

## ASPECTS REGARDING THE INTRODUCTION OF STATIC CONSTRUCTIONS, PYRAMIDS, IN THE PHYSICAL EDUCATION LESSON, AT PRIMARY SCHOOL

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**Abstract:** Applying ACROGYM in the school and club permits a differentiated class in face of the challenges proposed, aligning theory and practice and teaching the students about certain concepts, procedures and attitudes the modality offers. It is also important for the proposals to be varied in opportunities and present different means for the practice, which can be developed by students with different physical builds, preserving the heterogeneity of the classes and favoring inclusion. The purpose of the paper is to provide models of static constructions - pyramids, which can be made with primary school students. Given the low degree of difficulty in building, these can also be practiced by students with special educational requirements, thus increasing the possibilities for physical exercise. Pyramids can be used successfully in sporting demonstrations in school or county competitions, dance, contemporary dance, show-dance, cheer-leading and so on, both as a starting position and as a final position.

**Key words:** acrosport, static constructions, primary school, physical education.

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### INTRODUCTION

The studies found until 1970 are books or parts of books that refer to the acrobatics performed in twos and in small groups, and not Acrobatic Gymnastics as a sports modality, since its implementation occurred together with the foundation of the International Federation of Sports Acrobatics in 1973. After the first world championship in the modality, in 1974, there was an increase in the number of publications (academic articles, articles in specialized journals and

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books) until the end of the 1980s. These publications were more to encourage and disseminate, to present and explain the modality and its pedagogical principles. Therefore, the studies were encompassing and the modality was the main focus.(Boelsems, 1982; Merida F., Merida M., Nista-Piccolo 2008)

ACROGYM has three main fundamentals that characterize it: the formation of figures or human pyramids, the execution of acrobatics, elements of strength, flexibility and balance to go from one figure to the other, and the execution of dance elements, leaps and gymnastic pirouettes as a component of choreography. The difference between practicing ACROGYM and other gymnastic modalities is in the fact that the proposals are more geared towards working in groups of gymnasts than performances on equipment, although there are some elements in common, such as tumbling, strength, flexibility, balance and the presence of choreography (Criley, 1984; Boelsems, 1982; Nissen, 1991).

ACROGYM needs few materials and has a low cost when compared to the other gymnastic modalities (Almeida, 1994; Criley, 1984; Nissen, 1991).

ACROGYM's characteristics introduced herein make it a legitimate, rich and highly positive practice in the school and club context. That is because it can offer countless possibilities for motor exploration and stimulate spatial and rhythmic notions, the diverse physical capacities and mainly creativity in relation to figure composition and the elaboration of simple choreographies (Macovei, Popescu, Dina, Corlaci, 2011; Merida F., Merida M., Nista-Piccolo 2008). With regard to social-affective aspects, we underscore cooperation, trusting of oneself and others, autonomy and pleasure that permeate the entire process. Inserting the appropriate problem situations in this context allows the student to be stimulated to demonstrate his/her capacity for corporeal resolution. Thus, the first moments of pleasure and joy in sports practice can arise, although precariously, generating feelings of success that extend throughout life, a fact that proves important for the formation of the citizen and relevant to current society.

Applying ACROGYM in the school and club permits a differentiated class in face of the challenges proposed, aligning theory and practice and teaching the students about certain concepts, procedures and attitudes the modality offers. It is also important for the proposals to be varied in opportunities and present different means for the practice, which can be developed by students with different physical builds, preserving the heterogeneity of the classes and favoring inclusion (Tudor, Ciolcă, 2010). This modality is lacking in the dissemination of its practices and studies about the diverse aspects that support its practice (Merida, 2004).

Human pyramids are formed by gymnasts that receive a name according to the specific functions they execute. The base is the gymnast that supports and projects his companions. The intermediate is the gymnast who helps support and project, or who performs intermediate positions. The top is the gymnast who is supported and projected by the others, and frequently is at the top of the pyramids. Each pyramid can have one or more gymnast for each function, according to the number of participants and the design they intend to shape in space. (Merida, 2004; Almeida, 1994)

These functions carried out by the gymnasts are defined mainly according to their physical build and capacity, as well as the age factor, which can also interfere in the choice of a specific function. In official competitions, there are rules that relate the gymnast's height and age to define the specific functions and each of their categories. These biological issues must be as aligned as possible to the needs and expectations of the gymnasts in relation to choice of function and partners. In this regard, Criley (1982), commenting on Jill Coulton's (1981) book *Acrobatic Sports*, says ACROGYM's exercises involve interaction and require mutual trust and cooperation, but stress can also make itself present in this scenario. Thus, the choice of partner should not be only based on physical aspects, but personality as well.

## **PYRAMIDS**

Through the acroym projects, the whole team can be engaged regardless of the positive or negative stage level, different from the physical, motor performances, regardless of the morphological constitution.(Popescu, 2007) It is essential to know the different types of pyramids to expand possibilities, increase creativity and motor skills of students. Santana et al. 1996, suggest a proposal for organizing ACROGYM content. According to these authors, human formations are subdivided into: basic formations (corporeal figures and human pyramids), group formations (corporeal figures and human pyramids), and complete structures.

Basic formations are understood as formations performed in twos or threes, group formations with 4 to 9 members and formations of large groups with more than 9 members. Corporeal figures can be conceived as static formations made all members of the group without being one on top of the other. Human pyramids always imply a two-height structure, generally with the base larger than the upper part, where the weight of the top falls on the intermediaries and/or bases.

Corporeal figures can be subdivided into counter-balancing, support, equilibrium, inverted support and combined figures.

Human pyramids can be classified according to: positioning of bases: lying down, with four supports and two supports; number of bases: with two bases and one base. Figures and pyramids can be an open composition where the gymnasts are in the same line or closed, where the bases are closed forming a circle, square, among others, building a solid base for other heights.

They can also be classified as parts of the gymnasts' bodies, using height as a criterion for comparison (Marleux, 2019): floor pyramids: pyramids where the top's support is below the base's waistline, medium-height pyramids: pyramids where the top's support is at the base's waistline, first-height pyramids: pyramids where the top's support is at the base's shoulders; one and a half height pyramids (only trios and quartets): pyramids where one athlete's support is at the waistline and the other's is at the shoulders. Second-height pyramids (only trios and quartets): pyramids where one top's support is at the intermediate's shoulder, whose support is at the base's shoulders, two and a half height pyramids (only quartets): pyramids where one athlete's support is at the waistline and the others' is at the shoulders, third-height pyramids (only quartets): pyramids where the supports for the intermediates and the tops are at the shoulders.

**Classification of pyramids (examples from the UNSS (Union Nationale du Sport Scolaire - score code):** static (must be maintained for 3 seconds) - with mass compensation variant; bystacking; linkedup, dynamic – where dynamic movement of the flying acrobat occurs with a pass over the supporting/carrier acrobat, launch ingtheflying acrobat, capture/land of the flying acrobat.

In making the pyramid each of the partners has a well-established role (Popescu, 2011): flying acrobat/Voltigeur: a gymnast that is not in contact with the ground and whose weight is supported by one or more acrobats carriers/getons. Flying acrobats finish the pyramid; bearer acrobat/porteur: a gymnast that is in contact with the ground and supports all or part of theweight of a partner = pyramid base and dynamic element motor (raises, designs and captures). She/he still has the role of help and insurance; intermediate carrier acrobat/semi-porteur (semi-carrier): is situated between the main carrier acrobat and the flying acrobat.

## **Pedagogical evolution of the figures**

The next step for knowledge of pyramid types is to know there is a growing level of complexity between them and it is suggested that they be introduced gradually, from the simplest to the most complex, creating a pedagogical evolution. Criley (1994) proves to be a great

collaborator to ACROGYM's pedagogical issues by being the only author found who suggests some pedagogical principles for the evolution of figure and static pyramid learning: begin with pyramids with low positions and central supports; go to tall positions and central supports; go to low positions and supports at the extremities; finally, go to tall positions and supports at the extremities.

### AIM

The purpose of the paper is to provide models of static constructions - pyramids, which can be made with primary school students. The following images (fig.1-12) show the possibilities of making static pyramids for primary school students. These constructions are made in such a way as to respect the age and training characteristics of the students in an appropriate methodical hierarchy.

### Examples of construction that can be done in school at primary school(fig. 1-12)



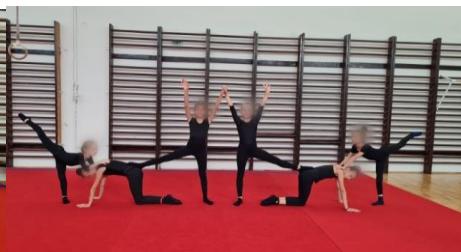
**Figure 1.** Pyramid in group of three  
(Source: Personal archive )



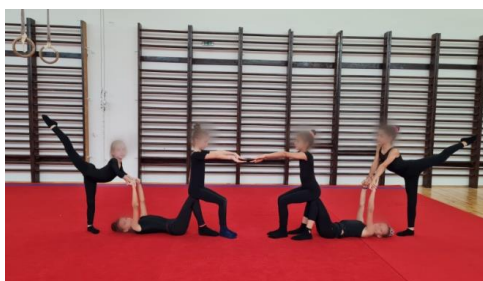
**Figure 2.** Pyramid in group of six  
(Source: Personal archive )



**Figure 3.** Static pyramid of four  
(Source: Personal archive)



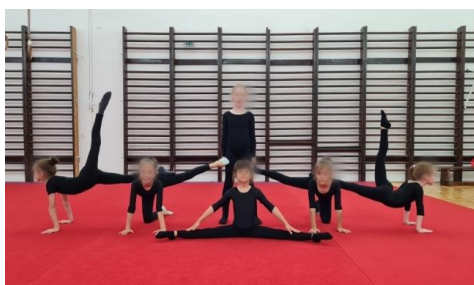
**Figure 4.** Static pyramid of six  
(Source: Personal archive)



**Figure 5.** Static pyramid of six  
(Source: Personal archive)



**Figure 6.** Static pyramid of seven  
(Source: Personal archive)



**Figure 7.** Static pyramid of six  
(Source: Personal archive)



**Figure 8.** Static pyramid of six  
(Source: Personal archive)



**Figure 9.** Static pyramid of eight  
(Source: Personal archive)



**Figure 10.** Static pyramid of seven  
(Source: Personal archive)



**Figure 11.** Static pyramid of eight  
(Source: Personal archive)



**Figure 12.** Human letters  
(Source: Personal archive)

## **DISCUSSIONS**

The Pyramids will be carried out according to the specific biomotrotic characteristics of students and the degree of training to avoid accidents and excessive loads. Biomechanics of positions and movements will be considered to ensure the safety of participants and the construction. The optimumsockets for both boarding and deboarding will be used. They should be fitted and removed easily. Models of construction/static pyramids in two, can be girls only, boys only or mixed.

## CONCLUSIONS

Due to their young age, mixed pyramids can be achieved, with the same responsibility for both girls and boys. The musical accompaniment provides an emotional environment conducive to the education of a sense of rhythm. Team activity involves active socialization, creating well-welded intra-group relationships. Membership of a group in a curriculum or extracurricular activity provides added confidence, safety and support for students. The involvement in gymnasts and students with lower motric potential or different physical construction is another argument for taking part in this gymnastics variant. Given the low degree of difficulty in building, these can also be practiced by students with special educational requirements, thus increasing the possibilities for physical exercise. Pyramids can be used successfully in sporting demonstrations in school or county competitions, dance, contemporary dance, show-dance, cheer-leading and so on, both as a starting position and as a final position. Every performer has its role in the construction of a building, the motric memory, concentration and social integration are developing at the same time.

## Aknowlegments

Nothing to be declared.

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