



Uluslararası Sosyal Araştırmalar Dergisi

The Journal of International Social Research

Cilt: 8 Sayı: 38 Volume: 8 Issue: 38

Haziran 2015 June 2015

www.sosyalarastirmalar.com Issn: 1307-9581

AN INVESTIGATION OF PRESCHOOL TEACHERS USE OF SCHOOL GARDENS IN TURKEY*

Mehmet MART**

Fatma ALİSİNANOĞLU***

Oğuz Serdar KESİCİOĞLU****

Abstract

The aim of this research is to investigate the preschool teachers' use of school gardens in Turkey. The reason for this is that outdoor areas are the unique learning and developing environments for children due to yielding children to have developmental and learning opportunities (Bilton, 2010). However, outdoor activities are not enough emphasised in the latest preschool education programme, and such activities are left to teachers' initiatives (Ministry of National Education, 2013). To this end, the descriptive survey model was used to collect data from 156 preschool teachers from the different regions of Turkey via questionnaire. These collected data was analysed via SPSS 18 for windows. As a result, it was found out that there are some points with regard to using school garden, and there are also some significant factors, which lead teacher not to use school garden more such as lack of materials, types of grounds.

Keywords: Preschool, Science, Garden, Teacher.

Introduction

As part of outdoor activities, school gardens have an important role for students, in particular preschool age. In the overall context, outdoor activities provide a significant developmental benefit and learning skills for children (Bilton, 2010). The explicit pioneers of outdoor are Friedrich Froebel, Maria Montessori, Margaret McMillan and Susan Issacs (Tovey, 2014) because they underlined the importance of outdoor play in different time periods. The reason for this is explained as outdoor areas provide children to discovering and playing opportunities (Tovey, 2007). These pioneers' ideas about outdoor still sustain the effectiveness in the contemporary debates because recent studies confirms the role of outdoor for children such as Bilton (2010), Maynard and Waters (2007), so there is a common vision of to what extend outdoor is important for children. The reason for this is that it provides a bridging with 'normal' education and broader awareness of skills, specialities and comprehension (Maynard & Waters, 2007) because playgrounds enable children learning through play activities (Carr & Luken, 2014).

Furthermore, Kalburan (2014) clarifies that outdoor is the best place to promote children's creativity as well as skill, and self-determination, decision making and organisation skills is highly likely to develop during outdoor activities. Öztürk Aynal (2013) also claims that environment and outdoor (school garden, forest, park, sea sides etc.) are needed to be included into education, about this, school gardens, even parks, should be converted into educational areas. The reason for this is that the natural environment play provoke children's understanding academic concepts, doing more physical activities, exploring scientific issues and improving various skills (Carr & Luken, 2014).

In the case of a school garden, it covers an enormous part of outdoor activities because of being easy to access with compare to forest, parks, etc. School gardens moreover have a significance so as to maintain the beneficial parts of outdoor (Kalburan, 2014), and to provide such easy access and outdoor areas. Correspondingly, Garden is described as an important matter for preschool age due to not being just a lesson, pictures or talk (McMillan, 1930, p.2 cited in Straw, 1990). Straw (1990) afterwards expresses that the garden is seen naturally by children as an environment for letting off steam, space for playing, doing physical activities, having fresh air and space for exploration. In this fashion, Cole (1990) carried out a study

* This study was presented at 24th EECERA (European Early Childhood Education Research Association) Conference

** Plymouth University, England

*** Istanbul Gelişim University School Of Health Sciences İstanbul/Turkey

**** Giresun University Eğitim Faculty Giresun/Turkey

about Froebel's philosophy that garden had an essential role in the Froebel's design of classroom because according to Froebel, garden is a natural learning part of life in terms of the effect of it on children. Correspondingly, garden enables children to have play and investigation space, secured risk taking opportunities, improve interaction, analysing and interpreting skills (Nimmo & Hallett, 2008) because outdoor activities lead children to utilize their interactive and social skills (Carr & Luken, 2014; Rickinson et al., 2003).

Besides this, the understanding of garden for Froebel and Isaacs is that it is a resource of inquisition, investigation, imagination, creation and thinking opportunities for children (Tovey, 2014). With regard to these statements, Malone and Tranter (2003) underlines the school gardens as an important field due to providing direct experiential outcomes, which in turn may improve children's skills and cognitive development. On the other hand, they further mentioned about unstructured and not structured gardens considering young children's activities because these gardens are likely to cause some problems for young children due to not being organised for them.

Above expressions about outdoor and school gardens underline the necessity and importance for children. However, in the case of Preschool Education Programme in Turkey, to what extent the importance has been given to outdoor/ garden activities is apparent. Therefore, in the latest Preschool Education Programme, it is claimed that some various activities, Language (Turkish), Art, Dram, Music, Play, Movement, Science, Maths, Preparation for Literacy and Field Trips, which are structured by children/semi-structured/ unstructured, can be carried out either in a classroom or outdoor. Processing these activities are moreover expected from teachers to be outside as much as possible (Ministry of National Education, 2013). In the case of Play activity examples, it is stated that children need to have the opportunity to play outside as well as inside. Movement activities are further exemplified and stated that natural materials such as wood blocks in addition to structured materials; balls, rope, chinks, etc. (Ministry of National Education, 2013). As a result, in the overall programme context, outdoor/ garden activities are indicated as an option to do activities, and teachers are assumed to use outdoor as well as indoor. Therefore, it is important to investigate the teachers' use of a school garden.

Methodology

In this section, research model, study group, data collection tools, data collection and data analyse parts are covered.

Research Model

This study is a descriptive survey model, which aims that past, or present situations are described how it exactly is. People or objects are examined in the research, are tried to be explained during its situation. This type of study have no effort to influence or change to subjects of research (Karasar, 2002). In the descriptive survey model, data from a various participants or objects are analysed for a particular period to find answers for research problem or questions (Arseven, 2001).

Study Group

The study group consisted of 156 Preschool Teachers from different parts of Turkey, who are currently working in state schools, and of their schools. These participants were from 81 different cities in Turkey. In terms of experiences of teachers, 99 (63.5%) of them had 1-5 year experience, 47 (30.1%) of them had 6-10 year experience, 5 (3.2%) of them had 11-15 year experience, and five (3.2%) of them had more than 16 years experience. At the same time, these participants had different educational degree, so 143 (91.7%) of them completed undergraduate, 11 (7.1%) of them completed masters, and two (1.3%) of them completed Ph.D.

Data Collection Tools

To collect data in this study, "*The questionnaire for examining the use of Preschool Education Settings' School Gardens*" were developed by researchers and used. In the case of the development process of questionnaire, five associate professors' evaluations were considered, and some questions were edited, and some were excluded with regard to their suggestions. Afterwards, the piloting was processed with ten preschool teachers. As a result of their responses, some questions were reorganised, and the latest version of the questionnaire was constituted. This questionnaire consisted of ten questions and "Personal Information Form", which illustrates the demographic features of teachers.

Data Collection

The online questionnaire form was used to collect data from preschool teacher from the different regions of Turkey. This prepared online questionnaire was sent teachers via email, facebook, etc. and they were asked to fill the form as online.

Data Analysis

The collected data were analysed via using SPSS 18 for windows. Percentage and frequency analysis were used for data analysis.

Findings

Findings regarding the first question: What is the teachers' response to conditions of school gardens?

Table 1. Teachers' responses to 'Conditions of School Gardens'

	We have own garden	We are using garden with student from different levels	We do not have a garden	Total
n	71	76	9	156
%	45.5	48.7	5.8	100

As seen in table 1, 76 of participants (48.7%) answered as "we are using garden with student from different levels", 71 (45.5%) responded that "we have own garden" and nine of them (5.8%) do not have a garden.

Findings regarding the second question: What are the responses of teachers to question: Which material/materials do you have in your school garden?

Table 2. Teachers' responses to questioning: Which material/materials do you have in your school garden

Materials	f	%
Chute-the-chute	72	46.2
Swing	63	40.4
Teetertotter	59	37.8
Planting field	53	34
Sand Pool	40	25.6
Climbing Materials	24	15.4
Tunnel	12	7.7
Field for animal feeding	11	7.1
Balance board	9	5.8
Springboard	6	3.8
Ferris wheel	4	2.6
Water pool	3	1.9
None of them	61	39.1

As seen in table 2, teachers answered the question: "which materials do you have in your school garden?" that the significant number of them, (46.2%) as "Chute-the-chute", 40.4% answered as "swing", 47.8% of them responded as "teetertotter."

Findings regarding the third question: What are the responses of teachers to question: what kind of areas do you have in your school garden?

Table 3. The responses of teachers to question: What kind of areas do you have in your school garden

Areas	f	%
Concrete area	132	84.6
Soil area	94	60.3
Grass area	51	32.7
Different level areas	23	14.7
None of them	1	0.6

As table 3 indicates, teachers responded question three as 84.6% of them has "concrete area", 60.3% of them has "soil area", 32.7% has "grass area", and 14.7% has "different level areas" in their schools.

Findings regarding the fourth question: What are the responses of teachers to question: Which season/seasons do you use the garden the most?

Table 4. The responses of teachers to question: Which season/seasons do you use the garden the most

Seasons	f	%
Spring	131	84
Autumn	70	44.9
Summer	88	56.4
Winter	14	9
Never	10	6.4

As table indicates, 84% of participants use the garden the most during "spring", 56.4% of them uses during "summer", 44.9% of them uses during "autumn", 9% of them uses during "winter". However, 6.4% of participants never uses the school garden.

Findings regarding the fifth question: What are the responses of teachers to question: Which learning centre/centres do you constitute in the school garden?

Table 5. The responses of teachers to question: Which learning centre/centres do you constitute in the school garden?

Learning Centres	f	%
Play centre	60	38.5
Science centre	33	21.2
Art centre	12	7.7
Cube centre	8	5.1
Book centre	4	2.6
Music Centre	2	1.3
None of them	89	57.1

As seen in table 5, 38.5% of participants constitutes "play centre", 21.2% of them constitutes "science centre", 7.7% of them constitutes "art centre" in school garden.

Findings regarding the sixth question: What are the responses of teachers to question: Which area/areas do you use apart from a school garden?

Table 6. The responses of teachers to question: Which area/areas do you use apart from a school garden?

Areas	f	%
School corridors	39	25
Parks	35	22.4
Woodlands	30	19.2
Empty areas	15	9.6
Beaches	3	1.9
None of them	75	48.1

As seen in table 6, 25% of participants uses "school corridors", 22.4% uses "Parks", 19.2% uses woodland apart from school garden.

Findings regarding the seventh question: What are the responses of teachers to question: When do you use the school garden the less?

Table 7. The response of teachers to question: When do you use the school garden less?

Times	f	%
Rainy weathers	125	80.1
Snowy weathers	84	53.8
Foggy weather	72	46.2
Sunny weathers	10	6.4
None of them	11	7.1

As seen in table 7, 80.1% of participants during rainy weathers, 53.8% of participants during snowy weathers, 46.2% of participants during foggy weathers uses school garden the less.

Findings regarding the eighth question: What are the responses of teachers to question: what is your frequency of using the school garden?

Table 8. The response of teachers to question: What is your frequency of using the school garden?

The frequency	f	%
Once a week	55	35.3
Twice a week	32	20.5
Three times in a week	22	14.1
Everyday	16	10.3
Fourth times in a week	12	7.7
Never	19	12.2

As seen in table 8, 35.3% of teachers uses school garden "once a week", 20.5% of them uses "twice a week", 14.2% of them uses "three times a week", and the significant number of participant, 12.2%, "never" uses school garden.

Findings regarding the ninth question: What are the responses of teachers to question: Which activity/activities do you use the school garden for?

Table 9. The response of teachers to question: Which activity/activities do you use the school garden for

Activities	f	%
Play Activities	133	85.3
Movement Activities	110	70.5
Science Activities	77	49.4
Art Activities	28	17.9
Language (Turkish) Activities	23	14.7
Music Activities	19	12.2
Maths Activities	14	9
Literacy Preparation Activities	10	6.4
None of them	12	7.7

As seen in table 9, the explicit number of participants, 85.3%, uses school garden for "play activities", 70.5% of them uses for "movement activities", 49.4% of them uses for "science activities".

Findings regarding the tenth question: What are the responses of teachers to question: Do you think that garden activities are needed to take more places in Preschool Education Programme?

Table 10. The response of teachers to question: Do you think that garden activities are needed to take more places in Preschool Education Programme

Responses	n	%
Yes	152	97.4
No	4	2.6

As seen in table 10, the huge number of participants, 97.4%, thinks that garden activities need to be taking more places in Preschool Education Programme, and the small number of participants, 2.6%, claims as it does not need to take more places in the programme.

Conclusion and Discussion

The results of the study revealed that there are no various findings occurred because the general answers accumulated in a few answers with regard to questions. In this case, with regard to question about the situation of school gardens that nearly half of teachers stated as they are using the same garden with students from different age groups, and another interesting point is that 5% of them have no accessible garden for them. These facts are controversial to Preschool Education Programme because while the programme supports teachers to spend time garden as much as possible (Ministry of National Education, 2013), there are still problems with having own gardens of preschools.

Regarding previous point, while 46.2% of teachers has chute-the-chute, 40.4% has swings, and 37.8% has teeter-totter in their school, a significant number of them, 39.1%, has no materials in their schools. This means that many of preschools have a limited or no materials in their garden in order to achieve tasks such as question, examine, imagine, etc. (Tovey, 2014). In addition to this, these gardens fail to meet the requirements of the programme in terms of having structured materials (Ministry of National Education, 2013). On the other hand, these materials are overlapping with Carr and Luken's (2014) statement which is that outdoor supports children to do more physical activities.

Furthermore, the important thing about outdoor play areas is the type of a school garden. While, researchers such as Carr and Luken (2014), Straw (1990) underline the natural outdoor areas, our findings show that a huge percentage of teachers, 84.6%, have concrete areas. This indicates that the majority of school gardens in Turkey are far away from the ideal school gardens because of having a lack of natural areas. Correspondingly, the school garden usage in terms of seasons, there is an interesting point because 6.4% of the participants never uses the school gardens. The reason for this can be that the supportive statement of teacher (Ministry of National Education, 2013) to spend time outdoor is not strong enough to push teacher to use it, or the reason for this may be the first points' responses, which is that 5% of participants has no accessible school garden. At the same time, 84% of participants spends time in the school garden during spring term, and the fewest number, 9%, is for the winter season. In the case of Froebel's philosophy, nature should be a part of learning (Cole, 1990), so this disorganisation of spending time

considering season seems like a bit conflict because outdoor provides a significant contribution to child development and learning (Bilton, 2010).

Preschool Education Programme (2013) supports teachers to provide opportunities for children outside as well as inside. Thus, 38.5% of participants claimed that they organize play centres, and nearly quarter of them (21.2%) constitutes science centre. However, more than half of them (57.1%) does not generate any learning centre outside. This situation is unlike programme recommends (Ministry of National Education, 2013). With regard to the question about different areas used apart from school gardens, the quarter of participants chooses school corridors, and 19.2% of them claimed as forests. However, almost half of them (48.1%) chooses none of them. This shows that teachers are keen to spend time around the school because the reason can be that teachers are not aware of the importance of outdoor in terms of creativity and skills (Kalburan, 2014).

In the case of seventh question of the questionnaire, 80.1% (more than three quarter) of participants uses the school garden at least in the rainy days, and nearly half of participants (46.2%) less prefer to go out during the snowy weathers. These preferences are unlike supporting children's exploration (Cole, 1990), investigation, analysing (Nimmo & Hallett, 2008) with regard to the statement about school gardens providing explorative environment. Although, different weather conditions enhance children's exploration of difference of weathers (Cole, 1990), teachers do not prefer to go out.

These findings are also related with the frequency of garden usage. Thus, the significant number of participants (35.3%) uses school garden once a week, and one out of five (20.1%) participants spends time in the school garden twice a week. These findings show that teachers fail to meet with philosophers' opinions about school gardens because while Malone and Tranter (2003) claim the necessity of school gardens for child development, nearly half of teachers go out with children only once or two times a week. On the other hand, a huge number of participants (85.3%) uses the school garden for play activities, 70.5% of them chooses school garden for movement activities, and only half of them (49.4%) uses for science activities. These activities are three out of ten activities, suggested by Preschool Education Programme, can be carried out outside (Ministry of National Education, 2013). However, play and movement activities are an important part of outdoor activities because of proving letting steam off, doing physical activities (Straw, 1990).

Another significant point of the findings is about teachers' opinion on the garden activities in the Preschool Education Programme. Correspondingly, nearly all of them (97.4%) choose the option for need of detailed garden activities in the programme, and only 2.6% of them disagrees with others, and they do not think that there is a necessity of detailed garden activities in the programme. As it is mentioned above, programme has limited expressions about garden/outdoor (Ministry of National Education, 2013), it is explained with the overall context and the decision of choosing garden/outdoor left to teachers' initiative. As a result of this, teachers need to have more direction in the programme. Otherwise, there occurs different types of implementations through the whole country.

As a result, although philosophers and researchers support outdoor/garden activities during preschool age, some of the teachers have no accessible outdoor areas, and even if they have, the frequency of spending time at outside is around once or twice a week. In terms of materials, they generally have physical activity materials, and they have concrete areas to play. With regard to this, the preferred activities are also physical activities, some science activities, play centres for children by teachers. As teachers also claimed, the most significant point is about the necessity of detailed preschool education programme for outdoor. It is the key point of this research because current Preschool Education Programme has some broad statements about garden/outdoor issues, and it leaves the implementation of them to teachers, so it leads some differences in terms of the frequency of going garden, types of activities and constituted learning centres. Additionally, the significant issue for teachers is that not having private garden, sufficient materials and types of grounds.

REFERENCES

- ARSEVEN, A. D. (2001). *Alan araştırma yöntemi*. Ankara: Gündüz Eğitim Yayıncılık
- BILTON, H. (2010). *Outdoor Learning in the Early Years: Management and Innovation*. 3rd edn. Oxon: Routledge.
- CARR, V. & LUKEN, E. (2014) 'Playscapes: A Pedagogical Paradigm for Play and Learning'. *International Journal of Play*, 3(1). pp 69-83.
- COLE, E. S. (1990) . An Experience in Froebel's Garden. *Childhood Education*, 67 (1). pp 18-21.
- KALBURAN, N. C. (2014) . A Comparative Study on School Grounds of State and Private Preschools in Denizli (Denizli İlinde Bulunan Resmi ve Özel Anaokulu Bahçelerinin Karşılaştırmalı Olarak İncelenmesi). *Pamukkale University, The Journal of Institute of Social Science*, 18 pp 99-113.
- KARASAR, N. (2002) . *Bilimsel araştırma yöntemi*. Ankara: Nobel Yayın Dağıtım

- MALONE, K. & TRANTER, P. (2003) 'Children's Environmental Learning and the Use, Design and Management of Schoolgrounds'. *Children Youth and Environments*, 13 (2). pp 87-137.
- MAYNARD, T. & WATERS, J. (2007). Learning in the Outdoor Environment: a Missed Opportunity?. *Early years*, 27 (3). pp 255-265.
- MINISTRY OF NATIONAL EDUCATION (2013). Preschool Education Programme (Okul Öncesi Eğitim Programı), [Online]. Available at: <http://tegm.meb.gov.tr/dosya/okuloncesi/ooproram.pdf> (Accessed: 23 April 2014).
- NIMMO, J. & HALLETT, B. (2008) . Childhood in the Garden. *Young Children*, pp 32-38.
- ÖZTÜRK AYNAL, Ş. (2013). Haydi Çocuklar Doğaya ve Bahçelere Açılıyoruz: Mekan Dışı Eğitim İşveç'ten Örnekler'. *The Journal of Academic Social Science Studies*, 6 (1). pp 371-384.
- RICKINSON, M., DILLON, J., TEAMEY, K., YOUNG CHOI, M., MORRIS, M. & BENEFIELD, P. (2003). *A Review of Research on Outdoor Learning: Summary of Interim Findings*. Reading: NFER.
- STRAW, H. (1990) . The Nursery Garden. *Early Child Development and Care*, 57 (1). pp 109-119.
- TOVEY, H. (2007). *Playing Outdoors: Spaces And Places, Risk And Challenge: Spaces and Places, Risks and Challenge*. Maidenhead: Open University Press.
- TOVEY, H. (2014). Outdoor play and the early years tradition'. in Maynard, T. and Waters, J. (eds.) *Exploring Outdoor Play in the Early Years*. Maidenhead: Open University Press.