggestive learning atmosphere. There appears, however, to be another emphasis and that is to learn as much material as fast as possible. To date, most of Lozanov's work has been with the teaching of foreign languages. Bancroft (6) states that the reported learning of 1800 new words or word groups per class session (3-4 hours) is an extravagant rumor spread by some commercial organizations in the United States. The actual norm that she cites is 80-100 new words

or word groups and corresponding grammar per day.

Accordingly, the claim that language training has been speeded up by a factor of fifty to one is probably an exaggeration, also. The United States research, according to Schuster, Bordon and Gritton (82), indicates that language training has been speeded by a factor of three to one.

In a research project reported by Dr. Donald Schuster of Iowa State University (81), Spanish students in the Lozanov experimental section learned the content of the course in approximately one-third the time as did the regular class sections. While the students learned the content in one-third the class time, there were no significant differences on exams. Thus, the results appear to be both encouraging and somewhat discouraging. It is interesting to note that the experimental section did slightly better on the spoken lab final.

Lozanov (54) remains somewhat vague and reports his results in percentages and volume learned. Little data is available from his works directly. He reports only that students could learn a foreign language from five to fifty times faster. He also reports that in four alternating half days students could learn up to 92 per cent of 4800 new words and phrases. Furthermore, he reports an average of 93.15 per cent retention of foreign

words and phrases learned after one year. Similar results and information regarding Lozanov's work were reported by Tashev and Natan (91).

Yotsukura (98) reported that in the Lozanov language course a student learns approximately 3000 new word groups. This corresponds with Bancroft's estimate of 80 to 100 words each day for 25 to 30 days of class. This is from two to three times faster than what is normally expected by traditional methods (Schuster, Bordon and Gritton, 82).

No information is available in Lozanov's work regarding the potency of the individual components of the method when used in isolation or in various combinations. Here, it is necessary to turn to the small, but growing body of research available in the United States. At this time, some research in this area is being reported by the Iowa S.A.L.T. Organization under the direction of Dr. Donald Schuster.

In another study by Schuster (77), several different types of suggestions and relaxation techniques were used as treatments while teaching Spanish words. These treatments were as follows:

1. Conventional learning control: Subjects were instructed to "learn anyway you can."

2. Sensory experience emphasis: Subjects, under this condition, were asked to experience the words fully

as possible. See them, hear them, taste them, feel them or experience them as fully as possible.

3. Preliminary physical exercise: Subjects were given five minutes of Yoga type exercises prior to the teaching lesson. Exercises such as bend-overs, side bending, back bending and wave of tension were used. (These exercises are described in Chapter I.)

4. Zen breathing: Subjects were asked to attend to their breathing for five minutes prior to the Spanish lesson.

5. Zen breathing plus learning suggestions: Besides attending to breathing, it was suggested that the subjects will find the words pleasant and easy to learn and remember.

6. Early pleasant learning recall (E.P.L.R.): The student is instructed to return to a pleasant early learning experience before learning was impaired. Subjects are asked to re-experience this fully.

Each experimental group was taught six lists of twelve different words that were carefully chosen so as to be of equal difficulty.

This study was a subjects by treatment analysis of variance design with six different subjects as replications. The six experimental conditions have already been explained.

The results of this study showed a main effect significant beyond the one per cent level. While not statistically significant, E.P.L.R. produced retention of 37 per cent better than the reference technique. (Learn any way.) The Sensory Experience technique was 14 per cent better than the reference. (Learn any way.)

The results of this study indicated that the main effects were significant and that E.P.L.R. was worthy of further attention.

In another experiment at Iowa State University, (Schuster, 78) effects of the alpha state (relaxed alert), indirect suggestion and word association techniques on learning rare English words were studied. Subjects were trained to produce the alpha state at will through use of biofeedback devices. E.P.L.R. was also used as the indirect suggestion treatment. Subjects were then asked to make unusual associations between rare words and their common synonyms in an attempt to enhance memory function. The eight trained subjects were presented very carefully screened word lists to learn which had been previously recorded on tape.

Students were asked to indicate if they already knew a rare word from the list of twelve so another could be substituted. Since this was a within-subjects, or subjects by treatment design, all subjects took all

possible treatments.

The main effect of unusual word association was highly significant ($p < .01$). The interaction between suggestion (E.P.L.R.) and association was significant ($p < .05$) in that subjects did better when asked to make unusual association and recall a pleasant early learning experience. The alpha state condition did not provide significant results. However, it did provide for slightly improved learning when used in isolation rather than coupled to the other treatment variables.

Another study, using 32 male and female college-aged subjects was conducted by Bordon and Schuster (13) to investigate the influence of the following Lozanov components:

1. Suggestion -- that learning was easy and would take place.

2. Rhythmic breathing -- or breathing synchronized with presentation of material.

3. Music -- with which breathing and rate of presentation were also synchronized.

This study was a between subject full factorial analysis of variance design using the above described treatment variables singly or in combination. There was also a no treatment cell included in the study. Regardless, of the treatment variable, all paired Spanish-English stimuli

were present orally and visually at a rate of one pair every four seconds.

All sessions were followed by an immediate test of acquisition and a long range test which occurred six weeks later. Data were analyzed by the number of correct responses using the analysis of variance technique. The results of the analysis indicated that the suggestion (easy learning) treatment showed a 60 per cent improvement over the no suggestion condition. The synchronized breathing condition showed a 47 per cent improvement over the nonsynchronized breathing condition and the orchestrated music condition showed an improvement of 25 per cent over the nonorchestrated presentation.

The best condition, however, was the combined treatments of synchronized breathing and orchestrated music which resulted in 78 per cent better immediate acquisition than the nonsynchronized and nonorchestrated presentation condition.

As with immediate acquisition results, the main effects of the three treatment variables were significant ($p < .01$) in the case of long range retention. The triple interaction term was also highly significant in long range retention but not with the immediate acquisition. When no suggestion was given, synchronized breathing and orchestrated music interacted with favorable

results but the treatment seemed to fade in significance when combined with suggestion.

In pursuance of finding other applications for the Lozanov relaxation techniques, a study called Relaxation While Taking a Test was conducted at Iowa State University (Schuster, 79). The treatment used was Zen breathing and was the only relaxation technique employed. There were only eight subjects available for this study but each had been previously trained in the Zen relaxation approach.

The test content was material from the second quarter Spanish course with two test forms (A & B) available. Each test was of equal difficulty level in the judgment of the experimenter. All subjects took both tests, one under the treatment condition and the other form under a no treatment condition. The tests were timed to exactly seventeen minutes. Subjects were assigned in a counter balanced order presuming to assure that the effects of learning and fatigue would be distributed uniformly over all conditions. Analysis of variance was used to test the main effects.

While the results were not significant the results showed positive trends. The average test score was 62 per cent under no treatment conditions and 68 per cent under treatment conditions. It was suggested that further experimentation with more subjects would be

warranted.

Peter Kline's work, as described in The Washington Post (March, 1974), is worthy of discussion. In a private school setting, the Sandy Springs School, Sandy Springs, Maryland, 25 high school students engaged in a program called Interlocking Curriculum. The objective of this program was to teach the traditional high school subjects in a way that their interrelatedness would be apparent to students (Kline, 46). Subjects that were integrated were English, mathematics, language and fine arts.

The Sandy Springs projects, of which the 1973-1974 school year results are available, had the specific objective of applying some of the Lozanov techniques to create a thoroughly relaxed learning situation. The students were all individuals who had not been successful in the traditional high school setting. So as to recondition students who had been turned off to learning, Kline's experiment used the following techniques in an attempt to achieve their goals.

1. Silva mind control: This is based on Volpean relaxation approach whereby students are trained to produce their own states of physical and mental relaxation at will. This technique involves calling attention to each body part in sequence until the entire body is relaxed.

2. Music: Music was used extensively not only during learning sessions but as a matter of appreciation.

3. Nature method: Latin was taught by the nature method whereby words and phrases are taught without direct translation. That is, meanings of new words are grasped through context only.

4. Authority: The type of authority spoken of here is likened to the Lozanov definition. The teacher is to be a nonthreatening figure portraying prestige and inspiration.

5. Cooperative-caring atmosphere: The learning atmosphere was designed to be nonthreatening and love-oriented. This was enhanced by what Kline (46) called a meaningful curriculum. Students were encouraged not to suppress feeling but rather to maintain complete openness with the staff.

The experimenters did not attempt to make scientific statements about the success of their curriculum as a whole or about the Latin language program. The results were evaluated against the background of former progress of the students involved.

When comparing the progress of twelve of the students during their second year at the Sandy Springs School, it was found that these students had made better than a year's progress. The average grade level had been

1.39 before entering the curriculum. By the beginning of the second year, the average overall grade equivalent had been raised to 2.64. Grades had improved considerably. This group had entered with predominantly failing grades but had risen to a larger per cent of passing grades. There were fourteen "A's" and only four "F's" compared to the four "A's" and fourteen "F's" the students had earned in their earlier experiences.

All grade equivalent scores were obtained from the California Achievement Tests (Forms A & B, 1970 Edition).

It was found that many students had learned an equivalent of a year's Latin in five weeks with an average of three hours of study each day. Students were not taught English during the period they were receiving lessons in Latin. It was found that the basic understanding of the English language had also improved. This data was gathered by giving the California Achievement Test in English before and immediately following the Latin lessons.

The experimenter concluded his research report as follows (Kline, 46, p. 26):

The observations in this monograph are by necessity speculative in nature and designed to provoke thought and experimentation rather than to state conclusions. It must be emphatically asserted that our experiment was inspired by the Lozanov method, but that it differed significantly from that method. No one who attempts similar experiments along the lines we have indicated,

should claim that the Lozanov method is being used. The differences that are evident, from comparing the Jane Bancroft work, previously cited, with the observations cited above are sufficiently clear enough. The actual differences that emerge upon juxtaposition of the two methods will no doubt be even more substantial. Lozanov's work is the results of over twenty years of research and experimentation. Our method has been one of improvisation. We do not wish in any way to suggest that the methods are interchangeable, or that Lozanov's is not substantially superior in many important respects to the experiment we have described.

Bordon and Schuster (12) report another interesting study using only eight subjects between the ages of 20 to 31 years. Four of the students had some previous Spanish knowledge and four subjects did not. The subjects were trained in Yoga type relaxation and were instructed to relax and listen to the music rather than the instructor during the ten 3-1/2 hour Spanish lessons. They had been told that suggestopaedia works but the words Yoga and suggestibility were not used directly. It was suggested however, that the subjects would learn the 900 words as easily as if they were a young boy with all of their current abilities. A revolving crystal-like ball was provided for the students to look at during pretraining while thinking about their goals in the course.

Besides a fifteen minute Yoga relaxation period and the presentation of materials while in the prone Savasana position, a 50 minute oral practice period was provided in each session.

Since this is a pretest-posttest, no control group design, the eight students were tested before and after the lessons. A one hundred item test was provided by the Foreign Language Department at Iowa State University. The items were split in half by odd and even numbered items.

It was concluded from this study that the two major independent variables, previous knowledge of Spanish and the test condition interacted significantly at the .01 level of significance. Students who had no previous knowledge of Spanish surprisingly did better than those who had previous training. The researchers, through test item analysis, were able to conclude the great differences between pre- and posttest scores were not due to a variance on difficulty levels of the tests or test-retest improvement. Thus, the difference was concluded to be due to the instructional process.

In the study described above, the subjects without some previous knowledge of Spanish went from 42 per cent correct on the pretest to 82 per cent correct on the posttest. Those having some previous Spanish went from 60 per cent to 82 per cent correct. These results spurred the researchers on to verify and elaborate on the results with a follow-up study (Bordon and Schuster, 12).

During this study suggestion was manipulated for (a) the relaxed learning of the content, (b) the relaxed recall of the content and (c) the conscious practice of the materials taught. The same design and procedures were used in this study as with the aforementioned. Ten male subjects, with a median age of 17.0, who had no previous knowledge of Spanish, participated in this study. The only reported modifications were as follows:

(a) the delivery of suggestive messages during the dual stimulation pre-experimental training and during the preparation portion of the learning sessions, and (b) the manipulation of visual and voice-tonality suggestions during practice sessions, where the senior author used visual materials and voice tonality in a differential manner simultaneously.

Two forms of the test were given for both pre- and post- in a counterbalanced fashion. Half of the subjects took the odd form for the pretest and the even form for the posttest while the other half of the subjects did the opposite. There was no significance for the form of the test or the interaction of the testing. The only significant effect was the improvement in achievement scores from the pre- to the posttests ($p < .05$).

Again this study seems to point to some validity regarding the Lozanov approach and the positive effects of relaxation and learning suggestions.

Extensive study is now taking place in Bulgaria and other Soviet countries to add credence to the work of Dr. Lozanov. Bio-feedback techniques are being used to measure brain activity during the memorization process. Work by Balevski (2) indicated that, while alpha brain wave activity does increase during memorization, an increase of more than 15 to 25 per cent is not conducive to getting good results. He suggests use of intonation (previously discussed) and music to soothe brain bio-electric activity and thus increase the process of memorization. His study indicates that a relatively low level of brain activity appears to have a paradoxical effect of higher productivity. It appears however that suggestive instruction with intonation and music are less effective after reaching puberty (Balevski and Ganovski, 4). Upon entering puberty there seems to be a decrease in the effectiveness of suggestive instruction process particularly for short range retention. According to these researchers sex doesn't seem to make a significant difference as to the effectiveness of the suggestive approach although girls seem to do slightly better than boys on short term memorization tasks. In any case students between the ages of eleven and seventeen do significantly better using suggestive techniques for memorization than the traditional rote method.

Smirnova (86) reports a study which took place at the State Pedagogical Institute in Moscow. The experimental group was taught by the Lozanov method, while the control group used a traditional method which was not described. The results of these French and English courses were given in terms of the volume of vocabulary learned in two months. The English experimental group had learned an average of 2550 words while the control group had learned an average 990 words. The French students had learned on the average of 2530 words during the experimental sessions while the control group achieved an average of 827 words. No levels of significance were given, nor information as to numbers of subjects or how they were assigned to groups. By the researcher's admission, other controls were absent. These weaknesses related to volume of materials and type of content presented to experimental and control groups since they were not identical. Also a great amount of out of class communication and sharing took place during the study. Control was however in evidence where the testing method was concerned. Students were tested both visually and orally using single words and short phrases.

It was also reported that the experimental group students made fewer mistakes per sentence than control groups. They also spoke faster. The experimental groups

did more poorly in spelling simply because they did less writing of new foreign words than control groups.

It was concluded by the staff involved in the experiment that the experimental groups were superior in their ability to converse and read aloud. The suggestopaedic approach had a positive influence on the students in that learning was considered easier, much shyness was overcome and creative activity was increased. The method, according to data presented, was also faster.

Another language study which reported the Lozanov method as being faster than the traditional methods was an experiment by Philipov (68) when comparing six students who were learning Bulgarian by the Lozanov method with ten students learning Russian the traditional way; there was such a marked difference that the study is worthy of mention. Little information is available about the study, but it again supports the Lozanov method as being an accelerated approach since the experimental group learned about three times faster. It was also reported by experts who rated the students that the six Bulgarian students were significantly more proficient than the ten Russian students. The questionable aspect of this study appears to be the fact that two different languages were compared with each other.

A Canadian report (Racle, 71) seems to add further credence to the Lozanov methodology for the teaching of foreign language. Racle has instituted this approach for the teaching of French to English speaking civil servants. While his work is not experimentally controlled, this writer reports that students are learning the language much faster than ever before in the 22 half-day sessions. Using a test, a test to evaluate a student's aptitude for learning a foreign language, it was found the scores raised considerably. The lowest students had the largest gain (8.3 per cent to 41.8 per cent). Those who scored highest showed a smaller gain (59.7 per cent to 86.9 per cent). No significance levels were indicated.

Little information is available on the actual application of the Lozanov approach to the elementary school subjects. In a study in Sophia, Bulgaria this approach was used for teaching reading in the primary grades (Lozanov, 55). Little information was available as to how the methodology was applied except that much of the suggestive procedure can be dispensed with since young children have not had their memories impaired. It appears that only part of this study is credible since the experimental groups far excelled the control group in the pretest evaluation. This evaluation was subjective in nature since students were taped as they read. Data

were recorded by denoting the per cent of students who did not know letters, per cent who knew letters, per cent of students who could spell, per cent of students who read in syllables or word by word, and students who read freely. It was not indicated who made these judgments. The portion of this study that was controlled to some degree involved subjects who could not read words at all but were at similar levels in their abilities to read letters. The experimental group consisted of 26 primary students and the control group consisted of 25 subjects at the onset of the study. They were tested at the beginning of the year and again at the end of the school year. Ages of subjects were not given and exact procedure of how they were assigned to groups was not explained. When children were recorded reading from the test at the end of the study, it was judged that 25 per cent of the experimental group read word by word while 55 per cent of the control group read word by word. It was reported that 75 per cent of the experimental group "read freely" while only 45 per cent of the control group "read freely". A definition of "reading freely" was not provided except that it did not involve syllable by syllable or word by word reading and alluded to a fluent, free flowing type of performance. Overall, Lozanov reported favorable trends in the use of this methodology for the teaching of reading.

Prichard (70) reported a study applying the basics of the Lozanov method to remedial reading instruction. Twenty remedial students from ages seven to thirteen were randomly assigned from eligible subjects to a single treatment group. They were judged to be at least two years below their reading expectancy according to the Spache oral and silent reading scores. Pretest and posttest gain scores were compared to the subject's ability to master the basic relaxation techniques. The components of the Lozanov methods used were drama, music, rhythm, intonation, imagery, relaxation and positive suggestion. These components were discussed earlier in this chapter.

It was concluded that large pretest-posttest gains were achieved for students who mastered the relaxation techniques and lesser gains for those who did not. The ability of the student to relax was judged by the researchers.

Overall, 80 per cent of the participants gained a year or more on the Spache oral reading subtest while 75 per cent of the subjects gained a year or more on the silent reading subtest after twelve weeks of instruction. Forty-five per cent of the subjects gained a year or more on the Spache word recognition subtest.

When results are broken down in relation to the students' ability to relax it was found that those who attained an "excellent relaxation response" all gained a year or more on the Spache subtest. The only exception was one out of this group of eight who achieved less than a year on the word recognition subtest.

It was found that the remaining participants who achieved a "good relaxed" response also made favorable gains. Sixty-seven per cent gained a year or more on the Spache oral and silent reading subtests while 50 per cent made a year or more gain on the word recognition subtest.

Those participants who fell into the "poor relaxation response group" didn't appear to do quite as well. Sixty-seven per cent gained a year or more on the oral reading subtest, 50 per cent gained a year or more on the silent reading subtest and only seventeen per cent showed this much gain on the word recognition test.

One weakness that appears to exist in this study was the subjectivity of determining the relaxation level. However, it was concluded that the overall gains previously described happened in twelve weeks of actual instruction and appeared to be most favorable. This study took place in the DeKalb County School District in the State of Georgia.

In concluding this review of the literature, it becomes apparent that scientifically recorded reports regarding the Lozanov method are, at this time, few in number. This methodology is in its infancy in this country, but with the current interest being generated, the body of research should grow rapidly during the rest of this decade. If the Iowa organization (S.A.L.T.) and other groups unite cooperatively in their efforts, a clear picture should begin to emerge as to the value of this approach.

III. DESIGN AND PROCEDURE

The purpose of this study was to test the effectiveness of the Lozanov method for teaching word meaning to students who were chronologically at the fifth and sixth grade levels.

Presented here in this chapter is information regarding the pursuance of this project. The following outline will guide the discussion.

- A. The Research Sample
- B. Basic Assumptions
- C. Treatment and Teaching Procedures
- D. Testing Procedures
- E. The Research Design
- F. Statistical Analysis Procedure
- G. Summary

A. The Research Sample

This study took place at Cathedral Catholic School in Superior, Wisconsin. The first concern in selection of a private school to do this study might be related to this question. Does this private school truly represent a cross section of the population? After considerable

study, it appeared that the school in no way serves only the elite or a higher socio-economic group. The tuition is nominal and is forfeited in cases where a family is economically deprived or has larger numbers of family members. A family with three or more students is charged no more than a family with up to two attending. Furthermore, the school is supported by parish funds rather than on tuition solely.

Since this study required the learning of meanings of new words, a language skill, a cross section of socio-economic groups seemed desirable. According to Tiedt (93), students from deprived homes often suffer in their ability to develop language skills because of a hindered oral language development. It was further indicated that this oral development is the key to later cognitive intellectual development. Thus, it appears that a study of this nature would have to include subjects from a cross section of the socio-economic populations existing in this community.

Another factor, necessary to make the above assumption, is an examination of the current reading range. A study of the reading ranges at Cathedral School indicated a normal spread in grades five and six. According to Bond and Tinker (11) a difference in reading range of six to seven years is common with students at this grade level.

It was the opinion of the teachers and the principal that the fifth and sixth grade students at Cathedral School had achievement levels that were within these expected ranges.

There were 39 fifth and 64 sixth graders at Cathedral School at the onset of this study with zero attrition during the study. This then, constituted the population for this experiment.

This study required 64 students out of the total population of 103 fifth and sixth graders. It also required an equal number of boys and girls, fifth and sixth graders and high and low reading levels. Borg and Gall (14) suggested a simple drawing method to obtain a sample of which everyone in the population has equal opportunity to be included.

Thus, all fifth and sixth graders from Cathedral School were first sorted as follows: All names of fifth grade girls were separated according to reading placement (lower or upper half of the reading range). The same procedure was followed for all fifth grade boys, sixth grade girls and sixth grade boys with the result of eight independent categories from which to draw treatment groups of sixteen. It was necessary, then, to draw two names from each category four times so each group would be composed of the following:

1. Two fifth grade girls from the lower half of the reading classes and two from the upper half;

2. Two fifth grade boys from the lower half of the reading classes and two from the upper half;

3. Two sixth grade girls from the lower half of the reading classes and two from the upper half;

4. Two sixth grade boys from the lower half of the reading classes and two from the upper half.

The total Reading Achievement (G.E.) score from the result of the current Iowa Test of Basic Skills was used along with the professional judgment of the fifth and sixth grade reading teachers to place subjects in either the lower or the upper levels of the reading range. Actual scores were not made available to the researcher.

It was by stratified random assignment of students that three treatment groups and one nontreatment group were selected for the study. Each group was assigned to a treatment or the nontreatment also using the draw method.

B. Basic Assumptions

1. That internal validity of treatment manipulations will be maintained because of random assignment.

2. That the subjects will have no knowledge of words used prior to presentation.

3. That all word lists taught will be of approximately equal difficulty levels and randomly assigned to treatments.

4. That subjects will be randomly assigned to groups over sex of subject and grade level.

5. That treatments will be randomly assigned to groups.

6. That stratified random sampling will distribute high and low readers equally and uniformly among the four treatment groups.

C. Treatment and Teaching Procedures

This study called for a treatment to be administered for five minutes prior to the teaching lesson. Specifically, Mind calming (Zen breathing) and Early Pleasant Learning Recall (E.P.L.R.) were used (see Definition of Terms). Where both were used in combination, two and one-half minutes of each were used to standardize treatment length the No Treatment group received no treatment prior to the word lesson.

According to Lozanov (56) and Bancroft (6), students improve not only by practicing a cognitive skill, but by practice in Mind calming and E.P.L.R.; thus, a practice session and two replications using different word lists took place at two day intervals.

The first five minute portion of the 30 minute block was used as the treatment session. It was here that the subjects received the Mind calming and/or E.P.L.R. as dictated by the design. Students were instructed to pay attention to their breathing. As they inhaled they were instructed to think "in". Then hold, relax and think "out" as they exhaled. (See Appendix C.) This treatment according to Schuster (77) and others has a mild calming effect.

Early Pleasant Learning Recall is, according to Lozanov (54), Schuster (77) and others, an important aspect of suggestopaedia. It is an indirect suggestion that provides for establishing a positive attitude for reception of content to be delivered during the presentation, that is: "This will be a pleasant learning experience, the same as the other pleasant learning experience you had." The other refers to a former pleasant learning experience the subject reflects on during treatment recalling how much fun it was then and expecting that this experience will be the same. (See Appendix D.)

The active sessions were of fifteen minutes duration and called active because of subject participation. This participation was in the form of an auditory repeat each time a new word was presented on a flash card. Each word was repeated twice during the active session with the

subjects seeing the visual stimulus and repeating it orally each time. With each repetition the common synonym was pronounced and a meaningful sentence was presented. Subjects were not required to repeat the common synonym or its sentence.

The passive sessions were of ten minutes duration. During this passive session, students were asked to relax to background music and to listen passively as if listening to a concert. There was an auditory stimulus only, with two more repeats of the new words, the common synonyms and the meaningful sentences.

It might be well to note here, that Lozanov (54) rather consistently uses music as a relaxant and vehicle to facilitate rhythm and intonation. However, in this study, music was not being considered as a treatment variable because it was also used with the No Treatment group. The purpose for its use was merely to assist the experimenter in standardizing the teaching and preventing experimenter bias during the passive session.

D. Testing Procedures

Testing took place immediately following each of the 30 minute sessions and nine days later with the purpose of gaining data on immediate and long range retention. The procedure for testing is described below.

The subjects were tested using the same flash cards that were used during learning. Students were given both an auditory and visual stimulus with no particular treatment prior to the testing session. They were asked to define the word or write the word correctly in a sentence. The correctness of the response was judged by the researcher with the help of a second party and given a raw score by number judged to be correct. When responses were in question, the second party made final judgment in relation to word meaning only.

The words used for this study were chosen by the following criteria:

1. The words carried a Standard Frequency Index of between 20 and 40. This was to assure rarity. (See Definition of Terms - Standard Frequency Index.)

2. The words used were judged to be phonetically easy. That is: Words that were monosyllabic to trisyllabic with few phonetic irregularities.

3. Words that had common synonyms that students at the fifth and sixth grade would normally know or could grasp easily with context clues.

During the presentation portion of this study, extra words were readily available. Subjects were instructed to raise their hand if they already knew the word being presented. If so, the word was immediately discarded and a

new word was selected in its place. All words were randomly assigned to the treatment and nontreatment groups.

E. The Research Design

It was necessary, in conducting this study to use a factorial design since it was desired to treat the collected data in such a way as to obtain information regarding not only treatment effects alone, but also the interaction between all the variables (Borg and Gall, 14). The design can be illustrated as follows:

a. Mind calming	-	+	-	+	n=64
b. E.P.L.R.	-	-	+	+	

+ Treatment
- No treatment

- c. Grade: 5=1, 6=2
d. Sex: Male=1, Female=2
e. Reading level: Lower Half=1, Upper Half=2

Single Cell Example

c	1	2	1	2	1	2	1	2
d	1	1	2	2	1	1	2	2
e	1	1	1	1	2	2	2	2

F. Statistical Analysis Procedure

An analysis of variance technique was used to analyze the data.

G. Summary

The purpose of this study was to test the effectiveness of the Lozanov method for teaching meanings of new words to fifth and sixth grade students. Rare and unusual words were selected with the aid of the Standard Frequency Index (Carroll, Davies and Richman, 18).

A simple draw method, as suggested by Borg and Gall (14) was used to randomly assign 64 of the fifth and sixth graders at Cathedral School to three treatment groups and one nontreatment group.

The treatment variables used were limited to Mind calming and Early Pleasant Learning Recall and a combination thereof. These treatments were used in a five minute session prior to the word lesson. This was followed by a fifteen minute active participation session and a ten minute passive session during which the new words, their common synonym and a meaningful sentence were repeated.

Testing took place immediately following each 30 minute session and nine days later for delayed recall.

This study used a factorial design with analysis of variance as a statistical tool.

IV. ANALYSIS OF THE DATA

A. Purpose

The purpose of this study was to investigate the effectiveness of certain components of the Lozanov method for teaching word meaning to fifth and sixth graders.

The specific objectives of the study were to study the effects of the following independent variables on learning word meaning: Mind calming, Early Pleasant Learning Recall, a combination of the above treatments, grade level, reading level and sex.

The criteria or dependent variables were the number of words remembered correctly from a list of twelve rare words as tested immediately after learning (acquisition) or as tested nine days later for delayed retention. Each of the dependent measures was in turn obtained for two successive learning sessions, for a total of four criterion measures.

Since this is a factorial design, analysis of variance was used as a statistical tool to evaluate the results. These detailed results appear in the appendices.

B. Hypotheses Restated

The statistical hypotheses are restated here, in order to guide the discussion in this chapter.

1. There will be no significant differences in the learning criterion for the main effect of the Mind calming exercise.

2. There will be no significant differences in the learning criterion for the main effect of the Early Pleasant Learning Recall exercise.

3. There will be no significant differences in the learning criterion for the interaction of Mind calming and Early Pleasant Learning Recall exercise.

4. There will be no significant differences in the learning criterion for the main effect of fifth and sixth grade levels.

5. There will be no significant differences in the learning criterion for the main effect of the two sexes.

6. There will be no significant differences in the learning criterion for the main effect of upper and lower reading levels.

7. There will be no significant differences in the learning criterion for any of the possible interaction effects of the independent variables.

C. Discussion

1. Research hypothesis regarding mind calming

There were no significant differences for the main effect of Mind calming on the acquisition test for either session one or session two. (See Appendices G through J.) Significance for this treatment was reached in the delayed recall criterion for session one but only approached the five per cent level for session two. A post-hoc analysis revealed that Mind calming scores differed significantly ($p < .05$) from the No Treatment and the combination of Mind calming and Early Pleasant Learning Recall. Mind calming did not produce results that were significantly different from Early Pleasant Learning Recall.

Results of the post-hoc analysis appear below in Table I. This analysis used the Newman-Keuls test (44). It appears that the analysis of data partially supports the rejection of this hypothesis. Though transient, the Mind calming treatment did reach significance in delayed recall for one session and approached it in the second session.

Table I. Differences among means

Treatments		Critical q Values		
		X(C.)	X(M.C.)	X(E.P.L.R.)
No Treatment	X(N.T.)	1.3	2.9*	3.1*
Combination	X(C.)	-	2.2*	2.4*
Mind Calming	X(M.C.)		-	.2
Early Pleasant	X(E.P.L.R.)			-

*Significant at the 5% level.

Source: Kirk, R. Experimental Design: Procedures for the Behavioral Sciences. Belmont, Calif.: Brooks/Cole Publishing Company, 1969.

2. Research hypothesis regarding early pleasant learning recall

As with Mind calming, Early Pleasant Learning Recall did not produce significantly better results on the acquisition tests for either session. But significance did emerge in the delayed recall criterion for session one ($p < .05$). E.P.L.R. was significantly better than No Treatment or the combination of E.P.L.R. and Mind calming. The main effect of E.P.L.R. was not superior to Mind calming. This significance did not continue in delayed retention for session two. These results are also illustrated in Table I and Appendix I. The analysis of the data again partially supports the rejection of this null hypothesis since E.P.L.R. did produce superior scores in at least one session.

3. Research hypothesis regarding mind calming and E.P.L.R. in combination

No significant differences in the criterion became apparent for the use of this exercise prior to the teaching session. This was true for the main effects of the combination of Mind calming and E.P.L.R. throughout the study. (See Table I and Appendices G through J.) The analysis of the data supports the null hypothesis in this case.

4. Research hypothesis regarding grade level

The main effects of grade level on the criterion variables were not significant for immediate retention (acquisition) in either session. Sixth graders, however, did significantly better ($p < .05$) than fifth graders on delayed recall for the first session. This significance did not emerge again in session two although the sixth graders did somewhat better than the fifth graders on all criteria. (See Appendices E and F.) It appears that the analysis of the data, according to this study, partially supports the rejection of this null hypothesis.

5. Research hypothesis regarding sex

The analysis of the data did not show evidence that the main effects of the sex variable produced significant differences in the criterion on either acquisition or

delayed recall. (See Appendices G through J for analysis of variance results.) Accordingly, this null hypothesis can be accepted.

6. Research hypothesis regarding reading levels

There were no significant differences between upper and lower reading levels on acquisition for session one. However, significance attributable to reading level did emerge on the acquisition criterion for session two ($p < .01$). (See Appendices G through J.) Significance also emerged on the delayed recall criterion for sessions one and two ($p < .01$). Subjects from higher reading levels (see Appendices G and H) did better on the immediate and delayed retention criteria throughout this study. It was only in the criterion for session one (acquisition) that significance was not reached for reading level even though the scores were superior for better readers. It appears that the results of the data analysis would allow rejection of this null hypothesis.

7. Research hypothesis regarding all possible interactions

Of all possible interactions between the independent variables of: Mind calming, Early Pleasant Learning Recall, the combination of Mind calming and Early Pleasant Learning Recall, grade level, sex, and reading levels, there were only two significant interactions.

A significant Reading by Treatment by Grade interaction occurred on the delayed recall criterion for session one ($p < .05$). Here, E.P.L.R. produced higher scores with fifth graders of high reading level and sixth graders of low reading level. Mind calming was associated with higher scores in the case of sixth graders of high reading level. No Treatment produced lower scores with fifth graders of low reading level; that is, any treatment was better than No Treatment for all fifth graders of low reading ability.

Another significant Reading by Grade by Treatment interaction occurred during session two on the delayed recall criterion ($p < .05$). Here E.P.L.R. was associated with higher scores among fifth graders of high reading level. No Treatment was associated with lower scores among sixth graders of high reading level and fifth graders of low reading level. No substantial score differences were found among sixth graders of low reading level. (See Appendices G through J.)

The results of the analysis of the data appear to provide support for partial rejection of this hypothesis since some interactions found were significant.

D. Summary of the Findings

1. The research null hypothesis regarding Mind calming can be tentatively rejected according to the results of this study.

2. The research null hypothesis regarding Early Pleasant Learning Recall can be tentatively rejected according to the results of this study.

3. The research null hypothesis regarding the combination of Mind calming and Early Pleasant Learning Recall can be accepted according to the results of this study.

4. The research null hypothesis regarding grade level differences can be tentatively rejected according to the results of this study.

5. The research null hypothesis regarding sex differences can be accepted according to the results of this study.

6. The research null hypothesis regarding reading levels can be tentatively rejected according to the results of this study.

7. The research null hypothesis regarding all possible interaction can be tentatively rejected according to the results of this study.

In this chapter the findings of this study were presented. In Chapter V these findings will be summarized and discussed in terms of their meanings and implications.

V. DISCUSSION AND CONCLUSIONS

A. Purpose

The purpose of this research was to discuss the suggestive-accelerative approach to teaching and present research data for a doctoral dissertation on this topic.

B. Basic Elements of the Approach

Basically, this approach makes use of certain techniques to place a person into a hypersuggestive frame of mind. Once this is achieved, a student's learning inhibitions are diminished by making positive suggestions regarding his or her learning abilities. This in turn activates reserve brain power and speeds up learning and improves memory (56). This process is now well documented in studies from around the world, Schuster, Bordon and Gritton (82), Bancroft (6), Prichard (70) and Lozanov (54). There are certain basic techniques, according to Lozanov (54), that can assist educators in achieving hypersuggestibility, maintain it over time and use it to the students' benefit in the learning situation. Appendix A provides a schematic interpretation of the important elements of this approach. Certain primary

concerns appear to lie almost totally in the teacher's lap.

The teacher must be prestigious in nature. Lozanov believes that students learn more from people they hold in esteem. His research seems to support this (54).

Teachers must be concerned with not only their verbal, but nonverbal behavior in the classroom setting. Students easily perceive the instructor's feelings about what is being taught, about his expectations of his students and about himself. Lozanov (54) calls this double planeness because he considers the unconscious information stream as important as the conscious one.

Intonation and rhythm are important elements in this approach and the terms can be taken literally here. Material being presented is given in various voice tones and with precise rhythm and often orchestrated with background music (13). This facilitates a creative approach which, according to Bordon and Schuster (13) and others, enhances learning.

Through physical relaxation, mild calming and the above mentioned components a student becomes hypersuggestible and is put into an "open state" which is likened to the intuitive stage of a child that Piaget speaks about (20). Thus, facilitative conditions are created in the learning situation and must be maintained throughout.

Since Lozanov uses and experiments with the approach holistically, it is difficult to determine what facilitates what. Nevertheless, certain procedures appear to be used to maintain the created conditions over time.

Physical exercise and mild calming exercises are often used prior to or during the class period. Anything from side bends to turtle neck exercises can be used. This can be followed by deep breathing or mental imagery exercises to facilitate mind calming. Schuster, Bordon and Gritton (82) report very favorable results when content is synchronized with breathing and music using various intonations during presentation of didactic material.

Early Pleasant Learning Recall (E.P.L.R.) appears to be effective, especially for long range retention (77). This is merely a process, using mental imagery, whereby a student is asked to return to an "early pleasant learning experience" and relive it. The instructor then suggests that the content now being presented will be just as easy and enjoyable as that earlier experience.

New names and new biographies are used frequently in the suggestive approach to aid desuggestion of learning inhibition. "If I make a mistake it's not really me that's in error." Lozanov (54) in his experimentation gives credence to this phenomenon.

Skits, role playing and pantomime are not only good content reinforcement tools but are effective methods for maintaining creativity and passivity in the learning environment.

The above coupled with a feeling of security provides the primary foundation of this approach.

C. Summary of Procedures

This research effort used only two of the components mentioned above, namely: Mild calming and Early Pleasant Learning Recall. Sixty-four fifth and sixth grade students using stratified random assignments were placed into a No Treatment group and three treatment groups as follows: Mild calming, Early Pleasant Learning Recall (E.P.L.R.) and a combination of both.

Twelve randomly assigned rare English words were taught during each of two sessions. Each treatment group and each session used a different set of rare words which were taught by the following procedure.

1. Preparation (treatment)

Students in one group received five minutes of mind calming (a focus on breathing exercise) prior to the word lesson. Another group received E.P.L.R. instructions five minutes prior to the word lesson. A third group used a

combination of the mind calming and E.P.L.R. for five minutes, while the fourth had no treatment prior to the word lesson.

2. Active phase

New words were presented on flash cards. The subjects saw the words, heard them pronounced, received the common synonym and listened to each word used in context. This was repeated twice for each word over a period of exactly fifteen minutes for each group.

3. Passive session

During this session the subjects relaxed and listened to the new words, synonyms and sentences being repeated twice. This was an auditory presentation only. This phase was of ten minutes duration for each group.

4. Testing and analysis

Students were tested using the same flash cards as used in the teaching session. They were given a visual and an auditory stimulus and asked to define the word or use it correctly in a sentence. A second party was used to make final judgment as to the accuracy of word usage.

Analysis of variance was used along with the Newman-Keuls (44) post-hoc test. The independent variables were the treatment condition, sex, grade level (fifth or

sixth) and reading level (upper or lower) of the 64 subjects. The dependent variables or criteria were the number of right responses as tested immediately after each of the two sessions and as retested nine days after each of the two sessions.

D. Summary of Findings

The data produced by this study were analyzed through analyses of variance. There were two immediate retention sessions and two long range retention sessions. Hence, four analyses were run. The .05 significance level was used as an indication of a real difference in all cases.

In acquisition session one, there were no significant main or interaction effects. In acquisition session two, however, a significant difference attributable to reading level emerged ($p < .01$). Again, there were no significant interactions.

In delayed recall session one, three significant differences occurred. They were in reading level ($p < .01$), grade ($p < .05$) and treatment ($p < .05$). The higher reading level and grade level did better. Since four treatments were employed a Newman-Keuls test was applied to the data (44). This post-hoc analysis compared each mean to the others and determined which were significantly different.

E.P.L.R. and Zen were significantly superior to No Treatment and the Combination ($p < .05$).

A significant Reading by Treatment by Grade interaction was also found in delayed recall -- session one ($p < .05$). Here, E.P.L.R. produced higher scores with high reading level fifth graders, and low reading level sixth graders. Zen breathing was associated with higher scores in the case of high reading level sixth graders. No Treatment produced lower scores with fifth graders of low reading level.

In delayed recall, session two, a significant difference attributable to reading level occurred ($p < .01$). As in session one, a significant Reading by Treatment by Grade interaction appeared ($p < .05$). E.P.L.R. was associated with higher scores by high reading level fifth graders. No Treatment was associated with lower scores by high reading level sixth graders and low reading level fifth graders. No substantial score differences were found among low reading level sixth graders.

In summation, student reading level appeared to be the most influential factor in this study. This factor was significant in three of the four analyses and approached significance in the fourth. Treatment appeared as a meaningful factor in only one of the four sessions; long range retention session one. Here, Zen breathing and

E.P.L.R. were superior to No Treatment and the Combination. The Reading by Grade by Treatment interactions may be worth additional study. It is possible that certain treatments will be more productive in specific situations. On the other hand, the interactions may have occurred because of the small number of subjects involved in the investigation and thus were due to chance alone. It should also be mentioned that the No Treatment group had an active session and a passive session with music which could have raised their test scores. In either case, an investigation concerning a larger number of subjects would provide an adequate response to this question.

E. Postscripts

1. Critical evaluation

Reading level appeared to be the most influential factor in this study since, in three out of the four criteria, reading level gained significance. Spache and Spache (87), Bond and Tinker (11) and others support this finding. Better readers would be expected to learn new vocabulary with greater ease than poorer readers. Better readers generally have better word attack skills and a more highly developed visual memory and a richer background of experience.

Grade level reached significance only once and that was in delayed recall. Since word difficulty was carefully controlled for all sessions it would appear that word difficulty level was not a confounding factor in that session. The fact that sixth graders were superior over fifth graders in only one word test is difficult to explain. Perhaps this happened by chance, or possibly it was due to the small number of subjects involved in the study. It is not too surprising, however, that the main effects of grade level were not highly significant throughout the study since the spread of reading abilities is so wide in those grades and not too dissimilar (Bond and Tinker, 11). A study by Balevski and Ganovski (4) showed little difference between children of ages eleven and twelve in the effects of suggestion on short term or long term memory.

Sex differences did not reach significance in any of the dependent variables. Again, this is not too surprising since Lozanov (54) originally claimed no sex differences in the effectiveness of this approach. More recent studies, however, do claim a slight edge for women in reproducing words learned (Balevski and Ganovski, 3). There are few studies available on this topic at these two grade levels. Maccoby and Jacklin (57), in their research failed to find sex differences in

elementary age children in suggestibility, ability to inhibit early incorrect learning, auditory and visual activities or rote learning. A study by Balevski and Ganovski (3) show slight differences in favor of girls for the effects of suggestion on short term memory.

The main effects of treatment reached significance only once and that was in delayed recall. Here E.P.L.R. and Mind calming were significant over the Combination and No Treatment. These transient results are difficult to understand since other researchers support their use (Schuster, 77; Bordon and Schuster and Gritton, 82). It is possible that the No Treatment group did better because they also had an active and passive session with music even though they had no direct treatment. Perhaps treatment exercises were not of proper duration and a longitudinal study is needed to test these treatment effects over time. Since this study was brief and had small numbers of subjects the results could have happened by chance. E.P.L.R. was, by itself, more consistently helpful since all lower readers benefited from it in both delayed recall tests.

In spite of some beneficial results in the use of E.P.L.R. and Mind calming, the combination of the two did not reach significance on the dependent variable in any

session. Since the two treatments were beneficial in isolation one would expect compounding results. Again it is suggested that time was a contributing factor here. Longer treatment periods are probably needed. The time allowed for the combination was the same as for either treatment by itself, namely five minutes.

The only significant interaction in relation to treatments, grade, sex and reading level that emerged was a Reading by Grade by Treatment interaction. Since this interaction appeared twice, and both in delayed recall, it appears to be worthy of further study. More research will be needed to try to determine why there was significant interaction in delayed recall and not in immediate recall.

The results of this study were both encouraging and discouraging because of their transient nature. Nevertheless, further research is warranted to answer questions this study provoked.

2. Implications for further research

a) Research is needed to determine which particular treatment is most beneficial in relation to grade and reading levels.

b) Research is needed to determine the effects of these treatments over time.

c) Research is needed to determine how to best operationalize these treatments in the elementary classroom.

d) Research is needed to determine the value of these treatments, and others, for both remedial and accelerated students.

e) Research is needed to determine the effect of suggestion on children at various ages.

f) Research is needed to determine broad application of the Lozanov method beyond convergent rote memory.

VI. APPENDIX A: SCHEMATIC INTERPRETATION OF THE
SUGGESTOPAEDIC APPROACH

Developing A Suggestive Learning Environment

Facilitators of Suggestion	Primary Mechanisms
Physical Relaxation	Authority
Mind Calming	Infantilization
New Names	Double Planeness
Music	Intonation
Psycho - Drama	Rhythm
Confidence	
Security	
Love	
Dramatic Presentation	Pseudopassivity
*Physical & Psychological Atmosphere are Suggestive	

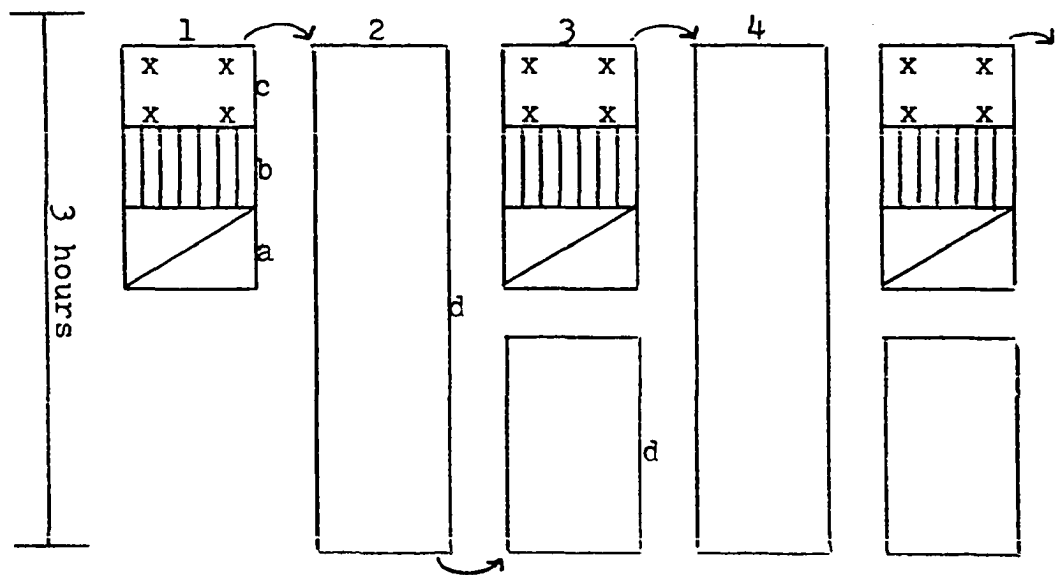
Expectation ----> Open Mind ----> Easy Learning and Memory

Anti-Suggestive Barriers are Overcome:

1. Critical Thinking
2. Ethical Considerations
3. Emotional-Intuitive

VII. APPENDIX B:
THE SUGGESTOPAEDIC SESSION (72)

Days →



- a. Review
- b. Active Presentation
- c. Pseudo-passive Session
- d. Psycho-drama

VIII. APPENDIX C:
ZEN BREATHING INSTRUCTIONS (77)

1. Watch your breathing; say "in" as you inhale and "out" to yourself as you exhale. Just think these words silently, don't say them to yourself.
2. Don't speed up your breathing nor slow it down; just watch it.
3. If you find your mind wandering or if you become sleepy, gently bring your attention back to watching your breathing.

IX. APPENDIX D:

DIRECTIONS FOR EARLY PLEASANT LEARNING RECALL (77)

Try, with these directions to imagine and visualize to the best of your ability. Now return to an early pleasant learning experience where you were eager to learn and before you had your memory skills impaired. Pick an early school experience or one where a parent was reading an interesting and educational story (pause). Get the details of this early pleasant learning experience as fully as possible in your mind. Use your imagination as necessary to fill in the following information. Feel yourself back in the situation and room again (pause). What people were around you (pause), what was the name of the teacher or parent (pause), recall how your hands felt in this situation (pause), what thoughts were you thinking (pause), how did your throat and head feel (pause), what was your feeling (pause), what was your emotion (pause). Get all of these details very clearly in your mind (pause), hang onto that eagerness, and learn this list of words the same way.

X. APPENDIX E:

SUMMARY OF AVERAGE IMMEDIATE ACQUISITION TEST SCORES
FOR ALL POSSIBLE TREATMENT CELLS*

<u>Sex</u>	<u>Gr. Level</u>		<u>No</u> <u>Treatment</u>	<u>Zen</u> <u>Breathing</u>	<u>E.P.L.R.</u>	<u>E.P.L.R.</u> <u>+ Z.B.</u>
Boys	5	L	3.75	8.25	5.25	9.25
Boys	5	U	6.75	6.75	8.75	7.25
Girls	5	L	6.25	7.5	8.00	3.5
Girls	5	U	9.5	9.25	11.75	8.5
Boys	6	L	6.0	7.0	6.50	8.75
Boys	6	U	8.5	11.25	10.75	10.25
Girls	6	L	7.5	7.25	6.75	5.25
Girls	6	U	8.75	10.25	8.75	12.00

*Maximum possible score was 12.

XI. APPENDIX F:
 SUMMARY OF AVERAGE DELAYED RECALL TEST SCORES
 FOR ALL POSSIBLE TREATMENT CELLS*

<u>Sex</u>	<u>Gr. Level</u>		<u>No</u> <u>Treatment</u>	<u>Zen</u> <u>Breathing</u>	<u>E.P.L.R.</u>	<u>E.P.L.R.</u> <u>+ Z.B.</u>
Boys	5	L	1.5	4.5	4.0	4.25
Boys	5	U	2.5	4.25	6.25	3.25
Girls	5	L	1.75	3.0	4.25	1.75
Girls	5	U	5.75	4.25	9.00	5.25
Boys	6	L	3.25	3.5	4.25	3.25
Boys	6	U	4.00	9.75	7.75	5.25
Girls	6	L	4.00	3.25	5.25	.5
Girls	6	U	3.00	7.75	5.5	7.25

*Maximum possible score was 12.

XII. APPENDIX G:
ANOV SUMMARY IMMEDIATE ACQUISITION - SESSION I

Source	df	M.S.	F	Prob. F
Sex	1	129.391	1.474	0.2318
Treatment	3	52.766	0.601	0.6228
Reading	1	319.516	3.639	0.0623
Grade	1	172.266	1.962	0.1677
Sex-Reading	1	153.141	1.744	0.1932
Sex-Treatment	3	115.474	1.315	0.2859
Sex-Grade	1	31.641	0.360	0.5593
Reading-Treatment	3	83.932	0.956	0.5729
Grade-Treatment	3	76.016	0.866	0.5287
Reading-Grade	1	112.891	1.286	0.2644
Sex-Reading-Treatment	3	79.557	0.906	0.5489
Sex-Reading-Grade	1	50.766	0.578	0.5412
Sex-Grade-Treatment	3	69.557	0.792	0.5098
Reading-Grade-Treatment	3	59.807	0.681	0.5732
Sex-Reading-Grade- Treatment	3	87.682	0.999	0.5926

XIII. APPENDIX H:
ANOV SUMMARY IMMEDIATE ACQUISITION - SESSION II

Source	df	M.S.	F	Prof. F
Sex	1	1.000	0.114	0.7372
Treatment	3	17.792	2.026	0.1289
Reading	1	132.250	15.060	0.0001**
Grade	1	7.563	0.861	0.6369
Sex-Reading	1	2.250	0.256	0.6219
Sex-Treatment	3	7.042	0.802	0.5046
Sex-Grade	1	7.563	0.861	0.6369
Reading-Treatment	3	3.625	0.413	0.7482
Grade-Treatment	3	5.521	0.629	0.6054
Reading-Grade	1	1.563	0.178	0.6791
Sex-Reading-Treatment	3	15.292	1.741	0.1772
Sex-Reading-Grade	1	22.563	2.569	0.1151
Sex-Grade-Treatment	3	2.354	0.268	0.849
Reading-Grade-Treatment	3	14.521	1.654	0.1955
Sex-Reading-Grade- Treatment	3	2.521	0.287	0.8358

**Significant at the 1% level.

XIV. APPENDIX I:
ANOV SUMMARY DELAYED RECALL - SESSION I

Source	df	M.S.	F	Prob. F
Sex	1	0.141	0.036	0.8445
Treatment	3	37.474	9.632	0.0002**
Reading	1	112.891	29.016	0.0001**
Grade	1	26.266	6.751	0.0134*
Sex-Reading	1	9.766	2.510	0.1193
Sex-Treatment	3	2.641	0.679	0.5747
Sex-Grade	1	0.766	0.197	0.6642
Reading-Treatment	3	0.391	0.100	0.9584
Grade-Treatment	3	8.516	2.189	0.1075
Reading-Grade	1	3.516	0.904	0.6489
Sex-Reading-Treatment	3	5.932	1.525	0.2260
Sex-Reading-Grade	1	6.891	1.771	0.1899
Sex-Grade-Treatment	3	0.682	0.175	0.9119
Reading-Grade-Treatment	3	12.932	3.324	0.0313*
Sex-Reading-Grade- Treatment	3	0.307	0.079	0.9702

**Significant at the 1% level.

*Significant at the 5% level.

XV. APPENDIX J:
ANOV SUMMARY DELAYED RECALL - SESSION II

Source	df	M.S.	F	Prob. F
Sex	1	2.250	0.383	0.5472
Treatment	3	15.542	2.645	0.0649
Reading	1	85.563	14.564	0.0009**
Grade	1	2.250	0.383	0.5472
Sex-Reading	1	3.063	0.521	0.5178
Sex-Treatment	3	4.125	0.702	0.5608
Sex-Grade	1	6.250	1.064	0.3109
Reading-Treatment	3	4.354	0.741	0.5382
Grade-Treatment	3	4.792	0.816	0.5026
Reading-Grade	1	1.563	0.266	0.6155
Sex-Reading-Treatment	3	5.604	0.954	0.5719
Sex-Reading-Grade	1	18.063	3.074	0.0856
Sex-Grade-Treatment	3	2.375	0.404	0.7541
Reading-Grade-Treatment	3	21.938	3.734	0.0205*
Sex-Reading-Grade-Treatment	3	6.854	1.167	0.3378

**Significant at the 1% level.

*Significant at the 5% level.

XVI. APPENDIX K:
RARE WORD LIST - M.C.

Rare Word	Meaning	S.F.I.
1. Gamut	Entire series	33.9
2. Auspices	Prophetical, signs	24.6
3. Dint	Blow, stroke	30.5
4. Lapin	Rabbit	Not Available
5. Gleaned	Gathered bit-by-bit	30.5
6. Enow	Enough	30.5
7. Succor	Relief, aid, help	34.0 Session I
8. Barlow	Jockknife	Not Available
9. Millet	Grass, grow for grain	40.9
10. Etude	Piece of music	23.8
11. Paltry	Inferior, trashy, or mean	30.5
12. Nim	Steal, filch, thief	23.4
1. Dank	Unpleasantly wet	37.8
2. Wot	Know	37.3
3. Astern	Behind a ship	39.6
4. Barbels	Freshwater fish	28.6 Session II
5. Logo	Motto	Not Available
6. Mooted	Debated	Not Available
7. Abluted	Washed clean	Not Available
8. Adriot	Cleaver	31.3
9. Annealed	Burned	17.0
10. Unfetter	Liberate, emancipate	22.1
11. Wonted	Accustomed, used	39.4
12. Myriad	Huge number	40.8

XVII. APPENDIX L:
RARE WORD LIST - E.P.L.R. & M.C.

Rare Word	Meaning	S.F.I.
1. Sibs	Related by blood	Not Available
2. Cimex	Bedbug	Not Available
3. Boll	Pod of plant	41.9
4. Sans	Without	27.6
5. Extoled	To raise or praise	25.1
6. Salvo	Salute, tribute	Not Available
7. Idioms	Language used by people	38.8 Session I
8. Mien	Bearing	Not Available
9. Cabal	Secret organization	Not Available
10. Wizened	Dried	30.6
11. Kerf	Cutmark	21.0
12. Cant	Tilt	35.
1. Buffo	Clown	Not Available
2. Conduit	Channel	30.5
3. Tepid	Lukewarm	30.3
4. Abrading	Scraping	33.2
5. Turgid	Swollen	30.5
6. Pique	A fit of resentment	29.3 Session II
7. Flux	Flow of fluid from body	Not Available
8. Thirl	Opening, hole	Not Available
9. Engram	Memory	Not Available
10. Edict	Order, command	34.
11. Endued	Provided with	Not Available
12. Terra	Area on moon's surface	33.8

XVIII. APPENDIX M:
RARE WORD LIST - E.P.L.R.

Rare Word	Meaning	S.F.I.
1. Overt	Open to view	30.5
2. Aught	Anything	35.9
3. Jess	Collar for a hawk	Not Available
4. Redolent	Aromatic, scented	30.6
5. Novice	Beginner	34.9
6. Cowl	Hood	6.1
7. Maven	Expert	7.1 Session I
8. Consign	Agree, submit	30.4
9. Barbs	Singers of verses	23.2
10. Austere	Stern	40.5
11. Chape	Sheath	Not Available
12. Evoke	To call forth or up	36.
1. Aviary	Place to keep birds in	40.5
2. Abetted	Support a cause	36.
3. Verve	Special ability or talent	33.9
4. Nappe	Bed, sheet	Not Available
5. Boon	Blessing	41.7
6. Camion	Truck	Not Available
7. Weft	Excite, stimulate	30.5 Session II
8. Gaskins	Breeches	Not Available
9. Foy	Farewell gift or feast	Not Available
10. Brad	Thin nail	27.7
11. Fetor	Stench, smell	Not Available
12. Paragon	To compare	Not Available

XIX. APPENDIX N:
RARE WORD LIST - N.T.

Rare Word	Meaning	S.F.I.
1. Fain	Happy, pleased or willing	38.5
2. Cleaved	Divide	30.6
3. Denizens	Inhabitants	29.6
4. Yawl	A ship's small boat	36.2
5. Inept	Unfit, not suitable	36.1
6. Wheen	Few	Not Available
7. Impede	To interfere with	30.5 Session I
8. Liman	Mouth of river	Not Available
9. Tensile	Relating to tension	33.6
10. Ren	Know	31.5
11. Decorum	Fitness, orderliness	30.6
12. Facad	Face of a building	Not Available
1. Adjure	Reject solemnly	Not Available
2. Atrium	Central hall or patio	30.5
3. Emulous	Jealous	Not Available
4. Wastrel	Vagabond or bum	30.6
5. Immured	Imprison	30.6 Session II
6. Yaw	A side-to-side movement	Not Available
7. Autism	Daydreaming	Not Available
8. Morass	Marsh or swamp	30.6
9. Sordid	Dirty, filthy	36.0
10. Repose	To put away, set down	40.0
11. Candor	Fairness, forthrightness	23.9
12. Tosh	Nonsense	Not Available

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