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SUGGESTOPEDIC ART IN DIFFERENT SCHOOL SUBJECTS AND AGES

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Since 1971 we have established model methods for the application of some suggestopedic Sforms of art in foreign languages, native language teaching and mathematics for the 1st, 2nd and 3rd grades, in other subjects for the 10th grade.

1.Suggestopedic Melodrama and Recital

This is a synthesis of globalized and artistically treated educational contents, interdisciplinary relations, selected works of classical music as background for the hyperbolization (hyperbolization - creating a state of unusually high expectation), on the side, and on the other, artistic presentation of the teaching contents. It also has a psychotherapeutical effect. This genre has been differentiated according to students' ages.

We experimented with more than 100 different musical works. The genre was experimented and applied in training: of English, French, German, Italian, Spanish and

Russian for students (children of 7-18) of the 1st to 11th grade, and for adults from 18 to 70, in mathematics for the 1st-3rd grade; of all subjects in the 10th grade (16 year-olds).

2. Artistic Didactical Songs with Dances and Musicals

They are naturally incorporated in the actual teaching contents. They code the most important methodological units. The lyrics and the music play equally important roles and the music accentuates the teaching contents. They can be used for the artistic introduction of new school material and for the consolidation of knowledge, skills and abilities. They also have a psychotherapeutical importance. They are selected in accordance with students' ages and applied in foreign language teaching, in math in the first grade, in geography and other academic subjects.

3. Suggestopedic Opera

This is a synthesis of a globally and artistically treated teaching material, interdisciplinary relations and different arts (poetry, drama, music, ballet, painting, cinema). Its performance requires artistic-didactical attention to the teaching material of methodological units. It can be used in all subjects for presenting the new teaching contents (material) and for the consolidation of knowledge, skills and abilities in a complete teaching cycle (global themes). It can be used in mass practice, too. This genre must be in accordance with the students' ages. It applies in the teaching of mathematics in grades 1,2 and 3, in foreign language teaching, etc.

Concert programmes of arias and songs, integrated with the teaching content, have been experimented with and applied in foreign language teaching, in geography for the 4th grade, and in different subjects in the 10th grade. The textbooks are in fact libretti of their own kind.

4. Fine Arts

We experimented with the methodology¹ and its effect using 150 different reproductions in learning new lexical and grammatical units in foreign languages. In the suggestopedic textbooks they illustrate concrete teaching material.

5. Artistic Suggestopedic Textbook

It synthesizes several arts (dramatic art, prose, poetry, songs, dances, operatic fragments, reproductions of classical paintings and sculptures, graphic illustrations) with an increased amount of teaching contents, with interdisciplinary relations, and it also has a psychotherapeutical and psychohygienic orientation.

It has been applied with success in foreign language teaching of children and adults, in first grade-mathematics and geography in the fourth grade, etc.

The effect of the suggestopedic forms of art (melodrama and recital, opera and song - and ballet performances, didactic songs, classical songs and arias programmes, a series of art and sculpture reproductions and textbooks on arts) on the trainees in different academic subjects, was investigated in a complex manner (1971-1984). The methods of investigation included: observations, interviews, study of different teaching documentations, questionnaires, testing of experimental and control groups to establish the results of learning new teaching information (supplied and developed with the suggestopedic forms of art and without such forms), in order to register the concentration and the distribution of attention, the state of the working capacities, the state of fatigue of the visual and acoustic analyzers as well as the vegetative and the cardio-vascular systems by measuring the heartbeat and the blood pressure.

More detailed information on this subject is included in the dissertation defended by the author entitled „Interaction between the Intonations of Speech and Music in Learning new Instructional Content“, University of Sofia, 1986, as well as in the author's book entitled „Globalized Artistic Build of the Process of Instruction and

¹ The methodology is described in part in „The Foreign Language Teachers Suggestopedic Manual“, G.Lozanov and E.Gateva, New York, 1988 and in „Globalized Artistic Build“, E.Gateva, Sofia 1987

Teaching - suggestopedic Model - Central Institute of Scientific and Technical Information, Sofia 1987.

Here we shall briefly examine some of the conclusions resulting from these measurements and researches.

1. By using the methods of observation, interview and study of teaching documentation (tests, films and photographs, diaries, ect.) a higher standard of learning was established, made possible by a voluminous presentation of information presented and organized globally through the medium of suggestopedic srt.

2. By inquiry investigations (anonymous and non-anonymous) on the effect of the suggestopedic melodrama and concert recitals, it was found that:

a) works of music create a balanced emotional background and mental concentration in the trainees as well as desire to hear those works of music a second time;

b) the concert session (melodrama and concert recital) in the most appreciated stage of a class (in comparison with the introductions and developments);

c) the most preferred music are A. Vivaldi's "The Seasons", Beethoven's Violin concerto in D major, and Mozart's Violin concerto in A major;

d) the largest number of trainees think the melodrama and recital establish a state of general relaxation and mental concentration;

e) neurotic and pre-neurotic conditions are therapeutically effected to the largest percentage by the concert session;

f) over 95% of the students showed satisfaction with the musical programme of the melodrama and the recital irrespective of sex, age-group, profession, education, studied language as well as for different periods after the completion of the course.

3. The complex investigation trainees indicated: improvement of memorization, greater concentration and distribution of attention, improved working capacities, lack of evidence of overburdening of the cardio-vascular and vegetative nervous systems.

4. The opinion polls (inquires) (both anonymous and non-anonymous) after the completion of foreign language suggestopedic courses about the trainees' attitude to the artistic didactic songs included in the process of instruction indicated that:

a) 98% of the trainees like the songs and think that they are the reason that the new teaching elements are remembered with ease and pleasant emotions;

b) On an average over 90% of the students like the songs irrespective of sex, age-group, education, speciality, profession, or periods of time after the completion of the course.

5. Experimental studies with control groups for learning new school material in foreign languages (English, German, French and Italian), memorization tests for new word forms, supplied by artistic-didactic songs, classical songs and operatic arias showed that the new lexical and grammatical units are better and more lastingly memorized when they are presented by means of songs and arias, rather than by the text alone.

6. The experimental complex studies in autocontrol² and in control schools about the effect of the song-and-ballet TV show entitled "The Day" the children's operas "The Land of Children" and "Fairy-tale World" for learning new teaching material as well as their psychophysiological reflection indicate (after the performances in the experimental schools):

1) by the "arithmetical problems" test – increased assimilation of mathematical knowledge

² autocontrol schools – the same experimental schools with different programs to be compared. For example: the same didactic material given with suggestopedic TV presentation and without.

- 2) by correction tests – increased working capacity and concentration of the attention
- 3) by figure test – lack of fatigue of the visual analyzer, activation of attention and short-term memory
- 4) by musical tests for distinguishing higher pitch tones and faster melodies – lack of fatigue of the acoustic analyzer, and
- 5) by physiological measurements of the heart-beat and blood pressure (together with G.Lozanov) - calming down of the vegetative and cardio-vascular systems.

a) The complex studies of the above-mentioned characteristics also carried out in public schools, selected at random, indicate the same favourable results as in the experimental schools.

b) The “Solution of Arithmetical Tasks” made after the conclusion of the whole global theme developed on the basis of the TV shows indicate that the results are in favour of the experimental schools and what is more – in a considerably smaller number of academic hours spent on the Maths theme.

c) The data of the complex studies of 6-year-old children show that the results are as favourable as with the 7-year old.

7. The experimental study with control groups for learning new school material in English, French and German taught with artistic text and a reproduction of classical painting accompanying the text indicate that new foreign language phrases are better memorized when accompanied by reproductions than when taught only by using the text material.

8. The complex and comparative studies for the reflexion of the old (clinical) variant and the artistic variant of foreign language suggestopedia indicate an improvement in favour of the artistic variant:

a) on the intellectual-mnemonic functions of the trainees (investigations using the tests: “bigger-smaller”, “simple analogies”, “complex analogies” “solving arithmetical problems by memory”, “memorization of words of the Hindi language”,

b) on the working capacity of the trainees both after the melodrama and concert recital stage, and after the developments (corrective test studies),

c) on learning new school material of increased volume (studies using the old test system and the test system of the artistic variant),

d) increasing interest in all kinds of music (by anonymous inquiry),

e) increasing the interest in the theatre, cinema, opera, art and culture of the respective country (by anonymous inquiry).

Here follow 11 tables and parts of some films.

Table 1 – Preferences of the students for different stages of the suggestopedic educational process and characteristics of the influence of each stage. Adults.

Factors	Deciphering (Introduction)		Melodrama and recital		Further development	
	n	%	n	%	n	%
Preffered stage	113	9,58	569	48,27	497	42,15
Easiness of mastering the educational meterial	51	10,34	299	60,52	144	29,14
Created relaxation	13	7,02	131	70,81	41	22,17
Increases concentration	11	12,94	51	60,00	23	27,06
Creates aesthetic exrerience	13	10,40	89	71,20	23	18,40

Table 2 – Results from the test for memorization of the meaning of new foreign language word forms taught with a session (melodrama and recital) and without a session – differences between entrance and exit. Adults.

Groups	n	\bar{x}	s
Experimental group with session	53	20,39	+/-5,1
Control group without session	41	15,82	+/-4,2
Difference		4,57	
Significance		p<0,01	

n-number of participants \bar{x} - arithmetical mean Δx - difference between differences s - standart deviation p-significance

Table 3 – Corrective probe - the average number of checked letters and of errors before and after the session and the average in the control study-before and after deciphering. Adults.

Stage of testing: before session – entrance, after session - exit.

Correct answers

Session	entrance			exit		Δx	p <
	n	\bar{x}	s	\bar{x}	s		
I	229	323,05	+/-68,06	371,36	+/-80,75	48,31	.001
III	201	344,67	+/-66,80	401,51	+/-91,70	56,84	.001

Stage of testing: entrance – before deciphering, exit (control) - after deciphering

Session	entrance			exit		Δx	p <
	n	\bar{x}	s	\bar{x}	s		
I	229	331,99	+/-70,25	323,05	+/-68,06	-8,94	.001
III	201	393,86	+/-82,24	344,67	+/-66,80	-49,19	.001

Difference between the differences

	s	s	Δx	p <
I	(-8,94)	(+/-51,90)	-48,31 (+/-53,98)	57,25 .001
III	(-49,19)	(+/-53,01)	-56,84(+/-64,51)	106,03 .001

Incorrect answers

Stage of testing: entrance – before session, exit – after session

Session	entrance			exit		Δx	p <
	n	\bar{x}	s	\bar{x}	s		
I	229	4,72	+/-3,56	2,85	+/-2,85	-1,87	.001
III	201	5,17	+/-3,46	3,07	+/-3,83	-2,10	.001

Stage of testing: entrance – before deciphering, exit – after deciphering

Session	entrance			exit		Δx	p <
	n	\bar{x}	s	\bar{x}	s		
I	229	3,14	+/-2,84	4,72	+/-3,56	1,58	.001

III	201	3,05	+/-2,29	5,17	+/-3,46	2,12	.001
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Difference between the differences

	s	s	Δx	p <
I	1,58 (+/-3,81)	-(-1,87) (+/-3,63)	3,45	.001
III	2,12 (+/-3,49)	-(-2,10)(+/-4,02)	4,22	.001

Table 4 – Pulse frequency before and after the session. Adults.

Time of measurement	n	pulse frequency			Δx	p
		\bar{x}	s	m		
before the melodrama and recital(session)	423	73,44	+/- 9,89	+/- 0,48	-	-
after the melodrama and recital(session)	423	71,63	+/- 9,97	+/- 0,48	1,81	<.001

Table 5 – Results of memorizing new foreign language word forms after musical recital (session). Children. I session

Groups	Immediate tests			Postponed tests		
	n	\bar{x}	s	n	\bar{x}	s
II and V grades						
Experimental group	41	5,87	+/- 1,6	41	7,75	+/-1,7
Control group	47	3,48	+/- 1,1	47	6,00	+/-1,7
Difference Δx		2,39			1,75	
Significance	p <.001			p <.001		

Table 6 – Corrective probe – differences in the average number of observed signs and of errors in the experimental and control groups. III and V grades

Groups	correct				incorrect			
	n	\bar{x}	s	m	n	\bar{x}	s	m
Exp groups with session	55	6,76	+/-9,51	1,28	55	-0,50	+/-1,9	0,25
Control groups without session	50	-12,14	+/-21,75	3,01	50	-0,64	+/-5,55	1,01
Difference Δx	6,76 -(-12,14)=18,90				0,5 - (0,64)=0,14			
Significance	p <.001				p 0,05			

Table 7 – The table frequency before and after the musical recitation in II, III and V grades. Children.

before session			after session			Difference	Significance
n	\bar{x}	s	n	\bar{x}	s	Δx	p
107	82,3	+/-2,1	107	81,1	+/-2,1	1,2	<.01

Table 8 – Memorizing the meaning of English and German word forms taught through artistic-didactic songs and through text only

Songs	1. As a song			As a text			Diff. Δx	Sig p <
	n	\bar{x}	s	n	\bar{x}	s		
English	162	9,87	+/- 4,98	166	8,50	+/-5,0	1,37	.05
German	60	10,90	+/- 5,46	59	9,08	+/-4,48	1,82	.05

Table 9 - Result of testing children with the „problem-solving“ test before and after the TV opera, „Land of the Children“ in the experimental schools, and before and after the hour of mathematics in the control schools.

Correct answers

Schools	Entrance			exit			
	n	\bar{x}	s	\bar{x}	s	Δx	p
122 and 50(exp)	181	10,29	+/- 7,38	12,25	+/-7,38	1,96	< .05
139 and 164(cont)	104	8,43	+/- 5,39	8,99	+/-5,34	0,56	>.05

$$\text{Difference of differences } 1,96(+/-4,24) - 0,56(+/-4,13) = 1,4 \quad <.01$$

Incorrect answers

Schools	Entrance			exit			
	n	\bar{x}	s	\bar{x}	s	Δx	p
122 and 50(exp)	181	2,44	+/- 3,15	2,01	+/-3,15	-0,43	< .05
139 and 64(cont)	104	1,44	+/- 2,25	1,64	+/-3,04	0,20	>.05

Difference of differences $-0,43(+/-2,71)-0,20(+/-2,98) = 0,63$ <.05

Table 10 – Corrective probe before and after TV opera in the experimental schools and before and after the hour of math, in the control schools

Correct answer

Schools	n	Entrance		exit		Δx	p
		\bar{x}	s	\bar{x}	s		
122 and 50(exp)	195	12,58	+/- 6,00	10,78	+/-5,15	-1,80	< .01
139 and 64(cont)	104	11,81	+/- 4,31	8,30	+/-3,88	-3,51	<.001

Difference of differences $-1,80(+/-5,47)-(-3,51)(+/-4,35) = 1,71$ <.01

Incorrect answer

Schools	n	Entrance		exit		Δx	p
		\bar{x}	s	\bar{x}	s		
122 and 50(exp)	195	2,68	+/- 4,63	4,48	+/-4,34	1,80	< .001
139 and 64(cont)	104	2,31	+/- 4,56	3,81	+/-3,58	1,50	<.01

Difference of differences $1,80(+/-5,64)-1,50(+/-5,62) = 0,30$ >.05

Table 11 – Results from the translation of the story „What a beautiful girl“ taught with an artistic reproduction (Cuello) and without reproduction

Groups	Number of translated words		
	n	\bar{x}	s
Experimental group with reproduction	87	11,02	+/- 3,1
Control group without reproduction	114	8,11	+/-2,5
Difference Δx		2,91	
Significance		p <.001	