

Creative Dance as a Means of Growth and Development of Fundamental Motor Skills for Children in First Grades of Primary Schools in Greece

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ABSTRACT--- *Creative dance is currently an exceptional contemporary pedagogical and teaching approach which assists and supports significantly the harmonious kinetic development of individuals. Moreover, it is an amusing educational tool that contributes to the establishment of fundamental motor skills in fostering coordination, cooperation and team co-responsibility, psychomotor development and in the creation of a pleasant teaching environment. The purpose of this study was to examine the effectiveness of an interventional program for the development of movement education, having as a central axis creative dance for children in 1st and 2nd grade of primary school. Thus, it focuses on developing and improving fundamental motor skills and related concepts of creative movement as far as it concerns space, time, flow, dynamics and relationships. Eighty students (N=80) of two primary schools in Thessaloniki, seven to nine years old, followed this interventional program for eight weeks that included creative dance activities and traditional dances. For data collection and evaluation of motor skills of students, Ulrich 2000 test was employed. The results confirm the crucial role of the intervention program for the development of kinetic education - centered on the creative dance-in the development and improvement of fundamental motor transferable skills to young students.*

Keywords-- Creative dance, motor skills, traditional dance, teaching approach, primary school

1. INTRODUCTION

Contemporary pedagogical concepts support that the approach and acquisition of new knowledge should be based on a combination of brain processes and senses, so that the child can develop, among others, the creative imagination and musicality (Antonakakis, 1996). Creative dance is considered one of the most effective pedagogical approaches for the satisfaction of the innate disposition for movement and also the experiential consolidation of the concept of rhythm. Moreover, creative dance activities teach, alongside the autonomy of free expression, effortless development of intelligence and awareness of the conditions of proper teamwork (Haselbach, 1979).

Movement and dance programs give children the opportunity to experience and benefit from creative and complex motor experiences, regardless of their abilities. Movement is a basic form of experience and communication (Koff, 2000). When movement becomes dance it facilitates the acquisition of sensory, motor, cognitive, social and emotional skills either as individual skill or as a coherent integrated development experience. Movement through dance helps children to learn about their bodies and how to express through it, the body becomes the communication vehicle of the young child who expresses feelings and communicates with its environment (Lutz & Kuhlman, 2000; Zahopoulou, 2007). Moreover, it teaches children how to handle different situations such as motor planning, problem solving or social interactions (Lorenzo-Lasa et al., 2007; Clemente Franco Justo, 2008; Rebecca H.P. Vheung, 2010; Spanaki et al., 2010). Additionally, dance is characterized as a non-competitive kinetic activity that improves fitness and promotes health (Best, 1982). At the same time, practicing rhythmic capability, develops neuromuscular coordination and synchronization resulting strengthening somatognosias and kinaesthetic perceptions (Churcher, 1971; Laban, 1975; Sanderson, 1988). Moreover, the child learns to cooperate, to take responsibilities and roles and learns to respect and comply with the rules. Developing in that way, a parallel direction of harmonious elements of both music and movement intuition and also elements of personality in an active way (Fritsch, 1985; Tambling, 1990; Rica, 2004).

Laban (1975) expressed the view that child's effort to perform instinctively dance moves, leads to the flow of movement and expressiveness. Therefore, spontaneous, creative expressive movement, embedded in the curriculum can be an effective tool for training (Wyrick, 1968; Ward, 1974; Gruber, 1986; Zachopoulou & Makris 2005; Lykesas & Koutsouba, 2008). According to Laban (1975), the role of the school is to cultivate and enrich the spontaneous movement and make the child aware of the principles that direct motions. For this purpose, the development of artistic inclinations of the child should not be directed towards the perfection of the performed movement, but in creative movement itself and the beneficial effect it has on the child's personality. It also provides children the opportunity to exercise their initiative, creativity, militancy and adventurous mood. Therefore, a well designed program contributes not only to the development of motor skills, but also on the total development of the child (Capel, 1986). Creative movement contributes to children's development of motor and expressive skills expanding their creative ingenuity (Kraft, 1986; Koutsoupa, 2005; Lorenzo-Lassa et al, 2007). Creative dance is the only activity where physical movement is used as a functional and personal expression that engages the mind, body and soul (Torrance, 1965; Joyce 1994; Pica, 2004).

However there are studies that identify a negative attitude and indifference of students for dance (Graham, 1995). The majority of studies indicate, however, that an educational program that includes creative dance activities, is characterized by students' willingness to discover, explore, collaborate and create a pleasant climate. It has a positive effect on the acceptance of dance as a subject but also to the improvement their motor skills (Capel, 1986; Nieminem, 1997; Rebecca Hun Ping Cheung, 2010).

An effective research is that of Lobo & Winsler (2006) who examined the improvement of social skills and behavior in preschool children through a creative dance program intrusive. Studies showed positive results after intervention programs in early childhood (Pavrides, 2001; Lykesas, et al., 2003; Venetsanou & Leventis, 2010), in primary school students (Bourneli, 2001; Lykesas, 2002) and adolescents (Doulia et al., 2005). Significant advantages also presented in Sacha's & Russ's (2006) research, who used game as a method of teaching dance classes in preschool through a fictional context, relative to the speed of learning a new skill, revocation of skills, attention to the activity and fun (Sacha & Russ, 2006).

Research findings (Bettle, et al., 2001; Dotti, et al., 2002; Price, 2006) show that professional dancers taking part in dance classes from their early childhood are more likely to worry about their bodies and develop eating disorders compared with other athletes or the general population.

Intervention programs that aim to improve or develop movement skills are of interest to educators because the curriculum proposes objectives without providing content and teaching methods. Curriculums utilize a teacher-centered teaching mode and a teaching approach that focuses on rigorous technical steps. Therefore, any research that proposes interventional programs both in kindergarten and in primary school, with the objectives and methods of implementation is very useful.

Piek and colleagues (2013) have applied an interventional program for children aged 4-6 that included imitation of animal movements to promote coordination of movement and motor skills and the results showed significant improvement in the experimental group. Similar studies have demonstrated the effectiveness of specific interventional programs (Zachopoulou et al., 2007; Hardy et al., 2009; Livonena et al., 2011; Piek et al., 2013). A creative dance program can be a powerful teaching motive in children 3-10 years in the development of gross fundamental motor skills (Ulrich, 2000).

The purpose, therefore, of this study was to evaluate the efficacy of a creative dance intervention program, of the development and improvement of fundamental motor skills regarding the concepts of creative movement. The importance of this research lies in the fact that students approach these programs experimentally and practically, through their desire for discovery, exploration and cooperation.

2. METHODOLOGY

2.2 Sample

Participants were students from the first and second grade of the 8th and 109th Elementary Schools of Kalamaria and Toumba, Thessaloniki. The sample consisted of 80 students (N = 80) from both schools (38 girls, 42 boys) aged 7 to 9 years. All students participated in the program, which was adapted to the daily timetable scheduling elementary schools, two times a week for 30-40 minutes during eight weeks. The sample was selected by the method of stratified random sampling (Thomas & Nelson, 2003). The experimental group were 40 students (N = 40) that were engaged in a creative dance program (N=40, MO=7,85 ± 9.8). The control group was parted by 40 students from the school in which children were taught movement through a traditional teaching approach using the curriculum design (N=40, MO=7,88 ± 9.9), according to the Ministry of Education and Religions (2006).

1.2 Measurement instrument

For the kinetic evaluation of students, the test of gross motor development was used (Ulrich TGMD-2, 2000). This test is a set of evaluation assesses of gross motor development in children aged 3 to 10 years. The test is divided into two sub-tests, a) in sub-test of travelling skills and b) in sub-test of handling skills. In the present study, only the sub-test of travelling was examined. This sub-test examined and assessed the correct implementation in: 1) running, 2) galloping, 3) hop scotching, 4) the jump stride, 5) the horizontal jump and 6) in the lateral run-gliding.

Time measurement and evaluation of each child lasted about 15-20 minutes and the test was performed on each child individually or in some cases in small groups of two and three children. Each test was performed twice in each child, since there had been a verbal explanation and demonstration by the investigator and both efforts were evaluated. Finally, both attempts have been calculated and the sum was matched according to child's age. The creator of this test sets norms for age, so depending on the age of the child and the results of the tests the level of motor development is determined. The rating levels were: very high, high, above the average, average, below average, poor, very poor. The test of gross motor development TGMD-2 by Ulrich is the second and most advanced version of the original TGMD created in 1985 and is considered a valid tool for measuring motor skills for children three to ten years. The validity and reliability of the test was found by Evaggelinou, Tsigilis and Papa (2002) in their research in 644 children, in Greece.

1.3 Teaching Program

The teaching method which was applied was based on the combination of two styles of teaching according to Mosston & Ashworth (1997); a) of guided discovery or invention and b) divergent productivity that promotes students' creativity (Bourneli, 2001; Lykesas & Smith, 2007). Both groups were evaluated by the test of Ulrich (2000) before (pre-test) and after (Post-test) intervention. The program's design was based in four elements: Body, Space, Movement dynamic and Relationships. Initially, the first activities were of mild intensity and aimed at knowledge of the body. Through creative playful - dancing activities, children discovered the capabilities and abilities of the body in relation to space, then with time and developed relationships with material and other individuals. A key element of the activities was the free expression and self-motivated children. Progressively, activities evolved from simple to more complex and dynamic motion led to the completion of a choreography.

2.4 Statistical analysis

For the data analysis, statistical package SPSS / PC, v. 17.0 for windows was employed. Specifically, descriptive statistics analysis and frequencies was used in order to identify the percentage (%) incidence of each variable.

3. RESULTS

Ulrich, based on the score made by each child at index Gross Motor Quotient, described as “**Very Poor**”, “**Poor**”, “**Below Average**”, “**Average**”, “**Above Average**”, “**Superior**”, “**Very Superior**”. Students who took part in this investigation were classified in seven categories. Afterwards, the researchers presented some charts that would be able to see the scores of students in the initial and final measurements in each group (experimental and control group).

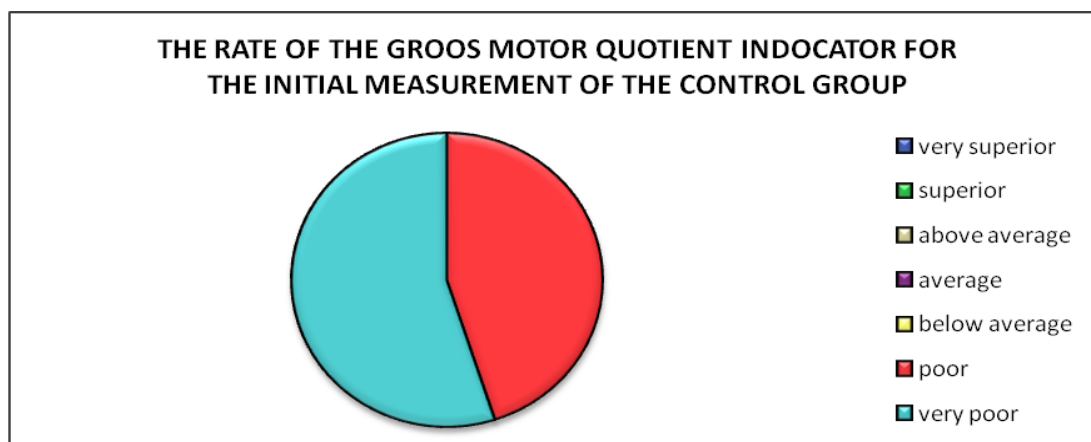


Figure 1: Students in the initial measurement of the control group and their classification based on the GMQ indicator.

In the above chart, we see the results of the initial measurement of the control group. According to Ulrich's categorization we can observe that over 55% of children identified very poor (very poor) kinetically, while the remaining 45% of students identified as poor (poor). From this categorization it becomes apparent the low level of children's mobility in the control group. Noteworthy is the fact of the absolute lack of the other categories and no child seemed to belong to a higher level physically.

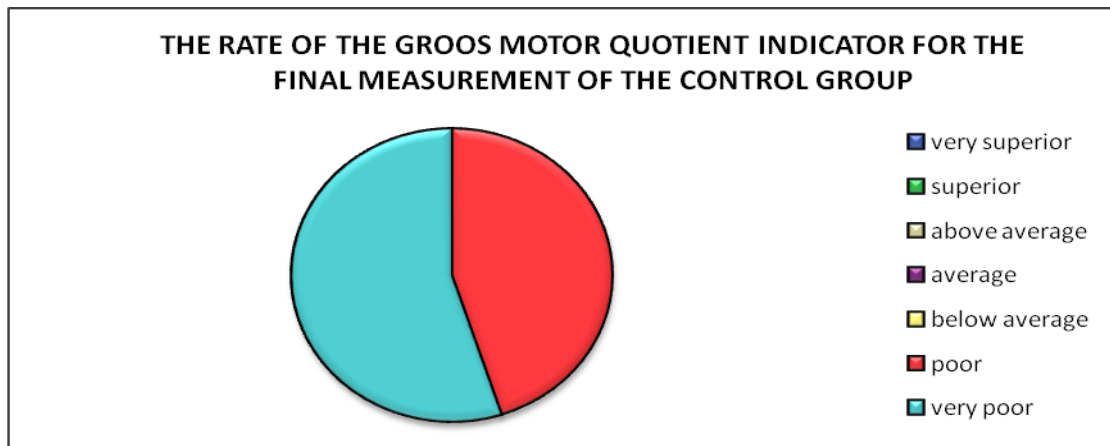


Figure 2: Students in the final measurement of the control group and their classification based on the GMQ indicator.

The above figure (2) concerns children in the control group, ie the class which did not accept intervention by the researchers. Children under the criteria of the test are categorized mostly in very poor mobility 55% and poor 45% and there seems to be no improvement from baseline to final measurement. If we compare the above two charts, referred to the same group of children where they received assistance from researchers, we will find that their evolution was minimal. There is little deviation from presenting their initial measurement, which shows that within 2 months students did not show the slightest improvement. This suggests that perhaps the traditional dance program administered by the Physical Education teacher in elementary school was not developmentally appropriate and did not assist students to improve kinetically.

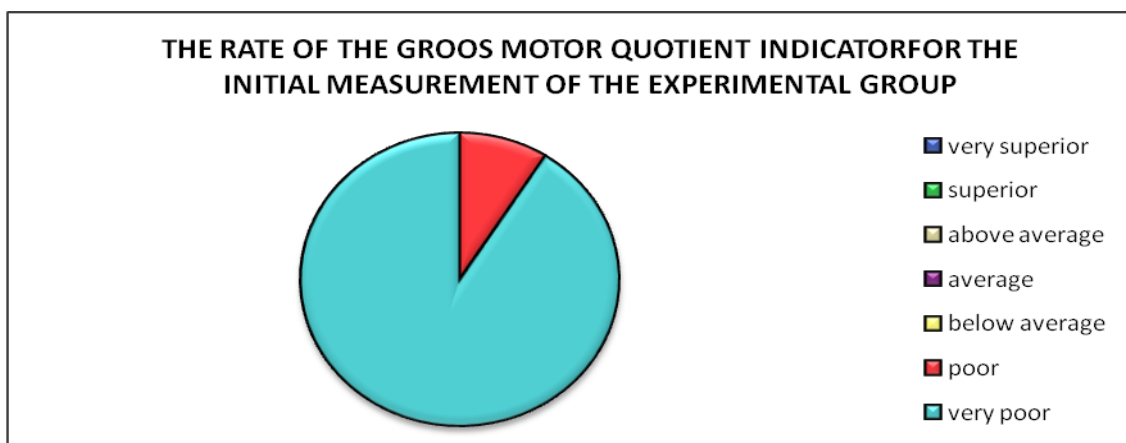


Figure 3: Students in the initial measurement of the experimental group and their classification based on the GMQ indicator.

Figure 3, represents the kinetic status of students in the experimental group at baseline, ie before the implementation of the intervention. As observed in the sample, a very high percentage 91% was classified as very poor in motor skills, while only a small percentage 9% was slightly higher and characterized kinetically poor. Comparing the results of the initial measurement of the control group with those of the corresponding measurement in the experimental group, the

deviation is evident. The first sample of the control group happened to be considerably more sophisticated kinetically than the sample of the experimental group. This means that the researchers were required to implement the intervention program especially for students with low-level motor skills, making it even more important challenge.

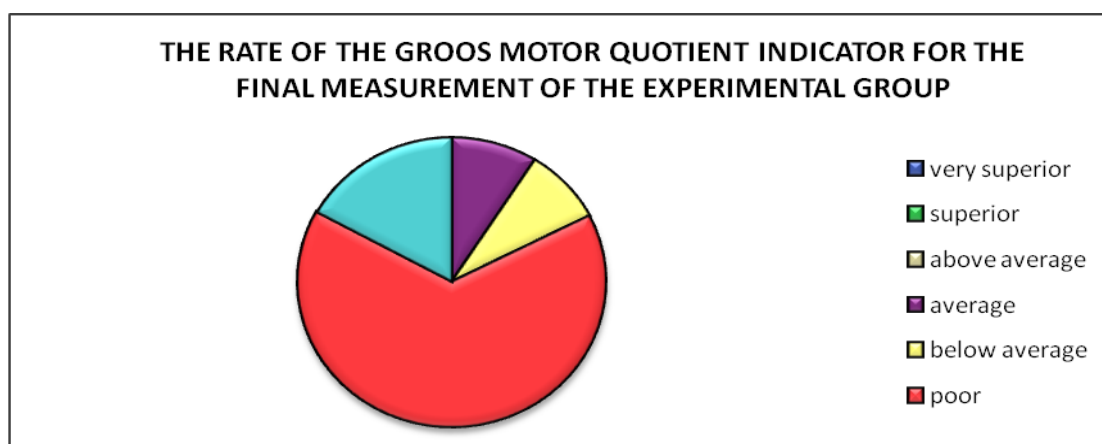


Figure 4: Students in the final measurement of the experimental group and their classification based on the GMQ indicator.

The figure above represents the kinetic status of students after implementation of the intervention program for 8 weeks. Undoubtedly, the improvement of students is evident. We observe that the very large percentage of the class that was very poor in mobility has decreased significantly (17%), while the percentage of the category classified as poor increased significantly 65.5%. This results in students, who received intervention, having improved significantly and the having the highest percentage to scale up in the mobility category. Noteworthy is the fact that for the first time, samples from upper categories, such as the class below average 8.5% and average (moderate) 9% start to appear. Comparing samples of the final measurement of the two groups, kinetic superiority of the experimental group versus the control group is proved, which despite the fact that students were more physically developed, failed to show any improvement within 2 months of application of the traditional motor program.

4. DISCUSSION

The purpose of this study was to examine if creative dance program for children 6-9 years affects the development of motor skills. According to the results it seems to satisfy the research hypothesis that a properly designed and organized program of creative dance can affect the development of key skills in children 6-9 years old. Therefore, the design of an appropriate kinetic educational program for children of this age is of utmost importance.

The results showed that children from the control group, which did not have intervention by the researchers, had minimal development. There is little deviation from presenting their initial measurement, which shows that within two months children showed no significant improvement. This suggests that perhaps the traditional program applied by the physical education teacher based on the curriculum of the Ministry, was not developmentally appropriate so as to improve students' motor abilities. Unlike the control group, results of the experimental group showed significant improvement in rates. Therefore, the impact of creative dance in motor skills and in physical understanding of these students was important. Therefore, students' participation in this interventional program – a different approach from the traditional curriculum program – upgraded their motor skills. The results of this study are in complete identification with the initial hypothesis of this research that strongly support the valuable contribution of developmental intervention programs of movement education, centered on the creative dance, to develop and improve fundamental motor skills for students at a young age. These results coincide with the results of other studies which support the contribution of intervention programs for the development of kinetic skills, developing and improving fundamental motor travelling skills to young students (Zachopoulou et al., 2005; Treflas et al., 2008; Hardy et al, 2009; Louise et al., 2010; Livonena et al., 2011).

Similar researches adopt the notion that that creative dance enhances the expressiveness, the birth and development of new motor skills while improving the desire for communication and emancipation (Best, 1982; Swartz, 1987; Steiner, 1992; Papaioannou, 2009/10).

The positive impact of creative dance to the development of fundamental motor skills and creative capacity of students in young ages was supported by other researchers, too (Pavlidis, 2001; Bourneli, 2001; Lykesas, 2002; Lykesas

et al., 2003; Venetsanou & Leventis, 2010). Similar results were found even in dance interventional programs for older children (Joyce, 1994; Flores, 1995).

Physical education class should be structured in a way that allows children to develop fundamental abilities and skills through a creative approach and mostly through a child-centered way (Kraft, 1986; Capel, 1986). Creative dance is a teaching approach that through exploration and experimentation, it teaches children to use their creative abilities that lead them effortlessly in the development of movement abilities and also in the increase the availability and willingness to engage in motor activities (Rebecca HP Cheung, 2010). It is therefore important and necessary to adopt the approach of teaching creative thinking and movement through creative dance. The adoption of this teaching method enhances self-motivation, encourages experimentation and promotes the production of alternative kinetic models. In conclusion, the knowledge gained from the results of this study, but also from similar investigations, forms a complete proposal to the Ministry of Education for effective intervention in shaping and reshaping the New Curriculum of Physical Education.

Proper and careful structure of a development program for movement education focused in creative dance will have the ability to assist primary school children of the first grades to improve significantly their fundamental motor skills and overall kinetic behavior.

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