

Outdoor Psychomotor Activities: Bringing Children to Nature

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Abstract

Due to the dominating passive consumption of audio-visual media, children today spend less time being active in nature. Sedentary behavior may lead to severe health problems like being overweight or obese, whereas positive effects of physical activity are well proven. Physical activity outdoors seems to result in additional positive effects. Therefore, it may be regarded as a public health issue to bring children back to nature and encourage them to be physically active in this setting. The following article discusses how the child-centered approach of psychomotricity can be transferred to natural surroundings. Central to this approach is the experience of self-efficacy. Outdoor environments offer numerous starting points to implement psychomotor sessions; practical options are exemplified below.

Keywords

Outdoor Education, Psychomotricity

1. Introduction

Children today in most industrialized countries are growing up in altered living conditions compared to previous times. Due to urbanization, motorization and rapid technological progress, children spend less time actively playing in natural surroundings and more time passively consuming audio-visual media, which may lead to an increasing alienation from nature (Kruger et al., 2010; San Jose & Nelson, 2017). Moreover, sedentary behavior potentially results in poor motor performance and being overweight and may negatively impact the emotional, psycho-social and cognitive development of children (Marshall et al., 2004; Roth et al., 2010; Tomkinson et al., 2003; Zimmer, 2012).

The positive effects of physical activity in general are well documented and physical activity in outdoor natural environments may lead to additional posi-

tive effects (Thompson Coon et al., 2011; Pesce et al., 2016). For example, children who are physically active outside have a lower risk for developing chronic illnesses (Strong et al., 2005) and physical activity in natural environments was found to be associated with a lower risk of poor mental health (Mitchell, 2013). Importantly, Wells and Lekies (2006) point out that the number of hours spent outdoors in childhood is the most important factor associated with people's long-term environmental attitudes and behaviors. Frequent experiences in nature during childhood predict higher levels of physical activity in natural environments in adulthood (Calogiuri, 2016). Therefore, it may be a public health issue to bring children back to nature as early and as often as possible.

2. Principles of Psychomotricity

The concept of psychomotricity implies a strong connection of mental and motor processes and development. It offers a holistic approach, in which the individual human being is in the center of consideration. A close relationship between action, emotion and cognition is taken as a basis.

Psychomotricity in general is suitable for children and adults of every age, even though most psychomotor activities are conducted for young children at preschool age. Main objects of psychomotricity, especially the child-centered approach of Zimmer (2012), are to foster children's perception, motor skills and self-concept. Children are expected to benefit from psychomotor activities in this respect.

Zimmer (2012) emphasizes the following basic principles of psychomotricity:

- To experience self-efficacy
- To attribute success or failure to the own person
- To deal with individual moral values and to orient the own behavior towards these
- To take on responsibility for own action
- To get to know alternatives to disruptive behavior and to integrate them into their behavior

In this regard, natural surroundings offer numerous opportunities. It has been shown that contact with nature has a beneficial effect on the physical and emotional health of children (Kruger et al., 2010). Nevertheless, psychomotor activities often are conducted in closed rooms. Therefore the question arises, how principles of psychomotricity may be transferred to outdoor activities to bring children back to nature.

According to the above-mentioned principles some exemplified suggestions may be:

- Children experience self-efficacy when they climb a tree or build a lodge
- Internal attribution may require an initiated reflection or feedback from the teacher
- Moral values are an important issue concerning environmentalism and appropriate behavior in nature
- Children may take on responsibility in social situations like building a bridge

over a runnel

- In nature, it is important to follow rules like not disturbing animals in their habitat

All senses are stimulated in natural environments, so that a holistic promotion of motor, psycho-social and emotional aspects is possible, if the basic principles of psychomotricity are transferred to activities in nature. This may be regarded as a plus factor compared to general physical activity. Moreover, numerous experiences may occur as teachable moments, that do not necessarily require any tasks formulated by the teacher. These experiences may differ through the annual cycle of seasons.

3. Options of Practical Implementation

Stimulative nature of the surrounding generally leads to physical activities of children like running, climbing or hiding. When children walk barefoot on grounds like a meadow, forest floor or stones, they gain tactile experiences. When they balance on a downed log it is vestibular experience, when they observe the interplay of light and shade it is visual experience, when they listen to swooshing leaves it is auditory experience, when they smell moss it is olfactory experience and when they taste fruits it is gustatory experience they make, just to provide some examples.

Psychomotor classes often are structured in four phases (Köckenberger, 2010): 1) attunement, 2) exploration, 3) main phase and 4) relaxation. The following suggestions are exemplified and of course have to be adapted to target groups and external conditions or modified where appropriate.

3.1. Attunement

The first phase aims at psycho-physical attunement. Introductory stories, fixed rituals or warm-up games are paramount in this phase. Children's well-being should be checked by the teacher—a simple method is the thumbs up sign.

3.2. Exploration

The second phase is of high importance. Children are confronted with the conditions of natural surroundings, experience physical laws and learn in an investigative and experimental way (Zimmer, 2012). Perceptual systems are stimulated, creativity is fostered, emotional expression and social contacts are initiated (Köckenberger, 2010). Thus, experiences of self-efficacy are facilitated.

Psychomotor activities in nature do not necessarily require special material to be brought along. Natural materials that are found outdoors may be used instead. If children gain experiences on their own, they do create individual contexts like making up games or slipping into imaginative roles. Teachers can use this phase for diagnostic observations and take up children's ideas in the following phase.

3.3. Main Phase

The teacher provides perceptual and motional experiences in the main phase. A brief reflection on the previous phase should be facilitated by the teacher. Children should get the opportunity to report the experiences they have made, followed by purposeful tasks formulated by the teacher. Many indoor games may be transformed in a way that they are appropriate to be played in outdoor settings. Moreover, there are no limits to the imagination of the teacher and participating children. Three exemplified options are (Klein & Kurth, 2017; Gröger & Weyhe, 2007):

- “Awake trees”: Children line up on a meadow and imagine being trees. One child is the sun that awakens the trees one by one by rubbing their bark. Every tree that woke up becomes another sun and helps the original one until all trees are awakened. This game fosters tactile perception.
- “Placing outlines”: Children pick out a tree, a rock or something else that they like and copy its outline by placing branches or stones on the ground. This game fosters visual perception and figure-ground perception.
- “Thieving predators”: Children are subdivided into mice and squirrels. The squirrels look for a quiet place to take a nap (children close their eyes), their collected fir cones located in front of them. The mice try to creep up intending to steal a fir cone. If a squirrel hears a mouse, it points at its direction. The caught out mouse then has to choose another squirrel. This game fosters auditory perception.

Furthermore, numerous options for games that may be played outdoors exist.

3.4. Relaxation

Psychomotor classes taking place in gyms often end with relaxations like imaginary journeys, progressive muscle relaxation or partner massages. Of course these may be transferred to natural settings, depending on weather conditions. Children might lay down on a meadow, close their eyes if they want to, perceive the underground they lay on as well as the wind in their hair and the sunrays on their skin and listen to surrounding sounds. The teacher might put a focus on perceiving different senses. Two more exemplified options are (Klein & Kurth, 2017; Salz, 2003):

- “Identifying trees”: Guided by a partner children feel the surface and shape of a tree with closed eyes. Afterwards, they step back, open their eyes and try to visually identify the tree they groped.
- “Earth window”: Some children lay down on the ground on a comfortable place. The other children cover them with natural materials like branches, leaves, bark or moss. Eventually, only the head remains free. Thereby, children might feel like they are a part of earth.

The psychomotor session should always end with a ritualized goodbye completing the relaxation phase. This may be a short song or rhyme.

4. Conclusion

Outdoor environments provide a great opportunity for children to participate in physical activity (Finn et al., 2018). The physical and mental health of children seems to benefit from contact with nature (Sharma-Brymer & Bland, 2016). Thompson Coon et al. (2011) conducted a systematic review that revealed an association of exercising in natural environments with greater feelings of revitalization, positive engagement, decreases in tension, confusion, anger and depression and increased energy compared with exercising indoors.

Spending more time in nature leads to positive changes in behavior and the capacity to concentrate in children with attention-deficit disorder (Kuo & Taylor, 2004). The risk of poor mental health is reduced by physical activity in natural environments to a greater extent than by physical activity in other environments. Compared to non-users, regular users of woods for physical activity were at about half the risk of poor mental health (Mitchell, 2013).

It is important to promote positive experiences of children in pleasant natural environments and to reconnect them with the natural world (Calogiuri, 2016). The concept of psychomotricity may be suitable for this purpose. Exemplified options of practical implementation have been shown above. These may be conducted in psychomotor sessions as well as in nature camps. Nature camp experiences in fifth-graders led to gains in areas of connection to, knowledge of, and orientation toward nature (San Jose & Nelson, 2017). This is relevant regarding the fact that frequent experiences in nature during childhood predict higher levels of physical activity in natural environments in adulthood (Calogiuri, 2016). Bringing children back to nature may therefore lead to major public health effects. Projects like “ticket 2 nature” may provide appropriate starting points (Jacoby & Kloth, 2008). Furthermore, the use of psychomotor approaches in natural surroundings has a great potential to include children with special needs (Klein, 2016), especially due to the above-mentioned principles of the child-centered approach.

Nevertheless, expected positive effects of outdoor psychomotor activities need to be verified in future empirical studies, for example regarding possible long-term effects concerning children’s perception, motor skills and self-concept.

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