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Suggestopaedia in theory and practice[1]

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Introduction

The term *Suggestopaedia* which is used in this study, refers to the Westernized model, which is a combination of Lozanov's *Suggestopedy*, the Americanized SALT and various elements and adaptations from other Western countries (see Appendix A). Suggestopaedia as an innovative method of teaching languages has reportedly achieved exceptional results. In view of these results and also of the dire need for more effective language teaching in South Africa, it was decided to investigate the method thoroughly.

In the overview of empirical literature, experimental work was singled out to indicate what the results of Suggestopaedia have demonstrated, especially in the West. The overview of literature incorporates a description and analysis of Suggestopaedia and it is looked at from the following perspectives:

* the nature of Suggestology and Suggestopaedia
* the basic premises of Suggestopaedia
* the purpose of Suggestopaedia
* the mechanics of Suggestopaedia.

Suggestopaedia is also examined in terms of Krashen's L2 acquisition/learning theory. Although Krashen's work received criticism, many applied linguists regard his work as an important contribution to the field of L2 teaching.

An exhaustive list of sources is provided in response to many requests for more information on this topic. Titles specifically referred to in the study will be indicated in the list of sources with an asterisk (*).

[1]The *study reported in this special issue of Per Linguam is largely based on a D.Ed. dissertation under the supervision of Prof D. H. van der Vyver and submitted to the University of Stellenbosch in 1986. The author wishes to acknowledge with thanks the permission granted by the University of Stellenbosch to publish the study in this form.*

SECTION 1

AN OVERVIEW OF EMPIRICAL RESEARCH ON SUGGESTOPAEDIA/SALT

Most of the research into Suggestopaedia has been carried out by the Bulgarian, Georgi Lozanov, and his associates at the Institute of Suggestology in Sofia, Bulgaria. The larger part of this research has been described in Lozanov's book, *Suggestology and outlines of Suggestopedy*, published in 1978, and will be discussed in greater detail in section 2.

Most of the research in the West has been carried out in the United States of America.

1 **Philipov (1975)** used Suggestopaedia to teach six female students Bulgarian and she compared their progress with ten male students who were taught Russian by conventional methods. The Bulgarian course lasted 120 hours and the Russian course took 330 hours. The suggestopaedic group reportedly did extremely well in comparison with the Russian group. According to Philipov the group who learned Bulgarian got practically 100 percent for a test on comprehension, whereas the Russian group got an average of approximately 50 percent. Philipov came to the conclusion that the Bulgarian group learned more Bulgarian than the control students had learned Russian in one third of the time. There is at least one basic error in this study, and that is that one cannot compare two different languages on this basis, even if both are Slavic languages. One can conclude that of two groups learning similar Slavic languages, the group which had been taught suggestopaedically did the better of the two groups.

2 **Held (1976a)** looked at the effectiveness of the Lozanov Method by isolating mind calming and early pleasant learning experience, and the two combined as treatment variables. There were no significant differences, except in a delayed recall criterion in early pleasant learning experience. The question can be posed whether the whole, integrated suggestopaedic method was utilized in this study. It indicated that under the conditions of the study the treatment variables had not proved to make a significant difference to word meaning acquisition of fifth and sixth graders.

3 **Schuster and Bordon (1976b)** taught a Spanish course and the independent, manipulated variables were: suggested positive atmosphere, background music, word presentation synchronized with music and breathing. The researchers found that all three independent variables significantly affected the acquisition and retention of Spanish words. When all three variables were present, learning was two and a half times better than when the three variables were not present. With all three variables absent, students learned 8,3 words from a list of 50; when all three were present, students learned an average of 30,5 words; which is significantly better than when the variables were not present.

4 **Schuster (1976a)** conducted a study where beginner's Spanish was taught suggestopaedically at college level. The experimental group students had two hours instruction per week in contrast to the control students who had six contact hours per week. At the end of the course there were no significant differences in achievement in Spanish between the experimental and control subjects. The experimental group used a third of the time the control subjects required to acquire the same amount of Spanish.

5 **Bushman (1976a)** administered three instructional treatments to 41 undergraduate students studying Finnish: a full suggestopaedic treatment, a modified suggestopaedic treatment where music and easy-chairs were removed and a conventional classroom instructional treatment. Subjects were measured on vocabulary, grammar, pronunciation and communication. The suggestopaedic groups performed generally better than the control group, and far better on the communication measure. Bushman came to the conclusion that Suggestopaedia resulted in better Finnish language learning.

6 **Kurkov (1977)** used an adapted version of Suggestopaedia for the teaching of Russian at Cleveland State University. The experimental group consisted of 14 students and the control group of 19 comparable students. The students were randomly assigned to experimental and control groups. The experimental group covered twice as much material in one quarter as the control students who were taught conventionally, using the same Russian textbook as the experimental group. Kurkov reported that results favoured the suggestopaedic method and that the experimental group accomplished 20 weeks of work in 10 weeks without penalty. One can assume that the students who learned Russian suggestopaedically learned twice as much Russian as did the students who had been taught conventionally.

7 **Edwards (1978)** investigated the "Effects of suggestive-accelerative learning and teaching (SALT) on creativity." The researcher found that the direction of differences favoured SALT for all ten dependent variables, although it appeared that SALT had a greater positive effect on figural creativity than on verbal creativity. The assumption was made that academic achievement and/or positive attitudes toward learning gained through the use of SALT do not necessarily come at the expense of one's creativity.

8 **Robinett (1979)** tested and evaluated an adaptation of Suggestopaedia used to teach second semester Spanish for six weeks to college students randomly assigned to one of three treatments. The first experimental group had two of their five weekly classes taught suggestopaedically and the second experimental group had four of the five classes taught suggestopaedically. The control group had traditional instruction five times per week. The suggestopaedic treatment consisted of deep breathing, review, dynamic presentation of new material and its subsequent review with relaxing music. Both experimental groups had significantly higher examination scores than the control group. There was no significant difference between the two experimental groups.

9 **Prichard et al (1980)** adapted Suggestopaedia successfully to teach high school German. The students taught suggestopaedically learned significantly more German than the

control subjects who were taught German conventionally. It must be pointed out, however, that the subjects were not randomly assigned in this study.

10 **Fassihiyan (1981)** analyzed Suggestology from a linguistic point of view. The researcher concluded that the results of Suggestopaedia can be attributed to the fact that the method includes many sound linguistic (communicative) elements. The researcher (Fassihiyan, 1981:150) said in this regard:

> "... it can be concluded that the suggestopedic system of language teaching can hardly claim an effective result without the proper consideration of linguistic phenomena."

Fassihiyan maintained that there must be a more efficient way of developing the learners' critical thinking, rather than making them "captives to the teachers' suggestions" (Fassihiyan, 1981:150-151).

11 **Stein (1982)** investigated the effect of an adaptation of the Lozanov Method on vocabulary definition retention; the independent variables she used were music and imagery. The music variable was significantly better for immediate retention of vocabulary. The two variables combined, music and imagery, scored the highest on the delayed vocabulary test. The researcher concluded that the use of multiple channels of input (which Suggestopaedia employs) may improve vocabulary retention. The Baroque music apparently increased immediate and delayed information retention. Higher affective ratings are related to higher retention scores in both the immediate condition and the delayed condition.

12 **Ramirez (1982)** evaluated the effect of Suggestopaedia in a controlled classroom study where English vocabulary was taught to Spanish-dominant Chicano third grade children. The children who were taught suggestopaedically learned significantly more words than the children taught conventionally. An interesting aspect of the study was that children who were taught suggestopaedically minus imagery also learned significantly more words than the control subjects. This was attributed to the fact that key word imagery might have taken some time to be learned as a strategy by the children and they might not have had sufficient time for it.

13 **Hales (1983)** investigated the effect of Suggestopaedia on word identification skills of mildly and moderately retarded children. Suggestopaedia did not improve the word recognition skills of the children significantly, although the experimental subjects did slightly better than the control subjects.

14 **Gassner-Roberts and Brislan (1983)** conducted a controlled, comparative and evaluative study of a suggestopaedic German course for first year university students at the University of Adelaide, Australia. The researchers used two control groups and one experimental group. The experimental group did better overall than the control groups. The researchers concluded that the written and oral results of the experimental group showed

clearly that suggestopaedic teaching was superior to conventional instruction in terms of German language achievement, student attitudes and time invested to achieve set goals.

15 **Dhority (1984)** taught German to the Special Forces of the United States Defense Force at Fort Devens, MA, using his ACT Approach, which is based on Suggestopaedia. [ACT stands for Acquisition through Creative Teaching.] The ACT Approach was compared with a variation of the standard audio-lingual programme designed by the Defense Language Institute in Monterey, California. The behavioural objective of the study was to score a rating of number one or better on the Defense Language Institute/Foreign Service Institute (DLI/FSI) scale for listening, reading and speaking skills. The experimental group consisted of 13 students. The ACT Approach showed significant gains in post-tests over pre-tests. Most noteworthy was the rapid achievement of speaking proficiency measurable with a standardized instrument. Comparing the experimental group results with regular Devens German courses, the experimental group did far better. Regular courses lasted 360 hours and the experimental group's course lasted 108 hours. Of the regular groups 26 percent achieved one or better in listening comprehension, and 28 percent one or better in reading. In the experimental group 73 percent achieved one or better in listening comprehension and 64 percent achieved one or better in reading. In speaking proficiency only one student in the experimental group did not achieve one or better (he actually scored 0+). In four previous German classes, 19 out of 34 students scored 0 on the listening post-test, whilst the experimental group had only one out of eleven with less than one. All the results in this study, according to the researcher, pointed to the superiority of the ACT Approach over previous classes in achieving a level one or better in listening, reading and speaking as measured on the DLI rating scale. The most important result of this study is the fact that Dhority's students achieved these results in slightly less than one third of the time spent in the regular programme of the DLI (Dhority, 1984:14-29).

16 **Botha (1986)** reported on an experiment with Afrikaans as a second language. A calculated group design was used in the study to accommodate the real needs of the students at a college of education. After a pre-test of the proficiency in Afrikaans of all the first year students, the fourteen weakest ones were selected for a suggestopaedic/SALT remedial course in Afrikaans. The results were compared with several control groups (see Botha 1986).

These results can be summarized as follows: the experimental group showed a higher average percentage increase in the tests than all the control groups, and in important aspects the experimental group showed a significantly higher average improvement over control groups. In other words, from a quantitative point of view it could be argued that the suggestopaedic/SALT course probably made a substantial contribution towards the experimental group's improvement in Afrikaans and attitude towards Afrikaans.

Looking at the experimental subjects' responses to the questionnaire that they completed after the suggestopaedic/SALT course, it seemed that the course had most significant effects on them. These effects appeared to be even more significant when the responses of the experimental group questionnaire were compared with the responses of the control group to

the questionnaire. Not only were weak and negative experimental group students within reach of passing their first year Afrikaans, but they seemed to have been transformed as far as motivation, attitude, self-esteem, view of learning and outlook on teaching in general, were concerned. The Rector of the college, Mr J.L. Stonier, former President of the South African Teachers' Council, wrote in a letter to the researcher after attending a social gathering of the group at the end of the course:

> "Watching the fourteen weakest students in the whole college chatting happily in Afrikaans for four hours left me stunned. It was the closest thing to a miracle that I had ever seen, and irrespective of what your statistical analyses may or may not reveal, I witnessed a new-found poise, confidence and fluency in the students' use of their second language which convinced me that a deep and meaningful change had taken place in everyone of them. And that after only 43 hours!"

The fact that the average failing rate of 7,4 percent in first year Afrikaans over the previous five years at the college decreased to 1,1 percent and that all the experimental group students passed their Afrikaans at the end of that year, can probably be regarded as a most significant improvement.

17 **Odendaal (1987a)** launched a project at a college for continued training and another college of education. The experimental group (Afrikaans-speaking students) at the college for continued training was taught English for 33 hours by means of Suggestopaedia/ SALT while the control group, at the other college, was taught by means of traditional methods. The results with regard to the improvement in their language proficiency were comparable to those achieved by Botha (1986) in his research. In addition, analyses revealed that there was a statistically significant increase in the verbal IQ of the students in the experimental group in comparison to those in the control group (see Odendaal 1987).

These were encouraging results because the analyses seemed to indicate that there were good grounds for a hypothesis that suggestopaedic/SALT language teaching would, in addition to other benefits, lead to an increase in the IQ of participants.

18 **Felix (1988)** conducted a nine week study and set out to test whether, in addition to good communicative teaching, music, relaxation, suggestion and the adoption by the pupils of German personalities, would have a positive effect on the pupils' language self-concept, attitude and achievement in German.

The subjects were 28 fourth and fifth year pupils (average age nine years eight months) at a primary school in Australia. Pairs of pupils were matched for sex, year level and language self-concept and then allocated at random to the control or the experimental group. Both groups were taught German by the same teacher for four weeks of 70 minutes daily instruction. The children had no previous experience of learning a foreign language. Video tapes were taken of both groups during teaching for comparison of teacher and pupil

behaviour by independent raters. This measurement confirmed that the teacher taught exactly the same to the two groups, except for the controlled variables.
Tests were administered at the end of the course testing all four language skills, namely listening, speaking, reading and writing. t-Test analyses showed that the experimental group performed significantly better on all language tasks than the control group. Repeated measures ANOVA showed that both self-concept and attitude improved significantly in the experimental group. Rank sum analysis of the video ratings showed that attention rate was significantly better in the experimental group.

In this well controlled study, it is stated that the success of Suggestopaedia, like any other teaching method, is largely dependent on the qualilty of interaction between the teacher, the pupils and the context of their meeting. In this study it was clear that the elements that are characteristic of Suggestopaedia, such as music, relaxation, identity change and suggestion, appear to have a positive effect on language self-concept, attitude, attention rate and achievement.

19 **Wilson (1989)** carried out a project at a college of education. The purpose of this study was to determine whether the English First Language literary abilities of weak second year college students (referred to as the remedial group) could be improved by using Suggestopaedia/SALT as a method of teaching.

The average pre-test results of the remedial group were 18,6 percent below that of the rest of the second year group (referred to as the normative group). The remedial group achieved an average of 52,2 percent and the normative group 70,8 percent for the pre-test. It was hypothesized that the suggestopaedic/SALT course would improve the remedial group's post-test results so that they would be more comparable to that of the normative group. This hypothesis was confirmed because the remedial group improved to an average of 65,7 percent, which was only 6,6 percent below the average of the post-test results of the normative group and at the end of the academic year all the remedial group students passed their Literature examinations as well as their second college year.

Attitudes towards Literature were also measured by using an opinionnaire based on the Likert method. On the pre-test the remedial group registered an average score of 32,1 percent for positive attitude towards Literature in comparison to the 36,2 percent of the normative group. After the treatment the remedial group achieved an average of 57,9 percent for positive attitude towards Literature in comparison to the post-test average of 32,6 percent of the normative group. This post-test difference of 25,3 percent in attitude towards Literature between the two groups is important and statistically significant.

Qualitative evidence further shows major gains on the part of the students. Suggestopaedia/ SALT seems a viable method to apply for remedial English Literature students at a college of education. The students seemed to have benefited greatly from the course and the following haiku, written by one of the students, captures the quintessence of what Suggestopaedia/SALT meant to this student:

"The day was misty.
The sun was hidden from sight ...
Thank God for the wind."

Schuster (1983) did a critical review of American foreign language studies using Suggestopaedia (before 1983) and he singled out the following studies as the most reliable and sound: Schuster and Bordon (1976b), Schuster (1976a), Bushman (1976a), Kurkov (1977), Robinett (1979) and Ramirez (1982). These studies were singled out because the researchers of these studies had used a well controlled research design with random assignment of students to treatment so that cause and effect could be determined. Schuster (1983:12) concluded his review:

> "... all of these studies taken collectively consistently show that when the investigator had followed the intent, theory and practice of Lozanov's suggestopedia, that students can be taught a foreign language with approximately two to three times greater speed than controls for a similar amount of language acquisition and achievement."

Although this overview of research on Suggestopaedia included studies where the superiority of Suggestopaedia was questioned, the majority of studies seem to indicate that when Suggestopaedia is used, the subjects do better than control subjects who are taught conventionally.

SECTION 2

A DESCRIPTION AND ANALYSIS OF SUGGESTOPAEDIA

Appendix A contains a clarification of terminology associated with Suggestopaedia.

SUGGESTOLOGY AND SUGGESTOPAEDIA

After having been involved in research and the treatment of psychological disorders since 1955, Lozanov (1975:6) and his team of researchers came to the conclusion that suggestion coming from the total environment to the person in it plays a far more significant role in the daily lives of people than had been realized before. The Bulgarians (Lozanov, 1978a) identified a number of suggestive factors underlying any successful psychotherapeutical strategy. These suggestive factors, which play a role in all communication, are significant because they are perceived consciously as well as paraconsciously and emotionally, and the total person is involved. Therefore, Lozanov reasoned that good results with psychotherapy are to be credited more to these suggestive factors than to the therapeutic methods (Racle, 1979:133-134). These early investigations of suggestion can be regarded as the beginning of Suggestology.

Suggestology

The word Suggestology is derived from the Latin *suggestio* and the Greek *logia* and it can be crudely described as the science of suggestion. Lozanov (1978a:vi) defined it as follows: "SUGGESTOLOGY is the science ... of liberating and stimulating the personality both under guidance and alone." Suggestology concentrates mostly on perceptions unnoticed by man: those he is insufficiently aware of or those which fall into the realm of the paraconscious (Lozanov, 1978a:33). In other words, Suggestology focuses on suggestions which influence the personality on the paraconscious level. The role of suggestion was studied by Lozanov (1978a) in the fields of psychotherapy, medicine and education. Suggestopaedia is the application of Suggestology in education and in the discussion of Suggestopaedia the basis of Suggestology will become clear.

It will suffice to conclude that Suggestology endeavours to reveal and utilize the real potential of the human brain. Lozanov (in Blair, 1982:147) said:

> "Suggestology is the comprehensive science of suggestion in all its aspects, ... it deals mainly with the possibilities of suggestion to tap man's reserve capacities in the spheres of both mind and body. Consequently it is the science of the accelerated harmonious development and self-control of man and his manifold talents."

Suggestopaedia

[See p 39 for a description of the suggestopaedic cycle.] Suggestopaedia can be seen as an applied science where the basic findings of Suggestology, with regard to the effect of suggestion, are put into practice. Suggestopaedia was defined by Lozanov (he referred to it as Suggestopedy) as follows: "SUGGESTOPEDY is Suggestology applied in the process of instruction" (1978a:vi). Lozanov (1978a:225) described Suggestopaedia also as:

> "The global approach to personality, the 'volumely' (not linearly) organized instruction, the simultaneous utilization and activation of the conscious and paraconscious functions, the simultaneous participation of man's mental and emotional sides, the simultaneous participation of the left and right hemispheres of the brain, as well as that of the cortex and subcortex - all these are of great importance for the global and many-sided influence of suggestopedy over the personality."

According to Pollack (1976:97), Suggestopaedia is a system of instruction aimed at improving man's memory; but it is also a system which stimulates intellectual activity, raises the emotional tone, improves the socio-psychological coherence and has a favourable effect on the whole personality of the student. Suggestopaedia aims at consistent and orchestrated communication in the classroom (Miele, 1982:21). The personality is constantly subjected to a stream of suggestions from the environment and many of these suggestions have a negative influence on him. Suggestopaedia endeavours to control and change the suggestions in the classroom to free the students from the influence of negative suggestions and to use positive suggestions to lead them to the realization of their reserve capacities.

THE BASIC PREMISES OF SUGGESTOPAEDIA

Suggestopaedia must be looked at in terms of the following premises:

The relatively unlimited potential of the brain

The first premise is in accordance with the Russian psychologist, Vygotsky's (Pollack, in Miele, 1982) view that each normal child is born with relatively unlimited potential. This potential can be developed and realized through interaction with other people, circumstances and occurrences (van der Vyver, 1985:29).

For some time researchers have been speculating about the real potential of the human brain. Although it is presently impossible to give an accurate estimate of the capacities of the brain, most researchers are in agreement that we are probably using less than ten percent of our real potential. Buzan and Dixon (not dated:73) stated categorically that they do not accept any pessimistic estimates of the limits of the human brain. They also said:

> "Each child can now be seen as a beautiful potential, ... containing almost unlimited possibilities."

Lozanov (1978a:6) had the following to say about having a pessimistic view of man's potential:

> "Fortunately we have no justification in taking such a pessimistic view. Some anatomical and physiological research has shown that in all probability man uses only four percent of the brain's capacities. The other 96 percent are unactivated potentials."

The concept of the largely unused potential of the human brain is apparently an important prerequisite to an understanding of Suggestopaedia as it is described by Lozanov. This basic premise is in contrast to the generally accepted assumption that every normal child is born with relatively limited potential. This potential is measurable with all kinds of instruments. These two contradicting viewpoints have far-reaching consequences for the development and achievements of learners (cf. van der Vyver, 1985:29). These consequences will be discussed in terms of the principles and means of Suggestopaedia.

The under-utilization of the brain

The next premise is that the average individual under-utilizes his brain owing to all kinds of limitations being placed on him. These limitations, or suggestions, come from environmental influences which start suppressing the natural ability of a person early in his life, and especially during his school career.

Suggestopaedia turns educators away from old assumptions about the way we learn. Teachers must no longer try to teach the brain how to learn, but they should rather try to create situations where the brain can be activated to its full potential and absorb knowledge in a natural, efficient and pleasant way (Miele, 1982:13).

Suggestopaedia endeavours to release the reserve potentials by overcoming and changing the limiting forces or "barriers", and when they are overcome and changed, optimal learning can take place. This optimization of learning is made possible by the simultaneous integration of brain functions, and that is made possible by the utilization of the suggestopaedic principles and means (van der Vyver, 1985:29).

THE PURPOSE OF SUGGESTOPAEDIA

The main purpose of Suggestopaedia is to release the reserve capacities of the brain which will ensure that optimal learning takes place. Reserve capacities were defined by Lozanov (1978b:11) as

> "... the unmanifested, but genetically predetermined capacities, operating mainly in the paraconscious and surpassing the normal ones several times over."

Lozanov (1978a:9) believed that suggestion is a critical factor in releasing the reserve capacities of the human brain and this was demonstrated by using hypnosis (for example in age regression). This was also attained in a normal waking state by using Suggestopaedia, which, apparently in the right suggestive set-up, improves the reasoning power in students, as well as creative abilities in general. Suggestively tapped reserves are hypermnesia (or supermemory), provoked hypercreativity, and superproductivity and suggestive control and self-control (Lozanov, 1978b:11-12). These reserve capacities can only be tapped under conditions of excellent suggestive organization, orchestration and the harmonization of the conscious-paraconscious functions (Lozanov, 1978b:12).

Intellectual functioning before a suggestopaedic course was evaluated by means of a test where the subjects had to draw mental conclusions on the basis of previous information. The subjects solved 63,6 percent of the problems, and after the suggestopaedic course 75,3 percent of the problems were correctly solved. It was concluded that Suggestopaedia improved the intellectual functioning of the subjects (Lozanov, 1978a:219-220).

The Bulgarians at the Institute of Suggestology do not place an IQ ceiling on the potential abilities of learners and this reportedly resulted in children of all grades completing two years of curricula in four months - first graders reading fluently and discussing advanced folk-tales on the third grade level after only four months of school (Pollack, 1976:95-97). It would seem that if the conviction that man's mental capacities are nearly limitless is accepted as fact, the belief alone will change achievements for the better.

Factors playing a role in the tapping or releasing of unused potential will now be discussed.

Overcoming the anti-suggestive barriers

The anti-suggestive barriers are normally internalized to protect the personality mentally, much as the physical body has mechanisms to protect it from injury and harm (cf. Caskey, 1980:38). According to Dhority (1984:2-4) these barriers all "try to protect the seemingly safe and trustworthy status quo." Overcoming the barriers does not mean going against a person's critical faculty, but it requires that suggestion must contain elements of well-intentioned soundness, and the suggestion must be well-motivated (Lozanov, 1978a:168). The overcoming of the barriers is definitely not a removal of the barriers, but rather a process to bring suggestion into harmony with these barriers (Lozanov, 1978a:165). Lozanov (1978a:164) identified the following three anti-suggestive barriers:

- the critical-logical barrier

- the intuitive-affective barrier

- the ethical barrier.

The **critical-logical barrier** rejects everything illogical and this barrier is normally very strong in students. They have too long been exposed to the norm that learning is difficult and that few people can learn with ease (Caskey, 1980:34). When explicitly confronted with 250 new foreign language words per session, for example, this barrier offers resistance, convincing students that they are not capable of memorizing such a volume of foreign language vocabulary per session.

The **intuitive-affective barrier** rejects all that does not create a feeling of confidence and emotional security. A typical negative manifestation of the intuitive-affective barrier would be the failures experienced throughout life which can cause negative feelings and a low self-esteem (Caskey, 1980:35). Any learning task will be seen with a low evaluation of one's own learning ability, and the critical-logical barrier will also come into play pointing out that learning is, and has always been, difficult. Students often experience the ingrained feeling of insecurity which is felt (affectively) and displayed automatically (intuitively) when they are confronted with a learning task. Therefore, it is essential for a teacher to be very positive towards a student and have a positive regard for the student as a capable, whole person (cf. Caskey, 1980:35).

The **ethical barrier** rejects everything that is not in accordance with the ethical principles of the individual. The ethical barrier may come into play when students are told that hypnosis is going to be used to assist them to learn more efficiently. This may be totally against their ethical values and they will withstand and reject everything coming from the person who wants to teach them. The ethical barrier may also play a role when a student is told that learning is not difficult and that it can actually be pleasant and enjoyable. Society forces us to believe exactly the contrary and that is why the ethical barrier will not accept such an "untruth" (cf. Caskey, 1980:36). If material contains elements clashing with the ethical principles of a student, for example something in the text, the ethical barrier will form a mental block and the student will not learn easily and effectively.

Lozanov (1978a:165-166) maintained that certain suggestive conditions can bring about hypermnesia (supermemory), but to realize that, the anti-suggestive barriers must be overcome, or rather be harmonized with the suggestive conditions, to utilize the unused capacities of the human mind. The suggestive impression that the capacity of human memory is not so promising, is directly linked to the anti-suggestive barriers which, in our society, support such a conviction. Hypermnesia does not so much come from suggestion of increased capacities, but rather from the process of desuggestion.

The three barriers are intertwined and interact so intimately that it is impossible to isolate them. That is why the teacher must be aware of these barriers and know how to deal with them. According to Miele (1982:22) Lozanov insisted that our so-called natural limitations are not

natural at all, but taught to us by our world. One can then deduce that it is possible for the suggestopaedic teacher to overcome the students' anti-suggestive barriers by gently guiding them through experiences where they can prove to themselves that the status quo, as they perceived it, can be changed dramatically. The teacher must at first comply with the requirements of the barriers by co-ordinating the classroom atmosphere in such a way that no critical-logical, intuitive-affective or ethical objection can impede the realization of hypermnesia and a pleasant learning experience (Caskey, 1980:22). The classroom atmosphere must be warm, friendly, and the lessons must be filled with enjoyable experiences (cf. Miele, 1982:23). The results and affective experiences in the suggestopaedic class will then contribute to the overcoming of these anti-suggestive barriers, and the class will accept the new belief system that learning can be easy and enjoyable and that hypermnesia (supermemory) is achievable.

Suggestion

Suggestion in Suggestopaedia is communicative in a proposing way, which means that students should make their own choice rationally as well as intuitively. Suggestion in its most positive form is the utilization of conscious-paraconscious suggestions in a well organized, orchestrated and harmonized way and this then reveals the universal reserve capacities of the person and stimulates creativity (Lozanov, 1978a:11).

Lozanov 1978a:201) defined suggestion as follows:

> "Suggestion is a constant communicative factor which chiefly through paraconscious mental activity can create conditions for tapping the functional reserve capacities of personality."

Lozanov (1978b:10) also stated that suggestion is a universal communicative factor which plays its part every moment of a person's life, but not always in an organized way.

Suggestion is not only a stream of direct incoming information, but a simultaneous process of desuggestion-suggestion where the reserve capacities of the brain can be realized when inhibiting and negative suggestions are replaced by positive and freeing suggestions (desuggestion). Suggestion can, therefore, be seen as a regulator of activities on a more specific level (cf. Lozanov, 1978a:72). The suggestions one perceives can affect one's behaviour on the conscious level, although the initial suggestions might have been on the paraconscious level. It is also important to note that Lozanov (1978a:1) did not explain suggestion in a limiting, constraining, conditioning or manipulating sense, but in a sense of offering the personality as wide a choice as nature does. [See Appendix A for an explanation of desuggestion-suggestion.]

All people are subjected to social norms (as suggestions) which influence their beliefs, expectations and subsequent achievements in life. Some typical negative suggestions we inherited from the past are:

- all, or most human beings, have modest intellectual potential
- growing old facilitates the deterioration of intellectual potential
- learning is difficult and unpleasant, requiring time and effort
- mathematics and foreign languages are particularly hard to study
- one is able to learn something only after numerous repetitions (Belanger, 1978:179).

When children grow up with the norm that learning is difficult and hard work, they believe it and experience it that way. Children perceiving negative suggestions in a typical classroom will be more and more convinced that learning is difficult and not enjoyable; and they are limited as far as their intellectual capacities are concerned - especially if they are experiencing some problems with their schoolwork. Prichard (1978:209) singled out seven important sources of suggestion in a classroom:

- **teacher verbals**, which can be positive, supportive, firm, frank, friendly; or totally negative
- **teacher non-verbals**, like facial expressions, gestures, body language, which can create feelings of acceptance and confidence; or negative feelings of rejection and lack of confidence
- **classroom décor**, which can support the interest in learning and enhance the general atmosphere of the class; or it can have a negative, depressing effect
- **lesson materials**, which can be interesting, colourful and easy to use; or boring, colourless and cumbersome
- **activities**, which can be motivating, interesting, engaging and oriented more right hemispherically; or boring, purposeless and oriented more left hemispherically
- **peer suggestion**, which stems from group interaction, which can be good, warm and supportive; or negative and degrading
- **self-suggestion/auto-suggestion**, which can be positive and constructive; or negative and destructive.

Prichard (1978:210) came to the conclusion that the real issue is whether the teacher decides to control these avenues of suggestion and put them to good use, or to allow other energies to have whatever suggestive impact they may bring about.

The suggestopaedic teacher tries to eliminate the negative and limiting suggestions which

come to us all day by substituting for them positive and constructive suggestions which emphasize the potential of the human brain and the fact that learning is actually the fulfilment of a basic human need, the need for knowledge. Moreover, to obtain this knowledge is actually a natural human function which need not be difficult, awesome or painful.

Through suggestion a teacher can have a tremendous impact upon the students' attitudes towards the school and learning, their beliefs about their own abilities and their expectancies (Prichard and Taylor, 1980a:2). Students do not utilize their full potential, because of the accumulative effect of all the negative and limiting societal-norm suggestions. The first suggestion a teacher must communicate in a suggestopaedic class is that all the pupils are capable of learning much faster, more easily and pleasantly than they think they can. Secondly, the teacher should suggest that the method will enable them to get access to the reserve capacities of their minds, thus enabling them to learn faster, more easily and with joy (Prichard and Taylor, 1980a:3-4).

Suggestion must never be confused with hypnosis or the Transcendental Meditation Approach. Although relaxation plays an important role in Suggestopaedia, suggestion is always associated with a relaxed, but alert state as opposed to the induced somnolent condition of a person being hypnotized (Caskey and Flake, 1976:9). Lozanov (1978a) did various experiments with hypnosis and more specifically with age regression under hypnosis. He found that conscious as well as paraconscious contents of human mentality are preserved and can be reproduced to a certain extent under hypnosis (Lozanov, 1978a:149). Age regression under hypnosis has hypermnesia as a symptom (Lozanov, 1978a:150). In all his work with hypnosis, Lozanov (1978b:6) discovered that nothing is lost of past experiences.

Lozanov (1978a:151) found that hypermnesia can also be obtained in a waking state in a suggestive atmosphere, and in fact, that most hypnotic phenomena can be brought about without hypnosis. Hypnosis is regarded as unsuitable for suggestopaedic use because of the personality's subordinate position and its weakened volition and self-control, man's susceptibility to hypnosis, legal restrictions and a number of other factors (Lozanov, 1978b:2). Suggestion is regarded by some as a form of hypnosis, but Lozanov (1978a:179) reasoned that a suggestively produced condition of the body like an ulcer, is called an ulcer and not concentrated suggestion. In the same way hypnosis can be caused by suggestion, but suggestion cannot be called hypnosis.

Mordvinov and Genkin (1969) (in Lozanov, 1978a:181) discovered that suggestibility in hypnosis and in a waking state are totally different and that different realization mechanisms are required. They also found that the brain wave patterns (EEG) of a hypnotized person and someone being suggested to in a waking state are completely different. They found that

> "... confidence, authority, interest and, in general, the positive suggestive setup of the experimental condition give quite a different EEG picture from that of passiveness in the hypnotized person. The feature of suggestion in the ordinary waking state, i.e., preserved critical faculties, consciousness and an active

attitude toward the teaching process itself made it possible to develop the suggestopedic trend in education" (Mordvinov and Genkin, in Lozanov, 1978a:181).

It is clear that Lozanov (1978a:179-185) did not consider Suggestopaedia as a method incorporating hypnotic techniques, because persons who preserve their conscious faculties and are in a position to verify everything consciously and never feel threatened, are capable of better achievements than a person in a hypnotic trance.

Suggestion must always be connected to the emotions and the personality as a whole: to the person's attitude and motivation, expectancies, interests and needs, characteristic emotional, intellectual and volitional qualities and the other requirements of the person's temperament (Lozanov, 1978a:172). Many suggestions are introduced paraconsciously or by peripheral perceptions and then they go through the filter of the three anti-suggestive barriers in which all the properties, qualities, processes and characteristic features are reverberated paraconsciously. If suggestions are not in accordance with the norm accepted by a given individual, the anti-suggestive barriers come into play and prohibit the assimilation of anything related to those unacceptable suggestions. In a case where a suggestion has entered the person, it will have an influence on that person's emotions, memory, intellect and volition. It has a simultaneous effect on the person's expectancies, motivation, interests and needs. The influence of this suggestion becomes incorporated and has a direct bearing on the reactions of the person (Lozanov, 1978a:170).

It is consequently very important for a suggestopaedic teacher to ascertain that all suggestions in the class evoke positive reactions and that no negative reactions creep in which will impede, not only the learning process, but also the general well-being and self-image of the students in that class. Prichard (1978:209) summed it up when he said: "You cannot escape the impact of suggestion". One can also say: as long as you communicate, you cannot not suggest (cf. Watzlawick, 1978).

The process of desuggestion-suggestion

The suggestopaedic system is organized in such a way that it co-ordinates the paraconscious and conditional suggestions to free students from the effect of negative suggestions coming from the environment and to activate the reserve capacities of their brains. The biggest challenge to the teacher is to convince the students of their potential capacities, and to achieve that, the teacher must desuggest all the inhibiting beliefs originating from the social norms of society. That implies that the teacher must combat those negative and restricting suggestions and beliefs by replacing them with positive, upgrading suggestions (cf. Racle, 1976:153-154).

In effect, desuggestion is largely a process of overcoming or changing mental blocks, or the anti-suggestive barriers. When these barriers are overcome, hypermnesia is the end result. Only incorrect teaching methods relate memorization to hardship and stress (cf. Bancroft,

1976:206). Societal norms include, amongst others, the belief that we do not remember very well, we are not very creative and our mental capacity is actually rather limited. [See p 15 for a discussion of the second premise.] According to Lozanov (1978b:15) the influence of the social suggestive norm has a definite effect on the success of Suggestopaedia, because people have been living under its influence for such a long time that they find it unbelievable that they can remember and learn far better and more easily. Desuggestion frees students from the limitations of previous beliefs formed by the socially-conditioned norm, and it convinces them that their potential is far greater than they realized or believed before and it provides liberating-stimulating methods to unlock those reserves (Lozanov, 1978a:251).

The means to desuggest-suggest effectively are interrelated in a very complex way and the whole suggestopaedic cycle is aimed at desuggesting-suggesting the negative, inhibiting societal norms suppressing the natural potential latent in all normal people.

The role of paraconsciousness

In Suggestopaedia the term *paraconsciousness* was explained by Lozanov (1978a:74) as follows:

> "The term paraconscious also covers: all automatic or secondary automated activities; unconscious automated elements in the field of conscious mental activity; subsensory (subliminal) stimuli; peripheral (marginal) perceptions; most of the emotional stimuli; intuitive creativity; the second plane of the communicative process; a considerable part of the processed information in the process of conditioning, associating, coding and symbolizing; and a number of unconscious interrelations which have informational, algorhythmical and reprogramming effects on the personality. ... paraconscious in the meaning of 'more or less unconscious'."

Lozanov (1978b:14) emphasized the fact that the whole person takes part in every activity or reaction. Pollack (1979:17) supported this viewpoint when she stated that consciousness and paraconsciousness are so interrelated that the one cannot be involved without the other.

Lozanov (1978a:105-106) maintained that automated activities handled by the paraconscious are carried out with few mistakes and the minimum loss of energy. The fact that little energy is expended explains why students apparently do not feel exhausted after long suggestopaedic sessions. The Institute of Suggestology in Bulgaria did research with a subject whom they referred to as K.M. This subject had exceptional arithmetical ability which was attributed to an automation of the arithmetical operations and selective hypermnesia (exceptional memory) of numerical figures. In other words, he used his memory to store the material he needed for solving the problems and the paraconscious supplied it all when he was confronted with problems. His consciousness was not actually so much involved in the solving of the problems. K.M. could solve problems eleven times faster than control subjects

and he made five percent errors in comparison to the control subjects who made 36 percent errors. After working for two hours solving problems, K.M.'s working ability did not deteriorate, but it actually showed a tendency to improve. K.M. showed insignificant changes in the percentage distribution of alpha, beta, theta and delta waves when his brain waves were monitored while he was solving problems. The control subjects showed a considerable increase of beta waves and a reduction of alpha and theta waves which was an indication that these control subjects were using more conscious ability which was also far more tiring. [See p 33 for a full discussion on cerebral bio-electrical activity in the brain.] It can be deduced from this that paraconscious mental activity can enhance the volume, accuracy and speed of mental operations (Lozanov, 1978a:107).

Paraconsciousness was described by Lozanov (1978a) as a regulator of several human potentials and aptitudes. We tend to emphasize mostly the linguistic aptitude of the left hemisphere of the brain in our educational approaches, whilst the right hemisphere is more involved in aptitudes like intuition, imagination, space orientation, musical perceptions, emotions and the ability to perceive the whole. If we want to utilize all the reserve capacities of the human mind, we must adapt our approaches to include activities which are more right hemispheric oriented. Utilization of the whole brain will not only provide more of the reserve potential of the brain, but, may involve more of the right hemisphere, which will ensure more paraconscious involvement, because it is believed that the right hemisphere and the paraconsciousness are very closely interrelated (Belanger, 1978:175-176). [More recent research seems to indicate that the left and right hemispheric preferences are not as pronounced as was previously believed. See p28-31 for Hand's (1984) and de Andrade's (1986a and 1986b) views on the matter.]

Lozanov (1978a:151) found that hypermnesia (supermemory) can be achieved in a state of hypnosis, but the same effect can be achieved with suggestion in a waking state. Suggestion gives the teacher access to the suggestive set-ups (which are the inner, paraconscious functional organization of readiness for certain types of activities) and these set-ups are utilized to free and activate the reserve capacities of the personality (Lozanov, 1978a:125-126). While studying hypnosis, Lozanov (in Bancroft, 1976:199) found that in age regression the subject gets the materials for a certain age from his memories and that hypnosis releases creativity in a subject in whom it is normally inhibited. The hypnotic age regression showed that paraconscious mental activity can reveal itself in the form of memory in the human brain, and, as mentioned above, Lozanov realized that the potential of the paraconscious could be tapped through suggestion in the waking state as well (cf. Bancroft, 1976:199-200).

Another experiment indicating the ability of the paraconscious in a learning situation was recorded in Lozanov's thesis of which an unofficial English translation has been circulated in North America since 1971 (Bancroft, 1976:201). In this experiment subjects were given Hindi words to memorize. First the subjects had to memorize the words normally and then they had to memorize words with subsensory support. The subsensory support entailed the subliminal repetition of the material, such as whispering the words below the level of conscious audibility. Lozanov found that the subjects memorized the words being presented

subliminally better than the words they heard or saw with normal perception. This brought Lozanov to the realization that subsensory support can play a very important role in increasing the volume of words memorized.

The role of the paraconscious in communication is very important and it is as much a part of communication as the spoken word. When we speak we consciously focus on what we want to say, but paraconsciously there are many activities like gesture, gait, facial expressions and intonation, which are all important elements of the communicative act, supplementing or contradicting the verbal message. Watzlawick (1978:13-18) referred to "two languages": the one is conventional, logical and analytical; the other is the language of imagery, metaphor, symbols, synthesis and totality. In the language of imagery, metaphor, symbols, synthesis and totality, suggestions embedded in the speech can have a profound effect on listeners without their realizing that the real message has actually been conveyed paraconsciously. More or less the same happens when we listen to somebody speaking. We consciously perceive the verbal message, but paraconsciously we perceive many more suggestions and all these paraconsciously perceived suggestions Lozanov (1978a:160) referred to as non-specific mental reactivity (N.M.R.). When entering the mind, these suggestions cause non-specific mental reactivity and they have a significant influence on shaping impressions, moods and decisions. N.M.R. interprets all the hidden elements in human communication (Lozanov, 1978a:160-161).

Suggestopaedia activates, through communication, the conscious as well as the paraconscious to accelerate learning. It is very important for the conscious-verbal part of the message not to contradict the paraconscious-non-verbal part. In other words, there must be congruency, which has been regarded as an important ingredient of successful teaching. The conscious message must be in harmony with and supplementing the paraconscious message (Caskey, 1980:32). Apparently all these unnoticed suggestions on the paraconscious level act as some kind of control feedback over the credibility of the words of the speaker (Racle, 1979:137).

According to Lozanov (1978b:18) the receptive fields of our sense organs and the brain are much wider than our conscious perception. Peripheral perceptions fall into the category of paraconscious perception and Lozanov (1978b:18) maintained that these peripheral perceptions play an important role in long-term memory.

Lozanov (1978a:97) did an experiment with 182 subjects over the age of 25. The subjects had been given a list of ten words in a language they did not know. The subjects were given a list of fifty words beforehand, including the ten words used later, to ensure that the subjects knew none of the words presented to them. Above the ten words, which were shown to them for one minute, there was a headline in small letters written in the same foreign language, as well as a translation in the subjects' mother tongue, saying: "Will you please memorize the following ten words." The subjects were expected to memorize only the ten words in the list and no mention was made of the headline. Immediately after the subjects had studied the ten words on the list, they were given the original list of fifty words with the instruction to

underline the ten words they had had to memorize. The test was repeated on the second, third, fourth, fifth and tenth day without showing them the list again.

The results were as follows: immediate retention was 52,9 percent; the second day it dropped to 37,3 percent where it more or less stayed until the tenth day. The difference between the results on the first day and those on the other days was significant. Then the subjects were tested on the foreign language words which appeared in the headline requesting them to memorize the ten words on the list. The results were as follows: immediate retention was 2,5 percent. From the second until the tenth day it increased to 13,8 percent which is five times better than the original 2,5 percent. This constitutes a curve very different from Ebbinghaus' curve of forgetting and Lozanov referred to it as the curve of recollection, because the material which was perceived peripherally, floated up to consciousness after some delay (Lozanov, 1978a:97). Lozanov (1975:2) explained it on another occasion as follows:

> "Having once entered the brain, it is with delay that it floats up in the consciousness or is reflected on the unconscious motives in decision making."

In educational circles there is some concern about subliminal perceptions, but Suggestopaedia endeavours to utilize only paraconscious perceptions which are consciously verifiable. In other words, the students must always have the choice to perceive consciously and/or paraconsciously and the teacher must always approach the students openly, even providing the reasons for adopting a certain strategy. Although Lozanov experimented with subliminal suggestions, he was not in favour of utilizing them in the classroom in such a way that the students could not verify the suggestions consciously and in his address in the USA in 1978 he constantly referred to the fact that the teacher must be "moral" and must use the suggestions "morally", in other words, always to the advantage of the students and never in such a way that the volitional qualities of the personality are suppressed.

Prichard and Taylor (1980a:4-5) pointed out that the potential of the paraconscious can be enormous when it is influenced by positive expectancy. The paraconscious operates in two ways according to Prichard and Taylor (1980a:5):

- creative intuition which is a synthesis of factual information combined with insights obtained through other channels

- previous conditioning which includes beliefs that have sunk in and which expand or limit one's capabilities.

The paraconscious mind does not reason when it perceives a negative suggestion, but it operates within the limitations set by the negative suggestion. The conscious mind protects the paraconscious through the anti-suggestive barriers which act as shields or filters when the personality perceives something which is not in accordance with the belief system and inner equilibrium regarding logic, affective or emotional state and ethical codes. [See p 16 for a full discussion on the anti-suggestive barriers.] The paraconscious will not make comparisons

and it does not reason, it simply reacts to impressions and when it perceives many negative suggestions, the paraconscious mind will accept them. If a person is constantly bombarded with learning is difficult and most unpleasant, the anti-suggestive barriers are overwhelmed and this negative suggestion is not only accepted, but the person will modify his behaviour and beliefs (what one expects from oneself) accordingly.

Miele (1982:35) referred to the law of paraconscious teleology: when suggestion leads to expecting a certain result, the paraconscious finds ways to bring it about. The possibilities of this, when used positively, are enormous, but, at the same time, when used negatively, or rather when it is abused, it will have detrimental effects on learning, the student's self-image and the general well-being of the student as a whole.

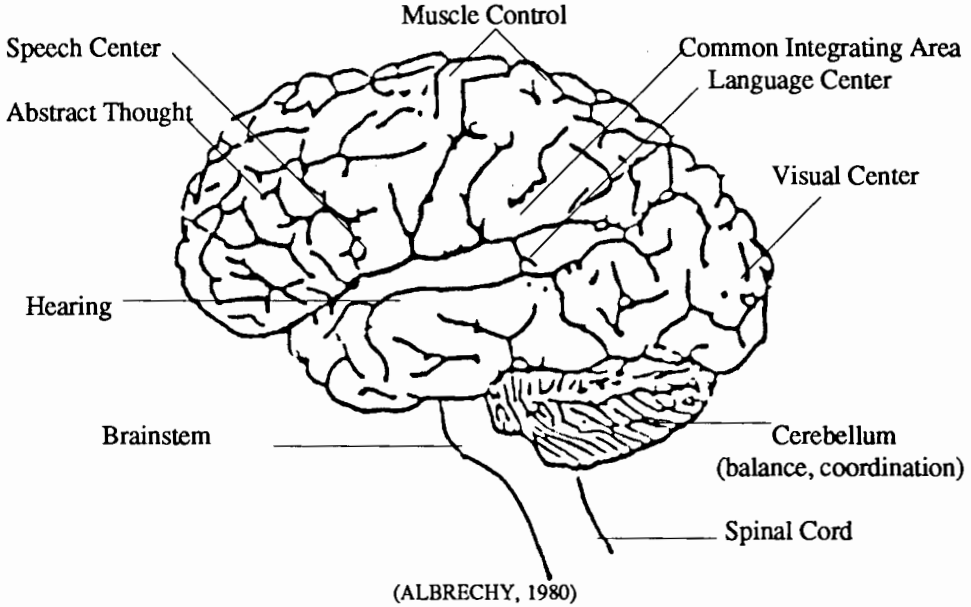
Whole brain learning

Some of the literature discussed here does not include the latest research in the field of neurology. It is apparent that this is a very complex field of study and research is constantly changing views in the field. The real issue in this section, however, is that the suggestopaedic teacher is endeavouring to involve the whole brain optimally. [See p28-31 for a discussion of some of the latest research on the two hemispheres of the brain.]

> "For generations, schools throughout the world have been geared toward left hemisphere learning - verbal analysis and memorization of elements. For a large percentage of children with stronger right hemisphere abilities this approach to learning meant that they had to compensate if they could, or experience failure or fear of school, of the test, of the teacher, of the reaction if they couldn't" (Pollack, in Miele, 1982:113).

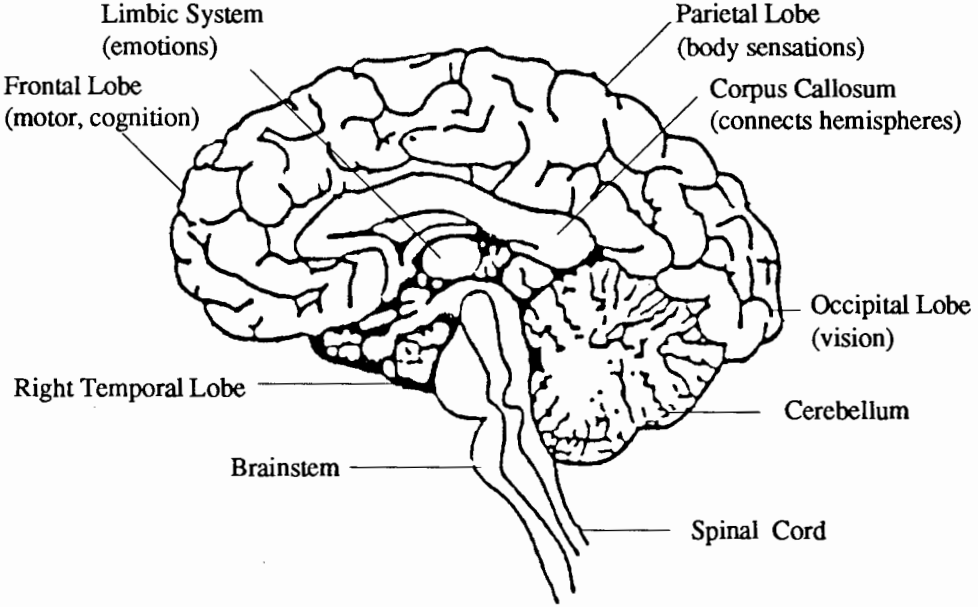
The main regions of the brain are from the oldest, most primitive, to the youngest, most advanced: the spinal cord, brain stem, cerebellum, midbrain and the cortex. The cortex which forms the outer layer of the brain is responsible for higher mental functions like thinking, perception, decision making and will (Russell, 1979:227). The cortex is divided into two halves which are connected by the corpus callossum. The left hemisphere of the brain has a slight dominance in favour of the linear, analytic mode and verbal abilities and logical thinking. The right hemisphere is more strongly inclined towards functioning in a simultaneous synthetic mode and is more concerned with spatial abilities and creative thinking (Russell, 1979:228). (See figures 1, 2 and 3.)

LEFT HEMISPHERES — SURFACE



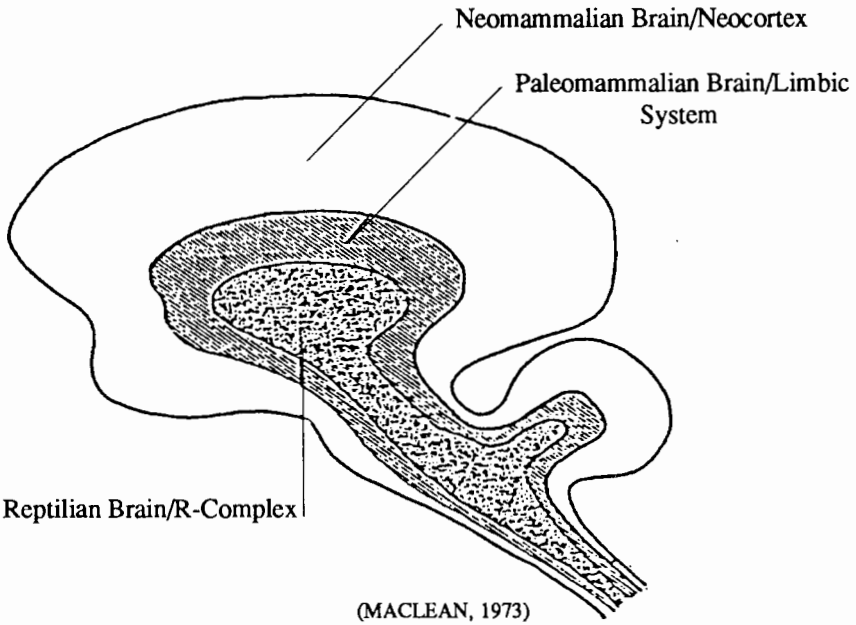
(ALBRECHY, 1980)
FIGURE 1

RIGHT HEMISPHERE —INTERIOR



(ALBRECHT, 1980)
FIGURE 2

THE TRIUNE BRAIN



(MACLEAN, 1973)
FIGURE 3

Modern Western society seems to rely more on what has previously been termed left hemispheric functions because verbal ability, logical thinking and mathematical competence are seen as important prerequisites to being successful in our competitive society. However, the two hemispheres should be used equally as great thinkers like Einstein seemed to do (Russell, 1979:228). Hand pointed out in his paper, delivered at the Ninth International Conference of The Society for Accelerative Learning and Teaching, May 1984, Houston, Texas, that the ratio of dominance of the hemispheres is less marked than is generally accepted in recent years. A clear-cut division of functions is not possible, but it can still be accepted that the two hemispheres have their own modes of thinking. According to Sperry (in McGuigan and Schoonover, 1973:219) the two hemispheres presumably co-operate and complement each other with their specific specialities in a highly unified, bilateral process where each contributes fractional elements to the unified whole.

Although scientists are only speculating about the difference between mind and brain and where consciousness and paraconsciousness are situated, it is clear that consciousness and paraconsciousness are inseparable parts of the functions of the whole organism. Because of the identification of preferences for processes in certain parts in the brain and the obvious advantages if more of the brain is involved in the learning process, it is vital to determine whether our teaching strategies are in line with that, and even more important, to see whether Suggestopaedia operates in accordance with these findings.

Thus far, the importance of whole brain utilization has been emphasized, and it will be necessary to see what proponents of Suggestopaedia have said on the matter. Prichard and Taylor (1980a:129) argued as follows:

> "In the Lozanov method, deliberately structured relaxed states provide opportunities for the same brain wave frequences (sic) to be generated on both sides of the brain. It is hypothesized that one of the reasons for the effectiveness of his approach lies in invoking the use of the intuitive faculties (a feel for patterns of information characteristic of the right hemisphere) in verbal learning (characteristic of the left)."

It is also maintained that teaching to both hemispheres of the brain involves the employment of visualization techniques in addition to music and drama (Prichard and Taylor, 1980a:1). Music is believed to activate the right hemisphere more. If material is presented in such a way that both hemispheres are addressed, the brain calls upon all its resources to assimilate the new data (Racle, 1979:141). According to Bogen (in Racle, 1979:142) the fact that the hemispheres are more process specific than material specific suggests that subject matter may be less important than the method of presentation. When material is presented musically, both hemispheres are apparently involved processing the material differently - the left analytically where words are important and the right holistically (Gestalt), more spatially and perhaps more emotionally. There are many hypotheses on the effect of music on the brain, but these hypotheses tend to support the argument that music facilitates whole brain involvement and more effective brain functioning and consequently, better memory (Racle, 1979:142-143). Budzynski (in Cooter, 1980:263-264) stated that the right hemisphere processes and responds to auditory intonation contours, material presented emotionally, in short phrases and in melodic patterns. The right hemisphere also comprehends better words spoken at a third of the normal rate and punctuated with frequent pauses, especially if the emotional content of the music is linked to the emotional content of the language. If the natural pauses which one finds in classical music (caesuras) are followed in the presentation, it enhances right hemispheric processing. The concerts in Suggestopaedia are in accordance with these observations. [See p 54-57 for a discussion on the concert sessions.]

Williamson (paper delivered at the Eighth International Conference of The Society for Accelerative Learning and Teaching, 1983, Ames, Iowa) pointed out that the primitive brain, where survival reactions are seated, is too often used for memorization and drills. Apparently it is far more effective to address the limbic system as well, because the emotions are brought into play. Material encoded this way, will be better retained as a result of more areas of the brain being involved as well as aspects like feeling, smell, aroma and experience. The more the brain is stimulated, the more effective it becomes. Suggestopaedia relies quite heavily on emotional input of material and it could be accepted that the limbic system is extensively involved in the suggestopaedic learning process.

De Andrade (1986) developed a theory which he referred to as "The secret of intelligence". He argued that the paleomammalian brain, more commonly referred to as the limbic system, is responsible for the provision of energy for the functioning of the intellect. His thesis is:

> "... that intelligence, viewed as a response of a being to its necessities, depends more on the limbic system than on the intellect, the latter made possible by the neuronal structure of the neocortex" (de Andrade 1986b:13).

De Andrade (1986a:9) maintained that intelligence clearly depends on the whole, which includes the three brain structures, the neocortex or neomammalian brain, the limbic system or the paleomammalian brain and the reptilian brain or R-complex. According to de Andrade (1986a:16-17) the limbic system is responsible for self-preservation and the preservation of the species. As a cybernetic system the limbic system is responsible for the autonomic nervous system which controls vital organs, maintaining communication and also controls elements of the body to keep it alive. Conceptual language is related to an indirect system of communication, whilst the limbic system is seen as the system of direct perception which picks up the slightest signal, gesture, tone of voice, intonation and any stimulus coming from the external as well as the internal environment. When the limbic system perceives a stimulus, for example something threatening the organism, it triggers the glandular system to create defence mechanisms (de Andrade, 1986a:19).

> "... in its purest sense intelligence is nothing but the individual's response to his needs."

> "To learn is to survive. The human being learns to survive; therefore it is the limbic system that is chiefly responsible for intelligence, for the mobilization of capacities for survival" (de Andrade, 1986a:15).

Furthermore de Andrade (1986b:17) maintained that it is an oversimplification to believe that the two hemispheres of the brain are separate systems. This is consonant with Hand's view (paper delivered at the Eleventh International Conference of the Society for Accelerative Learning and Teaching, April 1986, Florida, USA) that although the two hemispheres seem to process material differently, there is constant communication between them and everything involves both hemispheres as well as the subcortical structures. Although de Andrade emphasized the unity of the two hemispheres and the three parts of the brain from top to bottom, he recognized the different ways these parts are involved in the processing of stimuli:

> "Someone's performance in any discipline or activity can be improved by creating conditions for the involvement of the three brains and for the right hemisphere ... or for the left brain, in order to redress the balance in its favour" (de Andrade, 1986b:23).

De Andrade (1986b:23-24) related the cerebral structures (neocortex) to the left hemisphere and the limbic system to the right hemisphere and also argued that the left is capable of processing only 40 bits of information per second to the right's (limbic system) processing 10 million bits per second. He stated that the limbic system processes globally, 'gestaltically' with the result that the individual may experience a sudden illumination (de Andrade, 1986a:20). It can be deduced from this that de Andrade pleaded for whole brain involvement with special attention to the affective stimulation of the personality because the neocortex

depends on the energy that may be provided by the limbic system (cf. de Andrade, 1986b:15). The role of the limbic system can be utilized by providing an environment where sensations can be experienced which in turn create emotization which he described as a biochemical and physiological process mainly taking place in the limbic system. Mental images which also create emotization are described as means to communicate with the limbic system (de Andrade, 1986b:14). It seems to indicate that the limbic system is seen as a mediator between the neocortex and the R-complex and de Andrade (1986a:24) put it as follows:

> "The limbic system has to take on its role, that of maintaining the balance between the two other brains, harmonizing the tendencies of the monster (which represents the primitive structures of the brain: R-complex) and the structure of the intellect (neocortex), which considerably increased Man's logical intelligence, extending the powers of the monster inside him." [Author's own addition in brackets.]

De Andrade did not seem to agree with Lozanov that most of the reserve capacities are situated in the paraconscious mind, but rather that these reserve capacities are released by the limbic system. He further stated that he cannot agree with the application of Suggestology in the classroom because

> "'Suggestion' is basically the 'introduction of an idea, a belief, a tendency into someone's head without his having had the power to decide'" (de Andrade, 1986b:22).

The emphasis on the limbic system may actually be seen as a viewpoint supporting Lozanov's plea that the whole brain must be utilized in the learning process because the role of the limbic system, as described by de Andrade, is to involve the whole brain (cf. Lozanov, 1978a:225). Furthermore, it can be regarded as a onesided view of de Andrade to regard suggestion, as used by Lozanov, as something negating the will of the personality. Since all teachers expose their learners to a multitude of suggestions which are often not controlled, it should be regarded as a positive step to ascertain that those suggestions in the class are as positive and supportive as possible.

There are differences of opinion about the functions and connections of subcortical systems, but the point made by all the researchers is that the brain functions as an integrated whole. Suggestopaedia is geared to utilize as much of the whole brain as possible and this aspect is considered to be the explanation for the effective and accelerative learning taking place in suggestopaedic classes.

Memory and retention

It is important to distinguish between memory and acquisition or learning of language material. Russell (1979:233) put it explicitly when he said: **"Memory is different from learning."** According to Russell (1979:233), learning probably results in changes in the synapses of the brain, affecting their ability to transmit impulses and the pattern of these

changes determines the specific memory. One could deduce from this that memory is an integral part of language acquisition: material is learned - an attempt is made to remember language material in order to apply it again in a coherent, communicative fashion - and then the changes occur in the synapses which make the remembering, or retention, possible. The critical aspect determining the quality of memory seems to be the **way** the person has learned the material - though the **what** he/she learned (content) also appears to have an influence on memory quality. When a person experiences an outstanding event in his/her life, that person remembers it for a long time, or for as long as he/she lives. In other words, the actual experience, or incident, is responsible for how well the person will remember what happened. In foreign language acquisition, memory and retention will be largely dependent on the way the language was learned, the method of acquisition.

Lozanov (1978a:218) maintained that when material is learned suggestopaedically, fatigue and strain are not observed because the paraconscious also comes into play, as was discussed on p22-23 with K.M. as an example of someone who used his memory as an important facilitator in solving arithmetical problems without showing fatigue. At the Institute in Bulgaria, Lozanov (1978a:217) and his associates claimed an average of over 90 percent for the immediate retention of foreign language words as well as phrases and with considerable delays averages stayed remarkably high. Lozanov (1978a:213-214) referred to one subject who apparently learned a thousand new words in March 1966. When tested immediately after learning the words suggestopaedically, he remembered 98 percent of the words. In December 1967 the subject was unexpectedly tested on the same thousand words and he managed to remember 53,3 percent of the words and after a single reading of the thousand words he managed to attain a mark of 73 percent. According to Lozanov (1978a:216) "... suggestive hypermnesia is subject to its own laws of forgetting."

Another experiment was done in Bulgaria: two groups of a 100 Hindi words were selected. The words in the two groups were equally difficult, had an equal number of syllables, the same number of nouns, adjectives and so on. These words with their Bulgarian translations were given to the students to memorize in one hour. The next day a list with the 100 Hindi words was given to students who had to give the Bulgarian translations. One of the lists was given to the subjects on the first day of their suggestopaedic course and the other list after the last suggestopaedic session of the course. This procedure was followed with a number of courses, but in all the cases the results showed the same pattern. At the beginning of a suggestopaedic course students learned an average of 33,9 percent of the words and after the suggestopaedic course they remembered 50,2 percent which represented a significant difference (Lozanov, 1978a:218-219). The following conclusion was drawn from this experiment:

> "... suggestopedic instruction also has a very favorable effect on the mobilization of the memorization capacities of students in their extrasuggestopedic memorization" (Lozanov, 1978a:219).

The feature eliciting interest amongst language teachers is the claim that Suggestopaedia allows foreign language learners to acquire the language faster, with apparent ease, retaining more of the presented material and speaking sooner with comprehension and confidence.

Cerebral bio-electrical activity

Small electrical currents are generated in the human brain as a result of metabolic and chemical processes constantly occurring. The bio-electrical activity of the brain is measured in cycles per second (cps):

- 30 cps and above are called Gamma Waves, and these waves are prevalent during extreme excitement and anger

- 13 to 28 cps are called Beta Waves, and these waves are prevalent during mental activity, tension and nervousness

- 8 to 12 cps are called Alpha Waves, and these waves are prevalent during mental calmness, relaxation and elation [ideal state for learning, according to Lozanov (1978a)]

- 4 to 6 cps are called Theta Waves, and these waves are prevalent during light sleep, dreamy abstraction, fantasy and vagueness

- 0,5 to 3 cps are called Delta Waves, and these waves are prevalent during deep sleep and being in a coma.

Lozanov (1978a:237-238) monitored the brain waves during lessons, looking especially at the activity during the concert sessions. [See p 54-57 for a discussion on the concert sessions.] In lessons without a concert session, 57 percent of the students had an increase in beta waves and in 38 percent of the students there was a decrease of beta waves. On days when there were concert sessions, only 25 percent of the students showed an increase in beta waves, whilst 70 percent of the students showed a decrease in beta waves. After lessons without concert sessions, alpha waves increased in 42 percent of the students, but with a concert session, 66 percent of the students showed an increase in alpha waves. After lessons without concert sessions, alpha waves decreased in 54 percent of the students, but with a concert session alpha waves decreased in 26 percent. The conclusion drawn from this was that there is a significant difference in the bio-electrical activity in the brain on days with concert sessions. Lozanov (1978a:239) found that a strong increase of beta waves during intensive mental activity was absent during suggestopaedic instruction.

> "The changes registered (in suggestopaedic classes) were typical of mental work of low intensity, although the suggestopedic method is, in fact, associated with the giving of an enormous amount of information in the lesson" (Lozanov, 1978a:239). [The author's own addition in brackets.]

Lozanov (1978a:250) maintained that hypermnesia (supermemory) is not achieved with strenuous mental bio-electrical activity, but rather in states of concentrative pseudopassiveness with increased alpha wave activity in the brain. Dr Noncheva (in Schuster and Miele, 1978:8) explained that during experiments at the Institute of Suggestology in Sofia, no

evidence of fatigue was observed when learning took place while the students were in alpha states.

Schuster (in Schuster and Miele, 1978:8) reported at the same conference in Sofia on his own experiments: Schuster and his associates found that the alpha state by itself does not facilitate learning; and that learning actually progressively deteriorates from beta to theta. Another study revealed that students who normally learn when tense, did better when more tension was induced and those who learn better when relaxed, did better when relaxation was induced.

> "However, when all suggestopedic variables were included, even the normally tense students learned better when relaxed with suggestopedia" (Schuster and Miele, 1978:8).

It is clear that an aspect in isolation, like the alpha state, does not really enhance accelerated learning and hypermnesia (supermemory). All the suggestive elements orchestrated in harmony with one another, seem to create the right suggestive atmosphere where accelerated learning and hypermnesia (supermemory) can take place. The contribution of the alpha state must, therefore, be seen as important in so far as it is part of the relaxed, tension-free, suggestive and joyful atmosphere.

Optimizing teaching

From Dewey to Piaget (in Caskey, 1980:39) it has been concluded that a child acts on his environment and the environment determines the cognitive processes taking place in the child. The child reacts to his environment through physical and sensory interaction. Suggestopaedia does not want to leave the child's interaction with the environment to chance; therefore, the teacher must create a rich learning environment (Caskey, 1980:39). Unfortunately not many teachers manage to create such a learning environment and the following often happens:

> "Pupils usually suffer to a greater or less (sic) degree from 'school neurosis'. They have no confidence in their powers, they do not trust their own inner reserves. For them education has been turned from the natural process of satisfying the personality's essential need - the thirst for knowledge - in a psychotrauma" (Lozanov, 1978b:26-27).

Lozanov (1978a:253) referred to 'school neurosis' as dydactogeny in his book and he described it as an "... (illness or suppression of the development of children due to the teacher's tactless approach) ...". Lozanov (1978a:252) further distinguished between overt and covert dydactogeny. In overt dydactogeny a teacher harasses and oppresses children to such an extent that medical and psychological help is required. In covert dydactogeny teachers and teaching authorities display the social suggestive norm that knowledge is not easily obtained. In other words, they suggest that learning is not easy, that it takes time and that it is hard work, normally associated with unpleasantness. Miele (1982:81) quoted a

student where he had the following to say about the situation in conventional classes:

> "They (the teachers) had a no-nonsense attitude about error. They rooted it out and beat it to death on the spot. It was a kind of holy war these fanatics waged, and the standing orders they had were to shoot the infidels on sight. What they didn't understand was that we students usually made no emotional distinction between my error and me; when our teacher clobbered one, regardless of his good intentions, he clobbered the other. Traditional classrooms have often been, and are still today, battlefields - battlefields where casualties run heaviest among students, especially the not so bright students, who venture to participate in classroom activities. To raise your hand is to risk humiliation, the humiliation of being wrong in front of everybody. The ranks of the humiliated often form in the back of the classroom, where interests alien to the educational enterprise tend to develop, and where some stay to sleep. Those who have been most humiliated drop out." [Author's own addition in brackets.]

A long list of detrimental features in teaching can be drawn up, but the following have been singled out as being directly opposed to the ideals of Suggestopaedia:

- teaching is often directed only to the cortical structures, and more specifically, the left hemisphere, whilst the hemispheres operate as a functional unity and the cortical-subcortical system is dissoluble

- it is well known that the analytical and synthetic activities take place simultaneously, but in the schools things are often studied in isolation, or the whole is studied without looking at the constituent elements

- students are often expected to assimilate and automate material in a strictly conscious and reasoning (cognitive) manner, whilst the communicative process of man takes place on the conscious and paraconscious levels simultaneously (Lozanov, 1978a:255-256)

- teachers often give intervals for relaxation and joking, but by doing that, they in fact suggest that the pupils need some relaxation and distraction, that their fear of learning, the fatigue and displeasure are fully justified

- some educators give an unqualified freedom, but such a freedom which is accompanied by fear of learning is equal to giving up learning (Lozanov, 1978b:28-29).

Some of the effects of conventional teaching approaches are depicted by Lozanov (in Blair, 1982:153) when he said:

> "... some of the methods aimed at bettering the efficiency of the process of teaching and learning show that in pedagogical practice in fact pressure is often exerted on the learner's personality. He reacts against this pressure. The

motivation for learning is lowered. Pupils begin to learn only when they are pressed by the necessity to obtain some kind of qualification for the sake of the practical requirements of their plans in life. Thus the satisfaction of their basic need, the thirst for information, is accompanied with displeasure instead of pleasure."

Suggestopaedia advocates that the child must be liberated from the social norm that learning is difficult and unpleasant and then stimulated in an atmosphere of profound psychological understanding (Lozanov, 1978a:252). Suggestopaedia should display the following characteristics:

- it should tap the reserves of memory, it should enhance intellectual activity and creativity and the whole personality in general
- the atmosphere and method should always produce an effect of relaxation and no fatigue
- Suggestopaedia should always be pleasant
- aggression should decrease and the students should find it easier to adapt socially
- Suggestopaedia should have a distinct positive effect on the physical as well as the mental health of the students (cf. Lozanov, 1978a:258).

A suggestopaedic teacher plays a very important role and it is clear that such a teacher should receive special training. Miele (1982:84-85) singled out the requirements for a person to become a suggestopaedic teacher at the Lozanov Institute at San Diego:

- a valid teaching credential
- fluency in the language to be taught
- three years teaching experience is desirable
- some training in psychology
- some background in the arts, for example music and/or drama
- a positive attitude and open to new ideas.

Prichard and Taylor (1980a:4) maintained that the suggestopaedic teacher must realize that it is possible to activate more of the unused 90 percent plus of the brain's resources and an important factor is that the teacher must convince the students through functional demonstrations of increased results and suggestion that the untapped potential can be put to use. The following characteristics of the teacher were emphasized:

- love
- mastery of fundamentals
- willingness to experiment
- organization (Prichard and Taylor, 1980a:43).

An effective suggestopaedic teacher is defined as follows:

> "... one who orchestrates all aspects of the classroom atmosphere in order to create maximum suggestive impact for the purpose of freeing the mind's reserves" (Prichard and Taylor, 1980a:105).

The suggestopaedic teacher must master the following skills:

- recognize the mind's capabilities
- realize that the goal is to unfold those capabilities
- identify the method to reach the goal
- develop personal commitment to goal and method
- recognize opponents, namely logical, intuitive and ethical barriers
- define the tools to deal with the barriers: authority, infantilization, double-planeness, intonation, rhythm and concert-pseudopassiveness [See p 47]
- become proficient in working with the tools through suggestion in class, in order to implant new beliefs (Prichard and Taylor, 1980a:105).

The requirements for a suggestopaedic teacher are very demanding, but it appears that the most critical qualities of the suggestopaedic teacher are love and a genuine caring for the students, as well as an acceptance of the fact that the human brain has a great potential.

Reports on Suggestopaedia indicate that the students enjoy the classes and in some instances specific effects are experienced which can be related to the suggestopaedic classes. Bulgarian students reportedly feel at their best and in the best of spirits after a suggestopaedic session (Lozanov, 1978a:230-231). According to questionnaires given to students in Bulgaria, none experienced a negative effect on their health after a suggestopaedic course: 82,6 percent did not experience a noticeable effect on their health and 17,4 percent noticed a positive effect on their health. Some of those who experienced a positive effect on their health, reported on the disappearance of neurotic complaints (Lozanov, 1978a:223). Many students expressed in letters to the Institute of Suggestology in Sofia a gain in confidence and a trust in their own

abilities (Lozanov, 1978a:224-225). Lozanov (1978a:225) said: "... suggestopedy proved to be a psychotherapy-through-learning system ...".

Neurotics showed, in spite of large amounts of material taught to them, no fatigue at all and the fast rate of work did not worry them (Lozanov, 1978a:225). In experiments at schools in Bulgaria 12 psychotherapists and 4 university professors found in the course of two years, 1975-1976, 1977-1978, with 2300 first and second graders that neurotic disorders decreased by half compared to children in control schools. The children in the experimental schools learned twice as much material and far better than the children in the control schools (Lozanov, 1978a:225-226).

As far as blood pressure and pulse rate are concerned, Suggestopaedia has only a slight (insignificant) decreasing effect. But, it can be said that Suggestopaedia, in spite of large volumes of work given in the lessons, does not put a strain on the cardio-vascular systems of the students (Lozanov, 1978a:228). [See article in *Per Linguam*, Vol 4, No 1, 29-43, by Garlick (1988).]

It is not only the Bulgarians who reported positively on the effects of Suggestopaedia; but other practitioners like the Canadian Public Service Commission (in Caskey, 1980:20) also concluded that there are individual and group psychological benefits derived by students being taught suggestopaedically. Apparently the method increased feelings of confidence in learning ability, but it more specifically reduced psychosomatic symptoms like headaches, sleeplessness, anxieties and abdominal cramps. A general improvement in personality reportedly occurred with an increase in spontaneity, creativity, self-assuredness and expression (Caskey, 1980:20).

Besides the fact that Suggestopaedia as a language learning method could be used for neurotic disorders, especially tension-related neuroses, it was also used in some schools and universities in Bulgaria for all subjects from grade one to university level. In the West, and particularly in the USA, researchers and teachers are exploring its use in diverse fields such as art teaching, remedial work, science, geography, mathematics and L1 literature.

Suggestopaedia can be regarded as a method enhancing whole brain involvement, ensuring that the whole person is involved in the process of communication. In the more traditional methods few concerted efforts are made to involve the whole brain and these approaches inhibit communication in the classroom, because they operate on the premise that man's potential is limited and this message is constantly communicated to the learners.

In summary it can be stated that the purpose of Suggestopaedia is to release the unused capacities of the human brain. To be able to do that, it is necessary to overcome the anti-suggestive barriers by using suggestion, desuggestion and the paraconscious. Another vital factor to ensure the releasing of unused reserve potentials is to utilize the whole brain in the learning process; thus, optimizing memory and retention by creating teaching conditions where the brain can function in a global, integrated and, therefore, most effective way.

MECHANICS OF SUGGESTOPAEDIA

The suggestopaedic cycle

AN EXAMPLE OF A THREE-HOUR SUGGESTOPAEDIC SESSION

TIME	ACTIVITY
15 MIN	PHYSICAL & MENTAL RELAXATION
30 MIN	PRIMARY ACTIVATIONS
15 MIN	BREAK
60 MIN	SECONDARY ACTIVATIONS
15 MIN	PRELUDE
25 MIN	FIRST CONCERT
5 MIN	STRETCHING
15 MIN	SECOND CONCERT
180 MIN	**THREE HOUR SESSION**

[Model used for a 54 hour Afrikaans course offered to South African Indian Members of the House of Delegates in the South African tri-cameral Parliament.]

Three phases are utilized in the suggestopaedic cycle, namely

- the **PRE-SESSION PHASE**, during which the students are familiarized with the new material and at the same time a very positive suggestive set-up must be created

- the **SESSION PHASE**, during which the two concerts are given

- the **POST-SESSION PHASE**, where the presented material is activated in two ways:

* **primary elaborations** which comprise imitation of material, questions and answers, reading together and individually (based on the text)

* **secondary elaborations** which comprise the reading of additional texts, role playing, working out themes, play-acting, games and many other activities (not based on the text) (cf. Lozanov, 1978a:271-273).

The head of the institution offering the course is normally asked to address the students on the very first day before the course actually starts. This person emphasizes the importance of not missing any sessions and he also brings little organizational points to the students' attention, for example starting and finishing times, time for breaks, and so forth. It is important to note that the head of the institution is actually preparing the people who will attend the course in such a way that what they learn will have optimal effect. It is vital to create high expectations which contribute to the cumulative effect of becoming aware of one's own abilities and potential. Some expectations should be created about the method and the authority of the instructor should be firmly established in this talk. It is absolutely essential that the students trust and believe in their instructor. Not only in his authority, but also of the method and the institution as a whole.

The following guidelines could be provided to the head of the institution to prepare this talk:

1 Welcome the students and congratulate them on having such an important and unique opportunity to enrich themselves.

2 Raise their expectations by assuring them that they are going to have a most rewarding course.

3 Something must be said about the method. It could be said briefly that the method was developed by a doctor who was very interested in the brain and in releasing more of the latent potential of the human brain. His research formed the foundation for extraordinary work and good results all over the world. The method utilizes techniques which release brain potential optimally.

4 The different nature of the method should be highlighted. Point out to the students that the method is vastly different from what they have ever experienced in their lives. It may appear, especially in the beginning, that it consists only of fun and games, relaxation and listening to music. These techniques are used, in a very carefully controlled way, to put the brain into a mode where it functions better than when conventional methods are used. It looks like fun and games, but massive amounts of material are absorbed effortlessly. They just have to think about the way a small child learns and they will see the similarities. Playing, laughing, joking, being physically involved, singing and being totally relaxed are all characteristics of a small child learning more about the world around him.

5 How the students will react ought to be anticipated and some guidance should be given. A most natural reaction is to ask: why are we doing this or that? The students should be asked to refrain from asking methodological questions in the beginning

and they should also be given the assurance that all questions will be answered as the course progresses. They should be encouraged to enjoy all the activities, to relax and participate like children who are eager to play with the other participants. An open attitude like this, allowing everything to wash over them, will also allow the method to have the maximum positive effect.

6 Some general arrangements should also be announced:

6.1 Punctuality is absolutely essential at this course. The instructor's programme is worked out very carefully and he/she cannot afford to lose one minute. Appeal to them to be punctual at all times.

6.2 Any other arrangements which may be necessary.

7 The authority of the instructor is the next point. Ask the instructor to leave the venue. In his absence tell the students more about him/her - really establishing his/her authority. If it is done convincingly, it will have a profound effect and pave the way for excellent student-instructor relations. After this introductory talk, the head of the institution brings the students to the venue where the course will take place. The instructor (or teacher) awaits the students at the door where he/she welcomes each student personally and warmly.

After the physical exercises and during the mental relaxation exercises, the teacher does the Early Pleasant Learning Experience with the students where they visualize and re-experience an early pleasant learning experience which then serves as the anchor in the course. The teacher makes a special effort focusing the students' attention on the positive characteristics of the target language, such as the evocative nature of the language.

When the students are relaxed, the teacher shows them names, occupations and places in the target language which they are going to select as their own. Every student will build up a biography in the target language and culture. The students are encouraged actually to become actors and are discouraged from talking about real names or professions (Lozanov, 1978a:275).

The venue should be something totally different from a conventional classroom. The room should be furnished in such a way that it reminds one of a warm and cosy lounge with a carpet, comfortable chairs, attractive pictures, flowers, enough light and it must be well-ventilated. The chairs are arranged in a semi-circle (12, to a maximum of 14 students) which encourages interaction. There is no blackboard in the room and the teacher uses a flip board to write on with coloured markers. An important piece of equipment is a high quality stereophonic high-fidelity system to play the cassette recordings of the prescribed music.

Some phases of the suggestopaedic cycle are occasionally labelled differently, especially in the West:

- **Decoding/Prelude/Pre-session Phase** could be seen as the pre-view of the material to be presented and during the prelude the teacher must refrain from lecturing, but rather give some global insight into the material. The teacher uses mimicry, drawings, pictures and even some grammatical explanations to ensure that the students will follow the next act of the text with ease. This is done without "giving the story away".

- **The First Concert/Active Phase** [see p 54].

- **The Second Concert/Passive Phase/Pseudopassive Phase** [see p 55]

- **The Activation Phase/Post-session Phase,** during which time the material is put to use by reading aloud, playing non-competitive games, performing skits, acting out situations and it is apparently important that the plays and skits be emotional and humorous

- later the text becomes the play and the students read their parts as in a rehearsal (Miele, 1982:53).

> "Fun with the language is more important than accuracy, which is learned imperceptibly, like balance in riding a bicycle" (Miele, 1982:53).

The teacher will occasionally re-read a line, but errors are not corrected in the conventional way. The teacher should rather give the correct example later. The students are always free to look at the translations of the text in their mother tongue.

Lozanov's (1978a) foreign language courses comprised the following:

- they were one-month courses

- 24 working days with four lessons per day, 96 lessons per course

- classes of three and a half-hours per day, which gave 84 hours of instruction per course.

In the suggestopaedic cycle most of the time is spent on activations. A big play (series of skits) is normally planned for the last day of the course. The students plan their roles and plots, but the dialogues must be done "extempore".

The students are told never to make any special attempt to memorize material and they may not do any self-analysis, but they are to listen calmly to the concerts, take part as if it were a game and try to absorb like children without worrying about making mistakes (Lozanov, 1978a:274).

> "It is explained to them (students) that mastery of the material is not a matter of ability, but one of adaption to the favorable climate for learning created in the course." (Lozanov, 1978a:275). [Author's own addition in brackets.]

Suggestopaedic cycles vary as a result of research and are adapted to suit specific circumstances. As far as the length of sessions is concerned, it is believed that intensive daily sessions produce more learning than shorter periods over an extended time (Caskey, 1980:51). In the United States of America long sessions were changed to suit school and college sessions of 40 to 50 minutes. In spite of these adaptations Suggestopaedia still showed evidence of considerable benefit to the students involved (Caskey, 1980:52). Comparable good results were obtained in South Africa where students had three one-and-a-half hour sessions per week.

At the conference on Suggestology in Sofia in 1978, Pollack said the following about isolating the elements of Suggestopaedia:

> "... it is impossible to isolate individual variables and yet call it suggestopedia, which requires the unity of all elements. ... Vygotsky ... stated that if one wished to understand the nature of water, the molecule of water containing both hydrogen and oxygen had to be studied. Once you separate the elements, you no longer have water. You have hydrogen and oxygen" (in Schuster and Miele, 1978:10).

Although the elements of Suggestopaedia are being isolated for the purpose of this study, it is clear from Lozanov's and other researchers' work that all the elements form an integrated whole and function as such in Suggestopaedia.

Principles of Suggestopaedia

According to Bancroft (1978:153), Lozanov singled out the following elements as the main stimuli of unconscious mental reactions in his doctoral thesis which was unofficially translated into English and has been circulated in North America since 1971:

- authority
- infantilization
- dual-planeness
- intonation
- rhythm
- concert-pseudopassivity.

After the publication of his thesis *Sugestologiia,* Lozanov condensed the elements to three principles:

- joy, absence of fear and anxiety and concentrative psychorelaxation - learning should be a pleasure

- simultaneous use of the conscious and subconscious (paraconscious) - integrated brain activity

- the suggestive link must be established (Lozanov, 1978a:258).

These principles include the six (authority, infantilization, dual-planeness, intonation, rhythm and concert-pseudopassivity) singled out in Lozanov's doctoral thesis (Bancroft, 1978:153). Although these principles are discussed separately, they always function in an integrated way.

The first principle

It is clear that the first principle advocates joyful, free and relaxed learning, as in a small child discovering and learning about his world. Lozanov (1978a:258) referred to *tension*, but it can be deduced from his work that he meant **excessive** tension, or rather fear and anxiety. This fear and anxiety and the factors causing it, can give rise to the following situation, as described by Lozanov (1978a:258):

> "This tension is a result of some unnecessary, one might say parasitic, movements of the muscles of the student's face and his whole body - as if in this way he is trying to help himself. All the muscles are strained in order to 'aid the brain'. The vegetative-endocrine system is in a characteristic stress state. Emotions showing anxiety and tension appear. Mental activity wanders, making all kinds of associational combinations in order to help itself. Not believing in its own capacities, the personality tries 'to catch' everything that will be of help in making understanding and memorization easier."

The results of this kind of situation where the students are constantly subjected to fear and anxiety, are described by Laing (in van der Vyver, 1985:27) where he said the following:

> "A child born today in the United Kingdom stands a ten times greater chance of being admitted to a mental hospital than to a university, and about one fifth of mental hospital admissions are diagnozed schizophrenic. This can be taken as an indication that we are driving our children mad more effectively than we are genuinely educating them. Perhaps it is our way of educating them that is driving them mad."

The emotive brain, also referred to as limbic system, being linked to the cortex and reptilian brain is most sensitive to changes in the environment. Negative perceptions have an adverse effect on the learning process, because the personality normally prepares to defend itself or flee when in a fear-filled situation. Fear in a classroom has the following effect on the brain, according to Hart (in Dhority, 1984:1-6): "since language exists almost wholly in the new brain, downshifting leaves us speechless, quite literally." Hart (in Dhority, 1984:1-6) illustrated it further when he said:

> "virtually all academic and vocational learning heavily involves the new cortex, it becomes plain that absence of threat is utterly essential to effective instruction. Under threat, the cerebrum downshifts - in effect, to greater or lesser extent, it simply ceases to operate. To experienced teachers, this shutting down of the newest brain is an old story and a familiar frustration. The threatened child ... 'freezes', seems unable to think, stabs wildly at possible answers, breaks into tears, vomits, or acts up, perhaps to the point of violence."

On the other hand, if the environment is warm, supportive and the personality does not feel threatened and full of fear, integrated brain functioning (congruency) and much improved learning follow (du Preez and Naude, 1985:49-59). It is also important to note that many of these stimuli coming from the environment are perceived paraconsciously. This implies that the person often does not realize why he is behaving in a particular way, but the effect of these paraconscious suggestions from the environment are substantial.

The suggestopaedic teacher endeavours to prevent such a situation from occurring and tries to orchestrate all stimuli to enhance joyful and relaxed learning, the way a small child learns. One cannot help thinking about the vast volume of information a child acquires before the age of six, in comparison to what he learns from his first school year to his sixth school year (cf. van der Vyver, 1985:32).

The second principle

The second (as well as the first) principle requires learning and teaching to involve conscious and paraconscious activity simultaneously, as well as the participation of the learner's two hemispheres, his cortex and subcortex in the process of instruction (Lozanov, 1978a:259). Synthesis takes place and it involves two approaches; direct imitation based on memorization and indirect reasoning based on activity requiring intellectual effort. Both these approaches are based on the suggestive set-up which activates the reserves of memorization and intellectual activities (Racle, 1976:154).

Factors which play a role in the involvement of the conscious as well as the paraconscious, are

- the extent to which verbal communication is accompanied by gestures, facial expressions, body language, clothing, tone of voice or intonation and rhythm

- the presence of suggestions between the lines of what is being said, but also of what is not being said

- the extent to which symbols, metaphors, jokes and parables are used in the communication process

- the environment in which the communication is taking place - it is a known fact that the physical environment can influence the attitude of people towards themselves and others quite significantly (van der Vyver, 1985:31).

Congruency is of the utmost importance here: congruency between the verbal communication and all the other suggestions on the paraconscious level accompanying it. The teacher must, therefore, identify negative suggestions and try to eliminate them and substitute for them, positive suggestions in an integrated and orchestrated fashion.

The third principle

The third principle, the suggestive link, implies the reconstruction of the process of instruction in such a way that mutual relations are created: a suggestive inter-relation between the teacher and the students is established as well as amongst the students as a group. This will ensure that continuous psychological, intuitive and professional feedback will be given to the student (Lozanov, 1977:89 and 1978a:260). This suggestive link is characterized by

- a positive and supportive attitude

- trust and positive expectations in relation to the students' abilities

- total absence of destructive criticism

- de-emphasis of errors

- encouragement of active participation in communicative acts

- trust in the ability of the teacher.

It is implied here that the teacher must be in control, but his authority is never authoritarianism, but rather a supportive and trustworthy authoritativeness (cf. van der Vyver, 1985:30). The three principles are, according to Lozanov (1978b:26), all based on three psychophysiological laws:

- global participation of the brain

- simultaneous processing of analysis and synthesis

- simultaneous and indivisible participation of the conscious and paraconscious (Lozanov, 1978b:26).

Original principles

The three principles of Suggestopaedia include, and are based upon, the original six principles which were described in Lozanov's thesis (Bancroft, 1978:153) and each one will be discussed in more detail:

Authority

Lozanov (1978a:187) explained authority as:

> "The concept of authority (not authoritarism! [sic]) as it is used in suggestology stands for the non-directive prestige which by indirect ways creates an atmosphere of confidence and intuitive desire to follow the set example."

Authority sometimes has a negative connotation in the West, but in Suggestopaedia it is used positively to refer to authority based on knowledge of the subject, sense of responsibility, a feeling of patriotism and devotion to society and an understanding of, and love and respect for, one's fellow man. The institution, methods and the material being studied can also convey an air of authority. Authoritarianism based on repression, haughtiness, pedantry and bribery must never prevail (Bancroft, 1976:202). If the teacher wants the students to be open, receptive and spontaneous, the students must have confidence in the teacher, they must think the teacher thinks well of them. The teacher must never say something on one level and contradict it on another. In other words, the conscious as well as the paraconscious messages coming from the teacher must be congruent and in harmony with one another (Miele, 1982:28-29). Art forms like music, paintings and written art (such as poetry, or even the text) can all have authority.

Pupils remember best what comes from an authoritative source; therefore, the teacher's overall demeanour must be authoritative (Prichard and Taylor, 1980:23). Lozanov (1978a:188) said that the role of authority remains below conscious mental activity, but its influence on the results of students is very significant. An experiment was done at the Institute of Suggestology in Sofia, Bulgaria, to exemplify the role of authority: a poem was read to two groups of students and they had to remember as much of the poem as possible. After they had heard the poem, the one group was told that it was a poem of a renowned Bulgarian poet, P.K. Yavorov. The other group was not told who the poet was. The group who knew who the poet was, remembered 56,6 percent of the poem to the 30,1 percent of the group who did not know the poet (Lozanov, 1978a:188). In this regard Lozanov pointed out

> "... that the authoritative source was announced at the end of the experiment. Consequently, the difference in memorization was due not to activating the acquisition but mainly to activating the reproduction" (Lozanov, 1978a:189).

When authority is enhanced considerably, it compares well with the whole complex of suggestive principles, but it is difficult to maintain the authority for a prolonged period of time and it is also difficult to achieve such a high level of authority. That is why it is necessary to combine authority with the other principles in Suggestopaedia. The type of authority is vital and the teacher who manages to adopt a liberating-stimulating, indirect and non-directive prestige will be the most effective suggestopaedic teacher (Lozanov, 1978a:190).

Infantilization

Infantilization is closely associated with authority, because the teacher with authority will instil trust and confidence and the students will find it easier to 'let go' in such a teacher's class. Infantilization has nothing in common with the medical term infantilism and also nothing in common with Freud's infant-parent relations (Lozanov, 1978a:191). Infantilization is described as

> "... a universal reaction of respect, inspiration and confidence which, without disrupting the level of the normal intellectual activity, considerably increases the perception, memory and creativity functions. In infantilization, perception, memorization and creative imagination seem to return, to some extent, to the more favorable level of the earlier age periods" (Lozanov, 1978a:191).

The experience of a person and his intellectual abilities are not affected by infantilization, but the plastic qualities of the young child are being liberated and brought forward. Infantilization assists the person to look at life with a less critical and logical eye, and rather more intuitively. In adults infantilization creates a set-up closer to a child's set-up and in children it creates an atmosphere of easiness, spontaneity and absence of pressure (Lozanov, 1978a:192-193). Miele (1982:27) also described infantilization as a child-like attitude which displays openness, confidence and playful spontaneity. Our critical faculties can become dominant in our learning activities and for the simple reason that they are only part of man's total faculties, they can hamper all we do, especially learning. Therefore, infantilization opens one up to suggestion to become like a child and to learn as easily as a child (Miele, 1982: 27).

Infantilization facilitates the process of desuggesting the suggestive conviction about the average level of human potential. The group influence also enhances infantilization, because it is easier to create an atmosphere of pleasant and playful spontaneity in a group than with an individual (Lozanov, 1978a: 191). Other devices which can help to create infantilization, which are also depicted by Lozanov (1978a:192) as a serene attitude towards learning, are:

- role-playing
- games
- songs

- creating new identities

- physical exercises (cf. Prichard and Taylor, 1980:23).

The vital goal of infantilization is to make it possible for the adult, or child, to be as receptive as a small child exploring and discovering his world and to absorb (remember) huge volumes of information (for example acquiring a language) with apparent ease and joy. This is based on the assumption

> "... that the child is more spontaneous and 'creative' than the adult and that in addition, the former can absorb larger amounts of material into his more active memory" (Bancroft, 1976:199).

All these principles are interrelated and the role of infantilization can be classified under the first as well as the second principle of Suggestopaedia.

Dual-planeness

The term double-planeness is used by Lozanov (1978a:193) to explain how communication in the classroom takes place on more than one level, or plane, namely on a conscious-verbal level, but also on a paraconscious-non-verbal level. In the West the term dual-planeness is preferred (cf. Hand, 1986). What is perceived on the paraconscious level can have a decisive effect on a person's conscious behaviour and a person often acts according to the stimuli he has perceived paraconsciously. That is why the suggestopaedic teacher wants to be sure that all the stimuli perceived by the students in his class must be of a positive nature so that behaviour, as a result of paraconsciously perceived suggestions, will not impede learning and the well-being of the person as a whole. Lozanov (1978a:193) defined dual-planeness as follows:

> "Double-planeness comprises the enormous signalling stream of diverse stimuli which unconsciously, or semiconsciously, are emitted from or perceived by the personality."

Dual-planeness is the source of intuitive impressions influencing our attitudes towards persons and situations incomprehensible even to ourselves and these impressions are the non-specific mental reactivity (N.M.R.). Second plane techniques are imperceptible to ordinary critical thinking and may, for example, comprise of inspiring a feeling of ease and serenity, a feeling of confidence and it may even include direct suggestions (Lozanov, 1978a:193). Dual-planeness not only comes from the people involved in the communicative act, but also from the décor like lighting and colour which can also have an effect (Prichard and Taylor, 1980:23).

Suggestopaedia relies a great deal on the second plane because so many stimuli, with a very significant effect, are only perceived paraconsciously. A teacher must, therefore, be aware

of the second plane and must learn to utilize it positively to the advantage of the students. The harmony between conscious perception and paraconscious perception is a critical factor in Suggestopaedia. The sincerity, depth of knowledge and attitude of the teacher towards the students are elements emphasized in the following quotation:

> "Double-planeness does not mean, however, artificial and theatrical acting or posturing; it must be the result not only of profound preliminary work, **but of a great love for one's profession and for one's fellow men"** (Lozanov, 1978a:194). [Author's own emphasis.]

Intonation

Intonation must be seen in close connection with dual-planeness. It is a critical factor in the communicative process, together with words, gestures, eye contact and pacing. Intonation always means something to the listener, even if it is on the paraconscious level, or second plane of communication (cf. Miele, 1982:29). According to Lozanov (1978a:194-196) intonation helps to establish the suggestive connection or link. It creates a certain expectancy in those hearing it and it can reflect a contradiction in what is said. In other words, one's intonation can communicate the opposite of what one is saying verbally and that is why Lozanov (1978a:195) said that intonation is actually an expression of internal psychological content. The success of verbal suggestion is largely determined by content and expressiveness of speech which incorporate sound intensity, intonation and accents corresponding to the meaning of the words (Bancroft, 1976:209). It is clear that intonation functions in a totally integrated way with the other principles of Suggestopaedia.

When Suggestopaedia was first encountered by people from the West, the teachers at the Institute of Suggestology used intonation in a special way in the concerts. During the first, or active concert, the Bulgarians used three different intonations with precise timing and rhythm. The first intonation was a calm, confident, declarative, but normal voice. The second intonation the Bulgarians used was a quiet, ambiguous whisper. The third intonation was an authoritative, loud and commanding tone (Caskey, 1980:45). Lozanov (1978a:196) changed this procedure in 1975 to a more artistic use of intonation in harmony with music. This made it more acceptable to the students who found the three intonations boring and artificial after a while. The artistic intonation employs the emotional and dual-plane aspects of communication and it creates a more acceptable atmosphere.

According to Dhority (1984:5-3) our intonations say a great deal on the paraconscious level, and they can have a very positive effect on the students when they are used carefully. Dhority (1984:5-3 - 5-4) said the following about the teacher's intonation:

> "My voice intonation continues to be a remarkably clear window into my inner state, attitudes and values throughout the class. If I am truly aligned with my best intentions and purposes, my voice intonation will express this alignment. Students will be much more likely to trust me and will be more

more (sic) willing to give assent to active, engaged participation in whatever 'activities' I may have planned."

Rhythm

Rhythm cannot be isolated from any of the suggestopaedic principles or means. According to Lozanov (1978a:196), "Rhythm is a basic biological principle, a reflection of the rhythms in nature." Rhythm is found universally and it has always been used by man for various purposes. Psychotherapists know, for example, that when suggestions are presented rhythmically, they are far more effective. Rhythm has a positive influence on memorization and Bancroft (1978:155) corroborated this by referring to Lozanov's thesis in which he stated that the rhythmically correct intonational presentation of a programme will ensure that a large volume of material will be memorized and retained. According to Miele (1982:30)

> "Rhythm was once considered largely the concern of poets and musicians, but is now looked at with growing fascination by hard-nosed scientists. Physicists seem to be telling us that the very stuff of the cosmos, of thought even, is a vast interaction of an enormous variety of rhythms."

When Bancroft visited Bulgaria in 1971, she became aware of the fact that two versions of the concert sessions were demonstrated: one to the Westerners and a different one to the East-European delegates. In the demonstration to the East-European delegation, which Bancroft attended quite accidentally, the presentation was characterized by a very precise rhythm. The session included lyrical and rhythmic music, an artistic and rhythmic rendering of the text, deep breathing and a meditative state of the students (Bancroft, 1978:152,157). The demonstration to the Western delegation was a non-rhythmic presentation with the dialogue being read over Baroque slow movements (Bancroft, 1978:152). From this it appears that a precise rhythm played a critical role and that the Bulgarians were anxious to conceal this fact and the way it was employed, from the West. In 1976 it seemed that Lozanov had changed the two concerts and that the following had been removed: the three rigidly presented intonations, number symbolism, Yoga, rhythmic presentation and deep breathing. The music was also changed and seemed less conducive to relaxation. Lozanov apparently maintained that it had become necessary to bring these changes about to make Suggestopaedia more acceptable for use in the schools and that good results were still obtained (Bancroft, 1978:152-153). Apparently the hypnotic-like procedures, Yoga and other mystical elements elicited criticism and unhappiness, especially at school level. Although these adaptations to the method appear to be fairly well-substantiated, Bancroft (1978:158) was still very cautious, and this caution is reflected in the following quotation:

> "For political and/or pedagogical reasons, the Bulgarians have moved in the direction of a more natural session... My impression, however, is that the same principles are involved as previously stated ..."

During private discussions at a SALT conference (1984) it became apparent that this remains a contentious point in SALT circles. Some believe that the changes Lozanov and his colleagues brought about were not meant to confuse the West, but that they represent genuine adaptations after intensive research. On the other hand, it does appear strange that all information coming from Bulgaria on Suggestopaedia was cut off after 1979 and people visiting Sofia come back with little, if any, information. Dhority (1984:2-9) expressed a fresh and constructive view on this situation:

> "As a result, like-minded pioneers or interpreters have had to proceed on their own. Although his (Lozanov's) inaccessibility appears lamentable, it may prove to be an unwitting positive stimulus. By suggesting, inspiring, and setting an initial example, and then withdrawing, he may have avoided the danger of a 'school' of suggestopedia or a technically rigid, dogmatic learning model which in the end might undermine his own principles." [Author's own addition in brackets.]

Bancroft (1976:212-213) wrote about work being done at the Institute in Sofia which had been reported on in Lozanov's thesis. An experiment was done with rhythm and more specifically with the interval of presentation. Words were presented every second, every five seconds, every ten seconds and so on. The conclusion was that the timing (rhythm) had an effect on memorization of the material. Lozanov and his team felt that deep, rhythmic breathing also facilitates the students' concentration.

Schuster and Bordon (1976a:27-40) did an experiment where the effects of a suggestive learning climate, synchronized breathing and music on the learning and retention of Spanish words were studied. The results were as follows when tested immediately after the sessions:

- the suggestive climate showed a 60 percent improvement over the non-suggestive climate

- synchronized breathing showed a 47 percent improvement over a non-synchronized breathing condition

- the best treatment was synchronized breathing coupled with orchestrated music where the subjects did 78 percent better than the non-synchronized breathing and non-orchestrated music condition.

When tested six weeks later:

- the suggestive climate showed a 143 percent better retention than when suggestion was not given

- synchronized breathing and synchronized oral presentation had a 39 percent better retention than when the breathing and oral presentations were not synchronized

- when the words and music were orchestrated, the subjects had a 21 percent better retention than when music and words were not orchestrated

- the best retention was obtained when all three variables were present: combined it had a 172 percent better retention than when all three were absent.

Although this experiment tested more than synchronized breathing, it is obvious that the synchronized breathing and synchronized oral presentation had a positive effect on learning and the retention of learned material. In addition to that, Caskey (1980:41) alleged that rhythm and music assist in bilateral input of material into the hemispheres of the brain.

Based on all these facts, it would seem that a presentation of material in accordance with the rhythm of the music and deep, rhythmical breathing could have a positive effect on the memorization and retention of material. On the other hand, Bancroft (1978:156) reported that Lozanov and his team abandoned the deep rhythmic breathing because the music slowed down the breathing in any case.

Pseudo-passivity

The concert sessions are something unique to the world of language teaching. During these sessions the teacher endeavours to involve the student's whole brain by creating a relaxed atmosphere devoid of any fear, by stimulating the person mentally as well as emotionally; to involve the person consciously as well as paraconsciously and to release the reserve potentials in the process which will enhance learning. [See p 54-57 for a full discussion of the concert sessions in Suggestopaedia.]

The means of Suggestopaedia

The suggestopaedic principles are realized through the following means which are interrelated and inseparable:

- psychological means

- didactic means

- artistic means.

Psychological means demand that the teacher be knowledgeable about all the psychological factors playing a role in Suggestopaedia. Teachers should know how to teach their students how to help themselves in learning. They should be able to orchestrate the suggestopaedic principles, means and techniques to obtain maximum benefit from them for their students. It seems that the suggestopaedic teacher should not only be teacher, but also psychotherapist. This suggests that the training of these teachers must be thorough and the selection of people to be trained must be done in the most cautious way.

Didactic means refer specifically to the way Suggestopaedia is organized and utilized in the classroom. These means include, amongst others, all the techniques, aids and materials used during the course.

According to Racle (1979:134) the arts are the richest in suggestion and can actually be described as the highest form of suggestion. The arts are full of emotional value which brings the limbic system into play and consequently enhances learning and the retention of the learned material. Lozanov (1978a:262) referred to the **artistic means** as "... a special kind of liberating-stimulating didactic art (music, literature, acting, etc)." These means are used to create the pleasant atmosphere, to enhance emotional impetus, the suggestive set-up, attitude, motivation and expectancies. By exposing the students to the art forms, part of the material is immediately assimilated without any effort or conscious awareness that they are actually learning something (Lozanov, 1978a:262). Lozanov (1978a:264) and his associates exposed children to a performance where English was given unobtrusively right through the performance. Tested before the performance, the children achieved an average of 4,9 percent and after the performance they achieved 13,5 percent. Tested the following day, they achieved 32,7 percent. The fact that they performed even better the following day is in accordance with another finding of Lozanov (1978a:97), that stimuli perceived peripherally take some time to "float" from paraconsciousness to consciousness where it can be applied.

Most of the means can be categorized under more than one of the above-mentioned types; therefore, the individual means are not discussed in any specific order.

The first or active concert

The first concert was at first characterized by three distinctive intonations during the presentation of the material, namely the declarative tone, the whisper and then the loud and commanding tone. This presentation was done in a rhythmic way while the students co-ordinated their breathing with the rhythmic presentation while they also repeated the foreign language softly to themselves (the so-called inner-speech). This was abandoned in 1975 and replaced by a different first concert (Bancroft, 1978:157). The first concert as it is now used, consists of the following ritual:

- The teacher becomes quiet, solemn and the students follow suit (Miele, 1982:52).

- The classical music, which is usually orchestral performances, begins and the whole class waits in anticipation.

- The teacher then slowly reads the text as if it were part of the music. The teacher's voice should become like another instrument in the orchestra and it should float with the music. The voice should also follow the volume, pitch and emotional quality of the piece.

- The teacher reads the text as if paying no attention to the meaning, but this is a

technique to ensure that the students will feel the need to establish what the message means. Furthermore, the reading is synchronized with the rhythm of the music.

- The students follow the reading in the text. During the pauses, there is enough time for the students to glance at the translation which is on the right hand side of the text. The students are also encouraged to repeat the words and phrases softly to themselves and to try to visualize the scenes as vividly as possible.

- After the reading there is a silence and the silence communicates the following to the students: something important has taken place, something beautiful which has also moved the teacher and there is time for internal reverberation (cf. Miele, 1982:52).

During the first concert the left hemisphere of the brain is more involved due to the verbal input, which is accompanied by a written L1 translation, and comes to the students in written as well as spoken form. The left hemisphere, which processes more analytically and logically, will focus on the literal meaning of the text. The right hemisphere of the brain will receive additional stimulation because the material is presented holistically, emotionally and to the accompaniment of music. The text often contains emotional elements which will ensure the direct involvement of the right hemisphere as well as the limbic system. It is important to note that many of the creative, emotional and spiritual impulses which are ascribed to the right hemisphere are more often attributable to the limbic system where the emotions are seated (Holden, in Hand, 1984:19). But, several researchers like Tucker (1981), Sagan (1977) and Levy (1983) refer to the interrelatedness of the right hemisphere and the limbic system (du Preez and Naude, 1985:58). The fact that the language is presented rhythmically and in Gestalt-fashion probably ensures that the right hemisphere plays a role in the acquisition of the language material during the first concert (Botha, 1985:64). (See p 26 for a discussion on the involvement of the whole brain.)

When both hemispheres are involved in such a congruent way, it can be accepted that the assimilation of the material will take place more effectively. When activities stimulate the right hemisphere, one gets inter-hemispheric integration (du Preez and Naude, 1985:58-59). It is, therefore, important to aim at activities which specifically stimulate the right hemisphere, because these will result in the stimulation of the left hemisphere as well as the limbic system of the brain which in turn ensures the involvement of the whole brain (cf. de Andrade, 1986a and 1986b). The first concert can be regarded as an activity where inter-hemispheric integration, and therefore whole brain involvement, is enhanced and where there is more outward concentration.

The second or passive concert

Slow movements from Baroque composers with a rhythm of 60 beats to the minute are played. [During private discussions with Dr Sigrid Gassner-Roberts (August 1986) she reported that the East Germans use a full Baroque piece without fragmenting it by utilizing

only the slower movements.] The students listen to the music for a while, then the teacher reads the text with animation and according to the meaning of the text. The students sit with their eyes closed, completely relaxed, while they listen to the music. The last section of the concert must preferably consist of something cheerful, like a flute, to bring the students out of the relaxed state (Bancroft, 1978:157).

According to Lozanov (1978a:197-198), it is wrong to maintain that learning is difficult and hard work. One must be ready to learn, but that does not mean that muscles must be contracted, tension must build up and changes in the vegetative nervous system must occur. Although the students in the second concert appear to be totally relaxed, there is "internal superactivity, accompanied by the economizing of energy" (Lozanov, 1978a:198). The second concert is also referred to as the pseudopassive phase, because the students appear to be passive, but internally there is much activity like the establishment of the special internal set-up. Relaxation training by means of, for example, autogenic training and Yoga, is unnecessary according to Lozanov (1978a:198). What is needed is the set-up of a serene, confident attitude towards the suggestive programme. The students must be in the same frame of mind as when they attend a concert. The anti-suggestive barriers are apparently more easily harmonized in a relaxed state and the reserves of the brain are released. The music enhances this state of mind; therefore, it is an important aspect in the concerts, and more specifically the second concert (Lozanov, 1978a:199). Listening to the music has the effect of a person's allowing himself to be emotionally filled by the music which heightens his receptiveness and assists with the memorization of considerable amounts of information effortlessly (Racle, 1979:136).

The second concert is characterized by physical and mental relaxation, deep breathing, a comfortable and relaxed posture, a calm and pleasant atmosphere, Baroque music and the reading of the dialogue for its meaning by the teacher (cf. Bancroft, 1978:155). The left hemisphere is 'more in the background' during the second concert and the language material is assimilated more paraconsciously than consciously. The brain produces more alpha waves which is an indication that the students are relaxed and in an optimal state to learn effortlessly and effectively. The students are encouraged to listen to the music and not necessarily to the reading of the text. While they are listening to the music, internal imaging is taking place and the brain is defocused from the content, specific structures and words. The fact that the language material is presented in a defocused way, ensures that the brain is assimilating it paraconsciously, which includes peripheral perceptions. Research (du Preez and Naude, 1985:50-56) indicates that peripheral stimulation can be an effective way of assimilating material. This material can then later be activated by defocusing the attention of the student again, like putting him in a game-situation where he must react in the L2 without much time to think (Botha, 1985:65).

The second concert is a phase when the emphasis is more on the right hemisphere and the paraconsciousness. The students are relaxed and assimilate material without really noticing that they are learning. It is a time for inward concentration, but concentration without effort. Miele (1982:52) said that a person looking into a room where a second concert is in progress,

would think the students are meditating and

> "He would hardly suspect that vast reserves of learning ability were being tapped, that the right and left hemispheres of the students' neocortex and their limbic systems were being brought into purposeful cooperation so that learning becomes effortless, joyful and amazingly efficient" (Miele, 1982:52).

The Pygmalion and Hawthorne Effects

The teacher should be aware of the powerful role of expectations in the classroom and how these expectations can influence achievement. The basic assumption must always be that the students are capable of far more compared with what they, and other people, believe. The teacher and the way of teaching should project this attitude to the students and it should be adopted by the students as well. The teacher should be convinced that the unrealized potentials are suppressed by negative and limiting expectations and these limiting expectations are the result of societal norms and acquired conventions (van der Vyver, 1985:33). This phenomenon of achieving in accordance with what the significant people in your life expect from you, is well known as the **Pygmalion Effect**, or the Self-fulfilling Prophecy (Rosenthal and Jacobson, 1968). The fact that a teacher's expectations have such tremendous influence on the students' achievements, is in accordance with Lozanov's (1978a:193) dual-planeness where the learner perceives the stimuli on more than one level, consciously as well as paraconsciously. The student's behaviour is then influenced by those perceptions, such as living up to the expectations of the teacher.

In Suggestopaedia the teacher endeavours to utilize the Pygmalion Effect as positively as possible. If good things are expected, a contribution will be made to the warm and positive suggestive atmosphere characteristic of a suggestopaedic class and the good things may be realized (cf. Prichard and Taylor, 1980:29). The positive expectations should also include confidence in one's own ability (autosuggestion) and in the success of the teaching method (Caskey,1980:48). Miele (1982:33) argued that "... no one's learning efficiency is likely to soar unless he expects it to." And one could add: Students' learning efficiency is likely to soar if the teacher really expects it to and if the expectations are conveyed in a congruent way.

The Hawthorne Effect is closely related to the Pygmalion Effect: it is the reaction of people to something new. When something new is introduced it engenders a lot of expectations which can be positive by nature. Changes in instructional routine, not only the method, but also the manner of teaching, can influence the learners markedly. If they believe the changes are for the better, their expectancies will be raised and they will do better (Prichard and Taylor, 1980:31).

If the Pygmalion and Hawthorne Effects are used positively in a suggestopaedic class, the students will feel that they have excellent learning potential, because the teacher, the method, the material, the environment and even the other students convey that message constantly to a particular student. The Hawthorne Effect plays the role of promoting the belief that the

method being used is critical in achieving the excellent results (Prichard and Taylor, 1980:32).

Convincing the students that they are capable of far more, can be regarded as one of the most important functions of the teacher. The teacher demonstrates verbally as well as non-verbally that much is expected from the group and convictions which the students have been conditioned to believe will have to be removed:

- that it is unpleasant and very difficult to learn

- that students have limited abilities and they are actually very weak in certain subjects.

The following attitude changes can be achieved when the students are relaxed and are enjoying the environment, when they visualize an Early Pleasant Learning Experience which serves as an anchor and through indirect suggestions which communicate expectations:

- it is a basic need of man to learn

- it can be pleasant and easy to learn (Erickson, 1976; and Dhority, 1984, in van der Vyver, 1985:34).

Written and other visual material can be effective conveyers of positive expectations as well as suggestions. The amount of material the students are exposed to, the way the teacher activates the material, guided imageries and the concert sessions can all be used to suggest positively to the students that they are capable of achieving much more.

Rituals and the Placebo Effect

According to the neurologists (Hand, 1984:18) the reptilian brain [see p 28 for a diagram of the Triune Brain indicating the location of the reptilian brain] plays a role in rituals and that portion of the brain is responsible for the programming of basic needs and instincts. It is, therefore, deduced that ritual is one of man's basic needs and it provides security when ritualistic actions are performed.

The Pygmalion and Hawthorne Effects cannot be isolated from **ritual** and **placebo** and they are essential ingredients of both. Suggestopaedia contains many procedures which can be termed rituals.

The concert sessions are examples where a certain formality (ritual) is followed.

> "The conviction that the new material which is to be learned will be assimilated, become automatic and creatively processed without strain or fatigue, is suggested by the weight and solemnity given to the carrying out of this session" (Lozanov, 1978b:42).

The ritualization of the music and other art forms is a source of aesthetic pleasure to the students (Lozanov, 1978b:43). It is also believed that the ritual has a lot to do with the learning of vast quantities of material (Prichard, 1977:170). According to Hand (1984:18-19) the reptilian complex will have preference in situations where the basic needs, like a feeling of security, are not satisfied. Higher cortical functions, like learning another language, will be suppressed and preference will be given to the basic need which is not yet satisfied. Rituals provide security, and therefore they fulfil a very important basic need, and put the person in the right mental state to learn, without the R-Complex interfering with the process.

The placebo is normally associated with the medical profession where a patient will be given a sugar tablet by a doctor the patient has a high regard for. The patient then reacts positively to the "treatment"; in other words, the person reacts in accordance with his own expectations. The ritual of "prescribing" the placebo is very important and Racle (1979:135) described it as follows:

> "The effect of a placebo is not produced simply by using non-pharmaceutical products in place of real medicine. Its effectiveness is in fact in direct proportion to the effectiveness which the persons administering and receiving it attribute to it."

Music is considered to be a strong placebo in Suggestopaedia, but it is, like all the other ritualistic procedures in Suggestopaedia, not only dependent on the placebo, Pygmalion and Hawthorne Effects, but has some other intrinsic values like decreasing moral and physical tension. One could, therefore, say that the placebo is not just sugar, but contains genuine medicine as well. During a ritual, like a concert session, the placebo (take music as an example) must be presented with the utmost care, because intonations, gestures, and other aspects of the communicative process will convey the real message and beliefs of the teacher to the students (cf. Lozanov, 1978a:175). According to Lozanov (1978a:267) all external factors can acquire a certain expectancy. The suggestopaedic/SALT cycle as it developed in Bulgaria and the West, can be seen as a series of rituals with the Pygmalion, Hawthorne and Placebo Effects featuring very strongly in it.

The role of authority has been referred to earlier, but it must also be mentioned as an important element when positive expectations are created, because the Pygmalion Effect operates at its best when the suggestions come from an authority (a significant person in the students' eyes). The positive suggestions and new approach coming from an accepted authority, will give rise to the Placebo Effect as well as the Hawthorne Effect, which will contribute to the initial by-passing of anti-suggestive barriers (van der Vyver, 1985:35).

When all these factors, together with the other suggestopaedic elements, are harmonized and utilized positively and congruently, one reportedly gets **a snowball effect**. If all the positive expectations generated by all these factors are fulfilled, the whole process will snowball and become a very strong motivating force in the class (cf. Prichard and Taylor, 1980:33).

The first day of a course

The first day of a course is regarded as very important. Dhority (1984:7-2) put it as follows:

> "This is when first impressions are made, attitudes and beliefs are being confirmed or modified, expectations raised or lowered. Such processes go on to some degree all the time, but it is in the opening moments when conditioned attitudes will be most amenable to change, since reality has not yet completely confirmed them. Once they are set, the experiences to follow are likely to become variations on fixed attitudes, unconsciously locked away out of reach of most conscious attempts teachers use to motivate students."

The head of the institution addresses the students at the beginning of a suggestopaedic course. Here is where this person can establish some of the authority of the teacher, the method and the material; and expectancies can be raised considerably. He also starts the desuggestion-suggestion process which will receive a lot of attention during the whole course.

Fictitious biographies

The adoption of a target language name, occupation and place of origin have psychological implications, because the student identifies to such an extent with the new role that the real he or she does not feel threatened or afraid of making a mistake. Identifying with this person coming from somewhere in the country where the language is spoken has additional value: the student develops an interest in the city or town where he is supposed to come from and starts reading about it. The culture or "Landeskunde" of the target language is thus introduced to the student in a very enjoyable and natural way. This new identity facilitates infantilization because the student feels free and uninhibited, willing to play, dare and explore behind the shield of this new identity. [See p 48 for a full discussion on infantilization.]

Provision of a "big picture"

An important means in Suggestopaedia is the provision of an overall view, or "big picture", of what the students are going to learn. The attention must always be directed to the wholeness. Therefore, starting with the small elements and gradually building up to the big picture, is not acceptable and this approach could be equated with trying to build a jig-saw puzzle without having the picture of the completed puzzle. Lozanov (1977:91) said it is deeply demotivating to start with the individual elements. He explained:

> "We give the material globally in deductive units. We stimulate the personality globally. We create a communicative global process of instruction" (Lozanov, 1977:92).

Defocused learning

Suggestopaedia also endeavours to utilize defocused, or non-directed, learning. Neuropsy-

chologists are in agreement that learning can take place very effectively through defocused attention. According to du Preez and Naude (1985:52) massive quantities of information, which has been assimilated by subsensory means can be activated when the awareness continuum is lowered; in other words, when the attention is defocused. In Suggestopaedia the students are exposed to material, for example on the walls, or during concert sessions - especially the second concert, which is subsensorily assimilated. To be able to release that information from the subconscious, defocusing of the attention is used as a technique or means. This defocusing can include playing games where the focus is on the game, acting out a scene from the text with the attention on the situation at hand and not so much what to say in the target language.

When teaching a foreign language, the teacher gets the students to concentrate on the text as a whole (the message being conveyed), but individual words and even grammatical structures and individual sounds are perceived peripherally. Posters with language material on the walls are sometimes not referred to and they are allowed to remain on the periphery of the students' attention.

Lozanov (1978a:312) used peripheral stimulation, or defocused learning, when he taught young children how to read in their L1. Pictures of animals were pinned up on the walls with the name of the animal, for example "esel", written underneath the picture. The "esel" (or donkey) wore a jersey with an E unobtrusively woven into the pattern and/or design of the jersey. The teacher did not refer to the pictures at all and left them on the walls for a couple of days. The words were then removed from the walls and the children played a game to see which word matched which picture. According to Lozanov (1978a:312) the children did remarkably well, soon reading all the written words. The words were perceived peripherally by the children and learned without effort or strain. Miele (1982:40) referred to the positive use of peripheral perception when he mentioned the reactions of students who learned suggestopaedically:

> "There were times when it seemed I was **remembering** some of the language, not **learning** it."

In relation to the above-mentioned, researchers are apparently led to believe that the brain cannot be overloaded. The brain is capable of remembering far more information than that which surfaces consciously. Other researchers (Anokhin, in Buzan and Dixon, without date; Luria, 1966 in van der Vyver, 1985) seem to be in agreement with Lozanov (1978a) that the brain is capable of storing most information which is provided comprehensibly and that the information can be tapped, or released, under the right circumstances (van der Vyver, 1985:37).

Massive, rich and varied input

The suggestopaedic teacher also uses massive and rich input as a means. Exposing the language learner to rich and varied input is in agreement with several applied linguists' work,

among them Blair (1982), Krashen (1981, 1982) and Krashen and Terrell (1983). But, it has an additional role in Suggestopaedia, namely a desuggesting-suggesting function: it suggests to the students that they are capable of understanding large amounts of material and that they can actually acquire the material. Furthermore, it assists with the desuggestion of the belief that only small amounts can be understood and acquired at a time, due to innate limitations. The process of desuggestion-suggestion relies not only on the massive input, but it also relies on other suggestions built into the course, such as metaphors, symbols, teacher verbals as well as non-verbals, the relaxation and the general atmosphere in the room (van der Vyver, 1985:37).

Feedback, error-correction, use of L1 and homework

Another means used in Suggestopaedia is the immediate feedback the students receive. Students are directly involved in a suggestopaedic class to such an extent that they quickly realize where they stand in terms of their comprehension and other abilities in the target language (van der Vyver, 1985:38).

The suggestopaedic teacher will occasionally re-read a line, but errors are not corrected in the conventional way. The teacher should rather give the correct example later. This is in accordance with the viewpoints of Krashen (1981, 1982) and Krashen and Terrell (1983), who believe that the correction of the error may do more harm than good.

The use of the mother tongue (L1) in the beginning of beginners' courses is permissible because students translate in any case in the beginning. If one withholds the L1, one forces the brain to learn in a specific way. As the student grows familiar with the foreign language, the need for translation disappears (Miele, 1982:53). Krashen and Terrell (1983:58) were also in favour of allowing the use of the L1 in the beginning of a foreign language course to provide the student with some means of responding to what he is exposed to. They also stated that the student quickly refrains from using the L1 and that it is a help only in the initial stages (Krashen and Terrell, 1983:58).

The absence of many homework assignments is a characteristic of Suggestopaedia. The teacher suggests to the students that it is going to be pleasant and gratifying. The only homework the students are expected to do is to read quickly through the material of the day just before they fall asleep at night (the hypnogogic state) and just after they have woken up in the mornings (hypnopompic state). Apparently the brain functions differently during those periods and the left hemisphere is not as prominent. This condition makes it easier to image and to assimilate holistically because the right hemisphere is not suppressed by the left hemisphere which is more dominant during the daytime (van der Vyver, 1985:38).

Techniques from other methodologies

Neurolinguistic Programming (NLP) is another means which is used. Proponents of NLP endeavour to establish, describe and influence the processing pattern of internal and external

sensory perceptions. The teacher then attempts to teach in relation to the perceptual preferences of the students. The teaching strategies are planned in accordance with these external and/or internal preferences of the students and assistance is also provided in modalities where students are not as strong as in their preferential modalities (van der Vyver, 1985:38).

The American proponents of Suggestopaedia (Dhority, 1984; Schuster and Gritton, 1985) incorporated components of other innovative methods like Gattegno's (1963) Silent Way and Asher's (1969) Total Physical Response. At the Institute for Language Teaching, University of Stellenbosch, the micro-computer is being used in a project in conjunction with Suggestopaedia (van der Vyver, 1985:38-39). The most recent development at the Institute is the integration of suggestopaedic language teaching and cognitive development. The work of Adams; de Bono; Machado; Perkins; Sternberg and Project Intelligence have been included in a unique approach in which language and thinking skills are taught integratively.

The suggestopaedic venue

Suggestopaedia utilizes certain means because they satisfy emotional and aesthetic needs, reinforce the ritualistic effect, secure the authority principle and enhance the general pleasant atmosphere and positive expectations prevalent in the room. The appearance of the suggestopaedic venue is a critical means and it is totally different from an ordinary classroom. The conventional classroom often evokes negative associations in students, whilst the suggestopaedic venue endeavours to support the three basic principles of Suggestopaedia and to desuggest certain suppressive and negative beliefs coming from the societal norms and the environment in general. The lounge-like appearance of the venue desuggests the beliefs to some extent that unpleasant, cumbersome learning is also going to take place here. The contrary is suggested by such a venue, that pleasant and relaxing activities are going to take place with no fear or any other form of anxiety interfering. The twelve easy-chairs stand in a semi-circle (twelve is regarded as the optimal number of students in a suggestopaedic class). Posters, art reproductions and paintings are used to decorate the walls of the room. The symbolic meaning of beautiful art pieces can be most effective (cf. Watzlawick, 1978): landscapes suggesting an openness and receptiveness, whilst a picture of a bridge can suggest that meaningful relations are going to be formed during the suggestopaedic course. All other peripheral stimulation, such as language structures on the walls, are colourful and attractive. Flowers and plants are used to add to the attractiveness of the room and to create an aesthetically pleasant atmosphere.

All these elements suggest to the students that

- teaching and learning in this environment are going to be very enjoyable
- the teacher in this venue is a person who cares for every student in the group.

Drama, poems, songs and stories

Drama plays an important role and students are encouraged to produce their own little productions in small groups. This provides the opportunity to the students to be creative and to discover that they are already capable of creating something in the target language (van der Vyver, 1985:39). Poems, songs and stories are all used to enrich the input and to integrate brain functions.

Music

Music is a critical aspect in Suggestopaedia. In Suggestopaedia, music combines with psychology and teaching, to form a holistic pedagogical system, or a "gestalt pedagogy" as Racle (1979:134) put it. Furthermore, music plays an important role in the creation of a pleasant, suggestive atmosphere and by doing that it facilitates the by-passing of the anti-suggestive barriers, and it always acts in harmony with the other suggestive factors (Racle, 1979:135). Music of composers such as Mozart, has tremendous authority and contributes to the authority of the material, the method and the teacher using it. The following music can be heard in a suggestopaedic course: folk-music (of the target language), modern relaxation music, classical and Baroque music (cf. van der Vyver, 1985:39).

According to Caskey and Flake (1976:7) the role of music is to support the learning process by acting as a medium to activate the paraconscious and to assist with whole brain learning.

> "As a part of the total conscious-unconscious duality of the learning setting, it (the music) contributes to the non-specific mental activity which activates the reserves of the mind" (Caskey, 1980:41). [Author's own addition in brackets.]

Music serves as an instrument to obtain relaxation which again enhances the capacity to learn new material and it also provides a cultural and artistic experience which is enriching for the student (Caskey, 1980:43). The music, as part of the concerts, becomes part of a ritual which has value as a placebo. In other words, the ritual raises expectations and the students rely on it as something which ensures easy and effective learning.

Miele (1982:44) referred to Belanger's book, *La Suggestologie*, 1978, in which she talked about extensive experiments undertaken by Dr Tomatis with music. The researchers went to the Amazon and played music to an aboriginal tribe of about 100 people. When the researchers played 'pop' music, the members of the tribe were totally indifferent and a couple fell asleep. When Mozart was played, all the members of the tribe showed a lively and spontaneous glee. According to Dr Tomatis, Mozart's music re-establishes the interior harmony at different levels of a person and it co-ordinates breathing rhythm and cardio-vascular rhythm. Miele (1982:47) mentioned research done by Schuster where two groups were compared: one receiving music and one without music. Apparently there was no significant difference between the two groups. Schuster did another experiment where all the suggestopaedic elements were present in one class, except music. Then he compared it with

an experimental group where music was also included. He found that music in isolation helped only a little. Lozanov's reaction to this was that you cannot have just music, suggestion is always present and never neutral. The crux of the matter seems to be the effective and harmonious combination of all the variables (Miele, 1982:47).

Miele (1982:48) and Racle (1979:136) summarized the benefits of music as follows:

- music relaxes the listener in the concert-like atmosphere
- it creates a special state of receptiveness, pseudopassiveness, with improved concentration
- it creates superior cerebral activity
- music 'pushes' the lesson material into peripheral areas of perception
- well-played and well-reproduced music has authority which helps to decrease moral and physical tensions
- this authority enhances relaxation which makes infantilization easier
- music has a placebo effect which leads to positive expectations
- music allows one to be emotionally taken in by it and this heightens receptiveness enabling one to memorize considerable amounts of information effortlessly.

As was mentioned earlier, the first concert consisted before 1975 of the teacher reading the material with the special three-stage intonations. This was abandoned and replaced with the first concert based on classical music. Lozanov (1978a:270) maintained that the second concert requires music with a more philosophical nature. The slow Baroque music in 4/4 time creates a soothing atmosphere which helps to tune in the right hemisphere and to provide a rhythmic background for the presentation of the lesson material which is read rhythmically, but according to the meaning of the text (Prichard and Taylor, 1980:73-74).

Music clearly plays a very important role in Suggestopaedia which can be summarized as follows: although it does not seem to have such a marked influence when looked at in isolation, it reportedly has a substantial effect in close harmony with the other suggestive elements. Music seems to enhance the suggestive atmosphere, assist with the relaxation, involve the whole brain, help with the by-passing of the anti-suggestive barriers and assist in general to utilize the reserve capacities of the human brain in an aesthetically pleasant and stimulating environment. [See Appendix B for lists of music used in suggestopaedic teaching.]

Relaxation

In Suggestopaedia it is believed that relaxation enhances retention and its most important function is to circumvent anti-suggestive barriers with the emphasis on dual-planeness (Caskey, 1980:21). Therefore, relaxation can be considered a very important means assisting optimal learning. Suggestopaedia also emphasizes a relaxed but alert state (Caskey, 1980:22). Another factor playing a role here is the fact that the whole setting contributes to the success and Caskey (1980:21) argued that a warm, understanding and sympathetic setting may well be more important than relaxed muscles. Caskey's view on relaxation can be summarized in his own words:

> "Relaxation, physical and mental, is essential to SALT methodology, but it is (1) a global, almost Gestalt, learning setting atmosphere closely related to several interlocking SALT principles rather than an isolated activity; and (2) it is best achieved with a combination of learning environment characteristics rather than through specific muscle relaxation training and a daily emphasis on this segment of suggestive-accelerative method" (Caskey, 1980:22).

Many researchers in the field of relaxation like Wolpe, Hartland, Lazarus and Wine use suggestive-persuasive-re-educative approaches which increase self-confidence, self-understanding and situational control (Caskey, 1980:22). Research proved that exercising improves academic achievement and physical involvement is particularly helpful in the lower grades (Caskey, 1980:23). According to Caskey (1980:24), Lozanov indicated that muscle relaxation and breathing exercises are not necessary because the overall relaxing and suggestive atmosphere, especially with the music, accomplishes the same thing. Many SALT teachers use physical relaxation exercises daily. There is a viewpoint that students from the East find it easier to relax than the students in the West and that is the reason why teachers in the West find it necessary to continue with relaxation exercises. Another reason why Western teachers find it necessary to do relaxation exercises, is that the students are, for the greater part of the day, in a very anti-suggestopaedic environment and the relaxation is critical to get them in the right frame of mind for the suggestopaedic session.

Yoga was thoroughly studied by Lozanov (1978a:108-114), but he changed the suggestopaedic procedures in 1975 when Yoga, amongst others, was abolished by the Bulgarians because it was felt that the same good results could be achieved without it (Bancroft, 1978:152-153).

Lozanov referred in his thesis (since 1971 an unofficial English translation has been circulated in the West) to the crux of the matter as the state of relaxation. He also maintained that students perceive suggestion best when they are relaxed (Bancroft, 1976:212). Prichard and Taylor (1980:106) added to that when they said that mind calming exercises induce physical and mental relaxation with a freer state of mental functioning in which internal distractions to learning are eliminated and they also stimulate imagery. No special trance or non-ordinary state of mind is required for suggestion to take place, but rather a learning environment in which a high level of suggestiveness and non-defensiveness is maintained (Prichard

and Taylor, 1980:131). During relaxation students are more receptive to suggestions related to motivation and expectation which, according to Lozanov (1978a), are the real causes of hypermnesia. When internal distractions disappear with music and relaxation, the student is in a non-stressful state which enhances learning and memory (Prichard and Taylor, 1980:132).

Prichard and Taylor (1980:113) found in their remedial reading instruction, using an adapted form of Suggestopaedia, that 100 percent of the children who managed to relax well, gained a year on an oral reading subtest, 100 percent of the children gained one year on a silent reading subtest and 87,5 percent of the children gained a year or more on an oral reading subtest after 14 weeks. Schuster, Benitez-Bordon and Gritton (1976:19) referred to research done by Chaney and Andreasen (1972) which indicated that students did significantly better on a recall test after being taught physical relaxation.

One can deduce from this that relaxation is an important component of Suggestopaedia, especially when used in harmony with all the other elements of Suggestopaedia creating a warm, pleasant and stress-free suggestive atmosphere.

Text production

The text plays a vital role in the suggestopaedic class and can be considered one of the most important means, because most of the suggestopaedic principles and means are incorporated in it. A suitable suggestopaedic text must conform to quite a number of criteria and the following could be singled out:

1 The text must be aimed at the target group as far as interests, needs and ability are concerned. Although Suggestopaedia demands massive input, the input is not meant to be totally over the learners' heads. The input must be comprehensible. This is in agreement with Krashen's (1981, 1982) Input Hypothesis. [See p 77 for a full discussion on this Hypothesis.]

2 The text must be emotionally pleasant and satisfying and the students must find it easy to identify with the characters in the text. On the other hand, it must remain stimulating enough to maintain curiosity and interest (Kussler and Bodenstein, 1985:14).

3 The situations depicted in the text must be relevant to the students and they must be able to see themselves in similar situations, using similar language. In other words, the students' communicative needs must be taken into account. Kussler and Bodenstein (1985:15-16) advocated the didactical principle based on linguistic progression according to true-to-life speech acts which constitute the communicative skills to be acquired by the students. These didactic considerations should not interfere too strongly with the narrative and psychological credibility of the text (Kussler and Bodenstein, 1985:15).

4 Some repetition of situations is advisable as it will assist with better familiarization of language material used in such situations.

5 The text must have some idealistic goal or climax to be attained. This ensures that a line of suspense is maintained and it normally provides some ethical satisfaction.

6 Metaphors, parables, fables and vivid imaging involving all the senses are all elements enriching a suggestopaedic text. These elements also stimulate the right hemisphere of the brain and positive suggestions could be assimilated and internalized through these elements.

7 All the senses must be addressed in the text. If the text stimulates sensory perception, it ensures superior processing of the material and storage in the long-term memory (cf. Hand, 1984:9-22).

8 Lozanov's texts (1978a:278) normally consisted of ten acts, but each act had a global theme. The text as a whole should, therefore, have one central idea featuring many themes.

9 The text should have motivational force and psychological structures should be given prominence. The text should incorporate the suggestopaedic principles in an unobtrusive way to create an experience of wholeness and integrity (Kussler and Bodenstein, 1985:13).

10 Language structures should never get any direct prominence and the focus must always be on the content/message.

11 The text should be full of direct and indirect suggestions of how easy and enjoyable it is to learn, of how much reserve potential is latent in the human brain which can be tapped under the right conditions and that success is possible for every normal human being. In other words, the communication in the text must be congruently on the conscious level as well as the paraconscious level (Watzlawick, in Kussler and Bodenstein, 1985:11-12).

12 The text should comply with the requirements of the suggestopaedic cycle: the text must have enough literary quality to correspond with the aesthetic and ritualistic atmosphere of the concert sessions (Kussler and Bodenstein, 1985:13).

13 The text should provide knowledge about the culture of the target language group; the so-called "Landeskunde" (Kussler and Bodenstein, 1985:14).

Imagery

Imagery can be regarded as a powerful instrument in the hands of the suggestopaedic teacher.

According to Russell (1979:110)

> "Imagery is a sensory-type experience in the mind without an actual corresponding situation providing the immediate sense stimulus."

All people have the ability to visualize in varying degrees; and to visualize is to imagine and this is apparently essential for the process of memory (Russell, 1979:111). Experiments indicate that strong mental images enhance memory considerably, for example, words evoking a vivid mental image are far more easily remembered (Russell, 1979:112). Memory for pictures is very powerful and words evoking images are coded dually, namely in the verbal and visual memory (Higbee, 1977:47).

> "Visualization refers not to picturing the word itself in your mind, but picturing the object the word stands for. There are several lines of evidence that such mental imagery helps in learning verbal material" (Higbee, 1977:47).

Prichard and Taylor (1980:33) referred to it as the creation of mental images, to see with the mind's eye, visual memory, mental imagery, inner perception, seeing a picture on a mental screen and this deliberate structuring of images is viewed by them as an opportunity to communicate with the subconscious levels of the mind.

The Austrians who observed the Bulgarians at the Institute of Suggestology in 1976, maintained that visualization was used to aid relaxation (Bancroft, 1978:152). Schuster, Stavish and Burchinal (1976:129) found in experiments with imaging that little significant evidence exists to prove that imaging enhances learning, but they found that people who could imagine well did slightly better in the learning of rare English words as compared to low imagers.

Caskey presented a paper on imagery at the Ninth International Conference of The Society for Accelerative Learning and Teaching, Houston, Texas, May 1984. He identified three different types of imagery:

- basic types, such as spontaneous, induced, concrete and abstract imagery
- specific types, such as after image, daydream fantasy, dreams, guided imagery and memory imagery
- functional types, such as eidetic imagery, spontaneous thought imagery and voluntary thought imagery.

Caskey further outlined the characteristics of vivid imagers:

- more accurate recall
- detection of similarities and differences

- more accurate recognition
- more rapid scanning and encoding
- more information encoded
- consistent scan paths
- more information per fixation extracted
- more eye movement during recall exhibited
- more hypnogogic experiences.

The learning advantages of good imagers were outlined as follows:

- more receptive to vicarious learning
- open to input
- demonstrate superior recall
- more comfortable in new situations
- longer attention span
- more at ease with adults
- adults respond to them (these pupils) more easily (Caskey, Ninth International Conference of the Society for Accelerative Learning and Teaching, Houston, Texas, May 1984).

Although it appears that imagery is mainly used to enhance relaxation in Suggestopaedia, its value is apparently not limited to that only. The ability to see in one's mind's eye is recognized as an effective tool in learning, not only by proponents of Suggestopaedia, but also by psychologists like Russell (1979), Higbee (1977), Watzlawick (1978) and Erickson (in Watzlawick, 1978:57-58). The proponents of Neurolinguistic Programming (NLP) like Bandler and Grinder (1975, 1976 and 1979) and Laborde (1984) are all in agreement that the sensory modalities of a learner can be used as a very powerful educational tool to obtain better integrated brain functioning and, therefore, improved learning ability and retention. During imaging sessions where the students are experiencing internally what is happening in a text, the material is retained and can be retrieved much more effectively. Hand (1984, 17) said the following in this regard:

> "Haber (1970) and Franken and Rowland (1979) have found that the picture memory of humans is remarkably efficient. There is tremendously large storage capacity for pictorial representations and, therefore, visual context through which to associate other items for recall. While most picture memory loses detail, the meaning or sense of the representation is retained, with enough of the pattern to reconstruct most of the main elements portrayed in the picture."

Hand (1984:15) also referred to the fact that multiple perceptions are stored in the long-term memory. This implies that the involvement of as many modalities (internally as well as externally) as possible will improve the assimilation and retention of material.

CONCLUSION

Pollack (in Schuster and Miele, 1978:9) indicated at the Conference on Suggestology in Sofia that in her experience as a teacher she had never come across anything resembling the unity of all the elements making up Suggestopaedia. Some methods incorporate some elements of Suggestopaedia, but they are used separately. According to Pollack, suggestopaedic teaching is qualitatively different and superior to any other method she had ever seen. Racle (1976:159) concluded an article with:

> "Suggestopaedia thus represents a true philosophy of teaching. It is not a package of techniques or a collection of 'tricks'. It is, as Dr Lozanov indicates, a new science *(e nova nauka)*. If it is perceived as a science there is no doubt that Suggestopaedia has a very promising future."

SECTION 3

SUGGESTOPAEDIA IN TERMS OF THE SECOND LANGUAGE ACQUISITION/LEARNING THEORY OF STEPHEN KRASHEN

INTRODUCTION

After various projects at the Institute for Language Teaching, University of Stellenbosch, which tested Suggestopaedia from an empirical point of view, it was decided to scrutinize the approach in terms of a widely accepted theory of L2 acquisition. An added reason was that Suggestopaedia is considered by some as an unproven method with unrealistic claims (see Scovel, 1979 and Mans, 1981). This section will investigate which underlying principles of Suggestopaedia correlate with Krashen's Hypotheses.

THE REASON WHY KRASHEN'S L2 THEORY WAS SELECTED

There has been a shift in L2 teaching towards more emphasis on the affective domain of the learner as well as the role of the subconscious in the acquisition of another language. Krashen addressed both these aspects. Although his work received criticism (see Carroll, 1986:91-102; Klein, 1986:20 and McLaughlin, 1987) many applied linguists regard Krashen's work as an important contribution to the field of L2 teaching (see Krahnke, 1985; Stevick, 1986 and Vanpatten, 1987). Krahnke (1985:593) stated the following about Krashen's theory:

> "The theory will undoubtedly be refined and modified, but for the present, it is the most extensive and explicit theory of second language acquisition available."

In many respects Suggestopaedia applies didactically what Krashen advocates theoretically. Krashen (1982a) himself observed that Suggestopaedia meets many of the requirements of his own theory, especially those of providing massive amounts of comprehensible, interesting and relevant input; lowering affective barriers; emphasizing meaningful communication and utilizing more of the whole-person potential.

MATRIX

The term *construct* is used for the Krashen hypotheses as well as the suggestopaedic components. Lozanov's constructs, namely, the two basic premises, three principles and three sets of means, will be looked at in terms of Krashen's theory. Whether the constructs of Suggestopaedia **agree with, disagree with,** or are **neutral towards** Krashen's hypotheses will be examined. An additional construct will be added to each approach, namely whole-brain involvement to Suggestopaedia and neurological implications to Krashen's Theory. The Aptitude and First Language Hypotheses are included in the matrix, but are not fully discussed. The reasons are that the Aptitude Hypothesis clearly shows no connection with the suggestopaedic constructs and is therefore neutral towards all of them, the First Language

Hypothesis has nothing contradicting any of the constructs and is therefore in agreement with all of them and these two hypotheses could be considered less important in terms of Suggestopaedia.

The results of the scrutiny are given in the following matrix:

SUGGESTOPAEDIA IN TERMS OF KRASHEN'S L2 THEORY

The following symbols are used: (+) = in agreement;
(/) = neutral; (-) = disagree.

LOZANOV'S SUGGESTOPAEDIA

KRASHEN'S L2 THEORY		PREMISES		PRINCIPLES			MEANS			
		Relatively unlimited potential	Under-utilization of potential	Joy, absence of fear	Simultaneous use of conscious and para-conscious	Suggestive link	Psychological means	Didactic means	Artistical means	Whole-brain involvement
Hypotheses	1. Acquisition/ learning	+	+	+	+	+	+	+	+	+
	2. Natural order	+	+	+	+	+	+	+	+	+
	3. Monitor	/	/	+	-	/	+	+	/	+
	4. Input	+	+	+	+	+	+	+	+	+
	5. Affective filter	+	+	+	+	+	+	+	+	+
	6. Aptitude	/	/	/	/	/	/	/	/	/
	7. First language	+	+	+	+	+	+	+	+	+
	Neurological implications	+	+	+	+	+	+	+	+	+

Looking at the matrix it is clear that there is more agreement than disagreement or neutrality. There is complete agreement on six of the eight Krashen constructs. With respect to the remaining two constructs, Suggestopaedia is neutral regarding the Aptitude Hypothesis. With regard to the Monitor Hypothesis it shows some agreement, some neutrality, and one point of disagreement. In other words, of 72 possible points, 58 show agreement (80,5%), 13 neutrality (18,1%) and only one disagreement (1,4%).

DISCUSSION

In the discussion of Krashen's first hypothesis in terms of Suggestopaedia, the suggestopaedic constructs are given in some detail, which will not be necessary in subsequent discussions.

Suggestopaedia and the Acquisition/Learning Hypothesis

The Acquisition/Learning Hypothesis states that people become proficient in an L2 by initially picking up the language subconsciously (which Krashen terms **acquisition**) rather than by studying grammar rules consciously (which Krashen terms **learning**). The instructional process focuses on providing more opportunities for the student to acquire implicitly rather than to learn explicitly. Explicit learning should follow acquisition chronologically. Krashen regarded acquisition as central and learning as peripheral. Krashen (1982a:24) said:

> "... first we understand the message and that 'teaches' us grammar, not vice versa."

Suggestopaedia is in agreement with this hypothesis. The **two premises**, namely that the brain is relatively unlimited and that traditional teaching methods under-utilize the large potential of the subconscious, agree with Krashen's construct that acquisition, the primary force in mastering L2, is a subconscious process. If the emphasis is on learning only, then the potential of the subconscious is disregarded and only a relatively small portion of the real potential of the brain is tapped.

The **principles** of Suggestopaedia also favour acquisition as the primary force in mastering an L2. Joy and the absence of fear and anxiety create a teaching climate where learners feel secure in an atmosphere of trust, in other words, the teaching climate necessary for optimal acquisition.

With the second principle, namely the simultaneous use of the conscious and subconscious (paraconscious), Lozanov made the same distinction that Krashen made between acquisition (subconscious) and learning (conscious). Lozanov, however, maintained that both take place simultaneously and must be engaged simultaneously by means of techniques such as symbols, games, metaphors and defocusing of material. It is evident that these techniques can also be utilized to teach material which will be more consciously and explicitly learned. Krashen (1982b:83, 86) posited a sharp separation when he stated categorically that

acquisition is not dependent on learning and that learning does not turn into acquisition. In Suggestopaedia conscious and subconscious activities are seen as inseparable and it is believed that consciously learned language material can after some time become automatized speech which is used without conscious attention. Learned rules can become defocused in activations where the attention is focused on something else, and are then used fluently and communicatively. Yet, Krashen could argue that a particular structure or rule was acquired through meaningful communication and not through conscious learning of the structure. This uncertainty actually underlines the idea that subconscious acquisition and conscious learning may not be as unrelated as Krashen stated, but may be operating simultaneously, as Suggestopaedia holds. Stevick (1984) and Horner (1987) also disagreed that the two modes are independent and separate. In other words, Suggestopaedia resolves the conflict between acquisition (subconscious) and learning (consciously using the Monitor) for which Krashen has been criticized.

The third principle, the suggestive link, is in full agreement with Krashen's Acquisition/ Learning Hypothesis. The suggestive link, where teacher-learner and learner-learner relationships are nurtured, where the classroom atmosphere is characterized by mutual respect, mutual trust and open communication, creates exactly the kind of atmosphere Krashen and Terrell (1983:59, 100) referred to when they said:

> "The Natural Approach aims to bring it (the Affective Filter) down to as low a level as possible by taking the students 'off the defensive'."

The **three sets of means** in Suggestopaedia likewise imply that L2 internalization is primarily a subconscious process. The psychological means attempt to re-organize the psychological needs (which include the emotional needs) of the learners, in part by endeavouring to change the conviction that their potential is limited. Didactic means like provision of the "big picture", massive and rich input, immediate feedback and defocused learning are all in agreement with the Acquisition/Learning Hypothesis which emphasizes context, input, meaning and the subconscious "picking up"of the language. The arts are rich in suggestion and they appeal to the emotions, activating those parts of the brain dealing with feelings. By contrast, most of traditional education bypasses emotion and confines its appeals to cognition only, which activates mainly the cortical structures and ignores the rest of the brain's potential.

In all three sets of means the focus is on meaning, on the context, on the whole, on aesthetic appeal, on relaxation, on positive expectations, on defocused learning, on subconscious internalization of language, on good, communicative language teaching didactics, on a happy, relaxed student; therefore, acquisition of the language remains central to the approach.

Whole-brain involvement as seen by Lozanov is in agreement with the process of acquisition as the main means of obtaining L2 proficiency. Krashen (1981:77) stated:

> "The available data strongly suggest, however, that subconscious language acquisition is nevertheless the central means by which adults internalize second languages ..."

The point to make here, is that Krashen (1981) seemed to suggest that the whole brain (the conscious, subconscious, left and also the right hemispheres - even in adults) is inseparably involved in second language acquisition/learning.

The following quotation illustrates the correlation between the two approaches as far as whole-brain involvement is concerned, and it is also indicative of the extent to which Lozanov understood and described the role of the brain in suggestopaedic learning:

> "The global approach to personality, the 'volumely' [not linearly] organized instruction, the simultaneous utilization and activation of the conscious and paraconscious functions, the simultaneous participation of man's mental and emotional sides, the simultaneous participation of the left and right hemispheres of the brain, as well as those of the cortex and subcortex - all these are of great importance for the global and many-sided influence of Suggestopedy over the personality (Lozanov, 1978a:225)."

Suggestopaedia and the Natural Order of Acquisition Hypothesis

This hypothesis states that sound patterns, lexical items, and grammatical structures are acquired in a predictable order, though not necessarily at the same tempo. This order holds when language is acquired by both L1 and L2 learners and it applies in general to both adults and children.

While the proponents of Suggestopaedia do not express any direct viewpoints on this matter, it is supported indirectly as a guideline of how acquisition can be expected to take place. Lozanov (1978a) said that the open and receptive way a child learns is the ideal way for an adult to learn. The main thrust of suggestopaedic material remains roughly tuned, in Krashen's phrase, to a specific group, thus allowing students to select what they acquire by a natural process rather than learning according to an order determined by teacher or text.

Suggestopaedia and the Monitor Hypothesis

According to Krashen and Terrell (1983), consciously learned material, such as rules, serves as a monitor or editor, which comes into play only after an utterance has been generated, implying acquisition has already taken place. The monitor tests the utterance against the rules and makes corrections as needed.

Suggestopaedia, as pointed out before, integrates conscious learning and subconscious

acquisition. The provision of rules and grammar is a need of many students. If these rules and grammar explanations are provided, fear and anxiety decrease and the students find it easier to relax. Relaxed students are more likely to utilize the whole brain, or, to put it differently, to benefit from the simultaneous integration of the brain systems. This, according to Suggestopaedia, can be achieved even if there is some conscious focusing or use of the Monitor. Lozanov believed therefore that it is possible for a student to focus consciously on grammar, to absorb aspects of the language subconsciously, to involve left and right hemispheres simultaneously as well as cortical and subcortical structures.

The suggestive link and artistic means do not correspond or differ from the Monitor Hypothesis. Suggestopaedia is thus neutral towards the Monitor Hypothesis for these two constructs.

The difference between Krashen's view of Monitor/acquisition and that of Suggestopaedia has been discussed.

Suggestopaedia and the Input Hypothesis

The Input Hypothesis states that learners acquire language by understanding and processing input which includes language a little beyond their current level of competence, or input plus one (i + 1). This input must be extensive and adapted in a general way to the level of the students (roughly tuned material). It is never required that input should be carefully limited and controlled. Krashen (1982a:71) observed:

> "... the profession has seriously underestimated the amount of comprehensible input necessary to achieve even moderate, or intermediate levels of proficiency ..."

Suggestopaedia is in full agreement and makes sure that learners understand by means of even L1 translations of the target language text materials. Lozanov (1978a:278) explained:

> "The suggestopaedic textbook must be in accordance with the principles of suggestopedy. This means that the material for each new lesson must be given in large portions and the theme of each lesson must be complete and given globally. The material must be presented in meaningful aggregates, and must be communicative. The textbook should have motivational force, and should be entertaining and interesting for the students."

It is clear that the input provided in a suggestopaedic session by means of a variety of techniques, for example visualizations, peripheral material, activations and text material, exposes a student to massive amounts of target language, contrary to many other methods used in the world.

Suggestopaedia and the Affective Filter Hypothesis

According to Krashen (1982b) Burt and Dulay suggested that an affective filter can keep L2 input from being internalized. The filter functions as a screen between input and the language acquisition device in the learner. Krashen (1982b:25) stated:

> "What the filter hypothesis says about pedagogy is that the more we do to lower the filter, i.e., the more our classes are low-anxiety, the better off our students will be."

Krashen (1982b:110) also said:

> "If the affective filter is 'up', no matter how beautifully the input is sequenced, no matter how meaningful and communicative the exercise is intended to be, little or no acquisition will take place."

Suggestopaedic language teaching is completely in agreement with the Affective Filter Hypothesis and builds in the lowering of the filter (or anti-suggestive barriers) with more care and circumspection. Lozanov (1978a) considered the role of lowered barriers important both for language acquisition and for releasing the reserve capacities of the human brain in general. Stevick (1976:158) pointed out that lack of defensiveness and wholesome attitudes on the part of the learner have to do with the learner's psychic state:

> "Here is where the theoretical and experimental basis of Suggestopaedia is much more fully elaborated than we find with any other system of language teaching, and here lies, in my opinion, its most distinctive and its most interesting contributions. Suggestopaedia ... tells us that once doubts and defenses have been removed, nothing can stop a learner who has the usual extrinsic motivation."

Neurological correlates of second language acquisition

As was mentioned previously, Krashen (1981) stated that research indicates that, even in adults, both hemispheres of the brain play an important role in L2 acquisition and that subconscious language acquisition is the central means by which a second language is internalized. It also appears that the right hemisphere is involved in normal L2 acquisition in much the same way that it is involved in L1 acquisition (Krashen, 1981).

Suggestopaedia is designed to involve the whole brain, obtaining simultaneous integration of all the brain systems, and thus ensuring optimal acquisition/learning. **Whole-brain** involvement as theorized by Suggestopaedia relates to some extent to all of Krashen's hypotheses and seems in agreement with them.

FINAL REMARKS

It thus seems that Krashen's and Lozanov's work are especially in agreement in the following areas: more emphasis on the affective domain of the L2 learner, the utilization of the conscious and subconscious and a richer, more open and more comfortable environment as the most effective way in which educators can optimize the natural human capacity for language acquisition.

It is noteworthy that although the suggestopaedic approach originated not in linguistics but in the medical field, Lozanov arrived largely (explicitly and implicitly) at the same insights with regard to language acquisition/learning as linguists like Krashen. The correlation between the two approaches confirms that both contain common denominators in second language teaching which are based on sound didactic, neurological and applied linguistic principles. It also confirms that the way in which Suggestopaedia teaches communicatively deserves attention. The happy students, as well as the good results obtained in a relatively short time, underline the point that all serious language teachers could benefit from greater attention to the approach called Suggestopaedia.

CONCLUSION

There are many good reasons why Suggestopaedia had to be examined in the South African situation. Amongst others the following could be singled out:

- the need for more proficient L2 speakers
- the frustrations with traditional language teaching methods
- the need for more effective inter-cultural communication
- the claims of above-average learning outcomes.

The description and analysis of Suggestopaedia intimate that it is an intricate and unique combination of known as well as unknown elements, integrated in an innovative way. It is evident that the theoretical basis of the method is sound and the principles are considered by many educationists, psychologists and neuroscientists as important in any teaching situation.

In the section where Suggestopaedia is looked at in terms of Krashen's theory, it is clear that there are some important areas of agreement and that in some respects, like the three anti-suggestive barriers, Suggestopaedia can be regarded as more fully elaborated.

It cannot be denied that there is much controversy, some of it enlightened, much of it unenlightened, around Suggestopaedia. It can also not be denied that

* Suggestopaedia was given a bad name by non-academics who abuse it for financial gain - especially with their claims of unrealistic results

* the designation elicits negative reactions in the West

* it originated behind the Iron Curtain which still causes concern in some circles.

In spite of these reservations, one has to conclude after a careful study of Suggestopaedia that

- it is based on a sound, academically justifiable theory

- results reported to date, tend to indicate that better results are obtained than with conventional methods

- the most recent developments in the fields of communicative language teaching, learning psychology and the neurosciences confirm many of the underlying principles of the method

- it warrants further scientific investigation.

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APPENDIX A

CLARIFICATION OF TERMINOLOGY

N.B. Most of the terms below are frequently used in this study, as well as in the literature on Suggestopaedia/SALT. The term **Suggestopaedia** is used in this study and it refers to the Westernized model, which is a combination of Lozanov's Suggestopedy, the Americanized SALT and various elements and adaptations from South Africa, Liechtenstein, the German Democratic Republic, Germany and Australia.

Terms are arranged alphabetically:

ACTIVATIONS - After the concerts - normally the following day - the students are given defocused or non-directed activities where they can apply the knowledge they have assimilated consciously, as well as paraconsciously. These activations include chorus reading, role playing, dramatizations, all kinds of games, et cetera.

ACQUISITION/LEARNING - Krashen (1981, 1982a, 1982b and 1985) distinguished between acquisition and learning. Acquisition is the natural, paraconscious "picking up" of the language. Learning is the conscious awareness of the structure (grammar) of the language - knowing about the language. When the two terms are used together (acquisition/learning), it refers to the mastering of a language which includes both these aspects, viz acquisition and learning.

ANTI-SUGGESTIVE (OR LEARNING) BARRIERS - Lozanov (1978a:164) referred to three barriers which protect the personality mentally and which endeavour to maintain the seemingly safe and trustworthy status quo. The anti-suggestive barriers are mental blocks, stopping learners from believing that they have nearly unlimited capacities. These barriers are beliefs originating from the social norms of society. The individual maintains resolute vigilance against any suggestions which are not in accordance with his accepted norms (vide Miele 1982:22). In Suggestopaedia the teacher endeavours to overcome or change these barriers by creating an environment where the learner does not feel threatened and then the teacher **convinces** the learner of his real potential when these barriers allow more of the real potential to be utilized. The more the real potential is released, the more these barriers or beliefs are changed to be in line with the new belief system, viz that one is capable of far more.

AUTHORITY - The authority and acceptance of the source of suggestion is very important for improved memory, as well as for the psychological and intellectual development of the learners. Not only should the teacher have authority, but also the physical surroundings, the materials being used, and the administration and organization of the institution (Racle 1976:155). "The concept of authority (not authoritarism!) [sic] as it is used in suggestology stands for the non-directive prestige which by indirect ways creates an atmosphere of confidence and intuitive desire to follow the set example" (Lozanov 1978a:187). Dhority

(1984:2-4) referred to authority as "the prestige, the trustworthiness, the presence of personality projected teacher as well as the prestige, credibility, impression of the learning institution itself ..."

DESUGGESTION - This is a process of sensitizing an individual to the limiting influence of some suggestions which come from his social environment. It changes the belief that man has limited mental capacities to the belief that man has almost unlimited capacities which can be released. In effect, desuggestion is largely a process to overcome the anti-suggestive barriers, or social norms which have a restricting effect on man's real potential.

DUAL-PLANENESS - Lozanov (1978a) referred to it as double-planeness. Communication always takes place on two levels simultaneously, namely on the conscious and the paraconscious level. The communicative act will, for example, include conscious-verbal stimulation as well as paraconscious-non-verbal stimulation (Caskey 1980:32). The latter could, inter alia, be facial expressions, body language and intonation conveying messages which are perceived on the paraconscious level. Erickson and Watzlawick both referred to the dual-plane effect of language rich in images, metaphors and symbolic meaning (in Watzlawick, 1978). Dual-plane verbal communication has the characteristic that it addresses/stimulates more of the paraconsciousness, subcortical structures of the brain and the right hemisphere of the brain, where ordinary verbal communication addresses/stimulates more of the consciousness and the left hemisphere of the brain.

EARLY PLEASANT LEARNING EXPERIENCE/ANCHORING - The students are taken on a guided imagery to a time and place where they learned easily and with joy. Dhority (1984:6-11) said: "The process of anchoring is designed to deliberately associate a stimulus to a particular experience. If the timing is good, so that the 'anchoring' association coincides with the fully evoked experience, the anchor will 'take', and the next time the anchor/stimulus is used, the associated experience will be accessed. When the anchoring process has been skilfully executed the stimulus/response mechanism can be called upon to serve the learning process on later occasions."

FIRST CONCERT OR ACTIVE PHASE - This is the reading of the material in a special way to the accompaniment of classical music. The teacher's voice becomes another musical instrument and flows with the music, that is, with the volume, pitch as well as the rhythm of the music, while the students follow the text on the left hand side of the page and glance at the translation of the text (in their mother tongue) on the right hand side of the page. In the first concert the teacher creates a ritual which leads to expectations of improved and accelerated learning. The music stimulates more of the right hemisphere and subcortical structures of the brain, whilst the text and the translation involve more of the left hemisphere. The music in harmony with the voice becomes an aesthetic experience, which ensures the involvement of the limbic system, the right hemisphere and the paraconsciousness. The first concert is specifically aimed at presenting material to the entire brain in a way which is ritualistic, exciting, pleasant and comprehensible. The latest research on the brain seems to indicate that the two hemispheres, as well as the subcortical structures are separate systems

and seem to process material differently, but there is constant communication between them and everything involves both hemispheres and the subcortical structures in an integrated way. (See p28-31 for a discussion of recent views on whole brain involvement.)

HAWTHORNE EFFECT - When something new is applied, it has a motivating and stimulating effect on the participants. Experiments were done at the Hawthorne Plant of the Western Electric Company in Chicago and the following gave rise to the term *Hawthorne Effect*: "The studies concerned the relationship between certain working conditions and worker output efficiency. Illumination was one of these manipulated experimental variables. It was discovered that as light intensity was increased, worker output increased. After a certain peak was apparently reached it was decided to see what effect the reduction of intensity of illumination would have. To the surprise of the researchers, as intensity was decreased by stages, output continued to increase. The researchers concluded that the attention given the workers and their awareness of participation in an experiment apparently were important motivating factors. From these studies the term *Hawthorne Effect* was introduced into psychological literature" (Best 1970:148-149). In second language teaching, a new method may interest the students at first, increase expectations and consequently the results will improve. But, after a while, when the novelty has worn off, the results will return to their previous levels (that is if the method does not improve their learning). In Suggestopaedia the Hawthorne Effect is an additional factor to assist with the overcoming of the anti-suggestive barriers in the initial stages. When the snowball effect starts and the reserve capacities are released, the decrease of the novelty and consequent decrease of the Hawthorne Effect will not matter.

HYPERMNESIA - Exceptional memory, or supermemory.

IMAGING - This is the ability to 'see' a picture in one's mind's eye. It actually implies more than that, namely the ability to perceive/re-experience internally, and that may include perceptions by all the senses. As in NLP, this internal perception is regarded by Suggestopaedic teachers as a powerful instrument to enhance learning and the retention of acquired material.

INFANTILIZATION - It is a condition of openness and childlike eagerness to learn, enjoy, trust and apply playfully. This state produces a calmness and receptiveness which augment the overcoming of the anti-suggestive barriers (Racle 1976:155). Infantilization does not disrupt normal intellectual activity, but it increases the perception, memorization and creative imagination considerably as it does during the earlier age periods (Lozanov 1978a:191).

L1 - Mother tongue, vernacular or first language.

L2 - Second Language.

L3 - Third language or foreign language

MENTAL AND PHYSICAL RELAXATION - Some light exercises are sometimes used in Suggestopaedia to relax muscles, to rid the body of unnecessary tensions, to ensure rhythmic and even breathing and to prepare for mental relaxation. As soon as the body is physically relaxed, it is possible to relax mentally which is a prerequisite for more effective brain activity which assists with enhanced concentration and bonding.

NEUROLINGUISTIC PROGRAMMING - This is a process used to encode, transfer, guide and modify behaviour. According to NLP (neurolinguistic programming) proponents, man perceives his environment through his senses (internally as well as externally). Certain people are, for example, more auditorily inclined and learn better by listening. This preference must be taken into account in teaching. Those modalities that are not fully developed must also get attention to provide the learner with a wider scope of senses involved in the learning process. The internal perceptions are regarded as essential by the proponents of NLP; and these are the ability, for example, to see in one's mind eye, or to feel within. Because the brain operates with images and concepts, this ability to perceive with the inner senses is a powerful educational tool which can reportedly accelerate and improve learning.

PARACONSCIOUS - The paraconscious includes all subconscious activities. "Paraconscious mental activity in a normal waking state does not refer only to subsensory and extrasensory stimuli: it is the basis of a number of our activities. Paraconscious mental activity is not only connected with the activity of perception. It also includes inclinations, affection, aspirations and the whole disposition of the personality" (Lozanov 1978a:104). The paraconscious is comparable with the largest portion of an iceberg which is beneath the water. Most of man's unrealized capacities are actually situated there (in the paraconscious). By involving the capacities of the paraconscious one can release potentials never realized before. Lozanov (1978a:74) said the following: "... paraconscious in the meaning of 'more or less unconscious'."

PERIPHERAL - This refers to the situation when suggestions are on the periphery of an individual's awareness - if his attention is drawn to them, he will perceive the suggestions consciously, but if they stay on the periphery, he will perceive them peripherally and mostly paraconsciously.

PLACEBO - This is normally associated with a procedure in the medical profession where a doctor gives a patient a sugar tablet instead of real pharmaceutical medication and it still has the desired effect because the patient believes in it and in the doctor administering it. The authority of the doctor is a crucial factor when a placebo is being administered, because the patient must believe in and trust the doctor to such an extent that he will not doubt the outcome of the treatment. Certain rituals in Suggestopaedia, for example the concerts, have a specific and positive function in the system, but in addition they can have a placebo effect because the students see the rituals and the teacher (authority) orchestrating them as important ingredients of the whole system and therefore important factors in the acceleration of the learning process. Although the term placebo has negative connotations, it is used in the most

positive way in Suggestopaedia, namely based on expectations which are justified because more of the real potential of the learner is released and utilized.

PRELUDE OR DECODING - This is essentially a global preview ("big picture") of the material to be instructed, but it is also a phase when the following take place: desuggestion, establishing of a warm and supportive relationship, trust in the teacher and high expectations of the text, the teacher and the course in general.

PYGMALION EFFECT - When a teacher expects a pupil to do well, the chances are good that the pupil will do just that - fulfilling the expectation of the teacher. Apparently the teacher conveys verbal, but more important, many non-verbal messages to the pupil, which are interpreted in the paraconscious and are often fulfilled when the pupil changes his behaviour to match what he has perceived paraconsciously. This phenomenon is also referred to as the self-fulfilling prophecy.

RESERVE CAPACITIES - Potential of the personality which is normally not utilized and often suppressed by anti-suggestive influences in the environment. "Unmanifested but genetically predetermined capacities operating mainly in the paraconscious and surpassing the normal ones several times over" (Lozanov, in Blair, 1982:147).

RITUALS - Certain components of the Suggestopaedic cycle, as well as the cycle as a whole, have a distinct ritualistic character, such as the two concerts. A ritual creates expectations; it offers a feeling of security because it is a repeated procedure; and it can be something aesthetically pleasing which can modify motivations and attitudes.

SALT - (System for Accelerated Learning and Teaching) is the Americanized version of Lozanov's Suggestopedy. Various aspects were added, for example from Asher's Total Physical Response, from Gattegno's Silent Way and from the work of academics working in the area of Neurolinguistic Programming. The Americans also put more emphasis on physical and mental relaxation and on visualization than Lozanov. SALT could also stand for Suggestive, Accelerative Learning and Teaching or Suggestive Accelerative Learning Techniques (Schuster and Gritton, 1986). SALT also stands for the Society for Accelerative Learning and Teaching. (Used in the references when refering to the Society responsible for the publication of the SALT Journals.)

SECOND CONCERT OR CONCERT PSEUDOPASSIVITY - During this concert the students do not follow the text, but sit back with their eyes closed while they relax. The text is then read with feeling and animation to the accompaniment of Baroque music. The students are told to allow their minds to wander, to listen to the music and, above all, to relax totally. During this concert the emphasis is more on the paraconsciousness and the right hemisphere. The critical and analyzing left hemisphere is more passive to provide access to the right hemisphere which is functioning more closely with the paraconsciousness. The music, the soft and soothing voice of the teacher, the relaxed and tension-free atmosphere and the individual thoughts of the student push the material to the periphery of awareness, and

this procedure makes it possible to involve more of the unreleased capacities of the personality (the whole person) in the learning process. (See FIRST CONCERT and p 28- 31 for a discussion of recent views on whole brain involvement.)

SILENT WAY - A language teaching method which was developed by Gattegno (in Blair 1982). In Suggestopaedia the Silent Way technique, of providing the listeners with the opportunity to listen carefully to the pronunciation and then to attempt it while the teacher keeps quiet, is sometimes utilized.

SPECIFIC AND NON-SPECIFIC MENTAL REACTIVITY - All the paraconscious, suggestive signals like peripheral stimuli, intonation, accent, facial expressions, body language, et cetera, provoking reactions, evoking feelings and creating desires (Racle 1976:152).

SOCIETAL NORMS - Suggestions, or influences, coming from society which convince man that he is limited as far as intellect is concerned, that he finds it hard to learn and that the process of learning is always unpleasant. These norms or beliefs have a suppressive effect on the real potential of man.

SUBLIMINAL STIMULATION - These perceptions are normally associated with unconscious stimulation when the conscious choice of the individual is by-passed, for example when advertisements utilize concealed suggestions which affect individuals without their being consciously aware of it.

SUGGESTIVE LINK - This link is established when the Suggestopaedic teacher deliberately and systematically endeavours to create a positive link between him and the students and amongst the students as a group. At the same time the teacher tries to orchestrate all the Suggestopaedic principles in such a harmonious way that all the students will feel at home, secure and happy in the learning environment.

SUGGESTIVE SET-UP - This refers to the regulation of paraconscious mental activity which leads to change or modification conditioned by previous experience, and this modification makes it possible to utilize or tap the reserves of the brain (Racle 1976:150). Lozanov defined the set-up as follows: "... the inner, paraconscious functional organization of readiness for a certain type of activity" (Lozanov 1978a:126).

SUGGESTION - It is used in its widest sense, viz communication or interaction with the total environment. Many of the stimuli perceived by an individual consciously, as well as paraconsciously, can be termed suggestion. Lozanov (1978a:201) defined suggestion as follows: "Suggestion is a constant communicative factor which chiefly through paraconscious mental activity can create conditions for tapping the functional reserve capacities of personality."

SUGGESTOLOGY - Lozanov (in Blair 1982:146) explained it as follows: "Suggestology is the comprehensive science of suggestion in all its aspects, ... it deals mainly with the possibilities of suggestion to tap man's reserve capacities in the spheres of both mind and body. Consequently it is the science of the accelerated harmonious development and self-control of man and his manifold talents."

SUGGESTOPEDY - Lozanov referred to it as Suggestopedy in the translated version of his book (1978a) and defined it as follows: "SUGGESTOPEDY is suggestology applied in the process of instruction" (Lozanov 1978a:vi). Based on Suggestology a system (Suggestopedy) evolved where suggestion is used to optimize learning and education as a whole.

SUGGESTOPAEDIA - This is the Westernized version of Lozanov's Suggestopedy. In this study, Suggestopaedia is a combination of Lozanov's Suggestopedy, the American SALT and various other elements and adaptations from countries like South Africa, Liechtenstein, the German Democratic Republic (East Germany), Germany and Australia.

TOTAL PHYSICAL RESPONSE/TPR - If the total person is involved in any activity, more of the brain is stimulated and more is perceived and assimilated. Asher (1982) developed a whole method for the teaching of foreign languages through physical responses. He called it TPR. Through movement and by obeying commands, the learner acquires the language in a very active way which improves memorization and retention. In Suggestopaedia certain TPR techniques are used because they are enjoyable and effective.

APPENDIX B

MUSIC USED IN SUGGESTOPAEDIA

LOZANOV'S MUSIC LIST

The music being used by Lozanov was chosen by E. Gateva and its effect was experimentally investigated in the physiology laboratory and in the language courses. The following list of music appears in Lozanov's (1978a:270-271) book:

"1) (A) Joseph Haydn, Symphony No. 67 in F major, and No. 69 in B major. (B) Archangelo Corelli, Concerti Grossi, op. 4, 10, 11, 12.

2) (A) Joseph Haydn, Concerto for Violin and String Orchestra, No. 1 in C major, and No. 2 in G major. (B) J.S. Back (sic), Symphony in C major, and Symphony in D major, J.C. Bach, Symphony in G minor, op. 6, No. 6, W.F. Bach, Symphony in D minor, C.P.E Bach, Symphony No. 2 for String Orchestra.

3) (A) W.A. Mozart, Haffner Symphony, Prague Symphony, German Dances. (B) G. Handel, Concerto for Organ and Orchestra, J.S. Bach, Choral Prelude in A major, and Prelude and Fuge in G minor.

4) (A) W.A. Mozart, Concerto for Violin and Orchestra, Concerto No. 7 in D major, (B) J.S. Bach - Fantasy in G major, Fantasy in C minor and Trio in D minor, Caconic Variations and Toccata.

5) (A) L.V. Beethoven (sic), Concerto No. 5 in E flat major for Piano and Orchestra, op. 73. (B) Antonio Vivaldi, Five Concertos for Flute and Chamber Orchestra.

6) (A) L.V. Beethoven (sic), Concerto for Violin and Orchestra in D major. (B) A Corelli, Concerto Grosso, op. 6, No. 3, 8, 5, 9.

7) (A) P.I. Tchaikovsky, Concerto No. 1 in B flat minor for Piano and Orchestra. (B) G.F. Handel, The Water Music.

8) (A) J. Brahms, Concerto for Violin and Orchestra in D major, op. 77 (B) F. Couperin, Le Parnasse et l'Astrée, Sonata in G minor, J.P. Rameau, Pièces de Clavecin No. 1, 5.

9) (A) F. Chopin, Waltzes, (B) G.F. Handel, Concerto Grosso, op. 3, No. 1, 2, 3, 5.

10) (A) W.A. Mozart, Concerto for Piano and Orchestra No. 18 in B flat major. (B) A. Vivaldi, The Four Seasons."

CASKEY'S MUSIC LIST

Caskey (1980:107-108) also provided a list of music in his book:

"Compositions

* 'Alborado del Garacioso' (Ravel)
* 'Clair de Lune' (Debussy)
* 'Concerto No. 23 in A Major' (Mozart)
* 'Daphnis et Chloe, Suite #2' (Ravel)
* 'Fantasia on Greensleeves' (Vaughan-Williams)
* 'Fantasia for Harpsicord' (Teleman)
* 'Quartet in D' (Haydn) (sic)
* 'Ich Ruf Zu Dir, Herr Jesu Christ' (sic) (Bach)
* 'Jesu, Joy of Man's Desiring' (Bach)
* 'L'Arlésienne Suites' (Bizet)
* 'La Valse' (Ravel)
* 'Le Bourgeois Gentilhomme' (Strauss)
* 'Lute Suite in E' (Bach)
* 'Metamorphosen' (Strauss)
* 'Nocturne from A Midsummer Night's Dream' (Mendelssohn)
* 'Num (sic) Komm Der Heiden Heiland' (Bach)
* 'Oboe Concerto' (Haydn) (sic)
* 'Pavane for a Dead Princess' (Ravel)
* 'Peer Gynt Suite #1, op. 46' (Grieg)

* 'Peer Gynt Suite #2, op. 55' (Grieg)

* 'Prelude and Allegro in E Flat' (Bach)

* 'Quartet in D' (Haydn) (sic)

* 'Serenade in D Minor, op. 44' (Dvorak)

* 'Sheep May Safely Graze' (Bach)

* 'Sleepers Wake' (Bach)

* 'Symphony #44 in E Minor' (Haydn) (sic)

* 'Wind Song-Daphne of the Dunes' (Partch)'

Selections from Albums:

* 'Christopher Parkening Plays Bach' (Christopher Parkening)

* 'A day in the Life' (Wes Montgomery)

* 'Help Me Make It Through The Night' (Hank Crawford)

* 'The Best of Hank Crawford' (Hank Crawford)

* 'Bach and Mozart' (Dinu Lipatti)

* 'Beethoven and Mozart' (Walter Gieseking)

* 'A Bach Recital' (Andres Segovia)

* 'Bach - The Goldberg Variations' (Martin Galling)

* 'Bach Goldberg Variations' (Anthony Newman)

* 'The Classical Brazilian Guitar' (Maria Liuia)

* 'The Sounds of India' (Riva Shankar)

* 'Spectrum Suite' (Steve Halpern)

* 'I' (Steve Halpern)

* 'Light and Love and Power' (Joel Andrews)

* 'Inside' (Paul Horn)

MUSIC LIST OF THE AUTHOR

The following music was used by the author during various projects of the Institute for Language Teaching, University of Stellenbosch:

* W. A. Mozart, Symphony No 40 in G Minor, K. 550.

* W. A. Mozart, Symphony No 41 in C Major, K. 551.

* W. A. Mozart, Symphony No 39 in E-Flat Major, K. 543.

* W. A. Mozart, Symphony No 35, in D Major, "Haffner", K. 385.

* W. A. Mozart, Symphony No 34, in C Major, K. 338.

* W. A. Mozart, Violin Concerto No 4, K. 218.

* W. A. Mozart, Violin Concerto No 5, in A Major, K. 219.

* W. A. Mozart, Clarinet Concerto, in A Major, K. 622.

* W. A. Mozart, Oboe Quartet, in F Major, K. 370.

* W. A. Mozart, Clarinet Quintet, in A Major, K. 581.

* W. A. Mozart, Piano Concerto No 20, in D Minor, K. 466.

* W. A. Mozart, Concerto for Flute and Orchestra in G Major, KV 313.

* W. A. Mozart, Concerto for Oboe and Orchestra in C Major, KV 314.

* W.A. Mozart, Concerto for Horn and Orchestra, No 1 in D Major, KV 412.

* W.A. Mozart, Concerto for Horn and Orchestra, No 2 in E Flat Major, KV 417.

* W.A. Mozart, Concerto for Horn and Orchestra in E Flat Major, KV 447.

* W.A. Mozart, Concerto for Horn and Orchestra in E Flat Major, KV 495.

* Haydn, Concerto for Orchestra and Trumpet, No 1.

* Mendelssohn, Concerto in E Minor for Violin and Orchestra.

* Vivaldi, Concerto in A Minor for Two Violins and String Orchestra.

* Vivaldi, Concerto in B Flat Major, op. 8, No 5.

* Vivaldi, Concerto en ut Majeur, op. 8, No 6.

* Vivaldi, Concerto en re Mineur, op 8, No 7.

* Vivaldi, Concerto en sol Mineur, op. 8, No 8.

* Vivaldi, Concerto en si Bemol Majeur, op 8, No 10.

* Vivaldi, Concerto en re Majeur, op 8, No 11.

* Vivaldi, The Four Seasons.

* Vivaldi, Concerto in G Major for two Violins, two Violincelli, Strings and Continuo.

* Vivaldi, Concerto in A Major and B Major for two Violins, Violincelli, Strings and Continuo.

* J. S. Bach, Concerto No 1 in D Minor for Harpsicord and String Orchestra.

* J. S. Bach, Concerto No 2 in E Major for Harpsicord and String Orchestra.

* J. S. Bach, Suite No 2 in A flat

* J. S. Bach, Suite No 3, in D Major.

* Encore. More Largos and Adagios. 1984. Music of Albinoni, Corelli, Bach, Galuppi, Vivaldi and Gluck. San Francisco: The LIND Institute.

* Relax with the classics. Adagio. 1987. Baroque masterpieces. San Francisco: The LIND Institute.

* Relax with the classics. Andante. 1987. Baroque masterpieces. San Francisco: The LIND Institute.

* Relax with the classics. Largo. 1987. Baroque masterpieces. San Francisco: The LIND Institute.

* Relax with the classics. Pastorale. 1987. Baroque masterpieces. San Francisco: The LIND Institute.

* Baroque music. Number one. 1983. San Rafael, Ca: Barzak Educational Institute, Inc.

* Baroque music. Number two. 1983. San Rafael, Ca: Barzak Educational Institute, Inc.

* Pachelbel canon. Vivaldi, Handel, J.S. Bach, Mouret and other Baroque hits. 1985. Minneapolis: Intersound, Inc.

* Baroque Flute Concertos.— Vivaldi, Pergolesi, Leclair and Woodcock.

* Concerto for Flute, Strings and Continuo in G Major; Leclair:

* Concerto for Flute, Strings and Continuo op. 7, No 3; Woodcock:

* Concerto for German Flute, Strings and Continuo in E Minor.

* Handel, Suite from "The Water Music".

* Handel, Minuet from "The Faithful Shepherd".

* Handel, Largo from "Xerxes"

* Handel, Concerto for Organ No 4, in F Major, op. 4, No 4

* Handel, Concerto for Organ No 6, in B-Flat, op. 4, No 6.

* Handel, Concerto for Organ No 8, in A Major, op. 7, No 2.

* Handel, Concerto for Organ No 10, in D-Flat, op. 7, No 4.

* Steven Halpern, Spectrum Suite.

* Daniel Kobialka, Dream Passage.

MUSIC LIST OF THE INSTITUTE OF MNEMOLOGY

Music used for the concert session (they use only one) at the Institute of Mnemology of the Karl Marx University, German Democratic Republic (East Germany):

1) F.A. Boieldieu, Konzert für Harfe und Orchester C-dur, 1801: Andante lento

2) W.A. Mozart, Sinfonie A-dur, KV 186a (KV 201), 1774: Andante

3) W.A. Mozart, Sinfonie C-dur, KV 189k (KV 173e - KV 200), 1774: Andante

4) J. Haydn, Konzert für Oboe und Orchester C-dur, approx. 1800: Andante

5) W.A. Mozart, Konzert für Klarinette und Orchester A-dur, KV 622, 1791: Adagio

6) W.A. Mozart, Konzert für Fagott und Orchester B-dur, KV 191 (KV6 186a), 1774: Andante ma Adagio

7) W.A. Mozart, Konzert für Flüte, Harfe und Orchester C-dur, KV 299 (K6 297c), 1778: Andantino

8) W.A. Mozart, Sinfonia Concertante Es-dur, für Oboe, Klarinette, Horn und Fagott, KV A9 (KV6 C14c), 1778: Adagio

9) Anonymos, Konzert für Trompete, Solovioline, Streicher und Basso continuo Es-dur: 2nd movement (Andante)

10) J. Haydn, Konzert für Trompete und Orchester Es-dur: Allegro.