



**EXPEDUCOM**

# **A HANDBOOK ON EXPERIENTIAL EDUCATION.**

## **PEDAGOGICAL GUIDELINES FOR TEACHERS AND PARENTS**

Erasmus+ Project:

Experiential Education Competence  
(teaching children aged 3-12) – EXPEDUCOM

The grant reference number:  
2014-1-LT01-KA200-000368

### **Editors:**

Gianina-Ana MASSARI  
Florentina-Manuela MIRON  
Violeta KAMANTAUSKIENE  
Zeynep ALAT  
Cristina MESQUITA  
Marina TZAKOSTA  
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**2016**

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## **FOREWORD**

**Violeta KAMANTAUSKIENE**

Experience-based education is the method or way of teaching through doing, namely it is the process during which young learners obtain knowledge and skills via personal experience. Individuals are involved in a particular activity which they reflect, analyze and that brings higher level of awareness and/or changes in behavior

World tendencies require to educate young learners so that they were creative, flexible, able to analyze, think critically.

It is common sense that the most predominant tendency in education is to educate young learners so that they become creative, flexible, able to analyze, critical thinkers, independent and democratic citizens.

EXPEDUCOM is a project risen from the needs to meet the requirements of the modern world via developing and implementing innovative educational practices related to experience-based pedagogical approach addressed to children aged 3-12.

The project outcomes target at strengthening the professional profile of in-service educators as well as students - future teachers by developing pedagogical guidelines on experiential education, open educational tools-real life cases, offering training for improvement of professional and communicative skills, improving curricula of pre-school, primary and teacher training institutions.

This handbook rose from the needs to meet the requirements of the modern world via developing and implementing innovative educational practices related to experience-based pedagogical approach educating children aged 3-12.

This handbook constitutes an approach for investigating the theoretical and practical training strategies from the perspective of experiential education. The purpose of this paper aims to provide theoretical and practical tools useful in early education specialists and primary education by developing practical strategies component, to support the development of educational activities and research to adapt permanently instructive approach to the specific demands of contemporary society. Due to changes at multiple curricular authors develop paradigms for training future teachers and introduce the need for activity planning, implementation and evaluation of training through experiential learning activities, thereby contributing directly to improving interactive teaching strategies.

Given the above, this handbook is organized as follows:

*Part A.* General framework on experiential learning

What is experiential learning? (Concept; Characteristics of experiential based learning; The principals of experiential orientation; Experiential based learning stages; Teacher roles; Children roles; Integration of experiential learning in teaching); Overview of conceptual foundations on the experiential based learning (Instructional models for the experiential learning theory; Dewey's foundations for the experiential based learning; Implications of Vygotsky's ideas on learning process; Bruner's conceptual contribution to the experiential based learning; The Jean Piaget's perspective; Kolb's experiential learning theory); Citizenship and 21<sup>st</sup> century education (An overview of 21<sup>st</sup> century skills education; What kind of citizens are needed in the Netherlands in the 21st century?); Different approaches of experiential education (Reggio Emilia Approach; High Scope Approach; Pedagogy in Participation or MEM)

*Part B.* International research report on experiential learning approaches

*Part C.* Examples of experiential based learning developed in different countries structured as case studies on experiential education in kindergarden and case studies on experiential education in primary school.

This handbook aims to provide the necessary and adequate information regarding experiential learning and teaching and is directed to parents, students and educators of preschool and primary school children. More specifically, the outcomes of the project directly address teachers working in kindergartens and primary schools; students of pre-school and primary education; teacher trainers, researchers at universities providing pre-school and/or primary education; parents or anybody interested in education of children aged 3-12.

## CHAPTER 5.

### INTERNATIONAL RESEARCH REPORT ON EXPERIENTIAL LEARNING APPROACHES

Zeynep ALAT, Kazim ALAT,  
Violeta KAMANTAUSKIENE, Gianina-Ana MASSARI,  
Florentina-Manuela MIRON, Cristina MESQUITA, Marina  
TZAKOSTA, Jan Karel VERHEIJ, Tija ZIRINA

#### OBJECTIVE NO. 1: RESEARCH SURVEY REPORT

**Title:**

Carrying out a Research survey on Experiential education practices (children aged 3-12) in partner countries LT, LV, TR, NL, PT, RO, GR

**Description:**

Project partners from 7 countries carry out a quantitative (via online questionnaire) and qualitative (via interviews) research on Experiential education practices (how much it is used, what forms, in what subjects). Research aims at identifying similarities and differences, good practice to share and problematic areas. Research results will be used when planning lectures for teachers and teacher trainers in the next project stage.

**Tasks and role of each organization**

All project partners were involved in carrying out the research. Ondokuz Mayıs university leads WP2 Research Survey and was responsible for designing the questionnaire, data analysis and report composition. Other partners contributed with collection of the data.

**Leading Organization for the Activity**

ONDOKUZ MAYIS UNIVERSITY

**CLASSROOM PRACTICES OF TEACHERS OF YOUNG CHILDREN: A COMPARATIVE STUDY CONDUCTED IN GREECE, LATVIA, LITHUANIA, PORTUGAL, ROMANIA, AND TURKEY**

Success of any educational program is vitally linked to teachers' beliefs and practices (Copple & Bredekamp 2009). Presence of a perfect curriculum or physical conditions would not mean much unless teachers are endowed with necessary knowledge, skills, and attitude, which shine in their daily teaching practices (Copple & Bredekamp 2009). It is widely recommended by educational scholars to avoid heavy reliance on basic-skills oriented teaching that focuses on instilling certain skills under strict teacher tutelage in an environment where children are expected to take a passive role and suppress their individuality (Stipek & Byler, 1997). Instead, educators are advised to replace those ineffective practices with child-centered pedagogy, as recommended by National Association for the Education of Young Children (NAEYC), which endorses practices that allow children to build their own knowledge and competencies (Copple & Bredekamp 2009). Prominence of play in children's learning and development is highly recognized within this paradigm (Bowman, Donovan, & Burns, 2000; Copple & Bredekamp 2009). Unfortunately, educational reform does not occur overnight even if legislative dimensions are already set. It is teachers who are mainly responsible for implementation of new practices in educational settings. Therefore, without paying close attention to teachers, especially the ways they provide education in their classrooms, visions of policy makers who yearn for excellence following what research recommends would be destined to fade away in the oblivion.

### **Teacher qualifications in the countries involved**

It seems that importance of teacher qualifications are widely recognized by the policy makers in almost all of the countries where this study was conducted. A bachelor's degree with a three or four-year-study is a prerequisite for employment in ECE settings serving older children in all of the countries except Latvia where post-secondary non-tertiary level education is the minimum level of education looked for in a preschool teacher. As far as professional development, teachers of young children in all of the countries, except those in Greece, are required to attend continuing professional training activities (European Commission/EACEA/Eurydice/Eurostat, 2014). In some countries, teachers, even have to receive formal training in administration as well as ongoing inservice trainings if they wish to climb the career ladders and become head of institutions.

It is a worldwide trend that teaching young children is a profession that attracts mostly women. This is especially true for the countries Greece, Latvia, Lithuania, and Romania and the Netherlands in the study. Portugal and Turkey have, although not dramatic, higher rates of men employed in the field ranging from 5 and 7 % (European Commission/EACEA/Eurydice/Eurostat, 2014).

Table 1. Qualifications required for educational staff working with older children in early childhood settings.

	<b>Teachers</b>	<b>Directors</b>
<b>Greece</b>	Bachelor's degree (four years)	Bachelor's degree + Professional experience
<b>Latvia</b>	Post-secondary non-tertiary level	Bachelor's degree + Professional experience & administrative experience
<b>Lithuania</b>	Bachelor's degree (three years)	Bachelor's degree + Professional experience & administrative experience
<b>Portugal</b>	Master's level	Master's degree + Professional experience
<b>Romania</b>	Bachelor's degree (three years)	Bachelor's degree + Professional & administrative experience & special training
<b>The Netherlands</b>	Bachelor's degree	Bachelor's degree + Professional experience
<b>Turkey</b>	Bachelor's degree (four years)	Bachelor's degree + Professional experience

### **National guidelines**

As decades of solid research proves again and again immediate and the long term benefits of early education both for individual citizens and indirectly for a country's welfare, education of young children has been receiving very well deserved attention from the state governments in the last decades. With a goal to better prepare young generations for schooling, many European states have adopted a formal framework that guides educators and administrators in their efforts to meet the needs of young children (European Commission/EACEA/Eurydice/Eurostat, 2014). These guidelines usually describe learning content and list objectives and outcomes, sample learning activities and assessment methods framed under a child-centered pedagogical approach described in detail.

Curricular guidelines for older children in ECE settings are available in all of the participating countries, except Portugal, with

Greece, Romania and Turkey being the countries where separate official guidelines exist for younger and older preschooler groups. In general, emotional, social, language and communication, motor, mathematics, reading, artistic, life and health related skills are comprised the listed educational objectives and goals expected to be met during preschool education while second language training is covered only by the guidelines in Lithuania, Latvia, Portugal and Romania. Intercultural skills and cultural diversity seems to be a topic that is largely ignored.

Although the national guidelines only set the pedagogical framework giving teachers power to make such practical decisions as choosing the materials, planning educational activities and strategies, in some countries including Greece, Latvia, Portugal, and Romania daily schedule is fixed within the framework. Teachers are advised to keep the balance between adult-led and children-initiated activities as well as between group and individual activities that are both meaningful, built on children's previous experiences, and related to their real lives.

Teachers are expected to make assessment ongoing based on daily observations. Only in Turkey, teachers are required to keep written records of children's development and share it regularly with parents.

In fact, parent involvement is highly valued, but put in practice in varying degrees (European Commission/EACEA/Eurydice/Eurostat, 2014). Unlike the others, there is no place for parents of community members in school councils in Turkey. Whereas, Greek and Portuguese parents are entrusted with a significant role in decision-making processes while Lithuanian, Latvian, and Romanian parents are given a consultative role.

Success of any educational program depends on what teachers actually do in their classrooms (Clements, 2004). Therefore, the aim of this study was to explore how teachers of young children provide education in their classrooms in the countries participated in this project including Greece, Latvia, Lithuania, Portugal, Romania, and Turkey. More specifically, attention was paid to reveal to what degree developmentally appropriate practices were employed in pre-k to primary programs; to explore whether teachers from different countries vary on the level they implement DAP as well as to reveal teacher and classroom characteristics predicting teachers' practices. More specifically we intended to answer the following questions:

1. What kind of learning experiences pre-k to primary teachers value in their practices in different countries?
2. How do pre-k to primary teachers organize learning environments?
3. What are the teaching and learning strategies they use in their practices?

4. What kind of parent involvement do they value in their practice?
5. What are the processes of planning, recording and evaluation they use to assess children' learning.

## Method

**Participants.** Early childhood and primary school teachers were invited to participate in the study. The sample was created through a convenient sampling. Demographic information about the participants was given in the tables 2 - 7. As it could be noticed in Table 2, teachers under the age of 40 dominated the Romanian and Turkish samples while in Lithuania and Portugal majority of the teachers were over 40 years old.

*Table 2. Age of the participants*

	n	20-30	31-40	41-50	51-60	>60
		years	years	years	years	years
		%	%	%	%	%
Greece	36	16.7	36.1	44.4	2.8	-
Latvia	30	30.0	16.7	30.0	20.0	3.3
Lithuania	50	-	20.0	52.0	20.0	8.0
Portugal	50	4.0	24.0	38.0	34.0	-
Romania	71	53.5	22.5	18.3	5.6	-
Turkey	50	40,0	48,0	10,0	2,0	-

Table 3 shows the number of female and male teachers. Considering the fact that teaching young children is still seen as a woman's job it is no surprise that there were no male teachers in the Greek, Latvian, Lithuanian, or Turkish samples. Seven percent of Romanian sample, on the other hand, was comprised of male teachers.

*Table 3. Gender of the participants*

	Female		Male	
	n	%	n	%
Greece	36	100.0	-	-
Latvia	30	100.0	-	-
Lithuania	50	100.0	-	-
Portugal	49	98.0	1	2.0
Romania	66	93.0	5	7.0
Turkey	50	100.0	-	-

There is usually a split in place in many European countries in the system of education of young children. Regulations for who could teach children under age three is more relaxed than for the upper age groups. This reflects the composite of the participants' educational level in the countries Latvia, Turkey, and, to a lesser degree, in Lithuania. All of the teachers from Romania and Portugal had at least a bachelor's degree with a significant portion having master's degrees.

*Table 4. Educational levels completed by the participants*

	High School	Two-year college	Bachelors	Master	Doctorate
	%	%	%	%	%
Greece	2,9	2,9	50,0	35,3	8,8
Latvia	-	40,0	43,3	16,7	-
Lithuania	4,0	14,0	58,0	24,0	-
Portugal	-	-	76,0	24,0	-
Romania	-	-	54,9	45,1	-
Turkey	2,0	30,0	66,0	2,0	-

As Table 5 shows, majority of the participants were experienced teachers. But 44.3% of Romanian teachers were pretty new to the field with having only 1-3 years of experience while the Portugal teachers had the most experience.

*Table 5. Years of experience the participants had.*

	1-3 years	4-10 years	11-20 years	20-30 years	31-40 years	41-50 years
	%	%	%	%	%	%
Greece	11,1	36,1	38,9	13,9	-	-
Latvia	6,7	43,3	16,7	23,3	6,7	3,3
Lithuania	N/A	N/A	N/A	N/A	N/A	N/A
Portugal	4,0	10,	24,0	44,0	18,0	-
Romania	44,3	25,7	12,9	8,6	8,6	-
Turkey	12,0	46,0	30,0	12,0	-	-

In terms of the locations of the schools where our participants worked, majority of the teachers worked in the urban areas. All of the Latvian and Turkish teachers who participated in the study reported that they worked for an urban school. As far as public or private school difference, the Latvian and Lithuanian samples were comprised completely of teachers who worked for publicly funded schools.

*Table 6. Location of the schools where the participants worked.*

	Urban %	Rural %
Greece	65,7	34,3
Latvia	100,0	-
Lithuania	92,0	8,0
Portugal	74,0	26,0
Romania	71,6	28,4
Turkey	100,0	-

*Table 7. Type of the schools where the participants were employed.*

	Public %	Private %
Greece	91,7	8,3
Latvia	100,0	-
Lithuania	100,0	-
Portugal	58,0	42,0
Romania	75,7	24,3
Turkey	72,0	28,0

**Survey Instrument.** The Instructional Activities Scale (IAS). This scale was a part of The Teachers Beliefs and Practices Survey developed by Burts et al. (2000) following Developmentally Appropriate Practice (DAP) guidelines (Bredenkamp & Copple, 1997) endorsed by NAEYC. The questionnaire is comprised of three dimensions including a teacher demographic questionnaire, Teacher Belief Scale, and Instructional Activities Scale. The demographics questionnaire contained questions about educational degrees participating teachers held, their years of experience, and their work conditions.

For this study we only used the Demographics and The Instructional Activities Scale. Comprised of 30 items, the IAS measures how often appropriate and inappropriate practices occur in classrooms. The IAS was designed with a five-point Likert type scale

ranging from 1 = Almost never (less than monthly), 2 = Rarely (monthly), 3 = Sometimes (weekly), 4 = Regularly (2-4 times a week), and 5 = Often (daily). For this research, the scale was expanded by addition of ten more questions that were developed based on NAEYC's recommendations for developmentally appropriate practices. Additional questions asked the participants how often children in their classrooms do the following activities:

- Use variety of media and technology
- Build on their informal learning experiences and knowledge
- Engage in activities that strengthen their problem-solving, inquiry skills and reasoning processes
- Have plenty of opportunities to communicate what they have learned
- Are encouraged to be creative
- Talk and exchange ideas with each other during activities
- Are taken to field trips
- Are given ample time to engage in what they explore and manipulate concepts/ideas with keen interest.
- Are provided many daily opportunities for developing their social skills (i.e., cooperating, helping, talking) with peers in the classroom.
- Are engaged in activities that are responsive to individual children's interests.
- Are provided plenty of materials to engage in and explore
- Are assessed for their development and learning using alternative assessment methods (portfolios, observations, anecdotes, record keeping etc. )

In addition, with an aim to explore whether such significant issues of ever globalizing world as immigration, environment, and human rights crises receive the attention they very much deserve in the agendas of the teachers of the new millenium. The participants were asked how often they addressed some of the 21th century topics and skills listed below in their classrooms.

- Sustainable development
- Environment
- Multiculturalism
- Intercultural skills
- Critical thinking
- Media literacy
- Language skills
- Human rights
- Care and empathy

**Procedure.** The research instrument was administered to preschool and primary school teachers. Participation to the study was voluntary. The participants were informed about the purpose of the study and asked to complete all of the items on the research instrument. The research instrument took about 20 minutes to complete.

## Results

Descriptive analysis of data was conducted to reveal how often the participants offered developmentally appropriate and inappropriate practices. Additional analysis was run to see the frequency of inclusion of 21st Century topics and skills in their teaching.

### Provision of developmentally appropriate practices

Descriptive analysis of the data showed that it is a, reportedly, common and regular practice for the teachers participated in the study to offer developmentally appropriate activities while in some important areas they failed to do so.

#### 1. building with blocks

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	2,9	23,5	17,6	55,9
Latvia	-	-	-	20,0	80,0
Lithuania	17,0	8,5	8,5	25,5	40,4
Portugal	-	-	4,0	22,0	74,0
Romania	4,1	9,5	16,2	24,3	43,2
Turkey	2,0	4,1	12,2	22,4	59,2

#### 2. selecting from a variety of learning areas and projects (i.e., dramatic play, construction, art, music science experience, etc.)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	2,8	-	22,2	41,7	33,3
Latvia	-	3,3	10,0	53,3	33,3
Lithuania	6,1	10,2	30,6	44,9	8,2
Portugal	-	-	10,0	42,0	48,0
Romania	-	1,4	12,2	33,8	51,4
Turkey	4,0	4,0	20,0	26,0	46,0

#### 5. having their work displayed in the classroom

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	8,3	19,4	30,6	41,7
Latvia	-	-	-	23,3	76,7
Lithuania	2	-	22,0	38,0	38,0
Portugal	2,1	-	2,1	8,3	87,5
Romania	-	1,4	12,2	20,3	64,9
Turkey	2,0	-	6,0	26,0	66,0

#### 4. experimenting with writing by drawing, copying, and using their own invented spelling

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	2,9	17,1	37,1	42,9
Latvia	3,3	23,3	30,0	30,0	13,3
Lithuania	8,2	14,9	16,3	20,4	40,8
Portugal	2,0	2,0	6,0	24,0	66,0
Romania	1,4	1,4	20,3	33,8	40,5
Turkey	4,1	4,1	18,4	32,7	40,8

#### 5. playing with games, puzzles, and construction materials (e.g., Thinker Toys, Bristle Blocks)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	-	8,3	25,0	66,7
Latvia	-	-	-	3,3	96,7
Lithuania	10,0	14,0	10,0	32,0	34,0
Portugal	-	-	4,1	12,2	83,7
Romania	1,4	5,4	12,2	20,3	58,1
Turkey	2,0	-	2,0	16,3	79,6

#### 6. exploring science materials (e.g., animals, plants, wheels, gears, etc.)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	2,8	16,7	44,4	25,0	11,1
Latvia	-	3,3	33,3	26,7	36,7

<b>Lithuania</b>	4,0	16,0	36,0	34,0	10,0
<b>Portugal</b>	2,0	18,0	40,0	22,0	18,0
<b>Romania</b>	-	6,8	24,3	45,9	20,3
<b>Turkey</b>	2,0	10,0	30,0	22,0	36,0

Participants' responses to the question that asked how often they allowed children in their classrooms explore science materials revealed that 64% of Greek teachers, 36.6% of Latvian teachers, 56% of Lithuanian teachers, 60% of Portuguese, 31% of Romanian, and 44% of Turkish teachers did not provide regular science explorations in their practice.

### 7. singing, listening, and/or moving to music

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	-	-	8,3	55,6	36,1
<b>Latvia</b>	-	-	3,3	30,0	66,7
<b>Lithuania</b>	-	2,0	4,0	6,0	34,0
<b>Portugal</b>	-	-	8,3	25,0	66,7
<b>Romania</b>	-	-	9,5	29,7	58,1
<b>Turkey</b>	2,0	-	2,0	34,0	62,0

### 8. doing planned movement activities using large muscles (e.g., balancing, running, jumping)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	3,0	15,2	30,3	30,3	21,2
<b>Latvia</b>	-	-	-	33,3	66,7
<b>Lithuania</b>	2,0	2,0	10,0	46,0	40,0
<b>Portugal</b>	-	-	38,0	36,0	26,0
<b>Romania</b>	-	5,4	13,5	48,6	29,7
<b>Turkey</b>	2,0	-	16,0	28,0	54,0

It is important for young children to engage in gross motor activities for their health. In fact, it is recommended to provide young children for at least one hour of free play time during which they can actively use their large muscles as well as an hour of structured motor play, both of which would cultivate children's physical stamina and strength. Unfortunately, participants' responses to the question about activities that support motor skills revealed that 64% of Greek teachers, 36.6% of Latvian teachers, 56% of Lithuanian teachers, 60% of Portuguese,

31% of Romanian, and 44% of Turkish teachers did not provide structured gross-motor activities regularly in their practice.

**9. using manipulative (e.g., pegboards, Legos, and Unifix Cubes)**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	2,9	11,4	34,3	11,4	40,0
<b>Latvia</b>	-	-	6,7	40,0	53,3
<b>Lithuania</b>	26,5	4,1	28,6	18,4	22,4
<b>Portugal</b>	2,0	6,1	14,3	22,4	55,1
<b>Romania</b>	5,4	6,8	16,2	36,5	32,4
<b>Turkey</b>	-	4,0	16,0	26,0	54,0

A significant percentage of the Greek and Lithuanian teachers reported that use of manipulatives was not a regular activity in their classrooms. In fact, unlike 93.3% of their Latvian colleagues, 48.6% of Greek, 59.2% of Lithuanian, 22.4% of Portuguese, 28.4% of Romanian, and 20% of Turkish participants failed to give children regular opportunities to play with manipulatives.

**19. having the opportunity to learn about people with special needs (e.g., a speaker or a character in a book)**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	5,6	38,9	33,3	19,4	2,8
<b>Latvia</b>	16,7	46,7	20,0	13,3	3,3
<b>Lithuania</b>	29,2	35,4	14,6	14,6	6,2
<b>Portugal</b>	16,3	28,6	26,5	10,2	18,4
<b>Romania</b>	5,4	23,0	29,7	24,3	14,9
<b>Turkey</b>	12,0	20,0	24,0	18,0	26,0

Participants' responses to the question about the frequency of opportunities they provided in their classrooms to learn about people with special needs revealed that this was something largely ignored in 44.5% of Greek teachers, 63.4% of Latvian teachers, 64.6% of Lithuanian teachers, 44.9% of Portuguese teachers, 28.4% of Romanian teachers, and 32% of Turkish teachers' practice.

**21. seeing their own race, culture, language reflected in the classroom**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
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	%	%	%	%	%
<b>Greece</b>	5,6	19,4	27,8	13,9	33,3
<b>Latvia</b>	3,3	16,7	20,0	20,0	40,0
<b>Lithuania</b>	18,0	4,0	28,0	26,0	24,0
<b>Portugal</b>	8,3	12,5	31,3	14,6	33,3
<b>Romania</b>	5,4	14,9	20,3	36,5	20,3
<b>Turkey</b>	6,1	6,1	16,3	42,9	28,6

### 23. experiencing parents reading stories or sharing a skill or hobby with the class

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	20,0	28,6	34,3	14,3	2,9
<b>Latvia</b>	23,3	46,7	16,7	3,3	10,0
<b>Lithuania</b>	18,4	30,6	22,4	22,4	6,1
<b>Portugal</b>	16,3	20,4	22,4	14,3	26,5
<b>Romania</b>	21,6	31,1	31,1	12,2	1,4
<b>Turkey</b>	14,0	20,0	26,0	24,0	16,0

Participants' responses to the question about parent involvement that showed that parent involvement activities were something rare to occur in 48.6% of Greek teachers', 70% of Latvian teachers', 49% of Lithuanian teachers', 36.7% of Portuguese teachers', 52.7% of Romanian teachers', and 34% of Turkish teachers' classrooms.

### 24. engaging in child-chosen, teacher-supported play activities

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	-	2,8	27,8	44,4	25,0
<b>Latvia</b>	-	3,3	6,7	26,7	63,3
<b>Lithuania</b>	-	6,0	24,0	44,0	26,0
<b>Portugal</b>	-	6,0	22,0	22,0	50,0
<b>Romania</b>	-	8,1	6,8	32,4	50,0
<b>Turkey</b>	2,0	4,0	18,0	26,0	50,0

Majority of the participants (69.4% of the Greek teachers, 90% of the Latvian teachers, 70% of the Lithuanian teachers, 72% of Portuguese, 82.4% of Romanian, and 76% of Turkish teachers) provided regular opportunities for children in their classrooms to engage in self-chosen activities during which teachers take the role of a facilitator.

**25. drawing, painting, working with clay, and using other art media**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	5,6	--	16,7	44,4	33,3
<b>Latvia</b>	-	-	6,7	46,7	46,7
<b>Lithuania</b>	2,0	10,0	8,0	44,0	36,0
<b>Portugal</b>	2,0	-	6,1	28,6	63,3
<b>Romania</b>	4,1	4,1	25,7	41,9	21,6
<b>Turkey</b>	2,0	2,0	10,0	30,0	56,0

Participants' responses to the question that asked how often they allowed children to use materials revealed that 77.7% of Greek teachers, 93.4% of Latvian teachers, 80% of Lithuanian teachers, 92% of Portuguese teachers, 63% of Romanian teachers, and 86% of Turkish teachers regularly provided art activities in their classrooms while it was a rare practice for 12% of Lithuanian teachers.

**26. solving real math problems using real objects in the classroom environment that are incorporated into other subject areas**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	2,8	8,3	36,1	36,1	16,7
<b>Latvia</b>	3,3	3,3	13,3	43,3	36,7
<b>Lithuania</b>	10,0	6,0	28,0	36,0	20,0
<b>Portugal</b>	2,0	2,0	12,0	46,0	38,0
<b>Romania</b>	-	4,1	28,4	40,5	24,3
<b>Turkey</b>	6,1	6,1	22,4	36,7	28,6

Participants' responses to the question that asked how often children in their classrooms had the opportunity to solve real math problems using real objects in their classrooms environment that are incorporated into other subject areas revealed that this was a regular practice in 53% of Greek teachers, 80% of Latvian teachers, 56% of Lithuanian teachers, 84% of Portuguese, 65% of Romanian, and 65% of Turkish teachers.

**28. engaging in experiences that demonstrate the explicit valuing of each other (e.g., sending a card to a sick classmate)**

	<b>1 Almost never</b>	<b>2 Rarely</b>	<b>3 Sometimes</b>	<b>4 Regularly</b>	<b>5 Often</b>
	%	%	%	%	%
<b>Greece</b>	17,1	22,9	37,1	20,0	2,9
<b>Latvia</b>	-	13,3	36,7	16,7	33,3
<b>Lithuania</b>	12,0	30,0	38,0	14,0	6,0
<b>Portugal</b>	28,0	18,0	22,0	20,0	12,0
<b>Romania</b>	-	8,1	31,1	36,5	21,6
<b>Turkey</b>	8,2	16,3	28,6	22,4	24,5

Participants' responses to the question that asked how often children in their classrooms had the opportunity to engage in experiences that demonstrate the explicit valuing of each other (e.g., sending a card to a sick classmate) revealed that 40% of Greek teachers, 42% of Lithuanian teachers, 46% of Portuguese teachers, 20.5% of Turkish teachers never or rarely provided such activities in their practices while only 13.3% of Latvian teachers and 8% of Romanian teachers made such report.

### **29. working with materials that have been adapted or modified to meet their needs**

	<b>1 Almost never</b>	<b>2 Rarely</b>	<b>3 Sometimes</b>	<b>4 Regularly</b>	<b>5 Often</b>
	%	%	%	%	%
<b>Greece</b>	2,9	14,3	17,1	34,3	31,4
<b>Latvia</b>	-	-	13,3	30,0	56,7
<b>Lithuania</b>	2,1	10,4	14,6	37,5	35,4
<b>Portugal</b>	14,3	10,2	24,5	28,6	22,4
<b>Romania</b>	-	-	20,3	37,8	39,2
<b>Turkey</b>	16,7	8,3	27,1	22,9	25,0

Participants' responses to the question that asked how often children in their classrooms had the opportunity to work with materials that have been adapted or modified to meet their needs revealed that this was a regular practice in 65% of Greek teachers', 87% of Latvian teachers', 73% of Lithuanian teachers', 51% of Portuguese teachers', 77% of Romanian teachers', and 47% of Turkish teachers' classrooms. But, 24% of Portuguese and 24% of Turkish teachers made no adaptations in materials.

### 30. doing activities that integrate multiple subjects (reading, math, science, social studies, etc.)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	2,8	22,2	33,3	41,7
Latvia	-	3,3	6,7	20,0	70,0
Lithuania	4,0	6,0	26,0	40,0	24,0
Portugal	-	-	10,4	27,1	62,5
Romania	1,4	-	9,5	35,1	51,4
Turkey	2,0	4,0	16,0	26,0	52,0

Participants' responses to the question that asked how often children in their classrooms had the opportunity to do activities that integrate multiple subjects (reading, math, science, social studies, etc.) revealed that provision of integrated activities was a common practice.

### 31. using variety of media and technology

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	5,6	13,9	33,3	19,4	27,8
Latvia	10,0	33,3	36,7	20,0	-
Lithuania	8,0	10,0	24,0	48,0	10,0
Portugal	8,2	8,2	24,5	36,7	22,4
Romania	2,7	13,5	32,4	29,7	18,9
Turkey	12,0	6,0	22,0	34,0	26,0

Participants' responses to the question that asked how often children in their classrooms had the opportunity to use variety of media and technology revealed that 48% of Greek teachers, 58% of Lithuanian teachers, 59% of Portuguese, 49% of Romanian, 60% of Turkish teachers, and only 20% of Latvian teachers allowed children to use media technologies regularly in the classroom.

### 32. building on their informal learning experiences and knowledge

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%

<b>Greece</b>	-	2,8	19,4	33,3	44,4
<b>Latvia</b>	-	-	10,0	16,7	73,3
<b>Lithuania</b>	-	8,0	32,0	46,0	14,0
<b>Portugal</b>	-	-	16,0	40,0	44,0
<b>Romania</b>	4,1	12,2	24,3	41,9	14,9
<b>Turkey</b>	6,4	10,6	23,4	34,0	25,5

Majority of the participants (90% of Latvian teachers, 84% of Portuguese, 78% of Greek teachers, 60% of Lithuanian teachers, 57% of Romanian, and 61% of Turkish teachers) reported that children in their classrooms had regular opportunities to build on their informal learning experiences and previous knowledge.

### **33. engaging in activities that strengthen their problem-solving, inquiry skills and reasoning processes**

	<b>1 Almost never</b>	<b>2 Rarely</b>	<b>3 Sometimes</b>	<b>4 Regularly</b>	<b>5 Often</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Greece</b>	2,9	-	35,3	26,5	35,3
<b>Latvia</b>	-	-	13,3	43,3	43,3
<b>Lithuania</b>	-	2,0	34,0	42,0	22,0
<b>Portugal</b>	-	2,0	10,2	36,7	51,0
<b>Romania</b>	-	8,1	16,2	50,0	23,0
<b>Turkey</b>	4,0	4,0	10,0	52,0	30,0

Participants' responses to the question that asked how often children in their classrooms had the opportunity to engage in activities that strengthen their problem-solving, inquiry skills and reasoning processes revealed that 88% of Portuguese, 87% of Latvian teachers, 82% of Turkish teachers, 73% of Romanian teachers, 64% of Lithuanian teachers, and 62% of Greek teachers provided such activities regularly in their practice.

### **34. having plenty of opportunities to communicate what they have learned**

	<b>1 Almost never</b>	<b>2 Rarely</b>	<b>3 Sometimes</b>	<b>4 Regularly</b>	<b>5 Often</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>	<b>%</b>
<b>Greece</b>	2,8	2,8	19,4	36,1	38,9
<b>Latvia</b>	-	-	3,3	26,7	70,0
<b>Lithuania</b>	-	4,0	22,0	44,0	30,0
<b>Portugal</b>	2,0	2,0	2,0	24,0	70,0
<b>Romania</b>	1,4	6,8	10,8	39,2	39,2
<b>Turkey</b>	2,0	-	6,0	28,0	64,0

Participants' responses to the question that asked how often children in their classrooms had the opportunity to have plenty of opportunities to communicate what they have learned revealed that this was the case in majority of the participants' classrooms (97% of Latvian teachers, 94% of Portuguese, 93% of Turkish teachers, 78% of Romanian, 75% of Greek teachers, and 74% of Lithuanian teachers).

### 35. being encouraged to be creative

	1	2	3	4	5
	Almost never	Rarely	Sometimes	Regularly	Often
	%	%	%	%	%
<b>Greece</b>	2,8	2,8	2,8	13,9	77,8
<b>Latvia</b>	-	-	-	16,7	83,3
<b>Lithuania</b>	-	2,0	6,0	42,0	50,0
<b>Portugal</b>	-	-	8,2	18,4	73,5
<b>Romania</b>	-	1,4	1,4	14,9	79,7
<b>Turkey</b>	2,0	-	2,0	32,0	64,0

Creativity was also appreciated and supported by the participants in general. 92% of Greek teachers, 100% of Latvian teachers, 92% of Lithuanian teachers, 92% of Portuguese, 95% of Romanian, and 96% of Turkish teachers regularly encouraged children in their classrooms to be creative.

### 36. talking and exchanging ideas with each other during activities

	1	2	3	4	5
	Almost never	Rarely	Sometimes	Regularly	Often
	%	%	%	%	%
<b>Greece</b>	-	5,6	8,3	25,0	61,1
<b>Latvia</b>	-	-	6,7	13,3	80,0
<b>Lithuania</b>	-	2,0	8,0	38,0	52,0
<b>Portugal</b>	-	4,1	10,2	24,5	61,2
<b>Romania</b>	-	-	5,4	20,3	71,6
<b>Turkey</b>	2,4	-	2,4	23,8	71,4

Participants in general reported that children in their classrooms were given plenty of opportunities to talk and exchange ideas with each other during activities. 86% of Greek teachers, 93% of Latvian teachers, 90% of Lithuanian teachers, 86% of Portuguese, 92% of

Romanian, and 95% of Turkish teachers allowed dialogue among children during activities.

### 37. being taken to field trips

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	14,7	47,1	29,4	8,8	-
Latvia	-	40,0	50,0	6,7	3,3
Lithuania	8,0	40,0	26,0	16,0	10,0
Portugal	4,2	29,2	31,3	22,9	12,5
Romania	12,2	36,5	29,7	13,5	5,4
Turkey	6,3	16,7	29,2	20,8	27,1

Participants' responses to the question about the frequency of field trips showed that for a significant portion of teachers field trips were not something they regularly kept in their agendas. In fact, 62% of Greek teachers, 40% of Latvian teachers, 48% of Lithuanian teachers, 33% of Portuguese, 49% of Romanian, and 23% of Turkish teachers reported that they never or rarely organized field trips.

### 38. given ample time to engage in what they explore and manipulate concepts/ideas with keen interest.

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	2,9	11,4	37,1	25,7	22,9
Latvia	-	3,3	33,3	30,0	33,3
Lithuania	0,0	16,0	32,0	36,0	16,0
Portugal	2,0	6,0	28,0	44,0	20,0
Romania	-	2,7	10,8	44,6	39,2
Turkey	2,2	4,3	19,6	32,6	41,3

Participants in general reported that children in their classroom were given plenty of time and opportunities, and materials to follow their interests, continue with their explorations, and develop their social skills.

### 39. being provided many daily opportunities for developing their social skills (i.e., cooperating, helping, talking) with peers in the classroom.

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	2,8	5,6	33,3	58,3

Latvia	-	-	-	20,0	80,0
Lithuania	-	-	8,0	20,0	72,0
Portugal	2,0	2,0	4,1	26,5	65,3
Romania	-	1,4	8,1	23,0	64,9
Turkey	2,0	-	6,0	18,0	74,0

**40. engaged in activities that are responsive to individual children's interests.**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	-	16,7	27,8	30,6	25,0
Latvia	-	-	6,7	26,7	66,7
Lithuania	-	-	8,0	42,0	50,0
Portugal	2,0	-	8,0	22,0	68,0
Romania	-	-	4,1	29,7	63,5
Turkey	2,0	2,0	12,0	40,0	44,0

**41. being provided plenty of materials to engage in and explore**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	5,6	11,1	30,6	13,9	38,9
Latvia	-	3,3	10,0	33,3	53,3
Lithuania	-	4,0	20,0	54,0	22,0
Portugal	-	6,3	10,4	29,2	54,2
Romania	1,4	4,1	14,9	37,8	39,2
Turkey	2,0	-	18,0	32,0	48,0

**42. being assessed for their development and learning using alternative assessment methods (portfolios, observations, anecdotes, record keeping etc.)**

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	5,6	27,8	27,8	13,9	25,0
Latvia	3,3	30,0	23,3	16,7	26,7
Lithuania	-	6,0	10,0	24,0	60,0
Portugal	2,0	6,0	4,0	36,0	52,0
Romania	-	1,4	12,2	31,1	52,7
Turkey	2,0	8,0	8,0	34,0	48,0

Responses to the question about how often children in their classrooms are assessed for their development and learning through the use of alternative assessment methods (portfolios, observations, anecdotes, record keeping etc.) revealed that 33% of Greek teachers

and 33% of Latvian teachers never or rarely used alternative assessment methods while for a high percentage of the teachers from other countries it was a regular practice (88% of Portuguese, 84% of Lithuanian teachers, 84% of Romanian, and 82% of Turkish teachers).

### **Provision of developmentally inappropriate practices**

Analysis of the data also showed that a very large group of teachers also delivered inappropriate activities. There were a significant number of teachers who relied on commercially prepared phonics books. Use of worksheets and flashcards, cut and paste activities, teacher directed whole-class activities, and ability grouping were common practices among the participants. Fortunately, inappropriate disciplinary strategies including separation of children from their friends or putting them in time-out in order to maintain classroom order seemed not to be practiced by the majority of the teachers.

Of Greek teachers, 40% regularly used commercially prepared phonics books; 43% regularly practiced ability groupings; 43% frequently used worksheets and 37% used flashcards, 6.7% regularly engaged children in rote counting, 23% in handwriting, and 45% in cut and paste activities; 77% regularly had teacher directed whole-class activities; 19% made children sit quietly for a long period of time; 11% used time-out and 16% practiced removing children from the group for disciplinary purposes.

Of Latvian teachers, 50% regularly used commercially prepared phonics books; 90% regularly practiced ability groupings; 43% frequently used worksheets and 83% used flashcards, 65% regularly engaged children in rote counting, 50% in handwriting, and 57% in cut and paste activities; 63% regularly had teacher directed whole-class activities; 3% made children sit quietly for a long period of time; 10% used time-out and 7% practiced removing children from the group for disciplinary purposes.

Of Lithuanian teachers, 47% regularly used commercially prepared phonics books; 74% regularly practiced ability groupings; 75% frequently used worksheets and 74% used flashcards, 83% regularly engaged children in rote counting, 68% in handwriting, and 64% in cut and paste activities; 87% regularly had teacher directed whole-class activities; 35% made children sit quietly for a long period of time; zero used time-out and 8% practiced removing children from the group for disciplinary purposes.

Of Portuguese teachers, 40% regularly used commercially prepared phonics books; 49% regularly practiced ability groupings; 30% frequently used worksheets and 48% used flashcards, 64% regularly engaged children in rote counting, 49% in handwriting, and 41% in cut and paste activities; 88% regularly had teacher directed whole-class activities; 22% made children sit quietly for a long period

of time; 8% used time-out and 13% practiced removing children from the group for disciplinary purposes.

Of Romanian teachers, 20% regularly used commercially prepared phonics books; 84% regularly practiced ability groupings; 88% frequently used worksheets and 76% used flashcards, 72% regularly engaged children in rote counting, 49% in handwriting, and 78% in cut and paste activities; 97% regularly had teacher directed whole-class activities; 39% made children sit quietly for a long period of time; 8% used time-out and 19% practiced removing children from the group for disciplinary purposes.

Of Turkish teachers, 36% regularly used commercially prepared phonics books; 62% regularly practiced ability groupings; 79% frequently used worksheets and 72% used flashcards, 46% regularly engaged children in rote counting, 77% in handwriting, and 82% in cut and paste activities; 85% regularly had teacher directed whole-class activities; 29% made children sit quietly for a long period of time; 12% used time-out and 19% practiced removing children from the group for disciplinary purposes.

#### 10. using commercially-prepared phonics activities

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	13,9	19,4	30,6	22,2	13,9
<b>Latvia</b>	3,3	10,0	36,7	40,0	10,0
<b>Lithuania</b>	18,4	12,2	26,5	26,5	16,3
<b>Portugal</b>	6,3	14,6	39,6	29,2	10,4
<b>Romania</b>	8,1	16,2	48,6	17,6	6,8
<b>Turkey</b>	14,9	8,5	38,3	19,1	19,1

#### 11. working in assigned ability-level groups

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	5,7	5,7	45,7	28,6	14,3
<b>Latvia</b>	-	-	10,0	26,7	63,3
<b>Lithuania</b>	2,0	14,0	10,0	56,0	18,0
<b>Portugal</b>	14,3	6,1	30,6	34,7	14,3
<b>Romania</b>	-	1,4	12,2	50,0	33,8
<b>Turkey</b>	10,0	8,0	20,0	18,0	44,0

#### 12. circling, underlining, and/or marking items on worksheets

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
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	%	%	%	%	%
<b>Greece</b>	5,7	11,4	40,0	34,3	8,6
<b>Latvia</b>	3,3	-	13,3	46,7	36,7
<b>Lithuania</b>	4,1	4,1	16,3	36,7	38,8
<b>Portugal</b>	22,0	18,0	28,0	22,0	10,0
<b>Romania</b>	-	4,1	5,4	33,8	54,1
<b>Turkey</b>	-	-	20,4	36,7	42,9

### 13. using flashcards with ABCs, sight words, and/or math facts

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	2,9	25,7	34,3	22,9	14,3
<b>Latvia</b>	-	-	16,7	33,3	50,0
<b>Lithuania</b>	4,0	4,0	18,0	48,0	26,0
<b>Portugal</b>	6,0	14,0	32,0	34,0	14,0
<b>Romania</b>	2,7	4,1	14,9	40,5	35,1
<b>Turkey</b>	4,0	2,0	22,0	38,0	34,0

### 14. participating in rote counting

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	2,9	8,8	23,5	35,3	29,4
<b>Latvia</b>	56,7	23,3	13,3	6,7	-
<b>Lithuania</b>	2,0	8,2	10,2	36,6	46,9
<b>Portugal</b>	-	8,0	28,0	28,0	36,0
<b>Romania</b>	1,4	4,1	20,3	47,3	24,3
<b>Turkey</b>	10,4	18,8	22,9	25,0	22,9

### 15. practicing handwriting on lines

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
<b>Greece</b>	13,9	16,7	41,7	22,2	5,6
<b>Latvia</b>	30,0	6,7	13,3	36,7	13,3
<b>Lithuania</b>	12,0	8,0	12,0	30,0	38,0
<b>Portugal</b>	20,4	14,3	16,3	36,7	12,2
<b>Romania</b>	9,5	8,1	16,2	29,7	33,8
<b>Turkey</b>	4,1	6,1	12,2	42,9	34,7

### 16. coloring, cutting, and pasting pre-drawn forms

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%

Greece	11,1	19,4	22,2	25,0	22,2
Latvia	6,7	20,0	16,7	46,7	10,0
Lithuania	2,0	8,0	26,0	36,0	28,0
Portugal	14,3	18,4	26,5	22,4	18,4
Romania	2,7	1,4	14,9	37,8	40,5
Turkey	-	4,0	14,0	36,0	46,0

### 17. participating in whole-class, teacher-directed instruction

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	5,9	2,9	14,7	29,4	47,1
Latvia	-	3,3	33,3	43,3	20,0
Lithuania	0,0	2,0	10,2	44,9	42,9
Portugal	-	6,1	6,1	16,3	71,4
Romania	-	-	-	17,6	79,7
Turkey	2,0	2,0	10,2	44,9	40,8

### 18. sitting and listening for long periods of time until they become restless and fidgety

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	41,7	19,4	19,4	11,1	8,3
Latvia	36,7	30,0	30,0	3,3	-
Lithuania	19,6	19,6	26,1	17,4	17,4
Portugal	30,0	20,0	28,0	12,0	10,0
Romania	8,1	24,3	25,7	21,6	17,6
Turkey	25,0	22,9	22,9	16,7	12,5

### 20. receiving rewards as incentives to participate in classroom activities in which they are reluctant participants

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	5,6	38,9	33,3	19,4	2,8
Latvia	3,3	23,3	43,3	23,3	6,7
Lithuania	13,6	29,6	27,3	20,4	9,1
Portugal	43,8	20,8	16,7	12,5	6,3
Romania	21,6	16,2	27,0	14,9	17,6
Turkey	8,0	6,0	28,0	26,0	32,0

### 22. getting placed in time-out (i.e., isolation, sitting on a chair, in a corner, or being sent outside of the room)

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	37,1	34,3	17,1	5,7	5,7
Latvia	50,0	23,3	16,7	3,3	6,7
Lithuania	76,0	12,0	12,0	0,0	0,0
Portugal	64,6	18,8	8,3	6,3	2,1
Romania	68,9	12,2	8,1	5,4	2,7
Turkey	46,0	20,0	22,0	6,0	6,0

## 27. getting separated from their friends to maintain classroom order

	1 Almost never	2 Rarely	3 Sometimes	4 Regularly	5 Often
	%	%	%	%	%
Greece	13,9	33,3	36,1	2,8	13,9
Latvia	56,7	16,7	20,0	6,7	-
Lithuania	64,0	12,0	16,0	6,0	2,0
Portugal	58,3	12,5	16,7	6,3	6,3
Romania	37,8	25,7	14,9	8,1	10,8
Turkey	33,3	25,0	22,9	8,3	10,4

### Teaching 21th Century skills

As far as promotion of 21th Century skills, it appears that, overall, teaching about sustainable development, environmental issues, critical thinking, language skills, human rights, care & empathy have become a widespread practice while providing regular experiences to teach children about multiculturalism, intercultural skills, and media literacy was largely ignored.

Responses to the questions about how often the participants taught about critical 21th Century skills revealed that 37% Greek teachers regularly taught about sustainable development; 55% regularly provided environmental education; 31% regularly taught about multiculturalism; 44% regularly incorporated activities to support intercultural skills, 89% regularly incorporated activities to support critical thinking, 41% regularly supported children to gain media literacy , and 83% regularly provided activities supporting language skills; 53% regularly taught about human rights; 94% regularly helped children develop care and empathy for others.

Of Latvian teachers, 57% regularly taught about sustainable development; 70% regularly provided environmental education; 37% regularly taught about multiculturalism; 17% regularly incorporated activities to support intercultural skills, 83% regularly incorporated activities to support critical thinking, 37% regularly supported children to gain media literacy , and 83% regularly provided activities

supporting language skills; 67% regularly taught about human rights; 93% regularly helped children develop care and empathy for others.

Of Lithuanian teachers, 57% regularly taught about sustainable development; 84% regularly provided environmental education; 28% regularly taught about multiculturalism; 30% regularly incorporated activities to support intercultural skills, 70% regularly incorporated activities to support critical thinking, 56% regularly supported children to gain media literacy, and 98% regularly provided activities supporting language skills; 64% regularly taught about human rights; 86% regularly helped children develop care and empathy for others.

Of Portuguese teachers, 67% regularly taught about sustainable development; 80% regularly provided environmental education; 63% regularly taught about multiculturalism; 66% regularly incorporated activities to support intercultural skills, 94% regularly incorporated activities to support critical thinking, 74% regularly supported children to gain media literacy , and 92% regularly provided activities supporting language skills; 68% regularly taught about human rights; 97% regularly helped children develop care and empathy for others.

Of Romanian teachers, 75% regularly taught about sustainable development; 85% regularly provided environmental education; 37% regularly taught about multiculturalism; 43% regularly incorporated activities to support intercultural skills, 85% regularly incorporated activities to support critical thinking, 59% regularly supported children to gain media literacy , and 91% regularly provided activities supporting language skills; 76% regularly taught about human rights; and 93% regularly helped children develop care and empathy for others.

Of Turkish teachers, 56% regularly taught about sustainable development; 98% regularly provided environmental education; 42% regularly taught about multiculturalism; 51% regularly incorporated activities to support intercultural skills, 77% regularly incorporated activities to support critical thinking, 49% regularly supported children to gain media literacy, and 100% regularly provided activities supporting language skills; 96% regularly taught about human rights; 100% regularly helped children develop care and empathy for others.

### Sustainable Development

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	14,3	17,1	31,4	22,9	14,3
Latvia	-	6,7	36,7	30,0	26,7
Lithuania	4,1	6,1	18,4	38,8	32,6
Portugal	-	6,1	26,5	36,7	30,6

Romania	-	4,1	18,9	41,9	33,8
Turkey	9,3	18,6	16,3	23,3	32,6

Participants' responses to the question that asked how often children in their classrooms had the opportunity to learn about sustainable development revealed that 37% of Greek teachers, 57% of Latvian teachers, 57% of Lithuanian teachers, 67% of Portuguese, 75% of Romanian, and 56% of Turkish regularly the topic in their teaching.

### Environmental issues

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	-	5,6	38,9	38,9	16,7
Latvia	-	3,3	26,7	20,0	50,0
Lithuania	0,0	6,0	10,0	38,0	46,0
Portugal	-	2,0	18,0	28,0	52,0
Romania	-	1,4	12,2	41,9	43,2
Turkey	-	-	2,0	38,8	59,2

Participants' responses to the question that asked how often they provided environmental education revealed that 55% of Greek teachers, 70% of Latvian teachers, 84% of Lithuanian teachers, 80% of Portuguese, 85% of Romanian, and 98% of Turkish regularly addressed the topic in their teaching.

### Multiculturalism

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	2,8	13,9	52,8	22,2	8,3
Latvia	3,3	30,0	30,0	23,3	13,3
Lithuania	10,0	32,0	30,0	24,0	4,0
Portugal	2,1	8,3	27,1	31,3	31,3
Romania	5,4	17,6	39,2	23,0	13,5
Turkey	4,0	22,0	22,0	22,0	20,0

Participants' responses to the question that asked how often they provided multicultural education revealed that 31% of Greek teachers, 37% of Latvian teachers, 28% of Lithuanian teachers, 63% of Portuguese, 37% of Romanian, and 42% of Turkish regularly addressed the topic in their teaching.

### Intercultural skills

1	2	3	4	5
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	Almost never %	Rarely %	Sometimes %	Regularly %	Often %
Greece	5,6	22,2	27,8	33,3	11,1
Latvia	3,3	40,0	40,0	10,0	6,7
Lithuania	8,0	32,0	30,0	24,0	6,0
Portugal	2,0	2,0	30,0	42,0	24,0
Romania	2,7	12,2	40,5	32,4	10,8
Turkey	6,4	25,5	17,0	29,8	21,3

Participants' responses to the question about how often they taught intercultural skills revealed that 44% of Greek teachers, 17% of Latvian teachers, 30% of Lithuanian teachers, 66% of Portuguese, 43% of Romanian, and 51% of Turkish regularly provided intercultural skills training.

### Critical thinking

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	-	2,8	8,3	25,0	63,9
Latvia	-	-	16,7	53,3	30,0
Lithuania	2,0	8,0	20,0	38,0	32,0
Portugal	-	2,1	4,2	31,3	62,5
Romania	-	5,4	8,1	50,0	35,1
Turkey	-	4,3	19,1	34,0	42,6

Participants' responses to the question that asked how often they taught critical thinking skills revealed that 89% of Greek teachers, 83% of Latvian teachers, 70% of Lithuanian teachers, 94% of Portuguese, 85% of Romanian, and 77% of Turkish regularly provided opportunities for the children to improve their critical thinking skills.

### Media literacy

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	5,6	11,1	41,7	27,8	13,9
Latvia	-	30,0	33,3	23,3	13,3
Lithuania	2,0	6,0	36,0	32,0	24,0
Portugal	2,0	2,0	22,0	34,0	40,0
Romania	4,1	9,5	25,7	43,2	16,2
Turkey	4,3	10,6	36,2	25,5	23,4

Participants' responses to the question that asked how often they provided education on media literacy revealed that 41% of Greek teachers, 37% of Latvian teachers, 56% of Lithuanian teachers, 74% of Portuguese, 59% of Romanian, and 49% of Turkish regularly addressed the topic in their teaching.

### Language skills

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	-	2,8	13,9	16,7	66,7
Latvia	3,3	6,7	6,7	33,3	50,0
Lithuania	0,0	2,0	0,0	24,0	74,0
Portugal	-	2,0	6,1	34,7	57,1
Romania	-	1,4	5,4	28,4	63,5
Turkey	-	-	-	26,0	74,0

Participants' responses to the question that asked how often they provided activities to support language skills revealed that 83% of Greek teachers, 83% of Latvian teachers, 98% of Lithuanian teachers, 92% of Portuguese, 91% of Romanian, and 100% of Turkish regularly provided opportunities for the children to improve their language skills.

### Human rights

	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	2,8	11,1	33,3	22,2	30,6
Latvia	-	10,0	23,3	46,7	20,0
Lithuania	0,0	10,0	26,0	36,0	28,0
Portugal	4,0	2,0	16,0	20,0	58,0
Romania	2,7	6,8	13,5	36,5	39,2
Turkey	-	-	4,0	32,0	64,0

Participants' responses to the question that asked how often they taught about human rights showed that 64% of Greek teachers, 67% of Latvian teachers, 64% of Lithuanian teachers, 68% of Portuguese, 76% of Romanian, and 96% of Turkish regularly included the topic in their teaching.

### Care & empathy

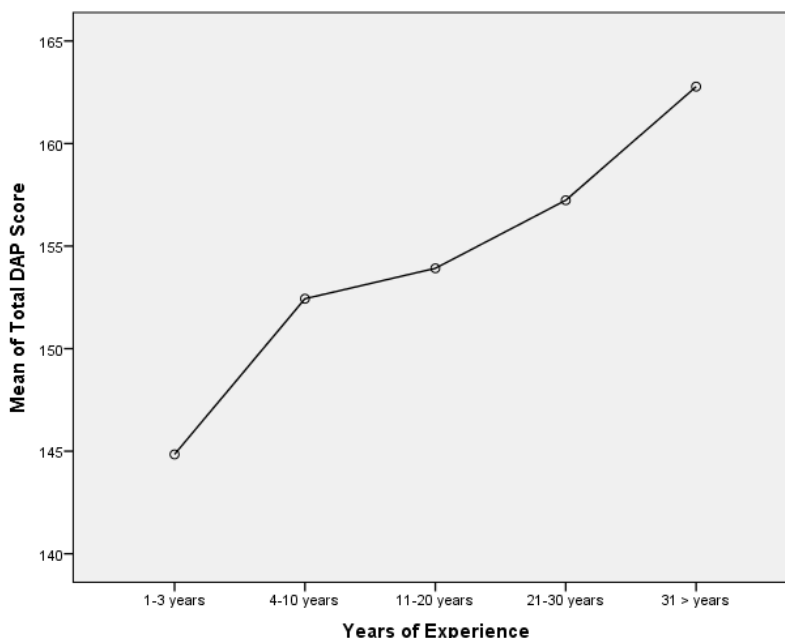
	1 Almost never %	2 Rarely %	3 Sometimes %	4 Regularly %	5 Often %
Greece	-	-	5,6	27,8	66,7

Latvia	-	-	6,7	10,0	83,3
Lithuania	-	4,0	10,0	18,0	68,0
Portugal	-	-	2,0	8,2	89,2
Romania	-	1,4	4,1	10,8	82,4
Turkey	-	-	-	14,0	86,0

Participants' responses to the question that asked how often they engaged in effort to cultivate care and empathy in children showed that 94% of Greek teachers, 93% of Latvian teachers, 86% of Lithuanian teachers, 97% of Portuguese, 93% of Romanian, and 100% of Turkish regularly addressed the topic in their classrooms.

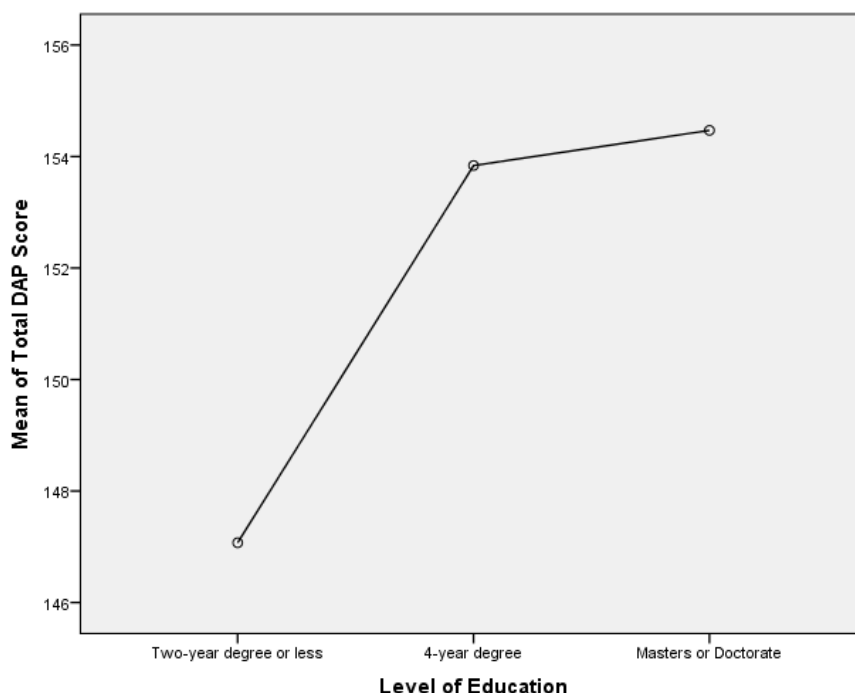
### Comparisons of Classroom Activities Scores

*Teachers' years of experience.* Two-way ANOVA was conducted to examine whether there were significant differences in the total classroom activities scores and teachers' years of experience. A significant difference was found between practices scores of teachers with more experienced groups and those with less experiences ( $F(4,235)=7.183, p=.000$ ). Results showed that teachers with over 30 years of experience ( $M=162.8, SD=13.7$ ) had significantly higher scores than those with less experience including novice teachers ( $M=144.85, SD=16.7$ ), those with 4-10 years of experience ( $M=152.44, SD=13.8$ ), those with 11-20 years ( $M=153.92, SD=12.3$ ), 21-30 years ( $M=157.23, SD=13.7$ ). Teachers with 21-30 years of experience also had significantly higher scores than novice teachers.



*Level of education.* Two-way ANOVA was conducted to examine whether there were significant differences in the total classroom

activities scores and teachers' level of education. A significant difference was found between practices scores of teachers with a two-year-degree or less and those with a bachelor's degree and master's and doctorate ( $F(2,234)=3.04, p=.05$ ). Results showed that teachers with a bachelor's degree ( $M=153.84, SD=13.4$ ) and master's or doctorate ( $M=154.47, SD=15.2$ ) had significantly higher scores than those with a two-year degree or less ( $M=147.074, SD=17.7$ ).

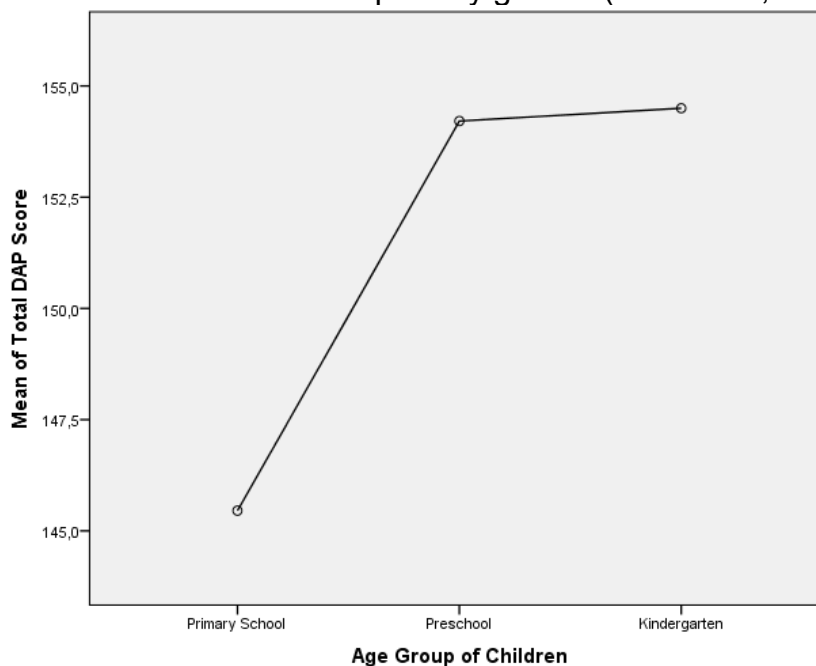


*Location of school.* Two-way ANOVA was conducted to examine whether there were significant differences in the total classroom activities scores of teachers from urban and rural schools. A significant difference was found between practices scores of teachers who work for an urban school and those who work for a rural school ( $F(234)=.22, p=.05$ ). Results showed that teachers from urban schools ( $M=154.18, SD=14$ ) had significantly higher scores than those from rural schools ( $M=149.84, SD=14$ ).

*Public or private school.* Two-way ANOVA was conducted to examine whether there were significant differences in the total classroom activities scores of teachers from public and private schools. A significant difference was found between practices scores of teachers from public schools and those who worked for a private school ( $F(235)=.757, p=.05$ ). Results showed that teachers from public schools ( $M=154.125, SD=13.6$ ) had significantly higher scores than those from private schools ( $M=149.16, SD=17$ ).

*Age group of children.* Two-way ANOVA was conducted to examine whether there were significant differences in the total classroom activities scores of teachers who work with different age

groups. A significant difference was found between practices scores of teachers who work with primary children and those who work with preschoolers and kindergartners ( $F(2,235)=5.414, p=.005$ ). Results showed that preschool teachers ( $M=154.21, SD=16.3$ ) and kindergarten teachers ( $M=154.5, SD=12.9$ ) had significantly higher scores than those who teach primary grades ( $M=145.45, SD=11.8$ ).



## Discussion

The aim of this study was to explore how teachers of young children provide education in their classrooms in the countries participated in Erasmus+ KA project titled Experiential Education Competence (EXPEDUCOM) including Greece, Latvia, Lithuania, Portugal, Romania, and Turkey. More specifically, attention was paid to reveal to what degree developmentally appropriate practices were implemented in pre-k to primary programs.

A total of 237 early childhood and primary school teachers from Greece, Latvia, Lithuania, Portugal, Romania, and Turkey participated in the study. An expanded version of The Instructional Activities Scale with an addition of ten more questions that were developed based on NAEYC's recommendations for developmentally appropriate practices was administered to measure how often developmentally appropriate and inappropriate practices occur in classrooms. Participants were also asked questions about how often they addressed 21st century topics and skills.

Descriptive analysis of the data showed that it is a, reportedly, common and regular practice for the teachers participated in the study to offer developmentally appropriate activities including building with blocks, freedom to choose from a variety of learning areas, activities,

and projects, experimenting with writing by drawing, copying, and using their own invented spelling, playing with games, puzzles, and construction materials, singing, listening and moving with the music, working with art materials, integration of subjects, inquisitive skills, social skills, plenty of materials to explore and work with, communicating what they have learned, creativity, dialogue among children, given plenty of time, individual interests. Children's work was displayed in the classrooms. Teachers did not have much hesitation on using alternative assessment techniques.

However, data also showed that some other important elements of developmentally appropriate practices were not as regularly included in teaching even though they are critical in realization of the main goals of early education. A significant portion of the participants reported missing on those opportunities including hands-on math and science activities, structured gross motor activities, engagement with manipulatives, teaching about people with special needs and adapting materials for children with special needs, parent involvement, providing experiences to instill care for each other, use of media and technology, and organizing field trips. Similar findings were also reported by other researchers (Bilton, 2010; Bredekamp, 2004; Buysee, Wesley, & Keyes, 1998; Sarama & Dibiase, 2004; Wilson, 2008).

Even though the teachers in the study widely reported that they provided appropriate activities regularly from their answers to the questions about inappropriate practices it seems that a significant group of teachers also delivered inappropriate activities. There were a significant number of teachers who relied on commercially prepared phonics books. Use of worksheets and flashcards, cut and paste activities, teacher directed whole-class activities, and ability grouping were common practices among the participants. Fortunately, inappropriate disciplinary strategies including separation of children from their friends or putting them in time-out in order to maintain classroom order seemed not to be practiced by the majority of the teachers.

As far as promotion of 21st Century skills, it appears that teaching about sustainable development, environmental issues, critical thinking, language skills, human rights, care & empathy have become a widespread practice. Care and empathy received the most attention and seemed to be in the majorities' agenda. However, it is unfortunate that in today's ever globalizing world bearing serious immigration crisis as societies become more and more diverse the participants failed on providing regular experiences to teach children about multiculturalism and intercultural skills. In this globalized economy with electronic and social media have become widespread and largely accessible, media literacy has become a key skill to be acquired for the generations of the new century. Participants' inattention to cultivating media literacy

skills in their students have the potential to interfere with such other important subjects as care and empathy, human rights, and critical thinking they seemed to care.

Parallel to the finding by Fei (1995), this study showed that as teachers gain more experience their provision of developmentally appropriate practices increases. Also, as it was reported in McMullen & Alat's (2002) study, educational levels of teachers had a positive relationship with the appropriateness of their teaching. Teachers with only a two-year-college-degree engaged in developmentally appropriate teaching less than those with a bachelor's or advanced degrees. But unlike what McMullen & Alat found, having an advanced degree did not make any difference when comparisons were made between those with a bachelor's degree and those with advanced degrees. Again, congruent with previous research findings (McMullen, 1999), it was found that preschool and kindergarten teachers were more involved in developmentally appropriate practice than primary school teachers. Also, teachers who worked for public schools offered more appropriate activities than those from private schools. Finally, teachers who worked for urban schools were more committed to appropriate practices than those who worked for rural schools were.

The findings of this study prove that some major issues in teaching young children still persist in the new millennium. Despite decades of research providing a solid framework for effective pedagogies, there appears to be a broken link between theory and practice. Educational reform does not occur over night. It is essential that both practicing teachers and teacher candidates be given opportunities to gain experience in quality environments where developmentally appropriate practices are endorsed and realized. Teacher educators and administrators should design professional development trainings based on empirical evidence that describes in detail what makes a teacher training program work. Ongoing teacher training, effective mentorship, collaboration between the universities and schools, and easy access to resources could help teachers make the connections between the theory and practice.

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ANNEX

**TEACHER PRACTICES QUESTIONNAIRE**

Your answers to this survey are confidential. Reports of findings will not use your name or schools.

**Please tell us about yourself:**

- Age \_\_\_\_\_
- Gender: \_\_\_\_ Male \_\_\_\_ Female
- Educational level completed
  - Middle school
  - High school
  - Two-year college
  - Bachelors
  - Master
  - Doctoral
- College Major \_\_\_\_\_

**Please tell us about your teaching career:**

- How many total years have you taught? \_\_\_\_\_ years
- What age group/grade do you currently teach? \_\_\_\_\_
- Where is your school located? Urban area \_\_\_\_\_ Rural area \_\_\_\_\_
- Is your school a) Public : \_\_\_\_\_ b) Private : \_\_\_\_\_

**For the following questions, please think about how often children in your classroom do the following activities.**

1	2	3	4	5
Almost Never (less than monthly)	Rarely (monthly)	Sometimes (weekly)	Regularly (2-4 times a week)	Often (daily)

1.	build with blocks	1	2	3	4	5
2.	select from a variety of learning areas and projects (i.e., dramatic play, construction, art, music science experience, etc.)	1	2	3	4	5
3.	have their work displayed in the classroom	1	2	3	4	5
4.	experiment with writing by drawing, copying, and using their own invented spelling	1	2	3	4	5
5.	play with games, puzzles, and construction materials (e.g., Thinker Toys, Bristle Blocks)	1	2	3	4	5
6.	explore science materials (e.g., animals, plants, wheels, gears, etc.)	1	2	3	4	5
7.	sing, listen, and/or move to music	1	2	3	4	5
8.	do planned movement activities using large muscles (e.g., balancing, running, jumping)	1	2	3	4	5
9.	use manipulative (e.g., pegboards, Legos, and Unifix Cubes)	1	2	3	4	5

10.	use commercially-prepared phonics activities	1	2	3	4	5
11.	work in assigned ability-level groups	1	2	3	4	5
12.	circle, underline, and/or mark items on worksheets	1	2	3	4	5
13.	use flashcards with ABCs, sight words, and/or math facts	1	2	3	4	5
14.	participate in rote counting	1	2	3	4	5
15.	practice handwriting on lines	1	2	3	4	5
16.	color, cut, and paste pre-drawn forms	1	2	3	4	5
17.	participate in whole-class, teacher-directed instruction	1	2	3	4	5
18.	sit and listen for long periods of time until they become restless and fidgety	1	2	3	4	5
19.	have the opportunity to learn about people with special needs (e.g., a speaker or a character in a book)	1	2	3	4	5
20.	receive rewards as incentives to participate in classroom activities in which they are reluctant participants	1	2	3	4	5
21.	see their own race, culture, language reflected in the classroom	1	2	3	4	5
22.	get placed in time-out (i.e., isolation, sitting on a chair, in a corner, or being sent outside of the room)	1	2	3	4	5
23.	experience parents reading stories or sharing a skill or hobby with the class	1	2	3	4	5
24.	engage in child-chosen, teacher-supported play activities	1	2	3	4	5
25.	draw, paint, work with clay, and use other art media	1	2	3	4	5
26.	solve real math problems using real objects in the classroom environment that are incorporated into other subject areas	1	2	3	4	5
27.	get separated from their friends to maintain classroom order	1	2	3	4	5
28.	engage in experiences that demonstrate the explicit valuing of each other (e.g., sending a card to a sick classmate)	1	2	3	4	5
29.	work with materials that have been adapted or modified to meet their needs	1	2	3	4	5
30.	do activities that integrate multiple subjects (reading, math, science, social studies, etc.)	1	2	3	4	5
31.	use variety of media and technology	1	2	3	4	5
32.	build on their informal learning experiences and knowledge	1	2	3	4	5

33.	engage in activities that strengthen their problem-solving, inquiry skills and reasoning processes	1	2	3	4	5
34.	have plenty of opportunities to communicate what they have learned	1	2	3	4	5
35.	are encouraged to be creative	1	2	3	4	5
36.	talk and exchange ideas with each other during activities					
37.	are taken to field trips	1	2	3	4	5
38.	are given ample time to engage in what they explore and manipulate concepts/ideas with keen interest.	1	2	3	4	5
39.	are provided many daily opportunities for developing their social skills (i.e., cooperating, helping, talking) with peers in the classroom.	1	2	3	4	5
40.	are engaged in activities that are responsive to individual children's interests.	1	2	3	4	5
41.	are provided plenty of materials to engage in and explore	1	2	3	4	5
42.	are assessed for their development and learning using alternative assessment methods (portfolios, observations, anecdotes, record keeping etc. )	1	2	3	4	5

**For the following questions, please think about how often the topics below become a part of your teaching?**

1.	Sustainable development	1	2	3	4	5
2.	Environment	1	2	3	4	5
3.	Multiculturalism	1	2	3	4	5
4.	Intercultural skills	1	2	3	4	5
5.	Critical thinking	1	2	3	4	5
6.	Media literacy	1	2	3	4	5
7.	Language skills	1	2	3	4	5
8.	Human rights	1	2	3	4	5
9.	Care and empathy	1	2	3	4	5