

APPENDIX A

DATA COLLECTION TABLES

- Rapid Schools' Assessment Table
- Site Observation Checklist
- Panel of Experts' background information

Rapid Schools Assessment table								
School Name-English	Cadastral	Caza	Contact Number	Type of School	KG Section	Condition of KG Playground	Area of school campus (meter squared)	Photo
Omar Hamad Mixed Elementary Public School	Moussaytbeh	Beirut 2	01-824994	Public	Yes	separate playground	300	
Rifaat Abdul Allah Tagi Public Kindergarten	Mar Elias	Beirut 3	01-301139	Public	Yes	separate playground	500	
The lady of Victory for the nuns of love	Achrafieh	Beirut 1	01-201812	Private-free	Yes	separate playground	500	
Makarem Islamic Ethics Association	Mazraa	Beirut 2	01-632345	Private-free	Yes	separate playground	500	
Othman Al-Noorain Elementary School	Quritem	Beirut 3	01-805857	Private-free	Yes	separate playground	500	
Al Jeel Al Jadeed School	Mazraa	Beirut 2	01-645351	Private-free	Yes	separate playground	600	
Uruguay First Achrafieh Mixed Public School	Achrafieh	Beirut 1	01-425507	Public	Yes	separate playground	700	
Al Jnah Mixed Public School	Jnah	Beirut 2	01-833425	Public	Yes (KG 2 + KG 3)	Common playground	750	
Al Iman Islamic School	Aramoon	Beirut's suburbs	01-736325	Private- free	Yes	separate playground	850	
Ali bin Abi Talib Elementary School	Ras Al-Nabah	Beirut 2	01-640485	Private-free	Yes	separate playground	1000	
Salma El Sayegh Mixed Public School	Achrafieh	Beirut 1	01-326802	Public	Yes	Common playground	1200	

Tariq Al Jadida First Mixed Public School	Mazraa	Beirut 2	01-653291	Public	Yes	separate playground	1200	
Ras El NabeH Second Mixed Public School	Mazraa	Beirut 2	01-644983	Public	Yes	separate playground	1200	
Mar Mansour for the nuns of love	Achrafieh	Beirut 1	01-201814	Private-free	Yes	separate playground	1200	
St. Peter and Paul Orthodox School	Moussaytbeh	Beirut 2	01-817410	Private-free	Yes	separate playground	1200	
Al Iman Islamic School	Burj el Barajneh	Beirut's suburbs	01-736327	Private- free	Yes	separate playground	1200	
Khadija Al – Kubra Primary School	Sadat	Beirut 3	01-786409	Private-free	Yes	separate playground	1400	
Houd Alwilaya First Mixed Public School	Bachoura	Beirut 2	01-650798	Public	Yes	separate playground	1500	
Burj Abi Haidar Mixed Public Kindergarten	Burj Abi Haidar	Beirut 2	01-660430	Public	Yes	separate playground	1500	
Amin Bayham Mixed Elementary Public School	Mazraa	Beirut 2	01-825967	Public	Yes	separate playground	1500	
Saint Joseph of the sisters of love	Achrafieh	Beirut 1	01-449210	Private-free	Yes	separate playground	1500	
El Achrafieh Mixed Intermediate Public school	Achrafieh	Beirut 1	01-560193	Public	Yes	Common playground	1700	

Zoukak el-Blatt Mixed Public School	Zoukak el-Blatt	Beirut 2	01-377337	Public	Yes (KG 2 + KG 3)	Common playground	2000	
Amr Al Ansi Mixed Public Kindergarten	Moussaytbeh	Beirut 2	01-847272	Public	Yes	separate playground	2200	
Omar Ibn al-Khattab Primary School	Mazraa	Beirut 2	01-309632	Private-free	Yes	separate playground	3000	
Aisha Um Al-Muamineen School	Mazraa	Beirut 2	01-646977	Private-free	Yes	separate playground	3000	
Jaber Ahmad Al Sabah School (JASS)	Ras Beirut	Beirut 3	01-347591	Public	Yes	separate playground	3500	
Emily Sursock Mixed Intermediate Public School	Mazraa	Beirut 2	01-846699	Public	Yes	Indoor playground	4000	
Mohammed Shamel Mixed Elementary Public School	Mazraa	Beirut 2	01-818126	Public	Yes	separate playground	4500	
El Amir Shakib Irsan Mixed Secondary Public school	Ras Beirut	Beirut 3	01-791690	Public	Yes	separate playground	11800	

Site Observation Checklist

School Code:

School Name:

School campus: Single building or multiple buildings

Description of location and neighborhood of school campus:

General information about school:

# of KG sections	# of KG students	# of KG teachers	#of participating teachers in study

General information about the Kindergarten playground:

- Area= Length x Width
- Compliance with MEHE space requirement (*preschoolers' playground should not be less than 300 meters squared*): Yes or No
- Layout sketch of playground; include:
 - Playground boundaries
 - Fences, walls, other structures
 - Access points
 - Location of play equipment
 - Vegetation

SAFETY

<p>Play environment is free of unsafe plants</p>	<p>Yes No</p> <ul style="list-style-type: none"> - Poisonous plants - Allergic plants - Spiky plants 	<p>Species/photo of plants</p>
<p>Play environment provides fall-absorbing surfaces</p>	<p>Yes</p> <ul style="list-style-type: none"> - Pea gravel - Sand - Recycled rubber mulch - Wood mulch or chips - Rubber tiles <p>No</p> <ul style="list-style-type: none"> - Asphalt - Concrete - Dirt - Grass 	<p>If more than one type of surface is provided, explain.</p>
<p>Play equipment are age-appropriate (for 2 to 5 years old children)</p>	<p>Yes (indicate quantity for each):</p> <ul style="list-style-type: none"> - Merry go round - Horizontal ladders less than or equal to 1.5m high - Ramps - Spring rockers - Swings (belt- full bucket seat or rotating tire) - Climbers (arch, net or tire) - Seesaw - Balancing beams with maximum high of 0.3m - Slides <p>No</p> <ul style="list-style-type: none"> - Others:..... 	<p>General condition of all play equipment present:</p> <ul style="list-style-type: none"> - Need urgent maintenance or replacement - Poorly maintained - Well-maintained and in good shape

<p>Play equipment have adequate space around them for safety measures</p>	<p>Yes; there is a minimum of 1.8m of use zone in all directions</p> <ul style="list-style-type: none"> - Merry go round - Horizontal ladders - Ramps - Spring rockers - Swings (belt- full bucket seat or rotating tire) - Climbers (arch, net or tire) - Seesaw - Balancing beams - Slides <p>NO; there is no minimum of 1.8m use zone in all directions</p> <ul style="list-style-type: none"> - Merry go round - Horizontal ladders - Ramps - Spring rockers - Swings (belt- full bucket seat or rotating tire) - Climbers (arch, net or tire) - Seesaw - Balancing beams - Slides 	<p><i>NOTE: Use zone for almost all playing equipment should be a minimum 1.8 meters and a maximum of 2.5 meters in all direction</i></p>
<p>Play environment is securely separated from traffic and main circulation</p>	<p>Yes</p> <ul style="list-style-type: none"> - Paths and access points are clearly marked <p>No</p> <ul style="list-style-type: none"> - Paths and access points are poorly marked - Paths and access point are not marked at all 	
<p>Play environment is properly drained</p>	<p>Yes</p> <ul style="list-style-type: none"> - No water overflow during rain fall events - No standing water in play environment 	<p>Ask people from the school if drainage system is not obvious.</p>

	<p>No</p> <ul style="list-style-type: none"> - Water overflows during rain fall events - Standing water in play environment - Rust on metal equipment - Signs of mold and mildews 	<p>Type of drainage system:</p> <ul style="list-style-type: none"> - Catch basin and grates - Channel drains - Ditches/open drains - Down spouts with drain basin for water coming from roof
Play environment has no surrounding hazards	<p>Yes</p> <p>No</p> <ul style="list-style-type: none"> - Electricity generator - Sharp edges and corners - Tripping hazards (sudden change in elevation) 	

Comfortable

Play environment provides shade.	<p>Yes</p> <ul style="list-style-type: none"> - Shade trees - Shade structures (like pergolas and sun sails) - Built roof/ceiling <p>No</p>	
Play environment includes zones for quiet retreat.	<p>Yes; there are opportunities for pairs/small groups to play together</p> <ul style="list-style-type: none"> - Cozy nooks or tepees - Playhouses - Porch swings - Picnic tables - Tree logs or stumps placed together <p>No</p>	

Accessibility		
Play environment is easily accessible from KG classrooms	<p>Yes</p> <ul style="list-style-type: none"> - Play environment's entrance/exit is directly accessed from each classroom separately (multiple access points) - Play environment's entrance/exit is directly accessed from one classroom only (single access point, other students should walk over to the classroom that includes the access) <p>No</p> <ul style="list-style-type: none"> - Play environment's entrance/exit is not directly accessed from classrooms (children have to walk for a distance or use the stairs or exit the building) 	
Play environment includes child-sized tables and benches	<p>Yes</p> <ul style="list-style-type: none"> - Need urgent maintenance or replacement - Poorly maintained - Well-maintained and in good shape <p>No</p>	
Play environment is accessible in all kinds of weather (including extreme summers and winters)	<p>Yes</p> <ul style="list-style-type: none"> - Proper drainage system - Permeable surface - Shelter from wind/winder breakers during cold weather - Shade during hot weather <p>No</p> <ul style="list-style-type: none"> - No proper drainage system - Impermeable surface - No winder breakers during cold weathers - No enough shade during hot weathers 	

<p>Class balconies' and windows' are easily accessible and safe to use</p>	<p>Yes</p> <ul style="list-style-type: none"> - Classrooms are located on ground floor; windows offer no falling hazard due to window guards or other safety measures - Classrooms are located on upper floor levels; balconies are accessible through a separate door inside the classroom; windows and balconies offer no falling hazard due to guards or other safety measures. <p>No</p> <ul style="list-style-type: none"> - Classrooms are located on ground level, no window guards or other safety measures on windows - Classrooms are located on upper floor levels; no window guards or other safety measures on windows or balconies - Classrooms lack windows and balconies. 	<p>If possible assess all available KG classrooms</p>
<p>Building rooftop space is easily accessible and safe to use</p>	<p>Yes</p> <ul style="list-style-type: none"> - Rooftop offers no falling hazards due to safety measures (safety nets or high balustrades or walls) - Rooftop offers no tripping hazard due to stored equipment, loose parts, and water tanks. - Rooftop provides opportunity for transformation into an enabling environment. <p>No</p> <ul style="list-style-type: none"> - Rooftop offers falling hazards due to lack of safety measures. - Rooftop offers tripping hazards. - Rooftop provides no space at all for improvement or enhancement. 	<p>Ask schools principal or teachers for the requested information.</p>

Flexibility

<p>Play environment includes movable elements for children to play with</p>	<p>Yes; natural elements</p> <ul style="list-style-type: none"> - Soil, sand, mud - Mulch - Stones, twigs, rocks, gravel - Pine cones, petals, shells, leaves - Small wood logs and poles <p>Yes; man-made elements</p> <ul style="list-style-type: none"> - Children sized construction tools (ropes, buckets, digging tools, pulleys, wagon..) - Children sized building blocks - Tires (to be moved with the help of adults) - Art tools and supplies - Children sized garden tools (watering devices, shovels, wheelbarrows, rakes....) - Children sized tools supporting inquiry (hand lenses, bug nets, dental mirrors, binoculars...) <p>Yes; others:.....</p> <p>No</p>	
<p>Play environment invites children for open-ended interaction and exploration</p>	<p>Yes</p> <ul style="list-style-type: none"> - Availability of non-structured spaces for free play; spaces for sand, mud, water play, etc.. - Availability of children sized tools supporting inquiry (hand lenses, bug nets, dental mirrors, binoculars...) - Availability of a natural space or naturally landscaped area for hunting and gathering of natural treasures <p>No</p>	

	<ul style="list-style-type: none"> - Highly depended on structured playing elements and equipment - Lack of natural space or naturally landscaped area 	
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Dynamic and Challenging		
Play environment contains natural elements	<p>Yes</p> <ul style="list-style-type: none"> - Abundant and plentiful - Limited; but spatially can accommodate more - Limited; restricted space <p>No</p> <ul style="list-style-type: none"> - But spatially can accommodate for the availability of natural elements - Very restricted space 	
Play environment attracts wildlife	<p>Yes</p> <ul style="list-style-type: none"> - Plant attracting species (native species, fruit bearing, nectar-rich flowers, climbers, hedges, wildflowers...etc) - Nesting boxes - Bird feeders - Bird bath - Water feature(s) - Special food feeder(s) for specific animal(s) <p>No</p>	<p>Ask for the types of wildlife observed in play environment by teachers and students</p> <ul style="list-style-type: none"> - Butterflies - Insects - Bees - Birds - Cats - Turtles - Snails - Squirrels - Others;.....
Play environment features different sensory elements.	<p>Yes</p> <ul style="list-style-type: none"> - Touch: natural materials and plants with different textures - Taste: fruit bearing trees, herbs, vegetable garden....etc 	<p>Is there any sound pollution from nearby streets? Yes or No</p>

	<ul style="list-style-type: none"> - Smell: scented flowers, herbs, - See: natural material and plant with different colors and shades - Hear: wind chimes, water features, rustling of tree branches, birds singing <p>No</p>	<p>Is there any bad odor due to sewers, garbage, or car exhaust? Yes or No</p>
<p>Play environment offers areas of different heights.</p>	<p>Yes</p> <ul style="list-style-type: none"> - Viewing platform - Stage/deck - Terrain - Mound - Safe climbing walls/structures/trees - Tree houses - Others:..... <p>No</p>	
<p>Based on the information from the previous categories, play environment provides opportunities of healthy risk taking</p>	<p>Yes</p> <ul style="list-style-type: none"> - But can provide more and improve opportunities for healthy risk taking <p>No</p> <ul style="list-style-type: none"> - But there is space to provide opportunities for healthy risk taking - Very restricted space to provide opportunities for healthy risk taking 	

Panel of Experts' Background Information			
Participants	Specialty	Others	Years of experience in field
P1	Elementary Education		3
P2	Photography	Communication Design	19
P3	Early Childhood education	Preschool Director	33
P4	Landscape Architecture/ Design		23
P5	Landscape Architecture/ Design	Early Childhood Education (masters)	3.5
P6	Landscape Architecture/ Design		7
P7	Early Childhood education	Preschool Director	5
P8	Early Childhood education	Children literature and books	24
P9	Photography	Architecture Student	2
P10	Photography		7
P11	Photography		30
P12	Landscape Architecture/ Design		3

APPENDIX B

MEHE AND IRB APPROVALS

RECEIVED
10 MAY 2018
FAFS
Dean's Office

رقم الصادر: ٣/٤٢٣٠

بيروت في ٣/٤/٢٠١٨

جاناب الجامعة الأميركية في بيروت
كلية العلوم الزراعية والغذائية

الموضوع: تنفيذ دراسة حول تعزيز شعور حب الطبيعة لدى الأطفال.

المرجع: كتابكم تاريخ ٢٠١٨/٤/١٦.

إشارة إلى الموضوع والمرجع المبينين أعلاه،

نحيطكم علماً بموافقة المديرية العامة للتربية على طلبكم دخول المدارس الرسمية الواردة أسماؤها في اللائحة المرفقة ربطاً خلال العام الدراسي ٢٠١٧/٢٠١٨ لتنفيذ دراسة حول تعزيز شعور حب الطبيعة لدى الأطفال، يشارك فيها تلاميذ مرحلة الروضة، على أن يتم التنسيق مع إدارات هذه المدارس بغية تأمين تنفيذ المطلوب وحسن سير العمل فيها، وأن يتم تزويد المديرية العامة للتربية بتقرير عن نتائج هذه الدراسة بعد الانتهاء من تنفيذها،
للتفضل بالاطلاع وأخذ العلم ./.

المدير العام للتربية

فادي يرق



جانب - مديرية التعليم الابتدائي
- الإرشاد والتوجيه

الموضوع: تنفيذ دراسة حول تعزيز شعور حب الطبيعة لدى الأطفال.

المرجع: كتاب الجامعة الأميركية في بيروت - كلية العلوم الزراعية والغذائية تاريخ
٢٠١٨/٤/١٦.

إشارة إلى الموضوع والمرجع المبينين أعلاه،

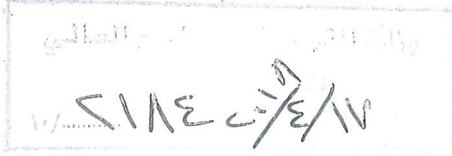
للتفضل بالاطلاع مع الموافقة على طلب الجامعة الأميركية في بيروت - كلية العلوم
الزراعية والغذائية دخول المدارس الرسمية الواردة أسماؤها في اللائحة المرفقة ربطاً خلال
العام الدراسي ٢٠١٧/٢٠١٨ لتنفيذ دراسة حول تعزيز شعور حب الطبيعة لدى الأطفال،
يشترك فيها تلاميذ مرحلة الروضة، على أن يتم التنسيق مع إدارات هذه المدارس بغية تأمين
تنفيذ المطلوب وحسن سير العمل فيها، وأن يتم تزويد المديرية العامة للتربية بتقرير عن نتائج
هذه الدراسة بعد الانتهاء من تنفيذها، لإجراء اللازم ./

المدير العام للتربية

فادي يرق

صادر COMPUTER

٢٠١٨/٤/١٦



Dear Mr. Yarak,

This is to certify that Ranim Koleilat, a master student in Environmental Sciences, at the American University of Beirut is currently in the phase of collecting data for her research project under my supervision (Dr. Salma Talhouk, Professor at the Department of Landscape Design and Ecosystem Management, Faculty of Agricultural and Food Sciences). The project's title is "*The Learning Landscape of Biophilia: Design guidelines for kindergarten schools with marginal space and resources*". The research study aims to develop design guidelines for enabling environments to strengthen nature connection in kindergarten students.

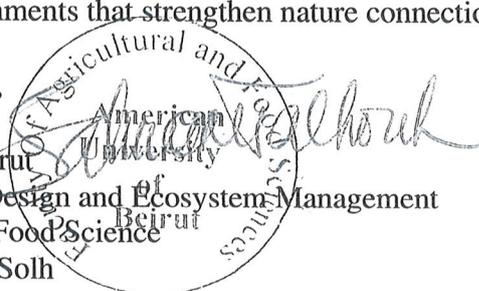
Therefore, an official approval from the Ministry of Education and Higher Education is needed for the following list of schools in order to conduct research.

For your information these schools will be categorized according to the following criteria:

- Public and/or private-free schools that include kindergarten sections
- Schools are located in Beirut only
- Schools should have accessible playground dedicated only for the kindergarten classes

Subsequently, a subset of schools will be selected to further assess students and teachers preferences. Participants, including KG teachers and KG students, from the selected schools will be asked to engage in an activity/discussion to assess their perceptions and preferences towards environments that strengthen nature connection.

Thank you for your support,
Salma Talhouk, Professor
American University of Beirut
Department of Landscape Design and Ecosystem Management
Faculty of Agriculture and Food Science
P.O. Box 11-0236, Riad El Solh
Beirut, Lebanon
(01) 350 000 ext. 4508
ntsalma@aub.edu.lb



المدير العام للتربية
فادي يرق

Handwritten notes and signatures in Arabic, including the name 'Ranim Koleilat' and a date '17/4/2014'.

To discuss other study-related questions with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institution Review Board at 01 350000 ext. 5445 or irb@aub.edu.lb

صادر
17/4/2014

03-685857
رانيا كليلات

	Name of School	Location	Contact Number
الاورغواني الأشرفية الأولى الرسمية المختلطة	Uruguay First Achrafieh Mixed Public School	Achrafieh-Beirut	01-1425507
متوسطة الأشرفية الرسمية المختلطة	El Achrafieh Mixed Intermediate Public school	Achrafieh-Beirut	01-560193
مدرسة سامي الصايغ الرسمية المختلطة	Salma El Sayegh Mixed Public School	Achrafieh-Beirut	01-326802
وطني المصيرية الرسمية المختلطة	Wata Al Moussaytbeh Mixed Public School	Moussaytbeh-Beirut	01-313460
روضة برج أبي حيدر الرسمية المختلطة	Burj Abi Haidar Mixed Public Kindergarten	Burj Abi Haidar-Beirut	01-660430
زقاق البلاط الرسمية المختلطة	Zoukak el-Blatt Mixed Public School	Zoukak el-Blatt- Beirut	01-377337
المستقبل الرسمية المختلطة	El Mostakbal Mixed Public School	Bachoura-Beirut	01-650798
مدرسة حوض الولاية الأولى الرسمية المختلطة	Houd Alwilaya First Mixed Public School	Bachoura-Beirut	01-643264
الطريق الجديدة الأولى الرسمية المختلطة	Tariq Al Jadida First Mixed Public School	Mazraa- Beirut	01-653291
جابر الأحمد الصباح	Jaber Ahmad Al Sabah School (JASS)	Ras Beyrouth-Beirut	01-347591
مدرسة البسطة الأولى الرسمية المختلطة	Basta First Mixed Public School	Mazraa-Beirut	01-631996
روضة وردة اليازجي الرسمية المختلطة	Warda El Yazigi Mixed Public Kindergarten	Mazraa-Beirut	01-640783
أمالي سوسق المتوسطة الرسمية المختلطة	Emily Sursock Mixed Intermediate Public School	Mazraa-Beirut	01-846699
رأس النبع الرسمية الثانية المختلطة	Ras Al-Nabah Second Mixed Public School	Mazraa-Beirut	01-644983
الجناح المختلطة الرسمية	Al Jnah Mixed Public School	Jnah- Beirut	01-833425
رفعت عبد الله تاجي الرسمية	Rifaat Abdul Allah Tagi Public Kindergarten	Mar Elias-Beirut	01-301139
محمد شامل الإبتدائية الرسمية المختلطة	Mohammed Shamel Mixed Elementary Public School	Mazraa-Beirut	01-818126
محمد حمد الإبتدائية الرسمية المختلطة	Omar Hamad Mixed Elementary Public	Moussaytbeh-Beirut	01-824994

School		
El Amir Shakib Irslan Mixed Secondary Public school	Ras Beyrouth-Beirut	01-791690
Amr Al Ansi Mixed Public Kindergarten	Moussaytbeh-Beirut	01-847272
Amin Bayham Mixed Elementary Public School	Mazraa-Beirut	01-825967
Moussaytbeh Mixed Primary Public School	Mazraa-Beirut	01-302386
Mar Mansour for the nuns of love	Achrafieh-Beirut	01-201814
The lady of Victory for the nuns of love	Achrafieh-Beirut	01-201812
Saint Joseph of the sisters of love	Achrafieh-Beirut	01-449210
Saint Louisa of the nuns of love	Clemenceau-Beirut	01-371821
Othman Al-Noorain Elementary School	Quritem- Beirut	01-805857
Ali bin Abi Talib Elementary School	Ras Al-Nabah-Beirut	01-640485
Omar Ibn al-Khattab Primary School	Mazraa- Beirut	01-309632
Makarem Islamic Ethics Association	Mazraa-Beirut	01-632345
St. Peter and Paul Orthodox School	Moussaytbeh-Beirut	01-817410
Al Jeel Al Jadeed School	Mazraa-Beirut	01-645351
Khadija Al – Kubra Primary School	Sadat-Beirut	01-786409
Aisha Um Al-Muamineen School	Mazraa- Beirut	01-646977

الأمير شكيب إرسلان
المختلطة الثانوية العامة

روضة أمم الأنسي المختلطة
الطفولة

مدرسة أمين باهم المختلطة
الابتدائية الرسمية

مدرسة مصطفى المختلطة
الابتدائية الرسمية

مار منصور لراقيات المحبة

سيدة النصر لراقيات
المحبة

القدوس يوسف لراقيات
المحبة

القدوس لوزيا لراقيات
المحبة

عثمان النوراني
الابتدائية

علي بن أبي طالب
الابتدائية

عمر بن الخطاب
الابتدائية

جمعية كرام الخلاق
الإسلامية

مار بطرس وولانس السريان
الارتودوكس

مدرسة الجيل الجديد

خديجة الكبرى
الابتدائية

عائشة أم المؤمنين

APPROVAL OF RESEARCH

September 18, 2018

Salma Talhouk, PhD
American University of Beirut
01-350000 ext.: 4508
ntsalma@aub.edu.lb

Dear Dr. Talhouk,

On September 18, 2018, the IRB reviewed the following protocol:

Type of Review:	Initial, Expedited
Project Title:	The learning Landscape of Biophilia: Design guidelines for kindergarten schools with marginal space and resources
Investigator:	Salma Talhouk
IRB ID:	SBS-2018-0146
Funding Agency:	None
Documents reviewed:	<p>Received April 11,2018:</p> <ul style="list-style-type: none"> • Proposal • Instrument for KG teachers (English and Arabic versions) • Email invitation for experts (English version) • Consent document for experts (English version) • Instrument for experts (English version) <p>Received August 31,2018:</p> <ul style="list-style-type: none"> • Consent document for KG teachers (English and Arabic versions) <p>Received September 17,2019:</p> <ul style="list-style-type: none"> • IRB application

The IRB granted you approval to conduct the study in from September 18, 2018 to September 17, 2019 inclusive. Before July 17, 2019 or within 30 days of study close, whichever is earlier, you are to submit a completed "FORM: Continuing Review Progress Report" and required attachments to request continuing approval or study closure.

If continuing review approval is not granted before the expiration date of September 18, 2019 approval of this research expires on that date.

Please find attached the stamped approved documents:

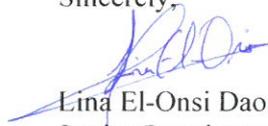
- Proposal (received April 11,2018),
- Instrument for KG teachers (English and Arabic versions, received April 11,2018),
- Email invitation for experts (English version, received April 11,2018),
- Consent document for experts (English version, received April 11,2018),
- Instrument for experts (English version, received April 11,2018),
- Consent document for KG teachers (English and Arabic versions, received August 31, 2018).

Only these IRB approved consent forms and documents can be used for this research study.

Thank you.

The American University of Beirut and its Institutional Review Board, under the Institution's Federal Wide Assurance with OHRP, comply with the Department of Health and Human Services (DHHS) Code of Federal Regulations for the Protection of Human Subjects ("The Common Rule") 45CFR46, subparts A, B, C, and D, with 21CFR56; and operate in a manner consistent with the Belmont report, FDA guidance, Good Clinical Practices under the ICH guidelines, and applicable national/local regulations.

Sincerely,



Lina El-Onsi Daouk, MSc
Senior Regulatory Analyst/ IRB Co-administrator
Social & Behavioral Sciences

Cc: Michael Clinton, PhD
IRB Vice Chairperson
Social & Behavioral Sciences

Fuad Ziyadeh, MD, FACP, FRCP
Professor of Medicine and Biochemistry
Chairperson of the IRB

Ali K. Abu-Alfa, MD, FASN, FASH
Professor of Medicine
Director, Human Research Protection Program
Director for Research Affairs (AUBMC)



The Learning Landscape of Bio-philica:
Design guidelines for kindergarten schools with marginal space and resources

Principal Investigator: Dr. Salma Talhouk
Co-investigator: Ranim Koleilat
Address: American University of Beirut
Department of Landscape Design and Ecosystem Management
Faculty of Agriculture and Food Science
P.O. Box 11-0236, Riad El Solh
Beirut, Lebanon
Phone: (01) 350 000 ext. 4508

You are asked to participate in a research project conducted by the American University of Beirut that studies early childhood's perceptions and preferences towards environments that strengthen love and connection with the natural world. You are asked to contribute to the study because of your expertise in the field of photography, landscape design or early childhood education. The approximate number of experts that will be recruited for this part of the study is 12. Please read the following information carefully to determine if you would like to participate or not. Please do not hesitate to ask for more information.

You are asked to participate in selecting and rating a number of photos in order to achieve a representative sample for each category of the enabling environments, which are environments that strengthen nature connection in early childhood. Supposedly, the exercise will take no longer than 10-15 minutes. You will be asked to select two photos for each category, one that best represents the category and one that least represents it, based on certain variables adopted from Kaplan's information processing theory.

You will not be subject to risks that are greater than those typically encountered in daily life. You will not be compensated for helping in the research.

The collected data will be stored in a secure drawer in the Principal Investigator's office and on a password protected computer for a minimum of three years. Please note that the data will be monitored and may be audited by the IRB while assuring confidentiality. Also, your name will not be requested. Your participation is voluntary and you can stop taking the survey at any point if you wish, without giving a reason. When the project is finished, a summary of the findings will be given to all the participants.

To contact the principle investigator, email ntsalma@aub.edu.lb, or the co-investigator, email rmk44@mail.aub.edu. To discuss other study-related questions with someone who is not part of the research team, you may contact the AUB Social

*Institutional Review Board
American University of Beirut*

18 SEP 2018

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& Behavioral Science Institution Review Board at 01 350000 ext. 5445 or
irb@aub.edu.lb

Please read and consider each question carefully, but do not worry too much about your answers. There are no right or wrong answers; just think about what best reflects your own behavior and feelings.

Please sign the following declaration before engaging in the exercise.

I have been asked to participate in this research project that studies perceptions and preferences towards certain environments that enables children's nature connection, and I give my free consent by signing this form. I understand that the following statements are part of my consent:

- The research includes me filling out a photo booklet by selecting 2 photos for each category: one with the best representation and one with the least representation.
- If I decide not to participate, or decide not to complete the survey, my decision will be accepted.
- My consent to participate is voluntary and I may decide not to continue at any time. I do not have to give a reason.
- I have read and understood the information above, and my questions have been answered to my satisfaction

Signature:

Date:

Thank you for helping us with our research!

Signature of Co-investigator:



31 AUG 2018

RECEIVED

**The Learning Landscape of Bio-phililia:
*Design guidelines for kindergarten schools with marginal space and resources***

Principal Investigator: Dr. Salma Talhouk

Co-investigator: Ranim Koleilat

Address: American University of Beirut
Department of Landscape Design and Ecosystem Management
Faculty of Agriculture and Food Science
P.O. Box 11-0236, Riad El Solh
Beirut, Lebanon

Phone: (01) 350 000 ext. 4508

You are asked to participate in a research project conducted by the American University of Beirut that studies early childhood's perceptions and preferences towards environments that strengthen love and connection with the natural world. You are asked to contribute to the study because of your expertise as an early childhood educator or teacher, regardless of your age range, educational level and years of experience. The approximate number of teachers that will be recruited for this part of the study is maximum 60. Please read the following information carefully to determine if you would like to participate or not. Please do not hesitate to ask for more information.

You are asked to participate in a focus group discussion that will take no longer than 1 hour. You will be asked to orally answer, as a group, a series of questions (around 11 main questions) that will assess your perceptions and preferences towards certain environments that enable nature connection in young children. You will be also asked, individually, to numerically rank 10 photos of certain environments in relation to children's nature connection based on a Likert Scale, ranging from 1 = Strongly Agree to 5 = Strongly Disagree.

You will not be subject to risks that are greater than those typically encountered in daily life. You will not be compensated for helping in the research.

You will be audio taped during conducting the discussion for data collection.

The collected data will be stored in a secure drawer in the Principal Investigator's office and on a password protected computer for a minimum of three years. Please note that the data will be monitored and may be audited by the IRB while assuring confidentiality. Also, your name will not be requested. Your participation is voluntary and you can stop taking the survey at any point if you wish, without giving a reason. When the project is finished, a summary of the findings will be given to all the participants.

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To contact the principle investigator, email ntsalma@aub.edu.lb, or the co-investigator, email rmk44@mail.aub.edu. To discuss other study-related questions with someone who is not part of the research team, you may contact the AUB Social & Behavioral Science Institution Review Board at 01 350000 ext. 5445 or irb@aub.edu.lb

Please sign the following declaration before engaging in the focus group discussion.

I have been asked to participate in this research project that studies perceptions and preferences towards certain environments that enables children's nature connection, and I give my free consent by signing this form. I understand that the following statements are part of my consent:

- The research includes me answering a serious of questions as part of the group discussion and numerically rating 10 photos.
- If I decide not to participate, or decide not to complete the survey, my decision will be accepted.
- My consent to participate is voluntary and I may decide not to continue at any time. I do not have to give a reason.
- I have read and understood the information above, and my questions have been answered to my satisfaction

Signature:

Date:

Thank you for helping us with our research!

Signature of Co-investigator:

Please fill in the following information:

- Gender: male – female
- Level of education:
 - a) Intermediate Certification Lebanese Brevet
 - b) Lebanese Baccalaureate or High School Diploma
 - c) Vocational certification (Technical Baccalaureate)
 - d) Bachelor's Degree or Diploma
 - e) Master's Degree
 - f) Doctorate/PhD
- University major or vocational (if applicable):.....
- Name of university or institution:.....
- Year of graduation:.....
- Years of experience in early childhood education or as a teacher:.....
- Name of school currently working in (location):.....

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Thank you for your cooperation☺

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