

ICPEBK 2015 : 5th International Congress of Physical Education, Sports and Kinetherapy

Study Regarding the Education of Motor Expressivity and Musicality within the Gymnastic and Body Expression Activities

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Abstract

<http://dx.doi.org/10.15405/epsbs.2016.06.14>

Those who understand the multilateral value of physical education must admit the necessity to educate the expressive aspects of motricity as well. Expression exercises represent a strong motivation for the psychomotor development of children, facilitating expression, creativity and originality in choosing and performing motor actions with expressive qualities. Rhythmic, artistic, aerobic gymnastics, dance sport are sports activities that aim to educate the special body expressivity at a superior level characterized by a high degree of the communication function, through means having an artistic value. Assuming that gymnastic and body expression activities have an influence on the aesthetic side of pupils' personality and leave their mark on children's psychomotor education, our study was focused on the education and development of motor expressivity and musicality at various qualitative levels, from the spontaneous, natural manifestations to the mentally elaborated ones, expressed through meaningful body movement constructed with a well-determined purpose. During the experiment, our attention was oriented towards the motor gesture expression, the way of interpreting musical accompaniment, but also towards some personality traits able to facilitate the expressivity manifestation. We tried to stimulate the creative fantasy of subjects, who had to compose diverse motor structures, according to musical accompaniment. In the construction of trials, we had in view the display of transposition and expressivity availabilities; the combination of expression forms; a sufficient number of themes, stimuli and response situations. Without laying the stress on a particular body technique, we demonstrate within our experiment that certain artistic, aesthetic aspects can be educated.

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Keywords: Gymnastic activities; body expression; motor musicality.

1. Introduction

Specialty literature highlights a series of interesting aspects and data related to *expression* and *expressive behaviour*. Numerous authors (Allport, 1981; Pavelcu, 1969, 1982; Fraisse, 1970; Slama-Cazacu, 1968; Neacșu, 1971; Ralea, 1957) were concerned with analysing and defining these terms.



Their valuable standpoints have oriented us towards understanding *expression* as a complex phenomenon whose composition involves the intervention of inner elements, cognitive-affective processes, attitudes, motivations, mental states, different personality traits.

Expression exercises may represent a strong motivation for the psychomotor development of children, facilitating expression, creativity and originality in choosing and performing different motor actions with expressive qualities. All possible forms of body expression have a remarkable educational value, contributing to a better self-knowledge in the field of gesture.

Gymnastic and body expression activities reflect their influence on the aesthetic side of pupils' personality and leave their mark on children's psychomotor education. The educational perspectives offered are unique and translate into the creation of emotions rich in meanings – motor expressivity.

If we approach expressive motricity within a systematic learning process, we can favourably influence the pathway from the spontaneous-unconscious expression towards the educated expressive behaviour, able to respond effectively to the communication and understanding needs, but also to the social-cultural exigencies and norms.

In the process of educating expressive motricity, the subject must restructure and adapt his/her movement, as a response to external temporal stimuli, “from this perspective, music playing a particular role, because it is a temporal art which realizes the durations by organizing the sounds” (Macovei & Vişan, 2003: 69). Musical accompaniment contributes to stimulating imagination, creating some emotional states, educating motor communication capacity.

1.1. Purpose

Our study aims to prove, without focusing on a particular body technique, that some artistic-musical-expressive aspects can be educated within the physical education and sports activities, using certain means specific to expression activities. In our research, we focused attention not only on the final assessment of the expressive-communicative value of motor gesture performed in accordance with the particularities of musical accompaniment, but also on some personality traits contributing to develop expression interiorly.

This research has started from the *hypothesis* that the expressive and musical potential of each subject can be valued within a learning process using a varied and original motor-artistic content inspired from the dance field and some gymnastic activities which complement the classical training means.

2. Materials and methods

Methods used: experimental method - ameliorative-ascertaining experiment, testing and assessment method, statistical and graphical methods.

2.1. Subjects, organization and stages of the research (Table 1)

The experiment was conducted between January and June 2014, on a number of 6 girls in grades 4th and 5th, members of the representative gymnastics and dance school team.

Table 1. Stages of the research

January	February-May	June
<i>Initial testing</i>	Educating attitude and artistic execution, rhythmicity and motor musicality;	<i>Final testing</i>
Applying the extraversion-neuroticism questionnaire (Eysenck - form A);	Developing body expressivity and artistic imagination, applying the proposed programme.	Motor trials:
Cattell's anxiety scale;		- Attitude and artistic execution - arms-trunk;
Setting the motor content and acting technology;		- Rhythmicity and artistic execution (lower body);
Cattell's anxiety scale.		- Capacity to perform motor actions at various paces;
		- Capacity to perform expressive motor actions according to the character of music (improvisation).

2.2. *Trials and tests*

During the experiment, our attention was oriented towards the motor gesture expression, the way of interpreting musical accompaniment, but also towards some personality traits able to facilitate the expressivity manifestation. We tried to stimulate the creative fantasy of the subjects, who were put in the situation of composing themselves diverse motor structures, according to musical accompaniment. In the construction of trials, we had in view the display of transposition and expressivity availabilities; the combination of expression forms (directed, free, improvised ones); the use of a sufficient number of themes, stimuli and response situations.

Without laying the stress on a particular body technique, we considered that certain artistic, aesthetic aspects could also be pursued within the physical education classes, but insisting on the educative, recreational and regenerating qualities of physical expression activities, with a beneficial effect on pupil's personality.

Motor trials were complemented with psychological tests: *Eysenck "EPI" test - form A* (1986) and *Cattell's anxiety test* (1974). The purpose was to identify the subjects' introversion-extraversion level. We did not proceed to establish the correlation (from the statistic point of view) between some personality traits and the communication capacity through body expression; however, the collected data allowed us, to a certain extent, to orient preparation.

2.3. *Acting systems*

- Exercises for educating body and motor aesthetics (exercises specific to classical dance, executed with support at wall bar and in the centre of gymnastic mat, thematic movement variants)
- Exercises for educating rhythmicity and motor musicality (rhythmic themes with percussion and musical games)
- Exercises with hand apparatus
- Exercises with body technical elements
- Exercises for expression

These structures were applied over 6 months, 3 to 4 hours per week, the allotted time depending on the school schedule.

The following scheme was pursued in planning the content of expression and rhythmic-musical preparation (Table 2):

Table 2. Content planning for the expression (E) and rhythmic-musical (RM) preparation

January	February	March	April	May
E (25-30 min. exercise structures specific to classical dance)	E (25-30 min. exercise structures specific to classical dance)	E (25-30 min. exercise structures specific to classical dance)	E (15-20 min. exercise structures specific to classical dance) (15-20 min. exercise structures with dance steps)	E (15-20 min. exercise structures specific to classical dance) (15-20 min. exercise structures with dance steps)
RM (10 min. with 1-2 exercises)	RM (10 min. with 1-2 exercises)	RM (10 min. with 1-2 exercises)	RM (10 min. with 1-2 exercises)	RM (10 min. with 1-2 exercises)

Ways of approaching the themes for expression:

- Travels with walking and running variants
- Travels with a “significant value”
- Movements with a significance
- Travels: in pairs, in subgroups, all group
- Mimicking some actions – interpreting diverse roles using the body – that express moods, ideas
- Exercises with hand apparatus
- Exercises for educating body and motor aesthetics (exercises specific to classical dance)
- Exercises for improving motor memory, coordination and body technique
- Exercises for educating rhythmicity and motor musicality
- Exercises for space awareness, with an emphasis on zones, directions, levels, trajectories

2.4. Motor trials

The subjects were assessed by awarding them points from 1 to 10.

- Trial 1 - *Attitude and artistic execution - arms-trunk*: a 32-time structure which must present variety in the work plane and range of motion. Musical accompaniment in 4/4 time. Maximum number of attempts: 3.
- Trial 2 - *Rhythmicity and artistic execution (lower body)*: a rhythmic theme in 2/4 time, executed through travels with rhythmic steps and turns, simultaneously with percussion, to mark the value of musical notes. Maximum number of attempts: 6.
- Trial 3 - *Capacity to perform motor actions at various paces*: changing the pace of rhythmic steps in accordance with the modification of tempos proposed for achieving the theme (moderate, slow and fast tempos). Maximum number of attempts: 3.
- Trial 4 - *Capacity to perform expressive motor actions according to the character of music (improvisation)*: aimed at the subjects’ ability to adapt and transpose into the motor plane the interpretative character of music, but also at their ability to select the most appropriate and expressive means.

3. Results

The obtained results, after the initial and final testing in the 4 trials, were tabulated, statistically interpreted. Graphs allowed us to better illustrate the subjects' results and their evolution, and also offered us suggestions for interpreting and comparing them.

To see if the difference between the two rows of data is significant, we applied the t-test for correlated samples, because the same subjects were tested through the same trials and at the same time interval. The calculated t-value was compared with the t-variable value in Fisher's Table (Smith, 1971), corresponding to the number of subjects, in the column ($f = n-1$).

Statistical indicators of the sample allow establishing some significance or "confidence" intervals, where a certain specified risk will exist, that of giving a wrong value to the population indicators. The risk for which we have estimated it represents the significance threshold that, in the physical activity science, is 5% ($p = 0.05$); in other words, we assessed preparation with a probability of 15%. Given the possibility that some accidental events may occur, it was also taken into consideration the significance threshold of 0.01, which gave us a probability of 99%. Based on the formulated hypothesis, it has been checked if the value of the obtained statistical indicator is accidental or the result is significant (generalizable). Regarding the tests performed by the 6 subjects, when the t-value was higher than 2.57 for a 95% probability and higher than 4.03 for a 99% probability, we rejected the null hypothesis and accepted the specific one. Results achieved by the subjects in the motor trials are shown in Tables 3, 4, 5, 6 and Figures 1, 2, 3, 4.

Table 3. Trial no. 1 - Attitude and artistic execution - arms-trunk

Subject code	Initial testing			Final testing		
	Rating	Nb. reps	Points	Rating	Nb. reps	Points
S. 1	attitude - artistic execution: poor	3	4	attitude - artistic execution: good	2	8
S. 2	attitude - artistic execution: poor	3	4	attitude - artistic execution: very good	1	10
S. 3	attitude - artistic execution: poor	3	4	attitude - artistic execution: good	2	8
S. 4	attitude - artistic execution: good	3	6	attitude - artistic execution: good	2	8
S. 5	attitude - artistic execution: good	2	8	attitude - artistic execution: very good	1	10
S. 6	attitude - artistic execution: good	2	8	attitude - artistic execution: very good	1	10

$\Sigma D = 20$; $\Sigma D^2 = 80$; $S_p = 2.68$; $S_{\bar{p}} = 1.09$; $\bar{D} = 3.33$; $t = 3.05$

As to the characteristics of attitude and artistic execution at the upper limb level, we consider, based on the results recorded at the initial testing, that most subjects have achieved low scores, which suggests insufficient physical preparation. None of the subjects managed to perform the proposed structure in the first attempt. At the final testing, the subjects recorded significant progress. The data grouping around the arithmetic mean is more pronounced, and the t-value of 3.05 is higher than 2.571

at the p-threshold of 0.05 and $f = n - 1 = 5$ in Fisher's Table. We consider that the difference is significant, with a probability of more than 95%.

Comparative presentation of the results (points) obtained at trial no. 1 by the experimental group subjects is shown in Figure 1.

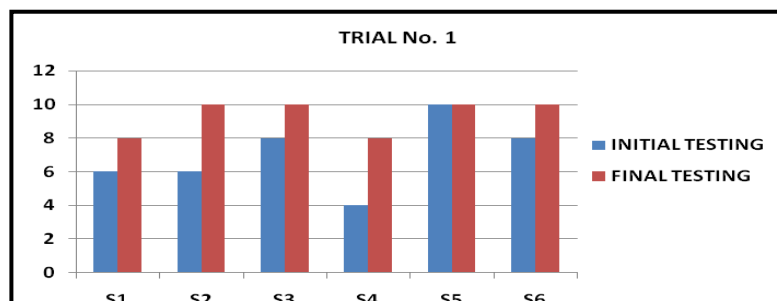


Fig. 1. Trial no. 1 - Attitude and artistic execution - arms-trunk

Table 4. Trial no. 2 - Rhythmicity and artistic execution (lower body)

Subject code	Initial testing		Final testing	
	Nb. reps	Points	Nb. Reps	Points
S. 1	3	8	2	8
S. 2	3	8	1	10
S. 3	2	9	1	10
S. 4	5	6	2	8
S. 5	1	10	1	10
S. 6	4	7	1	10

$\Sigma D = 8; \Sigma D^2 = 18; S_p = 1.21; S_{\bar{p}} = 0.49; \bar{D} = 1.33; t = 2.71$

At trial 2, the t-value is 2.71, which indicates that there is significant progress, with a probability of more than 95%.

Comparative presentation of the results (points) obtained at trial no. 2 by the experimental group subjects is shown in Figure 2.

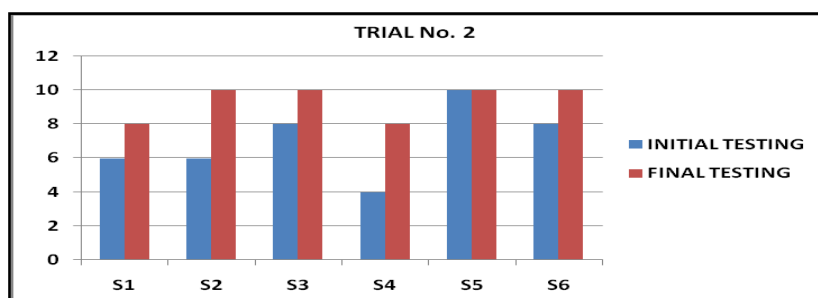


Fig. 2. Trial no. 2 - Rhythmicity and artistic execution (lower body)

Table 5. Trial no. 3 - Capacity to perform motor actions at various paces (Mp - moderate pace; Sp - slow pace; Fp - fast pace)

Subject code	Initial testing				Final testing			
	Mp	Sp	Fp	Points	Mp	Sp	Fp	Points
S. 1	X			6	X			6
S. 2		X		6		X	X	8
S. 3			X	6			X	6
S. 4				0	X			6
S. 5	X	X		8	X	X	X	10
S. 6		X		6		X		6

$\Sigma D = 10$; $\Sigma D^2 = 40$; $S_p = 2.34$; $S_{\bar{p}} = 0.95$; $\bar{D} = 1.66$; $t = 1.74$

Analysing the results presented in Table 5, we notice the subjects' incapacity to execute the same motor structure at different paces. This can be explained by the insufficient time allotted to rhythmic-musical preparation within the experiment and by the age of the subjects. The recorded progress is not significant, $t = 1.74$.

Comparative presentation of the results (points) obtained at trial no. 3 by the experimental group subjects is shown in Figure 3.

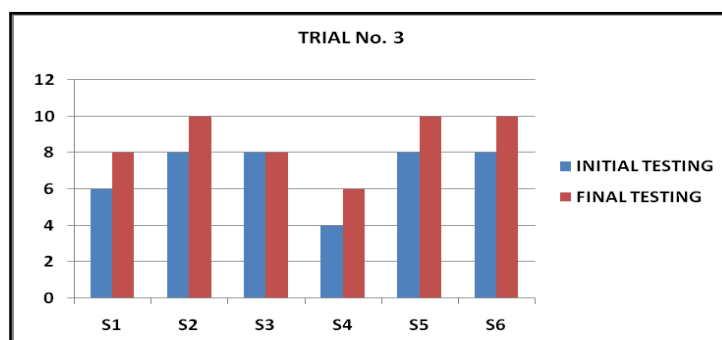


Fig. 3. Trial no. 3 - Capacity to perform motor actions at various paces

Table 6. Trial no. 4 - Capacity to perform expressive motor actions according to the character of music (improvisation)

Subject code	Experiment group	
	Initial testing	Final testing
S. 1	4	8
S. 2	6	8
S. 3	6	10
S. 4	4	8
S. 5	8	10
S. 6	6	8

$\Sigma D = 18$; $\Sigma D^2 = 60$; $S_p = 1.09$; $S_{\bar{p}} = 0.44$; $\bar{D} = 3$; $t = 6.81$

Comparative presentation of the results (points) obtained at trial no. 4 by the experimental group subjects is shown in Figure 4.

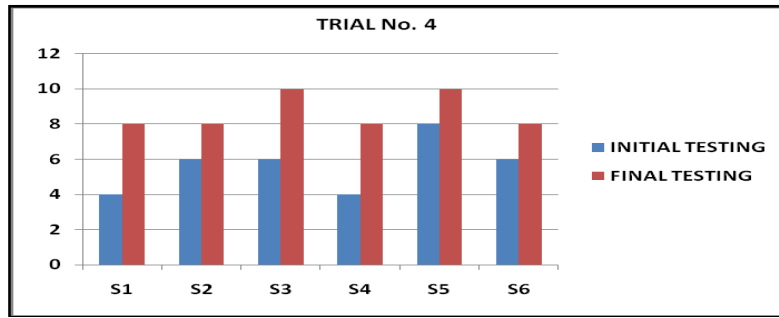


Fig. 4. Trial no. 4 - Capacity to perform expressive motor actions according to the character of music (improvisation)

At trial no. 4, the subjects recorded significant progress, $t = 6.81$, with a probability of more than 99%. The quality of improvisation largely depended on the complexity of the theme and the technical and artistic background of the subjects. Our subjects have imaginative, creative-productive potential.

After applying and interpreting the psychological tests: extraversion-neuroticism questionnaire - Eysenck - form A (Table 7; Fig. 5) and Cattell's anxiety scale (Table 8; Fig. 6), the following aspects can be highlighted:

Table 7. Results for Eysenck "EPI" questionnaire - Form A

Parameters					
Item no.	Subjects	N	E	L	Observations
1.	S.M.	4/2	9/15	4	Extroversion to ambivert - Emotional stability
2.	V.E.	4/7	6/12	5	Ambivert to introversion - Emotional stability
3.	V.A.	5/8	6/13	2-3	Ambivert to introversion - Emotional stability
4.	G.M.	1/2	6/17	4-5	Ambivert to extraversion - Emotional stability
5.	T.R.	1/3	6/12	3-4	Ambivert to introversion - Emotional stability - very good
6.	G.A.	4/10	4/12	4	Ambivert to introversion - Emotional stability

E Factor - subjects are characterized by the ambivert personality type, with a tendency to introversion; *N Factor* - emotional stability ($N < 6$); *L Factor* - subjects did not distort the responses ($L < 4-5$ p).

The subjects are objective and effectively interpret the concrete situations, with a small dose of subjectivity and imaginary interpretation of reality. In a 50% percentage, they consider themselves responsible for the negative elements in their activity. The subjects show a slight state of nervousness only in the presence of stressful elements (unknown persons), when they feel unprepared and when they have to face a difficult task.

The subjects' results are illustrated in Table 8 under the form of "raw scores", in the third column, and under the form of standard scores, for each test parameter, in columns Q3, C, L, O and Q4.

Table 8. Results for “C” factor – Anxiety

Item no.	Subjects	Overall standard scores	Test parameters in partial standard scores					Observations
			Q3	C	L	O	Q4	
1.	S.M.	3	4	3	4	6	1	ANXIETY at normal level
2.	V.E.	0	2	3	6	0	0	ANXIETY at low level
3.	V.A.	5	6	3	6	5	3	ANXIETY at normal level
4.	G.M.	0	2	3	6	0	0	ANXIETY at low level
5.	T.R.	5	6	3	6	5	3	ANXIETY at normal level
6.	G.A.	3	7	0	5	0	6	ANXIETY at normal level

“C” Factor - anxiety - subjects frame within the “calm, relaxed” type, manifest a low anxiety level, which denotes harmony, self-confidence, capacity of self-improvement, flexibility and good adaptation to the specific activity carried out.

Conclusions after applying the psychological tests: the investigated subjects present easiness in learning motor acts, have imaginative, creative-productive potential, good emotional stability and low anxiety level (Fig. 5).

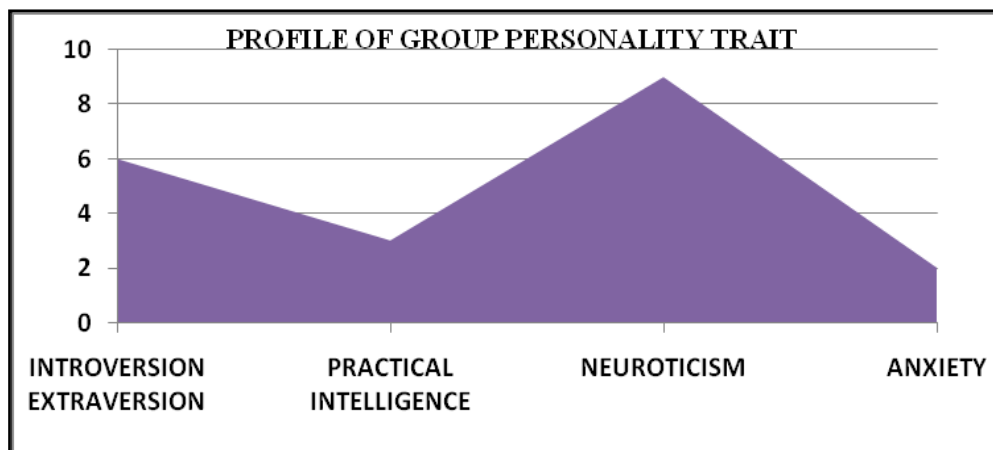


Fig. 5. Profile of group personality traits - Eysenck “EPI”, S.M., 38, anxiety - Cattell

The subject S.M., although characterized by extraversion, achieved the best results in practical trials and also proved prompt reactions, spontaneity and artistic expressivity in executing the proposed themes.

The preparation for body expression approached within the experiment provides the introverts, too, the opportunity to communicate through movement. Analysis of the results obtained in practical trials confirms that most introverted subjects are expressive. It is difficult to correlate expression with a certain personality trait, because expressive behaviour is the result of several determining factors.

4. Discussions and conclusions

The motor-artistic content applied during preparation was characterized by the variety of means and the original approach, and was designed considering the subjects' individual particularities. This has stimulated communication through suggestive body expression and has contributed to the development of motor expressivity.

The obtained results validate the research hypothesis and the efficiency of means used throughout the proposed programme, conceived so that preparation includes aspects focused on expression, rhythmicity and motor musicality.

It has been found that approaching a varied and original motor-artistic content contributes to educating attitude and artistic execution, developing body expressivity, rhythmicity and motor musicality, and stimulating communication through appropriate and suggestive body expression, as well as the subjects' artistic imagination.

Classical dance and rhythmic-musical preparation must be complemented with means mainly focused on body expression. Programmes can be extremely diverse, providing thus for the children the framework suitable to communication through movement rich in meanings.

All possible forms of body expression have a remarkable educational value, contributing to a better self-knowledge in the field of gesture. Mastering one's body will make children and young people become aware of their own body. They will learn to create their own motor gestures and actions, according to each one's style and specific personality.

Expression exercises represent a strong motivation for the psychomotor development of children, facilitating expression, creativity and originality in choosing and performing different motor actions with expressive qualities.

Using a varied musical accompaniment contributes to educate the pupils' sense of rhythm and form their general music culture, which will make them able to understand the message of music and then transpose it through expressive body movement.

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