

## Optimal conditions required for an afterschool program

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### ABSTRACT

The paper aims at presenting and evaluating the basic elements of the best functioning of an after-school center, the benefits that such a center would bring to the community, the basic rules. Nowadays, these 'school after school' programs are a great quest among parents who work to give their children a living standard of their own. Due to the lack of time, many parents prefer to enroll their children in such programs to keep them safe and supervised. Afterschool programs are an idea of the future, a private initiative to combat juvenile delinquency. Because of these centers, children are developing intellectually, delivering much better learning outcomes, helping them to develop themselves and diverse skills by participating in a wide range of exciting courses. Using biophilic design in setting up centers will create an atmosphere that plays an important role in enhancing children's performance.

**Keywords:** afterschool, biophilic design, group activities, children, school

## I. INTRODUCTION

Afterschool programs are “an activity after school” where young people can participate outside the school program. Afterschool Centers are dedicated to pupils in grades I to IV. Some programs are run by the school as an annex, while others are run by non-profit or commercial organizations with external funding. Research has shown that structured afterschool programs can lead to better learning outcomes, better thematic and, of course, better school results.

## II. SHORT DESCRIPTION OF THE PROGRAM, SPECIFIC OBJECTIVES, BENEFITS

Afterschool Centers are a private initiative that has emerged as a method of combating juvenile delinquency. More than 75% of parents opt for this program for fear of leaving their children alone and unsupervised while they are at work. Activities in which children and young people engage outside school hours are essential for their development, highlighting the need for post – school quality programs in all communities.

The demand for afterschool programs is increasing, the current estimates suggest that there are more and more young people who participate annually in such education programs. High-quality afterschool programs generate positive results for young people, including improved academic performance (Fig. 1), developing appropriate behavior, health and nutrition [1].



Fig. 1. – Child doing homework [2]

The general objective of the program is to adequately respond to the demands of the students’ families by providing an educational

service that aims at building up the skills to learn, organize a study program and recreate through group activities.

Specific objectives of afterschool programs:

- Eliminating existing gaps in students’ knowledge;
- Developing and strengthening linguistic skills;
- Developing and enhancing computational skills;
- Assimilation of efficient learning techniques under the careful guidance of the teacher;
- Developing skills and knowledge through non-formal methods;
- Study programs based on practice and experience;
- Leisure in a pleasant and productive manner, as much as possible without a computer and TV (Fig. 2) [3].



Fig. 2. Children participating at a group activity [4]

Afterschool programs can run in a school building or elsewhere in the community, for example at a community center, in a church, library, or even outdoors.

Benefits of the afterschool programs [5]:

- a) Positive use of time. Parents who work until 16:00 - 17:00 want to know their children safely, supervised by competent people during their post-school hours. Following the study by Mahoney, Larson and Eccles [6] in 2005, it was found that this is a key issue for enrolling children in such structured programs after school. Many post-school activities take place in the afternoon of school days, weekends or in the summer, thus helping parents who work with childcare. While some post-school programs serve as a care facility for young children (referring

to kindergartens), other programs specifically target young people and adolescents in general and high schools.

Some supporters of these programs say that if young people are left unattended, they may fall into disinterest toward school and “bad” activities such as sexual promiscuity, substance abuse, alcohol, or join gangs of friends who will shoot them down. Because adolescents are large enough to be left unattended, they have a greater risk of engaging in deviant behaviors than younger children, which may increase the need for afterschool programs.

In the United States, interest in using post-school programs to prevent juvenile delinquency (Fig. 3) has increased dramatically after research has revealed that the underage arrest rate peaked between 14:00 and 18:00 on school days, exactly in the time most parents are at work.



Fig. 3. Juvenile delinquency [7]

By keeping students involved in school-related activities, they have the chance to get involved in such criminal activities or abuse of prohibited substances.

#### a) Academic growth

Studies show that afterschool programs are beneficial for both children and adolescents. A 1994 long-term study by Posner and Vandell [8] found that young people in these structured programs increased their academic performance compared to their colleagues who did not participate in the program.

Researchers chose a group of children who took part in such a post-school program and a group of children who did not participate as a control group. They provided assessments to children,

their parents and teachers to determine the level of academic performance of children, and the results showed that students who participated in the structured post-school program were more likely to have better grades and did much more math and reading tests than those who did not take part in the program.

Similarly, a study conducted by Durlak, Weissberg and Pachan in 2010 [9] showed that both children and adolescents had significant academic gains through participation in secondary education programs (Fig. 4).



Fig. 4. Children doing homework with a teacher [10]

#### b) Behavioral growth

There is evidence that afterschool programs have a positive impact on the behavioral outcomes of young people.

The study by Posner and Vandell showed that students who participated in the program also showed greater emotional stability and signs of social adjustment than their counterparts. Students who participated in afterschool programs behaved better and adapted more easily when they went to new classes or new schools, especially in the transition from one high school to another.

Other studies have provided quantitative data in support of these behavioral benefits, showing that students who participate in afterschool programs have fewer disciplinary references on average, are less suspended and do not behave deviantly, such as their peers who do not participate in any activity after school and who may develop such deviant behaviors.

#### c) Loss of learning ability during summer

Post-school activities can play a role in counteracting the loss of disinterest towards school, which refers to the number of academic abilities that students lose during summer holidays

due to lack of exposure to academic materials, holiday themes, reading, and so on. According to a series of 39 meta-analyses collected by researcher Harris [11] in a study on primary and secondary education, students' results drop considerably from the last day of school in the spring to the first day of the fall.

In the case of primary and secondary school students, reading comprehension is influenced by the lack of summer learning. If students can participate in various academic activities, such as camps, courses, workshops, during the summer months, they are less likely to be at risk of losing their summer learning abilities.

d) Other advantages:

- Socializing = new friends
- Modeling thinking by developing skills
- Less hours spent in front of the phone, TV, computer
- More time to spend in the family. Disadvantages of afterschool programs:

a) Over - agglomeration indicator

A critique of post-school activities is that participation in this program has the potential to increase the stress and anxiety among young people.

Children who participate in many school-based activities feel a common symptom with overcrowding.

For older children, parents tend to monitor their program seriously in order to protect them and to improve their social skills, academic development and / or prospects. Not having enough space, little independence to choose, this has the potential to lead to a suite of psychological issues such as poor development, copying skills, low self-esteem, disorder and anxiety.

Psychologist Madeline Levine, in her study "The Privilege Award" [12], examined the impact and psychological effects that afterschool programs have on socio-economically privileged children. She found that in rich families, children were more likely to suffer mental disorders such as anxiety and depression.

Having spent so much time in their parent-centered activities, the children with whom Levine worked failed to develop properly self-management, which is a powerful precursor for both the inner psychic force and academic achievement.

b) Costs

These vary depending on the services offered, the programs / activities, whether insured or not, and distance.

Costs are an important factor in choosing afterschool because sometimes it can exceed the minimum wage, it is an approach that not many people allow.

Because of this, many parents choose not to write their children in such programs, choosing to help them at home, how they can, at times not at all, on the principle of "you have been taught at school, you can do it yourself".

### III. CASE STUDIES

The afterschool system is a new program introduced into the educational system in Romania. However, the coverage area is rather low and applies only to institutions dealing exclusively with this type of program or educational establishments. Optimal operating conditions:

- The center should have qualified staff, which will be molded according to the needs of the children and who will do this work with pleasure and patience.
- The afterschool-type building should be near the schools and be equipped with furniture required for the study area so that comfort is enhanced. Because there will be a table here, there must be a special area for the "canteen".
- Sanitary groups must always be fitted with the necessary accessories and be kept clean;
- Exemplary cleanliness in order not to endanger children's health.
- Parents must be tied up. Meetings are necessary to inform them about the evolution of children. For this purpose, a counselor or psychologist could be employed.
- Affordable prices even for those with a more delicate material situation [13].

### IV. APPLICATION PROGRAM, OPTIMAL CONDITION REQUIRED TO OPERATE AN AFTERSCHOOL PROGRAM

Effective post-school programs bring a wide range of benefits to young people, families and the community. They enhance academic performance (Fig. 5), reduce risky behaviors, promote physical health and provide children with a safe and supervised environment.





Fig. 5. School performances [14]

The program of an afterschool center usually begins at 12:00 and would take place as follows:  
12:00 pm - Children are brought to the center either by parents or by a transport provided by the school.

12:30 o'clock - they take lunch (cooked at the center or brought by a catering company)

13:00 o'clock - Participate in recreational activities or have a sleep program

14:00 o'clock - a session to perform the themes, either individually or in groups.

16:00 o'clock - Relaxing / playing a small snack

16:30 o'clock - attending various educational activities such as reading for school, dancing, painting, etc (Fig. 6, 7, 8).



Fig. 6. Reading time [15]



Fig. 7. Children at a creation class [16]



Fig. 8. Individual study – NOON Afterschool, Mexic [17]

18:00 o'clock - parents' arrival / home leave.

Target group:

Students participating in the program will be ages between 6 and 11 years, meaning grades 0 to IV. The Afterschool Program is developed based on a need analysis by consulting students, parents, teachers, the local community and partner organizations.

The afterschool program is ongoing in the school program, which runs from Monday to Friday between 12:00 and 18:00.

Children enjoy a warm meal, guidance on themes and various activities / plays

Activities will take place on groups of pupils based on age, class or mixed groups. These activities have the role of improving health outcomes by making young people more active. An important element is the material resources of the center, such as:

Dining room

- classrooms equipped with teaching materials
- a multifunctional room where various activities, events, which can also serve as a playground,
- library
- classrooms for traditional courses - about 1-2pc / student seat
- Large rooms - 3 to 5 sqm / student place
- Groups of children from 20 to 30 persons
- learning materials specific to age characteristics, school magazines, self- knowledge tests, etc.;
- consumables (papers, colored pencils, markers, scissors, cardboard, etc.)

Types of activities / courses that might be en-

countered in an afterschool center with associated costs:

- Ballet - 25 lei / session
- Dance Course - 25 lei / session
- English course - 25 lei / session
- German / French language course - 30 lei / session
- Fine Arts / painting / modeling course - 25 lei / session
- Theatrical / Theater Course - 20 lei / session
- Music course - 35 lei / session (Fig. 9)



Fig. 9. Music course [18]

Another alternative for enriching a child's life and culture outside of the normal environment of the class is by organizing weekend excursions to various community units such as museums, zoos, botanical gardens, parks, etc. (Fig. 10).



Fig. 10. Robotics class [19]

Besides the structured program, another important criterion is space planning. Its atmosphere plays an important role in enhancing children's performance. For this, we need nature as a fundamental element for physical and mental well-being [20].

The biophilic design applied in a fitting reactivates the instinctive connection between man and the natural environment, leading to hospitals where people heal faster, schools where children get better results, offices with more productive employees, generally more life healthy for the modern man.

Some principles of ideal biophilic design in an afterschool center [21]:

a) Nature in the interior

Using plants as decoration in the interior design.

b) Non – vision connection with nature

Ambient conditions perceived as complex and variable, yet familiar, comfortable and reassuring. This ambient balance can be achieved by sounds (running water, wind, birds), textures (stone, wood), etc.

c) Variability of airflow and temperature

Natural or artificial ventilation, access to operable windows or a central system for controlling temperature and humidity are essential to achieving a pleasant natural environment.

d) Dynamic and diffused light

Proper lighting stimulates vision, attracts attention in a way that results in a psychological or physiological response and helps maintain the circadian rhythm.

The purpose is not to evenly illuminate the room, extreme differences in the intensity of different lighting sources are avoided.

In addition to natural lighting, space must also be provided with different light sources (to provide local or ambient lighting, hot or cold) and a correct distribution of the light according to the destination of the room.

e) Analogy with nature

The integration of nature into space through forms and models or patterns that persist in nature, using for example elements inspired by the structure of a tree, a shell or other natural element (Fig. 11).

f) The nature-related connection using materials

The presence of certain quantities of natural material or a color found in the outside environment.

g) Complexity and order

The notion proposes to introduce a spatial hierarchy like those encountered in nature so as to

result in a coherent and balanced environmental environment.

h) Nature of the space - Prospectus Perspective Provides users with a condition that allows space to be observed (halls, open spaces, transparent material, etc.).

i) Shelter

Generate an isolated space, away from the main activity area, but still easily accessible. The environment created must create a relaxed state, favoring increased concentration and reducing stress (Fig. 12).



Fig. 11. The presence of biophilic design through a stylized tree [22]



Fig. 12. Biophilic Design [23]

Recreating as much as possible the link between man and nature by addressing the biophilic concept in generating the spaces in which we operate, has been shown to have a significant impact on human health and well-being (Fig. 13). The cost of an afterschool program varies depending on its duration. For a normal program, which runs from 12:00 until 16:00, parents would pay around 650 lei per month, and

for a long program running between 12:00 and 18:00, the costs would reach somewhere at 800 lei / month. Of course, the costs vary according to the activities for which they are chosen, the transport (location), the qualification of the teaching staff.



Fig. 13. Biofilic design, link between human and nature [24]

#### V. APPLICABLE CASE – EXAMPLE OF AN AFTERSCHOOL PROGRAM

An Afterschool Center was proposed in Arad County, in the Aurel Vlaicu district. The building has a ground floor and two upper floors. Its surface is approximately 300 sqm / floor.

In this area, there are many general and secondary schools, grades I-VIII, such as General School no. 6, General School “Aurel Vlaicu” no. 21, General School “Avram iancu” no. 18, and so on.

Location of an afterschool center in this area would only bring benefits.

In this part of the Aurel Vlaicu neighborhood, most people work in the industrial areas of Arad because of their marginal location, so their children would be left alone for most of the time, unattended. At the same time, there are no afterschool centers in Arad, schools do not use the after-school program, and most parents choose to give their child to meditation.

Geometry of the plan greatly aids in zoning it. Due to the fact that the plan is of the open space type, there is flexibility to divide it.

#### VI. CONCLUSIONS

Afterschool programs play a very important role in children’s education. They benefit from the guidance of homeworkers, are helped to learn, and, most importantly, are supervised and safe



until the parents arrive at work. Afterschool Centers are the first step in combating juvenile delinquency. Nowadays, school dropout rates are rising more and more among adolescents, since they have not benefited from such programs in their time. Thanks to the afterschool centers, young people are kept in small “backyards”, always having a beneficial occupation after school. As a result of these programs, the academic situation of children is improving significantly. The results can be seen in learning, where they yield a much higher return.

Positioning them in neighborhoods with many schools will only bring benefits to children in the area. They will have the necessary guidance to get the best results at school, and their participation in these programs will significantly reduce school dropout.

A well thought out, structured and well-designed program, along with a setting in which the atmosphere makes the child feel comfortable are the elements of success.

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