

# Critical factors of the performance of Greek adolescents in *Solfège*

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## Abstract

*Solfège* is a type of musical exercise and one of the most difficult in teaching of music and source of disappointment for students. Their errors can be revealing. The aim of the research is to observe, describe and analyze errors made during the interpretation of tonal and modal melodies (western European tonal music and Greek folkloric music). These also constitute indications and the means to analyze cerebral procedures that relate with the learning, reading, understanding and singing of music and allow us to discover the reasons that have to do with the recognition and the performance of musical notes, intervals, degrees and cadences that cause difficulties and errors. The 36 students, our representative statistical sample, are examined in two different types of teaching (typical and Kodaly) into a special cultural environment. Finally, the interpretative analysis of errors proves the indisputable influence of culture and musical education as the most significant critical factors of the performance of Greek adolescents in *Solfège*.

## Theoretical background

Based on three dimensions: the socio cultural, the pedagogical and the psychological, we state the following hypotheses (Hyp) according to which:

### Music culture (Socio-cultural dimension)

**Hyp1:** The systematic education of the western European music dominates within the musical culture (Greek modal music) of the socio cultural environment of the students, causing, however, significant difficulty in the consolidation and performance.

**Hyp2:** The conflict between cognitive and experienced (emotional) procedure is caused by the necessary co-existence of two different music systems: the tonic (which involves the cognitive field) and modal (which involves the emotional field).

### Methods of teaching music (pedagogical dimension)

**Hyp3:** the relative solmisation of Kodaly's method confers a homogeneous melodic form on singing exercises and in this way facilitates the learning processes that the traditional pedagogical method doesn't authorize

### Mental functions of music teaching (psychological dimension)

**Hyp4:** The errors which appear during an educational procedure, attributed to the student's ability to recognise or not a melody but also to the cognitive process and the influence of his musical culture

## Research Methodology

The research methodology was mixed (quantitative & qualitative) based on:

**Spot observation** of key parties involved (teachers and students), the used pedagogical methods and educational material, in order to deepen better and set boundaries in the area of research and thus declaring its problems (questions and hypotheses).

**Questionnaire** of personal evaluation with general content aimed at the students (socio-cultural dimension),

**Defining interviews** (questions concerning the performance and errors made during specific exercises; psychological dimension).

**Analysis of the content** of the proposed exercises, the tables and graphs created so as to rank the errors.

## Statistical sample

The research was conducted in the **Municipal Conservatory of Patras (Greece)**, during the academic year 2009-2010, the last month of every term (November, March, June).

Forty eight hours of lessons in twenty eight tapes (the lesson lasts 45 minutes) were recorded. **Thirty six (36) students** (18 boys, 18 girls) from **12 to 16 years of age** were involved, in three classes of "third theory" (1).

The majority of students belonged to the middle class, affected by a variety of musical influences and benefited by an educational programme which introduces the Kodaly method for the first time.

## Solfège exercises



Figure A: The tonic exercise



Figure B: The demotic exercise

## Results of research

Students		Solfège - Melody		
		Structural Elements		
		4 <sup>th</sup> Intervals	2 <sup>nd</sup> Degrees	6 <sup>th</sup> Cadence
1 <sup>st</sup> student	N° of errors	5/48	5/47	5/24
	% of errors	10%	11%	21%
2 <sup>nd</sup> student	N° of errors	0/48	0/47	0/24
	% of errors	0%	0%	0%
3 <sup>rd</sup> student	N° of errors	3/48	3/47	3/24
	% of errors	6%	6%	13%
4 <sup>th</sup> student	N° of errors	7/48	7/47	6/24
	% of errors	15%	15%	25%
...	...	...	...	...
36 <sup>th</sup> student	N° of errors	9/48	9/47	7/24
	% of errors	19%	19%	29%

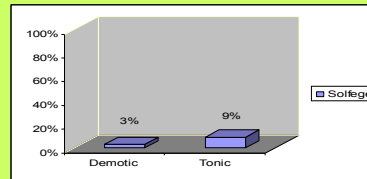
Table 1: Errors from the exercises of tonic music (sample)

Students		Solfège - Melody		
		Structural Elements		
		5 <sup>th</sup> Intervals	2 <sup>nd</sup> Degrees	5 <sup>th</sup> Cadence
1 <sup>st</sup> student	N° of errors	0/52	0/29	0/5
	% of errors	0%	0%	0%
2 <sup>nd</sup> student	N° of errors	2/52	3/29	1/5
	% of errors	4%	11%	20%
3 <sup>rd</sup> student	N° of errors	1/52	1/29	1/5
	% of errors	2%	4%	20%
4 <sup>th</sup> student	N° of errors	3/52	4/29	1/5
	% of errors	6%	14%	20%
...	...	...	...	...
36 <sup>th</sup> student	N° of errors	0/52	0/29	0/5
	% of errors	0%	0%	0%

Table 2: Errors from the demotic (modal) music exercise (sample)

Melody / Solfège					
% Students	Notes	Intervals	Degrees	Cadence	Bars
	do (p)	d <sup>+</sup>	VI		8
20/36 students (55%)	re (p)	46	I	Perfect complex (50/50)	7
	mi (p)	44	V	Perfect (V-I)	9
28/36 students (80%)	fa (p)	49	V	Perfect (V-I)	11
30/36 students (83%)	so (p)	46	IV	Perfect (V-I/IV-I)	3

Table 3: Errors of Solfège melody



Graph 1: Percentage of errors in Demotic & Tonic exercises of Solfège

Musical style	Alien notes: in Solfège (Errors over 50%)		Intervals in Solfège (Errors over 50%)	
	Demotic	Tonic	Demotic	Tonic
	None	delay	46, -5 <sup>+</sup> , 44 <sup>+</sup> , -7 <sup>+</sup>	None

Table 4: Vital errors in exercises in tonic and demotic music during the Solfège exercises

### Hyp 1 : Not Confirmed

The systematic study of a type of music (tonic music) outweighs the music culture (demotic music), causing supplementary difficulties to the students which is observed during the execution of the exercises (melody of singing) of tonic and demotic music. (See tables 1,2)

### Hyp 2 : Confirmed

The fact that the melody of the exercise of tonic music provoke some errors to the students in all the categories of structural elements of tonic music (intervals, degrees, cadences), confirms that there is a conflict between cognitive and experienced (emotional) procedure. (See table 3)

### Hyp 3 : Confirmed

The relative solmisation of Kodaly's method, which is applied during the singing exercises, facilitate more the learning processes than the traditional. (See Chart1 & Table 4)

### Hyp 4 : Confirmed

The errors which appear during an educational procedure are attributed to the ability to recognise and to perform a melody and to the cognitive and musical culture of a student (See Table3)

## Conclusion

The melody of the exercise of tonic music in *solfège* causes a few more problems than the melody of the exercise of demotic music to the students in all the categories of structural elements (notes, intervals, degrees, cadences). Specifically, the effort to perform a tonic melody leads students to a momentous knowledge, a result of the systematic study of the Western-European music system (Cognitive domain).

Although a similar attempt to execute a demotic model melody is affected to a large extent by the cultural background, a result of a musical culture of a nation and their daily conscious and unconscious acoustic experiences (emotional domain).

The lack of experience and education of the students in these types of the exercises are necessary requirements so as to overcome the obstacles they face during the coding of any exercise.

We are obliged to specify, however, that Greek students do not practice adequately in Greek modal music and mainly count on their cultural instinct (music heritage). The difficulties they face in performing these types of exercises may be attributed to the phenomenon of attempting to adjust students to the Western-European music culture.

## References

- \*Astolfi J.-P. (1997). L'erreur, un outil pour enseigner. Paris: Les Editions Sociales Francaises (ESF).
- \*Mialaret J.-P. (1997). Explorations musicales instrumentales chez le jeune enfant, Paris, Presses Universitaires de France.
- \*Poupard - Le Moigne H.(2002). *Erreurs, décalages et ajustements dans le processus enseignement/apprentissage lors de cours de Biologie en classes de sixième et de cinquième*, tome 1 et 2, Villeneuve d'Ascq, France, Presses Universitaires Septentrion.
- \*Frances, R. (1984). *La perception de la musique*. Paris: Vrin.