

AMERICAN UNIVERSITY OF ARMENIA
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A Look at the AUA Pre-school English Program through the Lens of Montessori Pedagogy

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Master of Arts in Teaching English as a Foreign Language

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ABSTRACT

This paper aims at investigating the pedagogy of the AUA Pre-school English program from the perspective of Montessori Method. To reach the aim of the study the convergences and divergences between the Montessori and foreign language pedagogies were investigated in terms of teacher and student roles, materials and environment, sensory development and language use by both the teachers and learners.

The mixed methods type of research was chosen for the study, where the qualitative analysis was done through classroom observation checklists and interviews with the program teacher, and the quantitative analysis was done with audio-video recordings.

The findings of the research showed that the implementation of the Montessori Pedagogy in the “AUA Pre-school” English program is quite possible as the convergences outweighed the divergences. Besides, the research revealed that bringing the general development of kids and English language instruction into a balance is sometimes a challenging task, but again, it is possible in the context of the “AUA Pre-school English Program”.

CHAPTER ONE: INTRODUCTION

The purpose of this chapter is to give a brief description of the overall research study. It presents background of the study, the aim, the statement of the problem, the significance of the study, and also the research question.

1.1 Background of the Study

Any kind of education, both for children and adults, depends on a variety of teaching methodologies, and the question of how to teach has always been a burning issue of all times. Different scholars have had different approaches to teaching methodologies, each having their own ideologies and theories. Some of the teaching methodologies were both somehow connected with each other and also contradicting each other. Some of those methodologies have been discarded from use, while others have been developed throughout time and are used today as well. One of those successful methods is the Montessori Method, which originated in the 19th century and till today is in active use in different parts of the world.

Maria Montessori (1870-1952) was an Italian medical doctor and educator. She is famous worldwide for Montessori philosophy of education and her writings on scientific pedagogy. According to the American Montessori Society (2013), the Montessori Method of education is a child-centered educational approach, which is based on scientific observations of children from birth to adulthood. Maria Montessori's Method of education has been applied, with over hundred years of success in diverse cultures throughout the world. It views the child as an intelligent creature who is naturally eager for knowledge and can start learning in the in a supportive, collaborative and authentic environment. Montessori Method of education values and takes into consideration the human spirit and the development of the whole child – physical, social,

emotional, cognitive, etc. It helps children to develop creativity, problem solving skills, critical thinking and time-management skills, care of the environment and each other, and prepares them to contribute to society and to become fulfilled people.

1.2. The Aim of the Study

The aim of the study is to see how the Montessori Pedagogy and foreign language pre-school pedagogy interact in the AUA pre-school English program. To reach the aim of the study the convergences and divergences between the Montessori and foreign language pedagogies were investigated in terms of teacher and student roles, materials and environment, sensory development and language use by both the teachers and learners.

1.4. Research Question

The research question is the following:

How do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of:

- *Teacher and student roles*
- *Materials and environment*
- *Sensory and language development*
- *Target language production by students and teacher*
- *Direct and indirect exposure to the target language*

1.5. Significance of the Study

The study is significant as it contributes to the informed understanding of the AUA Pre-school English Program's pedagogy, which has goals consistent with both foreign language and Montessori Pedagogies. Besides, this is the first study to investigate Montessori Pedagogy in Armenian educational contexts. Eventually, this will be a good means of making the Montessori Method of education help teachers, parents, and people interested in alternative approaches of education be aware of different ways of how to use the child's abilities effectively and how to create a natural environment for the child's development.

CHAPTER TWO: LITERATURE REVIEW

The purpose of this chapter is to provide a profound description of Montessori Pedagogy. The main methodological factors that make her pedagogy unique will be discussed, namely the observation of children, didactic materials, child freedom, the prepared environment, English language-immersion Montessori schools, etc. This chapter will also provide information about “Montessori in Armenia”, which will be based on the research conducted in “Montessori City Child Development Center” in Yerevan.

2.1. Maria Montessori and Her Methodology

Maria Montessori, a medical doctor and pioneer educator, was born in Italy in 1870 and died in 1952 (Standing, 1984). She studied medicine, specializing in psychiatry and anthropology. In the 1890s Montessori enrolled at the University of Rome, where she studied physics, math and natural sciences. Thus, she was also an outstanding mathematician. Upon her graduation, Montessori’s parents encouraged her to take up a teaching career, which was one of the few occupations open to women at that time. However, she wanted to enter a medical school and become a doctor. Her father was against that, because medical school was for male students only. And, even though Montessori tried to enter the medical school, she was rejected the entry by the head of the school. But later the intercession of Pope Leo XIII enabled her to enter the Faculty of Medicine, and she was the first woman in Italy to receive a medical degree.

Being a scientist, Maria Montessori was highly spiritual in her pursuit of truth. According to Singh (2005), she studied educational methods for many years and found them wanting, as she felt that there are a lot of things to be changed in education. She found out that none of them took into account the points which seemed to her to be the center of pedagogy, such as the universal

characteristics of the child, and the child as unique individual to be accepted as one of life's most intelligent creations. According to Lillard (2011), although she was made to leave her country many times in her life and was sent to a refugee camp for several times, she never gave up her idea of studying children, establishing schools and giving lectures on three continents. As a result, nowadays Montessori schools are functioning in fifty-two countries worldwide, and their number continues to expand.

According to Lillard (2011), Maria Montessori mainly concentrated on the goal of education, rather than its methods. For her the definition of this goal was the development of a complete human-being, oriented to the environment, and adapted to his or her time, place and culture. The adaptation process involves the ability of changing according to the environment with the help of the intelligent mind. In Montessori education the learning goals and the learners' needs are of primary importance. However, she did not have preconceived ideas as how to reach those goals. The basis of her approach was to observe the children and identify their needs. Thus she was a pragmatist, as she gathered evidence directly from the children in their natural settings. Montessori was a visionary too, as she had a strong faith that the teaching methodology which she established would lead not only to a meaningful life for children, but also would contribute to humanity itself.

2.2. Observing the Child

Montessori did not have exact rules as how to reach her goals for children. One of her main principles as an educator was to observe the children so as to identify their needs (Lillard, 2011). Thus, according to Singh (2005), her first observations began in Rome, in 1907, where she was given the opportunity to study able-bodied children, taking charge of fifty poor children

of the desolate streets of San Lorenzo slums. Singh (2005) states that the children entered her programme as “wild and unruly” (p.3). Thus, Montessori started observing the children during countless hours and gradually formed her philosophy of how children learn best. And much to her surprise the children began to respond to her teaching methods. Children younger than three and four years old began to read, write and initiate self-respect. According to Montessori (1967), children have the innate ability to ‘absorb’ the culture. They are destined to follow the particular roads of development. So, Montessori’s pedagogical activities began in her primary school, which was called “House of Children”. The news of her pedagogical success in the “House of Children” soon spread around the world, and people came from different countries so as to see the development of children and to see what the Montessori methods were like.

Montessori’s educational plan aimed at observing children in diverse cultures and in different countries (Singh, 2005). While observing them, Montessori discovered different and universal principles of human behavior, which are characterize all people, cultures and societies.

2.3. Different Specifications of Montessori Methodology

According to Lillard (2011), Montessori considered her work was as ongoing throughout her life and did not want to present her ideas as a final theory. However, in her last three years of life she tried to formulate and present her ideas based on her life experiences. In her overview the following main theses appear, which refer to the universal development of all the human beings:

- human development is not a linear and one-way process, it occurs in different formative planes,

- through the tendencies to perform specific actions in their environment humans made their complete development possible,
- when the interaction of human beings with their environment is founded upon individual interests, and is self-chosen, it contributes to human development

Lillard (2008) gives another overview of Montessori education, according to which the two powerful, unique ideas that give the main picture of Montessori education, and are supported by hundred years of academic excellence and current scientific research are:

- the child, as a self-motivated, active learner
- the school, as a scientifically prepared environment.

As is seen, there are lots of overlaps between the above mentioned descriptions of Montessori education. As is mentioned in Lillard (2011), in the 1890s, while studying pedagogy, philosophy and anthropology in the University of Rome, Montessori started working with children and young adults and she came to realize that there were specific stages in human formation. Thus, she identified 4 such stages of development. The 2 of these stages are the planes of childhood, completed at age twelve, and the other 2 stages include the planes of adulthood, completed at the age twenty-four. As compared with Montessori's subdivision of the planes of human development, Goonetilleke (2013) divides the planes of childhood again into 4 stages, but only including the years of childhood: 0-3, 3-6, 6-9, and 9-12,

2.4. The Four Planes of Development

According to Lillard (2011), Montessori discovered that three main things are characteristic of each of the 4 planes of development. First, each plane of development has a goal

to be reached. Second, there is an identified direction which can be used so as to reach that goal. Eventually, all human beings have specific sensitivities characteristic to a definite plane of development, which leads to reaching the goal for the plane. The planes of development are so different from each other that the human being appears in each of them as a re-created person. Meanwhile, every next plane is closely connected with the previous one, because it is, actually, built on that.

The focus of this paper will mainly be on the childhood planes of development, but before that the basic features of Montessori Method and education will be discussed.

Montessori observed the traditional methods of education too and came to the conclusion that it is rather linear and does not take into consideration the planes of development (Lillard, 2011). The traditional method in education ignores the first stage of development (from birth to age 6), because schooling starts only when the stage of development is either over, or is nearly so. Beginning from the year 6 or 7, education becomes more and more difficult, different subjects are added, more and more professors are introduced, etc., thus education becomes a linear and an ascending stepping scale, which very often becomes burden for students. In contrast to this, Montessori showed that this type of regular education is not sufficient for children's needs. She also showed that there is an emergence of development in each plane that reaches its goal and then declines. Montessori believed that schooling should take into consideration the developmental periods each individual goes through, instead of dividing schools into nursery, primary, secondary and university education. Thus, Montessori mainly focused on the development of the children as human beings, rather than as "school children".

Goonetilleke (2013), in his turn, suggests 3 main components of Montessori Method:

- the child,

- the prepared environment,
- the prepared adult.

As it is seen, all the 3 specifications of Montessori Method by different authors include the child and the environment as basic components, moreover, Goonetilleke (2013) adds also the prepared adult as one of the main components of Montessori Method. We will expand more on each of those components.

2.5. The Prepared Adult

According to Goonetilleke (2013), each aspect of the method has a crucial role in the child's development and time spent in the environment. It means that these three components create the basis of the Authentic Montessori. The first component, according to the author, is the prepared adult, because the adult has already gone through the extensive course work, is familiar with the characteristics and knows how to integrate the child into the active learning environment. These characteristics include the history of the method, the Sensitive Periods, the Four Planes of Development, the didactic materials, etc. According to Monson (cited in Goonetilleke, 2013), Montessori believed that the adult educators could be effective guides only if they understood the uniqueness of the child development and were trained to identify their needs and respond to each individual during the sensitive periods in his or her development.

Thus, the most important role of the prepared adult in the Montessori environment is to function as a connector between the child and the prepared environment. The adult lets the child come into contact with the didactic materials and with the purposes of the environment. The adult should also observe the child through proper training and gain the idea of how the child should be developing. By observations the adult can take the time to observe how the children

are interacting with each other, what kind of language they use, what materials they are interested in, etc. (Goonetilleke, 2013). Moreover, Lillard (2008) mentions that teachers should be careful observers of children so as to watch for the moments of concentration, because the praise or correction at the wrong time may disrupt the child's concentration. Thus, the adult educator's aim is to help children toward independence and the establishment of their autonomy. Their role is to provide the necessary guidance to ensure that they are engaged in productive behaviors as they work on reaching a goal. The statements of Wien (2008) complete this theory, i.e. in this context the educator takes on the function of an initiator who immediately takes a back seat when the child becomes mentally active and starts discovering the world of his/her environment by repeating the exercises and working in a concentrated manner. According to Goonetilleke (2013), the adult should follow the following three important principles: uninterrupted work cycle, freedom to choose, and repetition. It means that the adult should be careful so as to provide the uninterrupted working conditions for the child, to protect the right and the freedom of the children in the environment and to let the child repeat the work as many times as he/she wants, because that way it is going to become their own knowledge. Thus the Montessori Method is not going to work in case the adult dictates the child.

2.6. The Prepared Environment

According to Montessori (1971), it is essential that the environment should be rightly organized. It fosters the development of the moral consciousness of the child. It helps the child to differentiate the good and evil. An environment, where the two things are confused is not the one to establish the order in the moral consciousness. So, due to the sense of order the distinction between right and wrong is perceived. According to Pouzar-Kozak (2008), Maria Montessori

demands surroundings which are adjusted to the child's emerging sensibilities and interests as well as supportive to the child's needs for independence and self-reliance. It should be designed so as to meet the child's interests. It should be structured, so as to help the student find his way around the classroom and to build up his own self-orientation. Moreover, Lillard (2008) states that having an ordered Montessori environment in a child's early years is critical, because the child is in the process of ordering his mind as a reflection to the environment. However, according to Montessori (1917), the organized environment is not everything. Sometimes the child should be given the opportunity to distinguish between the good and evil, which is necessary for the child's intellectual development.

According to Goonetilleke (2013), in Montessori environment the young child should have a prepared environment which will satisfy all of his needs. Montessori observed how traditional school systems did not sustain these needs for the child and tried to design her teaching environment in such a way so as to maximum help the child to develop in a natural environment. Due to her observations Montessori found out that both physical and psychological design of the environment should have the components of everyday life and should give the child the opportunity to live in a natural way. Developing in a natural environment means getting used to things and actions that comprise the inseparable part of the child's culture, world.

According to Lillard (2011), as an anthropologist, Montessori considered the environment the as key for the children's natural development. She believed that the interaction with the environment affects the human development in all ages, however, they operate differently during different stages of their lives.

Lillard (2008) states that in Montessori environment 1) children learn by doing, 2) children learn from each other, 3) children learn best in an atmosphere of mutual respect, trust

and encouragement. While, according to Lillard (2011), all of these mentioned are carried in specific behaviors identified by Montessori, which children develop throughout time while interacting with the natural learning environment. At first they explore, and then they orient themselves. After that they develop skills of order and imagination. They are followed by manipulation and repetition and control of error leading to perfection. All those skills together lead to communication. Montessori considered exploration as a fundamental behavior of human beings from their beginnings in any environment. They always explore for the things that meet their primary needs. One of the important goals in the child's exploration is the adaptation to the group in which he or she is born. In a Montessori environment the order and orientation developments are also basic features, as they generate the child's confidence and the sense of security. They feel themselves safe not because of the lovely environment, but mostly because of their existing power and confidence in that environment. The aim of this kind of environment is to create the power in the child to overcome the challenges themselves, whenever they face them. The other human tendencies of manipulation, repetition and control of error all depend on the previous ones. When they develop the power of confidence through facing some challenges and through solving them, they are able to manipulate other challenges and find out solutions for their own needs. If they succeed in that, they will repeat them for other cases too. All the mentioned human tendencies lead to communication by means of language, which is the basis of the continued progression of human life.

Montessori environment has a unique type of furnishing, aimed at providing a natural and both self-oriented and communicative learning atmosphere for the children. According to Montessori (1912), the classroom should be designed in a way for the children to feel free to go and come throughout the day. A unique characteristic of Montessori classroom is its direct

contact with an open-air space, e.g. a garden, where the children can feel free and spend time if they want to. It makes the development possible in a very natural environment, closer to nature. In a Montessori classroom there are no desks, or stationary chairs. There are tables of different shapes, both for the children to work individually and larger ones for two or three children working together. The tables are of rectangular shape and very light for the children to move them easily wherever they want. Also the classroom contains wooden chairs of attractive shapes, which are again very light for the purposes of being mobile.

Another piece of Montessori school furniture consists of a little washstand, which is easy to use even for a three-year-old child (Montessori, 1912). There are also low shelves and cupboards for each child to have their spaces and keep their own soap, towel, toothbrush, etc. Also there are a series of long low cupboards, where mainly the didactic materials are kept. The doors are very easy to open for all children. All the materials are free to use. On top of the shelves there can be potted plants, aquariums, various toys which children are allowed to play freely. There are also boards which are hung very low, which can be easily used by the smallest child too. The blackboards have small cases where the chalk is kept with white clothes instead of the erasers. Above the boards are hung different and attractive pictures, which might represent simple scenes. The aim of the pictures is to make the children be naturally interested in them. The floor should be comfortable so that the children can sit and do their work both individually and in groups.

Thus, one of the essential principles in a Montessori environment is the free movement of children in the classroom. According to Bubich (2009), in Montessori environment movement is considered to be very essential for the mental development. It is also supported in the modern studies that the memory is reinforced when there is a free movement aligned with what should be

remembered. Moreover, calm classical background music is characteristic of Montessori environment, which affects positively on their cognitive development. So, according to Bubich(2009), “Montessori classrooms are supposed to be beautiful, because beauty inspires interest” (p.448).

2.7. Freedom of Children

In a Montessori classroom freedom of children is one of the basic principles. According to Montessori (cited in Singh, 2005), the ‘liberty of the pupil’ is fundamental for the Montessori Method, because it helps to develop the child’s individual nature. In addition, Montessori (1912) states: “Discipline must come through liberty. Certainly, in our system we have a concept of discipline very different from that commonly accepted. If discipline is founded upon liberty the discipline itself must necessarily be active. Such a concept of active discipline is not easy to comprehend or apply”(p.64). Likewise, Lillard (2011) mentions that freedom is the key of the child’s self-formation in Montessori Environment, however, letting children do whatever they want to do at the moment may sometimes be destructive both for them and their environment. Freedom is needed to exercise responsibility. Lillard (2011) states: “to be free means to be in control of self, to be able to do what one chooses to do, not what one’s feelings or illogical thoughts of the moment may dictate. In order for children to build such self-discipline, adults must be careful and consistent in setting limits from the child’s earliest years onward” (p.7).

2.8. The Natural Development of the Child and Didactic Materials

According to Monson (cited in Pouzar-Kozak, 2008), Montessori suggested that educational environment could support development only to the extent that they were prepared

with materials and experiences appropriate to a range of developmental needs. According to Montessori (1912), the technique of her method which follows the guidance of natural development of the child is divided into three parts, which are the motor education, sensory education, language and arithmetic education. Motor education is realized by the guidance of the prepared adult, while sensory, language and arithmetic educations are provided by didactic materials. Montessori (1912) describes that children are very mobile in their nature, they tend to do free movements and touch everything, which makes them naughty. In this case making the child become immobile is the worst thing to do, because it directly kills the interest in them. In this case the adults should guide their movements by different types of games and activities, which will make both their movements and them in general more organized and will provide their active working habits. For example, the following activities refer to the muscular or motor education: primary movements of everyday life as walking, rising, sitting, management of household, gardening, manual work, gymnastic exercises, rhythmic movements, etc.

According to Lillard (2011), concentration is key to learning, thus, Montessori materials are designed with this in mind. In Montessori environment children are introduced to the didactic materials in an orderly sequence and logical progression. In this way they develop logical and orderly thought, which results in self-confidence and sense of security. The materials are designed to help children understand where they may have gone wrong, and to enable them to find ways to correct themselves without being taught how to do so. In addition, Pouzar-Kozak (2008) states, that the main purpose of the didactic materials is to create a direct connection between the child and the environment.

Wien (2005) and Lillard (2011) state that sensorial materials of Montessori classroom are for the training of the five senses. They direct the child to understand the relationships in weight,

size, length, volume, etc. Thus the children get to know their surrounding world also scientifically, by distinguishing, for instance, between heavy, heavier, the heaviest, small, smaller, the smallest, etc. They teach the kids to observe, concentrate and categorize the observations. Sensory materials come in a variety of shapes (LePortSchools, 2010). Each material isolates a certain quality; the “*The Red Rods*” focus attention on length, “*The Brown Stair*” on width and height, “*The Knobless Cylinders*” on change in width and height simultaneously, “*The Sound Cylinders*” on different sound qualities, “*The Testing Bottles*” on the taste, “*The Constructive Triangles*” on geometric shapes, “*The Pink Tower*” on blocks of three dimensional sizes, etc.

Montessori (1912) states, “My objects of sensory education do not permit a measure, but are adapted to cause the child to exercise the senses. In order that an instrument shall attain such a pedagogical end, it is necessary that it shall not weary but shall divert the child”(p.105). So, it is not easy to choose the didactic materials for sensory education. The materials should be chosen so as to meet the child’s interest and to build energy in them through the materials. Thus, the psychometric instruments are prepared in their differential gradations. The didactic materials for the education of the senses consist of the following materials: three sets of solid insets in graduated sizes, comprising pink cubes, brown prisms, rods colored red, green and blue; various geometric solids; two boxes each containing sixty-four colored tablets, a collection of cylindrical closed boxes (the aim of which is to educate the eye to the differential perception of dimensions), etc. The didactic materials for the preparation of writing are: two sloping desks and various iron insets; cards on which are pasted sandpaper letters; two alphabets of colored cardboard and of different sizes, etc.

2.9. Intrinsic Motivation

In a Montessori classroom a lot of attention is given to intrinsic motivation, and there are not any extrinsic rewards. Kramer mentions (cited in Singh, 2005) that children should not be given extrinsic rewards rather they should be motivated intrinsically so as to make them be interested in the work itself. According to Brown (1994), “Motivation is the extent to which you make choices about goals to pursue and the effort you will devote to that pursuit.” (p.34). Skinner (cited in Brown, 1994) explains motivation from behavioristic perspective. He explains that humans want to reach a goal because they expect to receive rewards for doing so, which reinforces their behavior. Brown (1994) also states that intrinsically motivated behavior results in consequences that are rewarded internally, i.e. motivation is driven by feelings of competence and self-determination, which can be driven by specific activities. E.g. in a second language classroom for raising the students’ intrinsic motivation Brown (1994) suggests to teach writing as a thinking process in which the learners are free to develop their own ideas, to give such oral exercises the topics of which interest them, etc.

According to Montessori’s observations, children were not motivated by the rewards; their motivation was driven by their desire to work. Montessori (1912) describes that at first her attitude was positive toward the rewards, and she decided to give nice toys to the children who successfully performed different types of activities. But soon she noticed that children were more interested in the activities themselves than in the rewards. She realized that when there is a free choice and will of learning in the classroom, the extrinsic rewards have nothing to do in that kind of classroom. Cordova and Lepper mention (cited in Lillard, 2013), that the best learning is based on the interests and the free choice of the children. But the choice varies by level in a Montessori classroom. According to Lillard (2013), “Free choice exists at the macrolevel of the

classroom environment: most of the time, most Montessori students choose what they want to work on. At the more microlevel of exercises within the environment, Montessori education offers less freedom” (pp.165-166). Besides, Singh (2005) states that repetitions of the activities are allowed as much as the children wish in a Montessori classroom. Montessori believed that repetitions are very effective for the children to fully understand any task, because interest is always present when children do repetitions of the same task.

2.10. The Mixed Age-group Classes and Collaboration

Montessori Method is unique and well-known for its mixed age-group classes, the advantages of which are based on scientific observations. According to Singh (2005), Montessori classrooms are designed to have three-year age mix classes, from which children benefit both socially and individually. In this kind of classrooms the children benefit from each other, as younger children mostly learn from the elder ones by interacting with them, and the elder children teach the younger children, thus reinforcing the knowledge or experience that they have. When children learn from each other, it means that they collaborate and do teamwork. According to Lillard (2013), interactive learning environment is one of the characteristic features of Montessori classroom. The lessons usually involve groups from two to six children, depending on their age and readiness for the lesson. In an interactive learning environment the communication skills are fostered rather than competition. In this kind of environment children develop self-confidence, become more motivated and active.

2.11. Language and Acquisition

Language is one of the vital issues in a Montessori classroom. Montessori classrooms provide rich and precise language learning environment both in terms of first, second and foreign language acquisition. According to Singh (2005), the Montessori environment provides opportunities for developing such language areas as for storytelling, phonemic discrimination, reading and writing.

Montessori (1914) describes that the education of language is very much connected and dependent on the education of senses. She states that the sense of hearing is given a lot of attention to as it is the organ which is directly connected with the speech act. Thus, it is very important in a Montessori environment to train the child to pay attention to various sounds and noise in their environment and to discriminate them. This prepares the child's attention to follow more accurately the sounds of the language. This process mainly starts with the help of the sensory education with didactic materials. E.g. when the child builds the pink tower, he/she touches the cubes of different sizes and puts every smaller cube on the larger one. Thus the teacher may approach the child in an appropriate moment, take the smallest and largest cubes and tell the child that the one is 'small' and the other is 'large'. Thus, the periods of naming, recognition and pronunciation of the words follow each other.

According to Pouzar-Kozak (2008), Montessori looks at the language acquisition more from the anthropological than the linguistic point of view. Montessori connected the linguistic development with the general development of the child. The general development includes the motor, social, emotional, cultural and other developmental processes. Montessori (cited in Pouzar-Kozak, 2008) describes that, "language is the expression of a kind of superintelligence, a creation superimposed on nature, an intelligent product of the mass mind" (p.44).

According to Pouzar-Kozak (2008), Montessori disagrees that the mind is a single unitary system, rather it consists of separate mental organs which together create the child's general intelligence. When it comes to language, Montessori's theory suggests that the child is endowed with a mechanism which helps to acquire language sensitively. She believed that the language acquisition is innate and that a specific area of the brain is responsible for the language acquisition which occurs during a specific period early in life. Moreover, the most critical period lies between the birth to three years old, when the brain is most flexible and the neural connections are very permanent. At that period, having an absorbent mind, children just absorb the information. After that the acquisition ability gradually decreases and the child starts learning with his/her conscious awareness.

This statement is close to Chomsky's theory, according to which the child's mind is pre-programmed with universal constraints to learn language, like Universal Grammar.

Thus, Montessori agreed with the theory of nativism. From the perspective of nativism, her approach is very close to that of Chomsky's nativist approach.

2.12. Research on Teaching Phonics of a Foreign Language in Montessori Class

One of the linguistic aspects to be considered in Montessori environment is the teaching of phonics (Baloch, 2012). Research was conducted by Baloch (2012) which aimed at investigating how phonics is taught regarding ELT at a Montessori level in Rawalpindi. Children of 3 to 4 years old were selected for the research, and the data was collected from 3 Montessori schools which were chosen randomly. Observation checklist and questionnaire were used as research tools. According to Baloch (2012), at a Montessori level the language instruction begins with the sounds of the letters (phonics) and not with the names of the alphabet letters. The aim of

teaching phonics first is to teach how to read, and later also the further linguistic skills, such as listening, speaking, writing, etc. It is very important to teach them at an early age, as later they may face difficulties in recognizing the letter sounds of a foreign language. According to the results of the study in all schools the teaching of phonics was done according to the Montessori Methods. There were used didactic materials, such as flash cards, sandpapers, moveable alphabets, visual aids, saying the sounds out loud and the children's repetition were all present during the classes. All the selected schools used the same materials, but each having their own creative ways of applying them, in accordance with various situations. It was also observed that children were eager to repeat each sound loudly after the teacher's pronunciation, and it was interesting for them to learn the sounds by reading of nursery rhymes in the phonics class. Moreover, introducing new vocabulary through pictures was very helpful for teaching phonics at a Montessori level. Teachers could also teach phonics with the visual images hanging in the classroom, and also, teacher's talking about the difference of sounds in the children's names was helpful for developing the concept of the sounds in the children's mind. Eventually, the results show that teaching phonics in accordance with the Montessori Method was used in all three schools with its unique ways and was useful for reaching the teaching objectives.

2.13. Sensitive Periods for Developing Reading and Writing

According to Pouzar-Kozak (2008), in the Montessori theory the sensitive period for the spoken language is from the birth to 3 year old stage. It is also due to the stimulating environment that the children acquire the basic characteristics of the spoken language so quickly. Furthermore, according to Krashen and Scarcella (1982), the probability that the individual will acquire a native pronunciation is greater when the child is exposed to a language at a very young

age. The child's brain has a cellular receptivity to language acquisition which is reduced as the child grows older. This theory is very much alike to the theory of Montessori (1967), which says that the child's brain absorbs all the linguistic input at an early age. According to Lenneberg (cited in Krashen & Scarcella, 1982), there is a sensitive period, lasting from second to the tenth year, during which the child is able to use its extraordinary capacities to completely acquire not only the native but also nonnative languages.

Pouzar-Kozak (2008) states that according to Dr. Montessori, the sensitive period for the development of the written language is from 3 to 6 years old. Montessori believes that written language acquisition takes place due to the conscious awareness of the children. For the development of the writing skills again there is the need of specific materials and the prepared environment in general. What concerns reading, according to Pouzar-Kozak (2008), Montessori considered it a mental process, and she recommends writing before reading, and reading through writing.

2.14. English-language Immersion Montessori Schools

Montessori education is also famous for English language teaching. According to Rosanova (1998), Montessori founded several schools in India, where the whole curriculum was presented in English (that was during the times of British colonial rule, when the educated Indians decided to teach English their children from early childhood). So the schools found in India by Maria Montessori followed this rule which Montessori called "English medium schools". Nowadays they are known as "English-language immersion Montessori schools", which exist in different parts of the world, such as in Brazil, India, Pakistan, Tanzania, the Philippines and elsewhere.

According to Krashen & Tarrell (1983), there are different developmental stages in the foreign language learning. Those stages are:

- the preproduction stage,
- the early production stage,
- the speech emergence stage,
- the intermediate fluency stage.

According to Rosanova (1998) those stages are used to describe language English language acquisition states in a Montessori community. The mixed age classrooms are also beneficial for foreign language development. In the first year, i.e. in the *preproduction stage* of the language development none of the children start speaking any of the target language, as at this stage they start developing social and cognitive strategies. Thus they start developing the receptive skills of the target language and also pronounce separate words. Children have little interest in formal language materials regardless of their age, so they more like to work with the didactic materials. In a foreign language learning environment the teacher should only speak in the target language and all the words should be clear for the children to understand. Krashen mentions (cited in Rosanova, 1998) that, “the environment should always provide comprehensible input” (p.40). At this mixed age level class the modeling or help of the elder children just might not occur, because they are too young too, that’s why the prepared adult should be very careful in his/ her language delivery.

At the *early production stage* of language in an English-language immersion Montessori classroom, children start articulating words, phrases, even give answers to questions beginning with ‘Wh’, such as when, where, who (Rosanova, 1998). They might not give full answers, but

they start answering them with words or phrases, and there is the evidence that they understand the question. Children who are already in their second year in a Montessori environment start commenting on the newcomers' behaviors. The Montessori teachers use the "Behavior and Consequence Cards" which describe the children's good or bad behaviors. E.g. teachers have created cartoons on the cards depicting various behaviors, such as biting or pushing as a sign of bad behavior. Teachers stick them on the red cupboard (red means "stop") when children misbehave. This kind of solution is good for language development, as it motivates the children to actively comment on the specific type of behavior. At this stage children's interest towards books is raising gradually, they even get attracted by the didactic materials for reading and writing, as they have received a good amount of linguistic input. Even the eldest child in the community is not interested in grammatical materials at this stage. At this stage of Montessori classroom songs are considered good language learning tools, especially when the teachers emphasize the rhymes and movements. Madaule states (cited in Rosanova, 1998) that, even though, the children don't realize, songs are good means of drill and practice. By this way children repeat the linguistic structures, words, pronunciation, etc. It is also considered as a long-term preparation for the emergence of literacy.

In the *speech emergence stage* the children who are already for the 3rd year in the program start making complete utterances (Krashen & Tarrell, 1983). At this stage the basic types of the materials are changed and the amount of work is enhanced and more children are integrated in the work. Children produce complete sentences, though they might make grammar mistakes, have vocabulary gaps, mispronounce words, etc. But the important thing is that they start sending a message and also receiving one, but the language not being fluent. At this stage meaningful class discussions become possible too.

According to Krashen & Tarrell (1983), the last stage in language acquisition is the *intermediate fluency stage*, which, according to Rosanova (1998), is also considered in English-language immersion Montessori classrooms. This is the stage where the cooperative work is functioning. In the cooperative works the oldest children take the role of a teacher for the younger children and help them by using full sentences and narrations. They sometimes decide the roles of the younger children. Thus, the language fluency is developing this way and children become more comfortable in expressing their thoughts in English language.

2.15. Montessori in Armenia

It has already been one year and a half that a Montessori center exists in Armenia too. The center is called “Montessori City Child Development Center” which is located in Sundukyan 14. The teachers are trained as Montessori teachers who take the responsibility for the children’s development. The center is for children of 3 to 6 years old. The duration of the classes is usually from an hour and a half to two hours. The parents bring the children to classes from three to five times per week, depending on their own will. The information about the center and the children’s development as Montessori children is collected through site visits and personal communications.

An interview was conducted with two Montessori teachers who work with the children in the “Montessori City Child Development Center” so as to find out to what extent Montessori Pedagogy is used there. According to the Montessori teachers, a pedagogue should have the specific qualification of a Montessori teacher for working in a Montessori center. (M. Khachatryan, personal communication, Feb. 6, 2014). The thing is that there are specific didactic materials created by Maria Montessori which the pedagogue might not be familiar with. The

teachers should examine them beforehand for being able to introduce them to the children and to help them work with the materials. Before starting the playful classes with the children the teachers observe the children for recognizing each child's individual psychological, social, intellectual characteristics. But they mentioned that the child observation is an everlasting process, they observe the children throughout their development in the Montessori world.

In Montessori education the contact with parents is very important for the whole development of the child (M. Khachatryan, personal communications, Feb.6, 2014). But this issue is problematic in the Armenian educational contexts. One of the teachers mentioned that the parents are not very active in communicating with the teachers and in integrating themselves into the learning process of their children. However, the teachers try to make contacts with them by seminars and individual meetings. When it comes to the adaptation of children to the environment, the teachers mentioned that it is individual for different kids: one is adjusted to the new environment with difficulties, while the others are adjusted more easily. But the children mainly are interested in the didactic materials at first glance, which become the main connectors for the children with the Montessori environment. They pay attention on the sensory materials very much, as after the critical age (5 years old) it becomes very challenging to develop child's senses. There are also different didactic materials intended to develop child's intellectual, motor, linguistic and other abilities. The materials are introduced to children in logical order, as they are interconnected to each other.

The most outstanding features of the Montessori Method that the teachers mentioned were the psychological and intellectual factors (M. Khachatryan, personal communication, Feb.6, 2014). From the psychological point of view they become more autonomous, they feel their important role in their environment thus becoming more self-confident. From the

intellectual perspective they become more organized and responsible. The freedom of choice is a good indicator of autonomy and creativity. The method also teaches them to start a work and to bring it to its end, which shapes their patient, perseverant and organized character. Besides, another significant aspect of the Montessori world that affects on the child's development is the natural learning environment. According to the teachers, the children feel themselves an important part of the world in the natural learning environment by which they are surrounded. They start discovering the world, shaping their worldview, and gaining real experiences which comprise the inseparable part of everyday life.

The teachers were as well asked about the benefits and challenges of multi-aged classes (M.Khachatryan, personal communication, Feb.6, 2014). As we already know the classes are designed for the children of 3 to 6 years old. The teachers didn't mention any challenge in this respect connected with children rather the challenge was connected with the parents. According to the teachers, the parents find it strange when they learn that their child is going to be in the same classroom with elder or younger children than he/she is. But the teachers try to explain the goals of this kind of instruction. The benefits of multi-aged classes are evident, e.g. the elder children are eager to take care of the younger children by helping them in different kinds of situations, thus gaining leadership skills and becoming more attentive and regardful, while the little ones feel safe and confident.

According to the Montessori teachers, the main role in the Montessori education is the use of didactic materials, which attract the kids' attention easily (M. Khachatryan, personal communication, Feb.6, 2014). There are materials for motor, sensory and language education, e.g. cubes of different shapes, cylinders of different height and width, sensory materials for touching, smelling and hearing, wooden letters, flashcards, etc. The materials are presented in

their logical progression, since they have different aims of developing specific skills. Of course, children are free to choose the materials they want to work with, however, it has some age limits for children of different ages, e.g. there are some materials which are for elder children. The teachers also mentioned that due to working with the didactic materials children develop the sense of self-confidence and security, e.g. when they work with the materials and succeed, it makes them self-confident, while the sense of security comes from the clarity that the materials have, i.e. they know what comes after what and how to deal with it.

According to Montessori teachers, it is not very easy to motivate the children at first (M. Khachatryan, personal communication, Feb.6, 2014). The intrinsic motivation of kids is mainly driven by the interest. When they get to know the materials with the help of the teacher they become self-motivated. One of the good strategies of raising the children's motivation is to show interest in their works and speech and to make them realize that the things they tell is important for the listener. The teachers were also asked whether the children ever get bored or not, and they told that it happens rarely in the Montessori center and whenever it happens teachers try to overcome it by giving them new information through new materials or stories.

Montessori teachers state that group work activates children; however they may not always be eager to work in groups (M. Khachatryan, personal communication, Feb.6, 2014). Often they want to explore, learn and do things alone which mostly happens with the children who are newcomers to the Montessori world.

Unfortunately, the center does not conduct English language instruction through Montessori methods, yet all the learning process in the Montessori center is carried out in Armenian language (M. Khachatryan, personal communication, Feb.6, 2014).

Finally, the Montessori teachers think that the Montessori Method prepares children for the school very well, as children go to school already developed as independent individuals and with having good sensory, motor, language and math skills (M. Khachatryan, personal communication, Feb.6, 2014). However, they were asked to mention some of the limitations that they think Montessori Method has, and one of the Montessori teachers mentioned the fact that Montessori classrooms have only one sample from each material, and kids don't have the chance to work with the same material at the same time, which creates challenges from time to time.

According to the parents of "Montessori City Child Development Center", they were not familiar with the Montessori Method before the center was opened (M. Khachatryan, personal communication, Feb.6, 2014). However they told that when they learnt about the method they liked it a lot, and then after seeing the lovely environment of the center they decided to give their children the chance to attend the center. They confess that since attending the center there are changes in the kids' behavior; for example, one of the parents mentioned that the child was very naughty but the center made him calm, another parent mentioned that the kid has become more independent, and communicates freely (see Appendix C). According to the parents the main benefits of the Montessori Method is the independence of the children, the ability to communicate freely, the skill of taking care of both each other and the environment.

Thus, the literature review provided us with a profound and thorough understanding of the Montessori Pedagogy and its characteristics, which will become a guide for conducting the further research of this thesis. The instruments prepared for the research are based on the Montessori approaches which are of primary importance for this study.

CHAPTER THREE: METHODOLOGY

The purpose of this chapter is to discuss the research methodology applied in the current study, i.e. the educational context of the study, instruments used for the data collection and data analysis, as well as the research procedure. Thus, the research question of the study was the following:

How do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of:

- *Teacher and student roles*
- *Materials and environment*
- *Sensory and language development*
- *Target language production by students and teacher*
- *Direct and indirect exposure to the target language*

3.1. Educational Context

The research was conducted in the AUA pre-school English program opened in February, 2014. The program is called “Sprout” and is designed for children, from 2 to 5 years old. The classes are scheduled for 3 hours per week. There are five groups in the program, and the number of children, for now, is from 4 to 6 in each playroom.

3.2. Sampling Procedure and Participants

Because the type of the research is mixed-methods, the purposive sampling was chosen for the study, where the participants were chosen according to their common experiences and similar characteristics relevant for the study. Thus, the participants are all the teachers ($n=2$),

who share the common experience of teaching in the AUA pre-school English program, and the children from 2 to 5 years old who attend the classes. Four groups were included in the study, and each one of them was observed for three times.

3.3. Instrumentation

For the purposes of the current research study both qualitative and quantitative data were collected. Overall, three types of tools were used for the data collection in this educational context: observation checklists, one-to-one interviews and audio-video recordings.

3.3.1. Observation checklists. Observation checklists were designed to collect qualitative data for the research (see Appendix A). Overall, there are 12 observation forms each containing 32 criteria designed according to Montessori Methodology. Each group was observed three times according to the content of the observation forms.

3.3.2. One-to-one interviews. The interviews were also designed to collect qualitative data and they were for the AUA Pre-school English Program teachers, which contain twenty-six semi-structured items (see Appendix B). The interviews were mainly helpful for clarifying the emergent patterns found out during the observations of the classes.

3.3.3. Audio-video recording. The third type of instrument applied for the current study was the eight audio-video recordings of the classes, which were included for the quantitative part of the research. Besides, four out of the eight audio-video recordings were transcribed for investigating the language use by the teachers and the learners, such as the target language production by students and teacher, direct and indirect exposure to the target language, vocabulary use by the teacher.

3.4. Data Analysis

Data analysis was done through both qualitative and quantitative methods. The qualitative data were analyzed through identifying the themes in the observation forms and categorizing the responses of the interviews. Besides, the language use both by the teachers and learners was analyzed with the help of the transcripts of audio-video recordings and Vocabulary Profiler.

CHAPTER FOUR: RESULTS

This chapter provides the results drawn from the qualitative and quantitative analysis of the collected data, which will try to answer the proposed research questions.

Thus, to provide answer for the first three points of the research question of *how do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of teacher and student roles, materials and environment, sensory and language development*, the twelve observation forms of the classes and one-to-one interviews with the teachers were analyzed qualitatively. One-to one interviews were conducted after the class observations so as to reveal the questions and emergent patterns raised during the observations.

4.1. Observation Form and Interviews

As it was already mentioned, twelve observations were conducted in 4 different groups, each group being observed for 3 times. The observation forms are based on Montessori Methods and contain thirty-two criteria, according to which the comments were written while observing the classes in order to find out how much are the *convergences* and *divergences* between Montessori pedagogy and foreign language pedagogy for young learners at “Sprout” (see Appendix A).

Thus, each criterion will be analyzed separately by looking at twelve different case of the same criterion and identifying what they have in common and vice versa.

4.1.1. Teacher performs the role of a connector between the child and the environment. In all the twelve cases the picture is the following: teachers always try to engage children in different activities and try to focus their attention on different materials by directly

connecting them with the environment. Thus they are good connectors between the children and the environment, which corresponds to the Montessori Pedagogy.

4.1.2. Teacher provides the uninterrupted work cycle for the children. The teachers make every effort to keep the cycle of children's work uninterrupted, however, the interruption sometimes becomes inevitable because of some situations brought up both by the children and the teachers. E.g. some children want the teacher to always pay attention on their work, while when the teacher goes a little far from them they stop doing the work. Also, when children become naughty and overenthusiastic they may start shouting, or hiding under the tables, running from one playroom to the other, etc. In other cases some of the children do not stay long in the playroom without their parents and start crying, thus making the teachers take them to their parents. Besides, they may want to have the snack at different times, e.g. when the group is working and some of them want to have the snack, it interrupts the flow of the lesson. These kind of things usually happened during the first observations, but gradually the interruptions started to occur lesser and lesser. Thus, all the so far mentioned cases happened because of the children, while sometimes the interruption of the work cycle happens because of the teacher too, e.g. when the children are deeply engaged in an activity the teacher asks them to go and have the snack because of the fixed snack time, which very often causes resistance from the children. This also happens when the children's parents come to take them home, while the children are still engaged in their work and they do not want to finish it yet. It can be concluded that the criterion of providing uninterrupted work cycle does not function according to Montessori Methods thoroughly because of both children's behavior and pre-school regulations.

4.1.3. Teacher provides necessary guidance and ensures that children are engaged in productive behaviors. The teachers are always attentive to the children's behaviors and always

provide guidance. The guidance is mainly done by modelling, when the teachers show themselves how things should be done, e.g. they should not speak loudly, while eating they should chew with their mouths closed, etc. Also the teachers very often say “you should not do like that” and show how to do things correctly. Sometimes teachers also explain by modelling why this or that thing should not be done, i.e. they explain the possible consequences.

Montessori teachers use the “Behavior and Consequence Cards” which describe the children’s good or bad behaviors (Montessori, 1912). For example, teachers create cartoons on the cards depicting various behaviors, such as biting or pushing as a sign of bad behavior. Teachers stick them on the red cupboard (red means “stop”) when children misbehave. Thus, there is no need of explanations by the teachers, in this case the kids understand that at once that they misbehave and kids comment on each other’s behavior. Besides, in a Montessori environment the teacher should not say “You mustn’t do that”, because it affects on interest negatively, or, vice versa, the teacher should not praise too much, like “Great job”, “Good girl/boy”, because it’s a type of extrinsic motivation which makes them do the work for getting the praise from the teacher. Overall, the guidance that the teachers give is not thoroughly Montessori.

4.1.4. Teacher does not interfere when the child is in the process of exploration. All the twelve cases of this criterion showed that the teachers give the children the freedom to explore the environment as long as they want to. Whenever they stop exploring the teachers try to introduce the materials themselves and engage them in different activities. Thus, it corresponds to the Montessori Pedagogy.

4.1.5. The environment is supportive for the child’s needs for independence and self-reliance. Children feel very independent in the pre-school environment as it is designed to meet their needs of independence. However, there were some problems during the first sessions

connected with the children's self-reliance, e.g. some of them did not stay long without their parents, or, sometimes, the parents would sit in the playroom and ask their children to answer the teacher in English. It affected on their independence and also disrupted the active engagement of the other children. But nowadays both problems have been solved, and all the children feel free to move around and engage in whatever activity they want. They feel safe and treat Pre-school like their home. Thus, in this respect Pre-school operates similar to Montessori environment.

4.1.6. The environment is naturalistic and contains components of everyday life. The environment becomes more and more beautiful day by day. It contains lots of naturalistic components, like pictures of nature and animals, snack room with tables, chairs, plates, spoons, cups, etc. It has a bathroom, where the children can wash their hands, then use paper towel and throw the litter into the trash can, etc. There are also plants in the playrooms, which the children water and take care of. Once they also planted seeds. Thus, the aspect of surrounding children with the naturalistic components in their environment corresponds to the Montessori Pedagogy.

4.1.7. Children respect each other. It is evident from all the twelve observations that children show respect towards each other. Sometimes they help each other, when one of them cries the others seem to take care of that child, they never interfere or disturb others when they are working. When washing their dishes they wait in a line patiently for their turn to come, etc. Thus the respect is present, which is a natural skill and is maintained and developed in the Pre-school environment.

4.1.8. Children learn by doing and learn from each other. As the learning is mainly done through playful learning, the children are always engaged in doing something and they are rarely passive. The activities that they do are directly connected with the surrounding environment, which teach them a lot, e.g. they learn the names of the colors by painting. They

have also started to learn from each other, which is mainly done through imitations, e.g. when one of the children takes the animal mask and starts role playing, the others tend to do so too. Especially, the little ones learn from the elder children, but if the child is a newcomer, he/she likes to do things much on his/her own. Thus, in a Montessori environment children learn by doing, which is also maintained in “Sprout”.

4.1.9. Children take care of the environment. At the beginning of the Pre-school sessions children were just careful with the environment, but gradually they learnt lots of different skills of social responsibility. For example, they have learnt to clean up the environment before leaving, to wash their dishes after eating, to water the plants, to throw the litter into the trash can, etc. All the mentioned things they do with interest and enthusiasm, being motivated by each other as well. Thus, children care about their surrounding environment, which is characteristic to Montessori children too.

4.1.10. There is enough area for the children to move freely during the class. The playrooms are not so big, but still there is enough space for children to engage actively in diverse activities. However, there are some games which they don't feel comfortable to play in the playrooms, so they play games with the balls outside the playrooms. Generally, Montessori playrooms are bigger in space, and when it comes to “Sprout”, there are several playrooms, and children can be working in different playrooms if they wish, of course, in the presence of a teacher assistant.

4.1.11. The environment has a direct contact with an open-air space. There is no direct contact with an open-air space at “Sprout”, which is because of its location near the street.

4.1.12. The furniture is made of wood and is designed according to children's needs. There are no desks or stationary chairs. Each playroom contains 2 circle wooden tables and there

are 6 chairs around each table, which are very small and light and children move them easily wherever they want. There are wooden shelves where the materials are placed and they are easy for children to reach. There is a bathroom with one washstand which the children use in turns, and which is easy to use for children of all ages. There are two boards in each playroom which are hung very low and children of different ages can use them easily. Also, the floor is convenient to sit and work. There are colorful foam mats on the floor, and children change their shoes as soon as they come so as not to damage the foams and to feel as comfortable as possible. Thus, the furniture is designed mainly according to Montessori Pedagogy.

4.1.13. The environment contains naturalistic components. There are pictures of nature on the walls, such as flowers, plants, animals. There are also plants of different kinds in the playrooms which are watered by the children. The walls are also decorated with flowers, stars, leaves and other naturalistic components made of foams. Recently the children planted seeds, which are placed on the windowsills. Thus, those things are also characteristic to the Montessori environment.

4.1.14. Children have the freedom to choose. Children in “Sprout” are always free to choose, e.g. they can choose the material they want to work with, and they can choose whether they want to work individually, with a partner or in groups, they can choose the activity that they want to do. But this makes them receive less direct linguistic exposure, as children often choose different materials to work with which makes impossible for the teachers to interact with the whole class most of the time. Thus, the freedom of choice is characteristic to Montessori Pedagogy as well.

4.1.15. Discipline is founded upon liberty. Children become more disciplined day by day through the liberty that they have, e.g. they learn how to behave while eating, how to serve

each other food, how to ask each other something, how to wait for their turn, etc. In Pre-school children choose what to do, so, they start a work, then they finish it, and at the end they clean up. It is seen from this example that everything starts from the freedom and ends with discipline. Thus, when the children are given the chance to be free, to feel themselves the part of the environment and to learn on their own mistakes, they become more disciplined. So, in this aspect it is like a Montessori classroom where freedom is needed to make the children disciplined.

4.1.16. Children have the freedom to repeat each activity as many times as they wish. Children have the habit of repeating the activities that they are keen on. The teachers encourage the children to repeat the activities that they like, because it is always done with deep interest, and besides, the teachers may use the language referring to the repeated activity which will increase the amount of language exposure. Thus, here we see another case of convergence with the Montessori pedagogy.

4.1.17. When children start a work they also finish it. When children start a work, it is both activity-specific and child-specific whether they will finish it or not. If the activities are very actively engaging them into the work, they become very enthusiastic and finish them, for example, making a fruit salad, making clowns from cut paper shapes, watering the flowers, making lemonade, washing the dishes, etc. However, they might sometimes leave the work without finishing and start doing another thing if they find it more interesting than the previous work. Also, some children are patient in their character and tend to finish the activities that they start doing, but some of them are more impatient and just leave what they started and explore for new materials most of the time. However, the teacher always encourages them to form the good habit of finishing the started work. Thus, it can be concluded that at this point there are both

converging and diverging points. Maria Montessori designed her didactic materials in a way to make children finish the work that they start, so it can be material-specific as well.

4.1.18. Children are motivated intrinsically and there are no extrinsic rewards. It is obvious that children have a natural interest in themselves, i.e. the intrinsic motivation is always present when they choose the materials themselves and start working with them. It means, that there is no need of any extrinsic rewards to motivate the children, because, according to Montessori's observations, they like the activities more than any rewards. Thus, there is a complete convergence with the Montessori Pedagogy in this respect.

4.1.19. Children are interested in the work they do. The observation form results show that show that children are always doing any kind of work with interest, as it was already mentioned the intrinsic motivation is always naturally present. The main reason behind this is the freedom of choice in the Pre-school environment. If children choose any kind of material to work with, it means that they choose them based on their own interests and preferences, hence, they engage in different activities which are driven by their own interests. Interest driven learning is one of the main characteristics of the Montessori Pedagogy too.

4.1.20. There is active usage of didactic materials for the education of senses and language. Interview responses and observation forms show that different types of didactic materials are used in Pre-school that provide both sensory and linguistic development. The *wooden blocks*, for instance, are very useful in teaching shapes and colors. Children touch them and feel different shapes and weights. *Finger colors* are children's most favorite materials that develop their creativity and help them learn about different colors. They work with their fingers, experiment through mixing colors and getting a new color. According to the teachers, most of the "Sprout" children are now quite competent in mixing two or three different colors to make a

new color. Also the different *geometric figures*, which the children touch, feel the different shapes, find patterns and name them. The *touch and feel books* are attractive for children as at first they touch the objects or animals in the books and then only come to know their names. A lot of materials provide linguistic development. E.g. there are different types of materials including books (story, write and wipe, touch and feel), *flashcards*, *toys*, *finger colors*, *puzzles*, *craftwork*, different kinds of *masks* for role play, activities such as *working in the kitchen*, *taking care of the plants*, etc. While working with all those materials children receive a lot of language input, i.e. they learn language by doing. Although there are used different materials for both sensory and language development in “Sprout”, we can’t say that the materials are Montessori didactic materials, as she designed her own language and sensory materials which are not exactly the same as the ones in Pre-school. They teach children to observe, concentrate and categorize the observations. Sensory materials come in a variety of shapes (LePortSchools, 2010). Each material isolates a certain quality; the “*The Red Rods*” focus attention on length, “*The Brown Stair*” on width and height, “*The Knobless Cylinders*” on change in width and height simultaneously, “*The Sound Cylinders*” on different sound qualities, “*The Testing Bottles*” on the taste, “*The Constructive Triangles*” on geometric shapes, etc. Besides, in a Montessori environment there exists only one sample from each material, which teaches children to wait for their turn if some of them want to work with a material at the same time. It can be concluded that there are both convergences and divergences with Montessori Pedagogy at this point, as there are used different materials for language and sensory development, but they do not have the same functions as Montessori didactic materials.

4.1.21. The materials are presented in a logical progression. Materials are presented in their logical progression by the teachers, i.e. from the easy materials to more challenging ones,

but often the children choose the materials that they want to work with which can be challenging for them. For example, there are puzzles of different difficulty levels, which sometimes are taken by the little children which they do not manage to make. Thus, the teachers guide them by helping to work with the activities or giving them an easier material to work. It can be stated that in this respect it converges with Montessori Pedagogy.

4.1.22. There is collaboration instead of competition. All the observations show that there is no any competition among the children, though group work is not done often. The group work is mainly group-specific; in two of the groups group work is done more often than in the other groups. Thus, here we see again convergence with Montessori Pedagogy in terms of not competing.

4.1.23. Collaborative work activates and motivates children. As it was already mentioned the collaborative work is group-specific, and they do not almost occur in the group where the children are from two to two and a half years old. But in the other groups collaboration makes them more enthusiastic about the work, for example, making lemon juice together, watering the plants, planting seeds, etc. However, sometimes the collaborative work makes children become overenthusiastic which hinders the smooth flow of the class, for example, sometimes they just start shouting, hiding under the tables, etc. Besides, according to the written interview results, children benefit from group work, which is especially important when it comes to understanding the needs of their group mates. As a team they learn to listen well and respond to the needs of the group. According to the interview responses, through team work children learn how to cooperate with each other to achieve a common goal. They learn to express their opinion and consider the other members' opinions. They learn to respect different ideas and they

get an insight into their own hidden skills. So, here we see both convergences and divergences with Montessori Pedagogy, as group work activates the children not from all the groups.

4.1.24. Older children teach the younger ones. During the first classes the little children used to just repeat what the elder children did, but gradually the elder children started feeling responsible for the little ones, and also helping and guiding them, sometimes even being a leader. However, one of the teachers mentioned in the interview that as long as the activities are adapted to the needs of all age groups, they do not face any serious problems. The only challenge is to be very careful to engage everybody in the learning process for sometimes the older children might think they know more than the younger ones and as a result they might refuse to participate in some activities. But still, there is convergence with Montessori Pedagogy to some extent.

4.1.25. Groups for activities consist of children from two to six. For now, the total number of children in each playroom does not exceed five, thus, the group work activities include no more than 5 kids. So, in this case, the formation of groups during the collaborative activities converges with the Montessori Method.

4.1.26. The language instruction begins with sensory development. According to the observation, through directly communicating with the children teachers give a lot of comprehensible input through using the Total physical Response and integrating the children in playful learning. While in a Montessori environment the language instruction begins with sensory development which is considered as indirect preparation of language skills. Children learn to listen carefully with concentration. Through didactic materials they learn how to differentiate between sounds which is critical for listening. They also develop the sense of touch and improve high motor skills through materials necessary for writing. According to the

interviews with the teachers, language instruction starts with relationship building and continues with sensory development. Since language learning is strongly connected with the way children perceive their environment, developed sensory skills will contribute to better learning. Thus, here we can notice divergence from Montessori pedagogy in terms of starting the indirect preparation for language learning through sensory development. This divergence might be because of the differing contexts: in “Sprout” the main focus is on foreign language, while most Montessori schools work with children’s L1 and develop their L1 with the indirect preparation of sensory development.

4.1.27. Teacher’s speech is clear and pace is appropriate. Teachers’ speech is always clear and the pace is slow, which also depends on the children’s needs, i.e. is appropriate for their age. Teachers’ voice is also very attractive: they never speak in a monotone voice and often use high rises, or high falls in their intonation. They also sometimes imitate the animal voices, which generally grabs children’s attention.

4.1.28. Storytelling is conducted. The observations show that the story telling was conducted only during three of the sessions, which the children like a lot, especially when it is done through touch and feel books. Children like to listen to the teacher who demonstrates the pictures and acts the story. They also like to repeat the words and even say with the teacher the parts that are repeated in the story. The stories have kind content and happy ending, they don’t contain any frightening or evil heroes, which is characteristic to Montessori Pedagogy.

According to the Pre-school teachers, story telling is one of children’s most favorite parts of the play session. However, the observations show that it’s not conducted so often, but, anyway, it is included and also is specific to Montessori Pedagogy.

4.1.29. At first there is the focus on phonics by using visuals and flashcards. The observations show that there is an active usage of visuals, such as the picture of the farm, different books with pictures of animals, toys, fruits, etc., where the teacher says the words and the kids repeat after the teacher, thus recognizing the phonics or the sounds of letters through pictures. According to the interviews with the teachers, the alphabet tree helps them a lot, and they also use some coloring sheets to do that. They do not overload children with lots of sounds at a time. They start with simple sounds and words and have the children make connection between words and pictures and objects in the room. However, it is seen from the observations that still there is no focus on phonics separately like in a Montessori classroom. In Montessori classroom while teaching vocabulary the first letter of the word is pronounced by the teacher separately after naming the words (LePortSchools, 2011). Thus, there is not much focus on the phonics in “Sprout”, rather there is focus on the listening of sounds through words and on repetitions. We know that Montessori Pedagogy is more relevant for L1 learners where the main language focus is on literacy skills, that’s why they pay attention on teaching of phonics so much, whereas in “Sprout” the main focus is on developing the listening and speaking skills of the foreign language.

4.1.30. Constant repetitions are encouraged by the children. The observations show that the teachers always encourage children to repeat the words and expressions. Children like repeating words, even without the teacher’s encouragement. Constant repetitions make children remember the words and then utter them without teacher’s encouragement. Children tend to repeat the words naturally, which is also characteristic to Montessori environment.

4.1.31. There is focus on vocabulary. All the observations show that there is focus on vocabulary learning through fun games, flashcards, activities of everyday life, through materials,

such as artificial fruits, books for naming objects etc. The following pattern can be seen for teaching vocabulary: naming, recognition and pronunciation, i.e. at first the teacher would name the objects like: “*This is an apple, this is a pear*”, then she would ask “*Is this an apple? Is this a pear?*” to elicit the answer from the children, and then she would ask “*What is this? What is that?*” for the children to answer. Thus, vocabulary teaching is similar to Montessori Pedagogy.

4.1.32. At first there is focus on writing then reading through writing. The observation and interview results show that there is lots of focus on listening and speaking skills, and very little focus on literacy skills. According to the Pre-school teachers, at this stage they mostly emphasize on listening and speaking, and less on writing and reading skills. For speaking they have different games and activities, songs, word books, story books, toys, etc. There are activities such as painting, washing the dishes, taking care of the place, taking care of the plants. All these cause the children to be exposed to different sets of vocabulary. To teach writing they use some write and wipe books, worksheets, and whiteboard. Reading is usually taught through the alphabet tree, magnet letters, and some games. However, Montessori Pedagogy teaches to write and read through three basic materials which succeed the indirect sensory preparation stage (LePortSchools, 2011). Those materials are: “*The Sandpaper Letters*”, “*The Moveable Alphabet*” and “*The Smaller alphabet*”. Through the Sandpaper Letters kids learn to associate the sound with the letter shape. They touch the letters at first and then trace them with their two working fingers after which they form the letter with motor movements. Through the moveable alphabet they already start practicing the same letters. Whenever they forget how to form the letters they can easily go back and trace them again. With the moveable alphabet they start forming words from the simplest to longer words. Later on they progress to smaller alphabets and start forming short sentences and then stories with those letters which later they can copy

onto paper. All these stages suddenly lead them to reading and writing. Thus they first learn writing, then reading through writing. So, it is seen that there is no clear distinction for teaching writing then reading in Pre-school like it can be observed in a Montessori environment, though there are some convergences for teaching writing.

In conclusion, we will sum up the observation and interview results so as to give a brief result of both convergences and divergences of Montessori Pedagogy and Foreign language pedagogy for young learners. Thus, there are *convergences* with Montessori Pedagogy in the following aspects:

- Teacher performs the role of a connector between the child and the environment,
- Teacher does not interfere when the child is in the process of exploration,
- The environment is supportive for the child's needs for independence and self-reliance,
- The environment is naturalistic and contains components of everyday life,
- Children respect each other,
- Children learn by doing and learn from each other,
- Children take care of the environment,
- There is enough area for the children to move freely during the class,
- The furniture is made of wood and is designed according to kids' needs,
- The environment contains naturalistic components,
- Children have the freedom to choose,
- Discipline is founded upon liberty,
- Children have the freedom to repeat each activity as many times as they wish,
- Children are motivated intrinsically and there are no extrinsic rewards,
- Children are interested in the work they do,

- The materials are presented in a logical progression,
- There is collaboration instead of competition,
- Older children teach the younger ones,
- Groups consist of children from two to six,
- Teacher's speech is clear and pace is appropriate,
- Storytelling is conducted,
- Constant repetitions are encouraged by the children,
- There is focus on vocabulary.

The *divergences* were found out in the following aspects:

- Teacher provides the uninterrupted work cycle for the children,
- The environment has a direct contact with an open-air space,
- The language instruction begins with sensory development,
- At first there is focus on writing then reading through writing.

Finally, here are some aspects of Montessori Pedagogy where both *convergences* and *divergences* were found:

- Teacher provides necessary guidance and ensures that children are engaged in productive behaviors,
- When children start a work they also finish it,
- There is active usage of didactic materials for the education of senses and language,
- At first there is the focus on phonics by using visuals and flashcards,
- Collaborative works activate and motivate children.

It can be seen that most of the characteristics of Montessori Pedagogy *converge*

with the pedagogy applied in the AUA Pre-school English program. All in all, twenty-three out of thirty-two criteria were the convergences, mainly in terms of the prepared environment, the roles of the prepared adult, freedom, motivation, the interaction of children, issues of social responsibilities, their care and respect towards both the environment and each other and also some aspects of language teaching (storytelling, repetitions, vocabulary), i.e. the convergences mainly refer the general development of children. Besides, according to the interview results with the teachers, they are aware of Montessori Methods and borrow some of her ideas in their program. Hence, it can be stated that Montessori Pedagogy has a considerable influence on the Pedagogy of “Sprout”.

The *divergences* from the Montessori Pedagogy were mainly found in the areas of language teaching (the sensory development as an indirect preparation for writing and focus on writing before reading) and also very few connected with the environment and the teacher. Overall, the divergences were found in four of the criteria from Montessori Pedagogy. In a Montessori environment the sensory development is carried out through specific didactic materials, which indirectly prepares children for language, while in “Sprout” the main focus is on giving comprehensible input to the learners through speaking and playful learning before transitioning to writing and reading. When it comes to the teaching of writing before reading, both the observations and the interview results show that the main focus is on listening and speaking. But whenever they teach literacy skills they do not have clear distinction of doing writing before reading, while in a Montessori environment they first of all start from writing (through three basic didactic materials) and then read through writing. Other aspects of divergence were the uninterrupted work cycle and the contact of the environment with an open-air space. In terms of the first one the reasons were both student-specific and program regulation-

specific. In terms of the second one it is because of the Pre-school's being located near the street. In a Montessori environment the open-air space has an important role on the general development of children, where they get engaged in daily works, such as working with the soil, plants, etc. and form habits of social responsibility and feel themselves as the inseparable part of the nature (Montessori, 1912).

Finally, there were found out five cases where there were both *convergences* and *divergences* with the Montessori Pedagogy mainly in terms of the general development and some linguistic aspects too (teacher guidance, children's responsibility of finishing the started work, usage of didactic materials for the development of language and senses, focusing on phonics, children's being activated by collaborative works). In terms of teacher guidance they do a lot of modeling, explain the bad consequences of any unproductive behavior by the children which corresponds to Montessori pedagogy, however the teachers should not say expressions of forbidding something or expressions of praising a lot (for example, "You must not do like that" or "Excellent") which either kills the interest or makes them become used to extrinsic motivation. Here we can notice a case of divergence. The case of finishing the started work is both activity-specific and child-specific. If the activity thoroughly engages them into the work or if they are patient, the convergence will be noticed, but in the opposite cases the divergence will be noticed. In the case of using didactic materials for the development of language and senses there are materials for language education and a few materials for sensory development, however Montessori materials are different and key to her Pedagogy, besides she provides only one sample from each material. So, again both convergences and divergences can be noticed. When it comes to teaching phonics, in Pre-school the focus is on the written form of the phonics, while in a Montessori environment first of all the focus is on the sound of the phonics through visuals.

Anyway, there is focus on phonics at Pre-school but not exactly the same way as in Montessori school. Finally, the activation and motivation of children through group work depends on the group and on the children's individually. In some of the groups group work activates children, but in some groups they still tend to work individually (especially in the groups where the age is relatively low). So, in this aspect we again came across with both convergence and divergence with Montessori Pedagogy at "Sprout".

Eventually, it is noticed that the interview results support the observation results, and the answer to the research question of *how do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of teacher and student roles, materials and environment, sensory and language development* is that they interact by mostly converging with each other, i.e. by mostly having common features in their Pedagogies, especially in terms of the environment and general development of children rather than in terms of sensory or language development.

The teachers were also asked whether the children have had any progress in their behavior and language since attending "Sprout". They answered that they have noticed progress in almost every child. Now they feel more responsible for their peers and the place, they follow the directions and rules, they ask for permission for the things they want to do, they have become more independent and decisive, and they produce some simple sentences, sing songs, and a couple of them can even tell a story.

4.2. Audio-video Recordings

As it has already been mentioned in Chapter Three, for the quantitative analysis of the research eight audio-video recordings were taken in four different groups of the AUA Pre-school English Program. So as to provide the answer to the last two points of the research question of

how do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of target language production by students and teacher, direct and indirect exposure to the target language, four of the audio-video recordings were transcribed and analyzed quantitatively. For the quantitative analysis Excel and Vocabulary profiler were also used.

The transcripts were taken from four audio-video recordings of four different groups. In three of those groups the age of kids is from three to five, and in one of the groups the age is from two to approximately three years old. It is worth mentioning that in one of the groups where the age is from three to five, the children had been exposed to English language before attending “Sprout”, though they did not speak yet. The durations of the play sessions are about the same in those three groups where the age is from three to five (66-67 min.), but the duration in the group where the age is from two to two and seven months, is 73 min., because the little children need more time to settle and start playing.

Thus, the following criteria were taken into account while analyzing the transcripts of the audio-video recordings:

- The amount of total words,
- The amount of teacher words,
- The amount of student words (both in English and Armenian),
- The length of English language exposure (both direct and indirect),
- Most frequent K1 (1-1000) words used by the teacher (also Content : Function ratios),
- Other words used by the teacher (most frequent K2 (1001-2000) words, academic words, off-list words),
- The number of repetitions in most frequent K1 and K2 words used by the teacher.

4.2.1. The amount of total words. The analysis of the transcripts showed the following results in the amount of total words used during the four play sessions from the biggest number to the smallest: 4698, 3837, 3167, 3144 (see Table 1). As it is seen from Table 1, the biggest number of total words has the group where the number of students is three and the smallest number has the group where the number is four. Also, in both of them the age is from three to five. Thus, it can be said that the number of total words depends neither on the age level, nor on the number of kids per group. The biggest number belongs to the group where the kids have had some English language exposure before attending Sprout. The difference between the biggest and the smallest number is 1554, which is now a small difference.

4.2.2. The amount of teacher words. The analysis of the transcripts shows that there is considerable difference between teacher and student words: the percentages in teacher words are the following from the highest to the lowest: 89%, 85%, 83%, 82% (see Table 1). The highest percentage belongs to the group of low age level, where some of the children do not even speak at all, that's why the teacher's speech has the highest percentage in this group. The lowest percentage belongs to the group where the children had some English language background, so the reason is again clear. In the other two percentages the difference is not considerable. This case can be linked to the Montessori Pedagogy, which is a child-centered approach in teaching. It cannot be said that this case does not correspond to Montessori Pedagogy, as it is mostly tailored towards native speakers. The reason is that children are new in the program and they are either in the pre-production or early production stages of language acquisition, i.e. they either do not speak at all, or produce separate words and expressions.

4.2.3. The amount of student words (both in English and Armenian). It can be seen on the Table 1, that the percentages of the kids' words are the following from the lowest to the

Table 1: Target language production by students and teacher, direct and indirect exposure to the target language, vocabulary use by the teacher.

Group #	# of Ss	Dur. (mins.)	Total words	Teacher words (%)	Student words (%)		Total FL exposure (mins.)		Most frequent 1000 words used by the T in %	Other Words used by T	
					Eng. words (%)	Arm. words (%)	Direct exp. in mins. / # of children	Indirect exp. in mins. / # of children		Content : Function	Most frequent 1001-2000 in %
Saturday Age:2-2.7	3	73	3167	2807 (89%)	360 (11%)		30.5		84.96%	4.89%	9.64%
					56 (16%)	304 (84%)	15 / 3	13/1; 2.4/2	1 : 1.26		
Friday Age: 3-5	4	67	3144	2669 (85%)	475 (15%)		29.3		78.45%	7.31%	13.25%
					113 (24%)	362 (76%)	16.4/4	5.6/2; 6.8/3	1 : 1.17		
Thursday Age: 3-5	4	67	3837	3186 (83%)	651 (17%)		34.3		81.76%	8.31%	9.34%
					192 (30%)	455 (70%)	11.3/4	4.5/3; 5/2; 11.7/1	1 : 0.93		
Sunday Age: 3-5	3	66	4698	3866 (82%)	832 (18%)		40.2		77.31%	9.28%	13.16%
					291 (35%)	541 (65%)	26.4/3	2/2; 11.8/1	1 : 0.65		

highest: 11%, 15%, 17%, 18%. It is clear from the previous point that the lowest percentage belongs to the group where the age level is low, and the highest belongs to the group with English language background. When it comes to the students words in English and Armenian, in all the cases the percentage of English words is lower than that of the Armenian words. The percentage of English words is the lowest in the group where the age level is lower than in the other groups. Table 1 clearly shows that in that group 16% are the English words and 84% are the Armenian words. The group where the children had English language background has the highest percentage in English words (35%). In the other two groups the difference is slight.

4.2.4. The length of English language exposure (both direct and indirect). As it is seen from the Table 1, the lengths of total, direct and indirect exposures are given in minutes, which were calculated due to the transcripts. The group which got the longest total language exposure was the group where the kids had English language background, and the shortest was in the one of the groups where the age of kids is from three to five.

The transcript gave the opportunity to measure both direct and indirect exposures per group out of the total exposure (see Table 1). According to Spiegel (1992), in direct instruction students and the teacher are focused on one common goal, on what is to be done or to be learnt. In the case of direct instruction students come to know how to engage in a particular process through teacher explanation and modeling. Thus, in Pre-school the moments when the teacher was interacting directly to the whole group by giving instructions or modeling were considered as the parts with the direct language exposure. Through the transcript analysis it was found out that the length of direct and indirect exposures does not depend on the length of the total exposure, rather it is both teacher-specific and activity-specific. The more the teacher presence, the longer the direct exposure. The longest direct exposure (26.4 min. out of 40.2 min.) was in

the group where the kids had English language background before attending Pre-school, while the shortest direct exposure in one of the other groups was 11.3 min. out of 34.3 min. In both of the groups the age levels are the same but the teachers are different. Thus, according to our speculations the difference between the direct exposures throughout the groups is not age related; rather it is teacher-specific, activity-specific and also student-specific. The direct exposure is likely to occur often in the cases of high level of teacher presence, engaging and motivating activities and with the presence of kids who like to socialize more than to work individually.

When it comes to the indirect exposure, the children may not listen and follow the teacher instructions or modeling directly, but anyway they get linguistic input indirectly by working individually or in pairs while the teacher is giving direct exposure to the rest of the children. It can be seen from the Table 1 that in all of the groups for some times one, two or three children get indirect exposure, which is again connected with teacher presence, activity choice and individual characters of children. It can also be seen that in none of the groups all the children get indirect exposure at a time. It is also worth mentioning that in all of the groups the length of direct exposure outweighs that of the indirect exposure.

If we link the results of the language exposure to Montessori Pedagogy, we can notice that there is some contradiction at this point, as according to Lillard (2011), Montessori Pedagogy is a child-centered one, while Spiegel (1992) states that systematic direct instruction is teacher-centered rather than learner-centered, and it is the teacher rather than the learners who make the decision of what needs to be done and learnt. However, it can be examined through the audio-video recordings of the play sessions that children were always interested in the activities done through getting direct language exposure, i.e. there is still correspondence to Montessori Pedagogy which gives huge priority to the children's interests in the classroom.

4.2.5. Most frequent K1 (1-1000) words used by the teacher (also Content:Function ratios). The most frequent K1 words used by the teachers in their percentages can be seen in the Table 1. The lowest percentage (77.31%) belongs to the group where the percentage of teacher words was the lowest too, and where the children had English language background before attending Pre-school, while the highest (84.96%) percentage belongs to the group where the percentage of teacher words was the highest and where the children are from two to two years and seven months old. It can be stated that the reason of this difference is that the most frequent K1 words include the simplest words that we need to communicate, which is reasonable in the case of lower age level children, while in the case of children with English language background there can also be used some words which are not in the list of most frequent K1 words.

Due to the Vocabulary Profiler online tool and the content of the transcripts it was possible to count the ratios between the content and the function words of the teacher's speech so as to see the level of speech connectivity, i.e. whether the teachers use more separate words and expressions or full sentences. The results on the Table 1 show that in two of the groups the use of the function words outweighs the use of content words, while in the other two groups the case is the vice versa. The lowest number of content words is used in the group where they had had a little English language background. The Content: Function ratio is **1:0.65** in that group, which means that for each function word there is used 0.65 content word. It means that most of the time teachers use full sentences rather separate words, as the sentences are constructed through function words that connect content words to each other and make sentences. When it comes to the highest number of content words, it is used in the group where the children's age is lower than in the other groups. The Content: Function ratio in that group is **1:1.26**, which means that

for each function word there are used 1.26 content words. It means that the teachers mainly use content words, i.e. a lot of noun sentences and separate expressions rather full sentences.

4.2.6. Other words used by the teacher (most frequent K2 (1001-2000) words, off-list words). It can be seen from the Table 1 that the *most frequent K2 words* are the lowest in their percentage where the most frequent K1 words were the highest in percentage, i.e. with the children of lower age level it is the lowest (4.89%) and with the children who had English language background the percentage is the highest (9.28%). It means that besides using words of K1 frequency the teachers may already use some words which are not used so often with the latter mentioned group. In the other two groups the difference between the most frequent K2 words is not so considerable (7.31% and 8.31%). In fact, there is considerable difference in all the groups between the percentages of most frequent K1 and K2 words, which means that simpler words are used very often.

In the case of *off-list* words the results seem to be repeated throughout the groups (see Table 1). The Vocabulary Profiler showed that the off-list words mainly include the names of the students which are very often repeated during the play sessions, the imitation of animal sounds, words like “ok”, “wow”, etc.

4.2.7. The number of repetitions in most frequent K1 and K2 words. Due to the Vocabulary Profiler it was possible to find out the number of repetitions in most frequent K1 and K2 words which can be seen in the Table 2 and Table 3. (In both tables there were chosen ten words per group which had the biggest number of repetitions). It can be seen in the Table 2 that some of the most frequent K1 words have big number of repetitions, e.g. words such as “it”, “is”, “what”, “you”, “this”, “look” yes”, “the”, “a”, “let”, “good” “yes”, “not”, “now”, “one”, “two”, “here” have very big number of repetitions, which fosters the children to often repeat the words

after the teacher. As it is seen from the Table 3, the number of repeated words in the most frequent K2 words is less as compared with that of most frequent K1 words. Some of the very much repeated words are “sugar”, “plate”, “rabbit”, “ugly”, “thank” yellow”, “nice” “wash”, “knee”, “spoon”. It can be noticed that in all the four groups lots of words are repeated more than hundred times. In the first case there are repeated both content and function words, whereas in the second case only content words can be found among the repetitions.

At this point we can find links with Montessori Pedagogy, where the repetitions are key to learning. It is clear that constant repetitions are highly encouraged by the teachers of the AUA Pre-school English program.

Table 2: *The number of repetitions in most frequent K1 words used by the teachers.*

Group 1 (age: 3-5)	Group 2 (age: 3-5)	Group 3 (age 3-5)	Group 4 (age 2-2.7)
You[209]	Is [224]	Yes [120]	Is [149]
It [191]	It [180]	Is [117]	It [119]
Is [177]	You [128]	You [76]	Look [114]
The [80]	The [120]	Good [73]	Yes [97]
Your [86]	Let [77]	Now [52]	Good [53]
One [79]	Good [77]	A [52]	Let [48]
Here [63]	I [55]	This [33]	Two [47]
Yes [61]	A [52]	What [29]	A [39]
What[60]	What [32]	Come [28]	This [38]
Put [58]	Not [22]	Draw [16]	Come [30]

Table 3: *The number of repetitions in most frequent K2 words used by the teachers.*

Group 1 (age: 3-5)	Group 2 (age: 3-5)	Group 3 (age 3-5)	Group 4 (age 2-2.7)
Sugar [28]	Rabbit [42]	Thank [25]	Yellow [27]
Plate [25]	Cow [23]	Ugly [15]	Pink [16]
Thank[24]	Yellow [18]	Cat [10]	Thank [16]
Wash [21]	Thank [18]	Yellow [8]	Nice [16]
Knee [17]	Sheep [13]	Snakes [8]	Hello [12]
Spoon [16]	Nice [12]	Pig [7]	Jump [6]
Knock [12]	Pink [12]	Rabbit [7]	Orange [6]
Hello [10]	Cat [10]	Puzzle [7]	Dance [4]
Fingers [10]	Toes[10]	Cow [6]	Rabbit [4]
Juice [10]	Nose[8]	Seed [5]	Clean [3]

CHAPTER FIVE: DISCUSSION AND CONCLUSION

The aim of this chapter is to summarize the findings of the conducted research in order to answer the following research question:

How do Montessori and foreign language pedagogies converge and diverge in the context of the AUA Pre-school English Program from the perspectives of:

- *Teacher and student roles,*
- *Materials and environment,*
- *Sensory and language development,*
- *Target language production by students and teacher,*
- *Direct and indirect exposure to the target language.*

5.1. Discussion of Findings

To answer the research question of the study we tried to find out to what extent the pedagogy applied in the AUA Pre-school English program has convergences and divergences with the Montessori Pedagogy. Through observation and interview analysis it turned out that it is quite possible to implement Montessori Pedagogy in “Sprout”. The *convergences* that were found outweighed the divergences. The convergences were mainly found in terms of the prepared environment, the roles of the prepared adult, freedom, motivation, the interaction of children, issues of social responsibilities, their care and respect towards both the environment and each other and also some aspects of language teaching (storytelling, repetitions, vocabulary), i.e. the convergences mainly refer the general development of children.

It is clear that all the mentioned components foster the children’s development by contributing to the accomplishment of the main goals of the Pre-school English Program.

However, it should be taken into consideration that giving children too much freedom and providing enough meaningful linguistic input do not always work together well enough, for example, by getting too much freedom children sometimes fail to receive language input. Freedom should be limited at some points so as to keep the balance between the freedom and language exposure.

The *divergences* from Montessori Pedagogy were found in terms of providing the uninterrupted work cycle, sensory education and teaching writing before reading and reading through writing. The thing is that the AUA Pre-school English Program has its own goals and regulations, where the main focus is language teaching through combining it with social responsibility skills and general development of children. In terms of foreign language teaching in this specific context of the Pre-school, the main focus is on listening and speaking through playful learning and comprehensible input, which were found out through observations and interviews. In the realization of these goals there were found the above mentioned divergences from Montessori Pedagogy.

Both *convergences* and *divergences* were found in the following aspects: teacher guidance, children's responsibility of finishing the started work, usage of didactic materials for the development of language and senses, focusing on phonics, children's being activated by collaborative works.

Eventually, the research shows that Montessori education develops children as individual and independent people with the sense of responsibility. It is an environment where the children can do the same work as long as they want and to satisfy their curiosity. And finally, it is an environment where they can develop naturally such skills as motor, sensory, linguistic, math and cultural.

To answer the research question we also tried to measure such things per session as the amount of total words, the amount of teacher words, the amount of student words (both in English and Armenian), the length of English language exposure (both direct and indirect), most frequent K1 (1-1000) words used by the teacher (also Content : Function ratios), other words used by the teacher (most frequent K2 (1001-2000) words, off-list words), and the number of repetitions in most frequent K1 and K2 words used by the teacher. Through audio-video recordings and transcripts it was possible to quantitatively analyze them and find the results (see Table 1). The results depended on such factors as the age level of the students in a group, the English language background of the students. The results show that teacher words and direct exposure exceed greatly the student words and indirect exposure, which means that there is a lot of linguistic input given to the children by the students.

The Table 1 shows that the most frequent K1 (1-1000) words greatly exceed the other types of words used, which is a good result, as at this stage kids should be exposed to the simplest words and those words that they often encounter in daily life. Within those most frequent K1 words the amount of function and content words was measured, and the results showed that the amount of usage of both depends on the specific characteristics of a group, such as age and English language background (see Table 1). There were used a few most frequent K2 (1001-2000) words and also off-list words. The latter is mainly comprised of the children's names, imitations of animal sounds, etc. When it comes to the language used by the children, it comprises a small part of the whole session as compared with the teacher's words. Also, the larger part of children's language comprises the Armenian language, which is mostly spoken between the children. However, the teacher very often encourages them to repeat the English words and expressions after her. It is reasonable that the results showed the biggest percentage of

the English language spoken in the group which had been exposed to English language before attending Pre-school. There were also found out a lot of repetitions of words by the teachers which are critical for young learners of pre-school age (see Table 1 and Table 2).

Overall, the results of the quantitative analysis showed that the usage of English language by the teachers is careful and reasonable, which is also specific to the characteristics and most importantly the needs of different groups. As the study was not a longitudinal one, it was not possible to see the linguistic progress of children, which, however, was already noticeable in their development as individuals. But we can hypothesize that throughout time the amount of teacher language will be reduced, and instead the amount of language used by children will increase.

As the main focus of this research paper is on the language development, due to the mixed type research conducted in this study we can say that according to Krashen & Tarrell's developmental stages of language learning the children are in their pre-production and early-production stages: it means that some of them still do not utter any English words as they are still developing their social and cognitive strategies and getting a lot of linguistic input through listening, whereas, some of them already utter some words and expressions in English. They also understand the questions, such as "Wh" questions, as they mostly give answers to those questions by a word or an expression, though, not always in English.

Finally, bringing the general development of kids and English language instruction into a balance is sometimes a challenging task, but it is quite possible in the context of the "AUA Pre-school English Program".

5.2. Pedagogical Implications

This study can serve to inform the teachers, parents, and people interested in alternative approaches of education like the Montessori Method to be aware of different ways of how to use the child's abilities effectively in different stages of life and how to teach children respect each other, take care of the environment, become more disciplined and independent by using various materials and methods. It may give the teachers and parents the idea to look at education also from the anthropological point of view, i.e. to consider the stages of child's physiological and cognitive development in the teaching and learning process.

The findings of the current research study gave us the opportunity to come up with the following specific *recommendations* for Sprout:

- Reduce the frequency of work cycle interruptions during the play sessions,
- Pay more attention on the sensory development of children,
- Do storytelling more often,
- Use “Behavior and Consequence” cards to engage children in productive behavior,
- Avoid using expressions of too much praise or expressions of forbidding something,
- Add more materials in the environment of “Sprout” which focus on specific features,
- Try to create a balance between the freedom of children and enough meaningful linguistic input that they receive.

5.3. Limitations and Delimitations

In this research study there were some limitations, as well as delimitation. First of all, the AUA Pre-school English Program had just been opened when the data collection was started. It was the reason of some challenges, for example, it was planned to finish the data collection of the research within a month and ten days, while it lasted two months as the group members were

sometimes changing their groups, or, some of them quitted the program. Besides, the number of children per group was still a few by the end of the data collection: the largest group in size consisted of four children, while groups of larger size might provide more solid results. The other limitation emerged because of transcribing only four audio-video recordings out of eight, which gave us the opportunity to have speculations on the use of language in “Sprout”.

There was also a delimitation which set boundaries for the qualitative research of the study. The teaching methodology that was taken into considerations is the Montessori Method, that was very specific for the current study, that’s why the class observations were conducted by looking at all aspects of Pre-school pedagogy from the perspective of Montessori Pedagogy.

5.4. Suggestions for Further Research

This research has generated some ideas for further research. As it can be seen there is a section in the literature review called “Montessori in Armenia”, which was written due to site visits and interviews with some of the teachers and parents. We found out that they are going to open an English Program which will be taught through Montessori Methods. For the people interested in Montessori Pedagogy, especially in an Armenian context, it would be an interesting idea to conduct research in “Montessori City Child Development Center” and investigate children’s behavioral and linguistic development in that specific context.

As it was already mentioned the study was cross-sectional and it did not give the chance to see the children’s English language acquisition and changes in their behavior and attitude. Thus, if the data collection starts earlier, it will be possible in the context of AUA Pre-school English Program. Also, it would be interesting to include parents as well in the future research to investigate their role in children’s general and linguistic development.

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APPENDIX A

Observation Checklist

Context: AUA pre-school English program

Group # (Hours)

Date

Age:

Size:

Duration:

CRITERIA	COMMENTS
<p>The prepared adult(teacher)</p> <ul style="list-style-type: none"> • Performs the role of a connector between the child and the environment. • Provides the uninterrupted work cycle for the children. • Provides necessary guidance and ensures that children are engaged in productive behaviors. • Does not interfere when the child is in the process of exploration. 	
<p>The prepared environment</p> <ul style="list-style-type: none"> • Is supportive to the child’s needs for independence and self-reliance. • Is naturalistic and contains components of everyday life. • Children respect each other. • Children learn by doing and learn from each other. • Children take care of the 	

<p>environment.</p> <p><i>Furnishing</i></p> <ul style="list-style-type: none"> • There is enough area for the children to move freely during the class. • It has a direct contact with an open-air space. • There are no desks or stationary chairs, instead there are wooden tables and chairs of different shapes, which are very light and moveable. • There are washstands, where each child has a his/her own space, and which are easy to use for children of all ages. • There are boards hung very low in the classroom. • Walls contain naturalistic pictures. • The floor is convenient to sit and work. 	
<p>Freedom and motivation</p> <ul style="list-style-type: none"> • Children have the freedom to choose. • Discipline is founded upon liberty. • Children have the freedom to repeat each activity as many times as they wish. • When children start a work, they also finish it. • Children are motivated intrinsically and there are no any extrinsic rewards. • Children are interested in the work they do. • Is there any unacceptance from the kids? How does 	

<p>the transitioning to the new culture affect on them?</p> <ul style="list-style-type: none"> • How do the freedom of children and giving them enough meaningful linguistic exposure work together? Do they contradict each other or not? 	
<p>Didactic Materials</p> <ul style="list-style-type: none"> • There is active usage of didactic materials for the education of senses and language. • Materials are presented in a logical progression. 	
<p>Collaboration</p> <ul style="list-style-type: none"> • There is collaboration instead of competition. • Older children teach the younger ones. • Collaborative works activate and motivate children. • Groups consist of children from two to six. 	
<p>English language instruction</p> <ul style="list-style-type: none"> • Didactic materials are actively used. • Teacher’s speech is clear and pace is appropriate. • Storytelling is conducted. • At first there is the focus on phonics by using visuals and flashcards. • Constant repetitions are encouraged by children. • At first there is focus on writing then on reading through writing. 	

APPENDIX B

One-to-one interview with Pre-school program teachers

Location: AUA Pre-school English Program

Questions referring to the language teaching:

- How do you teach English as a foreign language? Which linguistic aspects do you mainly focus on (vocabulary, speaking, listening, reading, writing, etc.)
- What does the language instruction begin with? Is it connected with the sensory development?
- Do you do storytelling? If yes, what materials do you use for it?
- Do you teach reading/writing/speaking skills? If yes, what materials are used for it?
- Are there different developmental stages in the acquisition of English?
- How much of oral communication is there between 1)children, 2)between the teacher and the whole class, 3)between and teacher and a single child?
- Do you focus on teaching phonics? If yes, how?
- Do you encourage the kids to make repetitions? How do they affect language acquisition?
- What other language teaching methods do you use? Are they your own approaches or taken from foreign language pedagogy for young learners?
- Are you aware of the Montessori Methods? If yes, are there many overlaps between the Montessori pedagogy and FL pedagogy for young learners in Sprout?

Questions referring to the environment and children:

- Do the children easily adapt to the Pre-school environment?
- Do you observe the children to identify their needs? If yes, how long does it take?
- How does the natural learning environment influence on the child's development?
- What are the benefits and the challenges of multi-aged classes?
- How do the didactic materials influence on the child's development? Could you mention some of the materials and elaborate on their influence on kids? E.g. 'Blocks', 'Shapes and Patterns', 'Finger colors', etc.
- What types of materials are used for the language education and also for the development of the sensory skills? Are the materials introduced in the logical progression?
- Do the children have the freedom to choose? If yes, does it have any limits for the children of different ages? Does the freedom create some problems for giving the kids enough meaningful linguistic exposure?
- Do all the children have the sense of self-confidence and security?
- How do you motivate the children? Are they easily motivated?
- Do the children ever feel bored during the classes? If yes, what do you do then?
- Are the children more eager to work individually or in groups?
- What are the main benefits of teamwork?

- As a teacher of young learner, do you like the way the playrooms are furnished? Would you like to change something in the environment?
- Could you mention some aspects in which the kids have progressed since attending to pre-school, e.g. linguistic, behavioral, etc.
- Do you contact with parents? Do they have any role in the child's learning?
- In your opinion, to what extent does the Pre-school English program prepare the kids for the school?

If you would like to share any ideas connected with the teaching and learning process that you think are important, please feel free to write about them.

Thank you very much for your participation.

APPENDIX C

One-to-one interview with parents

Location: Montessori City Child Development Center

Factual questions

- When did you learn about the Montessori Method of education?
- How old is your child?
- How long has it been that the child is attending the Montessori classes?
- What made you bring your child to the “Montessori City Child development Center”?

Behavioral questions

- Is the child eager to attend the Montessori classes?
- Is there any change in the behavior of the child since attending the Montessori classes?
Does he/she speak softly? Does he/she keep his/her ‘territory’ of environment neat?
- Has the child developed any linguistic skills?
- Do you create the Montessori environment for the child outside the center, e.g. at home?

Attitudinal questions

- What do you think, which are the main benefits of the Montessori Method?
- Have you ever observed the classes? If yes, would you like anything to be changed in the classes?
- Would you recommend others also to bring their children to the Montessori classes?

APPENDIX D

One-to-one interview with Montessori teachers

Locations: Montessori City Child Development Center

Questions referring to the prepared adult:

- Is there the need of having any other qualification besides that of a pedagogue for becoming a Montessori teacher?
- Do you observe the children to identify their needs? If yes, how long does it take?
- Do you contact with parents? Do they have any role in the child's learning?

Questions referring to the child:

- Do the children easily adapt to the Montessori environment?
- Which are the most outstanding characteristics of the Montessori Method in terms of the child development?
- How does the natural learning environment affect on the child's development?
- What are the benefits and the challenges of multi-aged classes?
- How do the didactic materials influence on the child's development?
- What types of materials do you use for motor/sensory/language education?
- Are the materials introduced in the logical progression?
- Do the children have the freedom to choose? If yes, does it have any limits for the children of different ages?

- Do all the children have the sense of self-confidence and security?
- How do you motivate the children? Are they easily motivated?
- Do the children ever feel bored during the classes?
- Are the children more eager to work individually or in groups?
- What are the main benefits of teamwork? How many children are there in one group usually?

Questions referring to the language teaching:

- How do you teach English as a foreign language? Which linguistic aspects do you mainly focus on (vocabulary, speaking, listening, reading, writing, etc.)
- What does the language instruction begin with? Is it connected with the sensory development?
- Do you do storytelling? If yes, what materials do you use for it?
- Do you teach reading/writing/speaking skills? If yes, what materials are used for it?
- Are there different developmental stages in the acquisition of English?
- In your opinion, to what extent does the Montessori Method prepare the children for the school?

APPENDIX E

Transcrit 1

Number of kids: 3

Age: 3-5

	Content	Interact.	Dur.
T	Ok, Thank you. Show me your glasses, your glasses..	All	7 sec.
S1	Glasser-@ aystex en	All	
T	Glasses.. OK, your plates, your plates, yes. Do you have lemon squeezers? Where are the lemon squeezers?	All	10 sec.
S1	Yes.	All	
S3	Yes.	All	
T	No, not lemons, not lemons, put it here, put it here.	All	4 sec.
S1	Tex@ dreq Sarin	All	
T	Ok, not lemons, show me your lemon squeezers	All	3 sec.
S3	Here..	All	
T	Aha, is it open? Please open it.	All	3 sec.
S1	Yes im@ arden bacel em	All	
T	Put it.. Put it in your plate. Put the lemon squeezers. Regina.. put the lemon squeezer.. not this one, just this one, ok? Just this one Sarin.	All	11 sec.
S3	Here	All	
T	No, wait, sit down, Sit down Sarin. Sarin you can sit here to have enough space, ok? Come here, come sit here. Bring your chair here, bring your chair. Take your chair, ok. Wait, wait for me.	All	20 sec.
S1	Lcnem shaqar@	All	
T	Wait for me Arpi. No Arpi put it there, ok. Is your lemon squeezer open? Yes?	All	8 sec.
S1	Yes	All	
T	Is it in your plate?	All	2 sec.
S1	Yes	All	
T	Is it in your plate? Ok, now, what do we need to make lemonade?	All	5 sec.
S1	Es gitem.	All	
T	Say, no, lemon.	All	2 sec.
S1	Lemon,	All	
T	Then?	All	1 sec.
S1	Then.	All	
S3	Then	All	
T	Sugar	All	1 sec.
S1	Sugar	All	
S3	Sugar	All	
T	And?	All	1 sec.

S1	Water	All	
T	And?	All	1 sec.
S1	Water	All	
S3	Water	All	
T	Ok? Lemon, sugar and water. Now, first we do what Arpi?	All	7 sec.
S1	Lemon, sugar and water.	All	
T	Ok, now, number one is.. Sarin, I have one plate, my lemon squeezer,	All	12 sec.
S1	Nayeq inch em anum	All	
T	And my glass, oooo, then, now.. thank you Miss Armine, now first.. Sarin, Arpi, Regina, first we put our lemon in the lemon squeezer in the plate. Now we should have lemon. Here you are, take it.. one, take it, take one half yourself and give one half.. no, in the plate, in the plate.	All	33 sec.
S1	Es el em uzum vercnem	All	
T	No, Regina, shhhh.. Regina, go there, go there, come, aha, say “here you are”, take one please, here you are, thank you, and one for you.	All	16 sec.
S2	Qani vor es em poqrik@ es em..,	All	
T	Yes, put it here, put it in your plate, yes, you will give them sugar and Regina will give them water, ok? Now, now, like this, put it here, put it here.. uhum, like this girls, look like this..	All	21 sec.
S3	Lemon!	All	
T	Yes! Squeeze it, squeeze it. Do not taste it, just squeeze it, yes. Squeeze it, Sarin, do it, yes, like this.	All	11 sec.
S3	Indz kogneq?	All	
T	You can do it. Yes, one, two, three, you should take all the juice in it, yes, now.. Sarin you should.. take, take the lemon squeezer like this, ok? One, two.. you should take all the juice out of it, ok?	All	24 sec.
S3	Indz kogneq?	All	
T	Yes	All	1 sec.
S3	Im jur@ tapvec	All	
T	That’s ok, that’s ok, aha, ok? Do it! Do it yourself Regina, take this one, aha.. finished?	All	11 sec
S3	Finished	All	
T	No, you haven’t taken all the juice out of it, squeeze the lemon, there is a lot of juice in it. Let’s see.. no, there is nothing now, wait, now wait. Arpi and sarin finished? Is it ok? Now, put it in your plate. Sarin, still you have a lot, let’s see, yes, it’s done. Now, we have what?	All	45 sec.
S1	Sugar.	All	
T	We have what? Lemon..? lemon..? what’s in it? what’s in it? Lemon..?	All	7 sec.
S1	Lemon place	All	
T	Lemon juice	All	1 sec.
S1	Lemon juice	All	
T	Ok, now, pour the juice, pour the juice here, here.. in your..	All	5 sec.
S3	Arpi	All	

T	In your.. in your glasses, no, put it here, put it here, take this squeezer, take it, pour the juice here, pour the juice.. yes	All	11 sec.
S3	Es uzum em im@ shat lini	All	
T	Sarin.. Arpi, no like this, from here you should pour it ok? Finished, there is nothing in it. Ok now, let's put it here, now.. Arpi is going to give us sugar, but wait, ok?	All	13 sec.
S2	Sugar..	All	
S1	Yes vor jur bjanem qez qich ktam	All	
S2	Inchu?	All	
S1	Qani vor du imic vercrel es.	All	
T	Regina, do you want to give sugar to them? Wait, come here. Take it, take it. One glass of sugar for you, one spoon of sugar for you, you have your own spoon, ok, come here. One for Arpi, one spoon of sugar, one spoon full sugar, yes? Thank you.	All	16 sec.
S1	WooW!	All	
T	And one for sarin, ok? Now, put it here, put it here, now, take your spoons, take your spoons. No, not now, wait, take your spoons and now it's time to have the water. It's Arpi's turn, sit down, no, that's enough.	All	21 sec.
S2	Arpin kani	All	
T	Arpi, take your glass, wait, take your glass up. Regina, take your glass up. Aha, thank you, good job Arpi. A bit more, a bit more Arpi.	All	16 sec.
S3	Shat arec im@.	All	
S2	Indz el kanes? Indz el kanes shat? Indz el kanes Arpi shat? Indz el kanes?	All	
S3	Imn el! Imn el shat ara.	All	
S2	Nayeq imn inhqan shat exav!	All	
T	You have a lot of water?	All	2 sec.
S3	Imn el e shat.		
T	Now! Mix your lemonade, mix it.	All	5 sec.
S1	Bays shaqar@ heriq chi,	All	
T	No, that's enough, ok, that's enough, that's enough, it will be very sweet.	All	7 sec.
S1	Ttu.	All	
T	It's sour.	All	2 sec.
S1	Sour.	All	
T	Ok, now, tell me, lemon is.. lemon is..?	All	4 sec.
S1	Sour.	All	
T	Sour. Regina lemon is..?	All	3 sec.
S3	Sour	All	
T	Sour	All	1 sec.
S3	Sour.	All	
T	Sarin, lemon is?	All	2 sec.
S1	Sour	All	
T	Sour, it's sour, sour.	All	3 sec.
S2	Sour.	All	

T	Sugar is? Sugar is? Sugar is? No, not like that. Sugar is?	All	6 sec.
S1	Sour,	All	
T	Sugar is? Sour or sweet? Sugar is sweet, lemon is?	All	5 sec.
S1	Sour	All	
T	Sour. Sarin do you want more sugar? Aha..	All	4 sec.
S3	Imn el	All	
T	A bit for you , a bit for you, ok. Listen, Sarin, lemon is?	All	5 sec.
S1	Miss Melanie.	All	
T	Yes.	All	1 sec.
S1	Klini esor es arajin@ lvanam im apsen?	All	
T	You want to wash your dishes? .. Regina? What have you made? What's that?	All	10 sec.
S2	Es im cnund@ knshem aystex ev gexecik.	All	
T	Your birthday will be here? What we will say? We will say "Happy birthday to you , happy birthday.." You like chocolate?	All	14 sec.
S1	Inq@ chi sirum.	All	
T	No? You don't like it?	All	3 sec.
S3	Es em uzum chocolate.	All	
T	You like chocolate? But we don't have chocolate.	All	4 sec.
S1	Es el em sirum chocolate.	All	
T	I love chocolate, I love chocolate.	All	4 sec.
S2	Myus angam kberenq paxpaxak el, chupachups el.	All	
T	Ice-cream, ice-cream.	All	3 sec.
S2	Chupachups.	All	
T	Ice-cream. Is it ice-cream?	All	4 sec.
S1	Erek hisheci vor gisherov paxpaxak ei utum	All	
T	Listen, what's this? What's this? What's in it?	All	5 sec.
S3	Glass.	All	
T	What's in your glass? What's in your glass?	All	4 sec.
S1	Lemonade.	All	
T	Lemonade.	All	1 sec.
S3	Lemonade.	All	
T	Sarin, you don't break the doors, ok? Is your glass empty or full? Arpi, is your glass empty or full?	All	11 sec.
S2	Es uzum em tanem im bajak@ lvanam.	All	
T	Wait, wait, sit down. Sarin, can you give me one glass? Can you give me one glass? Please.	All	8 sec.
S2	Vor@ tam?	All	
T	I want orange one, orange glass, aha. Thank you, Sit there. Regina, listen, Sarin, sit down, please. Is this full or empty? Is this full? There is nothing in it. It's..?	All	19 sec.
S3	Yes, yes.	All	
T	It's empty, it's empty. This one is?	All	4 sec.

S2	Empty	All	
T	But this one is full, yes? It's full of lemon juice. And this is lemonade; in your glass you have lemonade. Ok? What do we need to make lemonade?	All	14 sec.
S2	Es uzum em im apsen lvanam.	All	
T	If you want to wash your plate.. oh that's enough.. you have enough water, that's enough, ok, thank you. It's sour, sour, no, no, lemon is, lemon is sour, ok? But sugar is, sugar is? Sugar is? Mmmm sweet, like ice-cream. Sweet, sour, ok? Regina, now you tell me, you tell me how we can make lemonade?	All	56 sec.
S1	Sugar.	All	
T	We have sugar, then?	All	3 sec.
S3	mmmmm	All	
T	What's it? What's this? What's this? Lemon.	All	6 sec.
S3	Lemon	All	
T	Lemon, ok, sugar, we have lemon, and?	All	5 sec.
S3	Water	All	
T	Water, water. Sugar, lemon, water, ok? What do we need..? What do we need to make lemonade? Regina, say it again. What ingredients do we need to make lemonade? Sugar?	All	32 sec.
S3	Sugar	All	
T	And?	All	1 sec.
S3	Lemon.	All	
T	Lemon, and?	All	2 sec.
S3	Sugar	All	
T	Is it sugar? Water.. Sugar, lemon, water.	All	5 sec.
S3	Water.	All	
T	Sarin, wait, we should wash it later, sit down, please.	All	7 sec.
S2	Skzbum Arpina lvanum, heto es.	All	
T	Ok	All	1 sec.
S2	Verjinn el Reginan.	All	
T	Ok, Sarin, Now, sit down, sit down. Now, tell me what do we need to make lemonade?	All	8 sec.
S1	Es pisik em.	All	
T	What do we need..?	All	2 sec.
S3	Es el pisik em.	All	
T	It's not a good thing to do, girls. You are like cats. Sarin, what do we need to make lemonade? What's it? Sugar.	All	12 sec.
S2	Sugar.	All	
T	Sugar, water and..?	All	2 sec.
S2	Lemon.	All	
T	Lemon. Three things, ok? Sugar, water, and..?	All	5 sec.
S2	Lemon.	All	
T	Lemon, then we need a plate, plate and..? What is this? What is this?	All	13 sec.

	Glass, and what's this?		
S2	Spoon.	All	
T	Spoon and this is lemon squeezer, lemon squeezer, ok? Now, is lemon sweet or sour?	All	12 sec.
S2	Sa stica isk sa` iskakan.	All	
T	Aha this is a real lemon. Is lemon sweet or sour? Ok say it and go and wash them: is lemon sweet or sour?	All	15 sec.
S2	Arpi, es gnum em im@ lvanam.	All	
T	Sarin, Sarin, is lemon sweet or sour?	All	4 sec.
S3	Xmi!	All	
S2	Chem uzum.	All	
T	You want to wash the plate and glass? ok	All	5 sec.
S2	Arpi, qezanic heto es em, inq@ verjinna	All	
T	Ok but you wait here, sit down, ok, sit down. Ok, I'll open the door for you, please.	All	10 sec.
S1	Thank you.	All	
T	You're welcome.	All	2 sec.
S3	Chem sirum.	All	
S1	Indzanic heto Sarinn e.	All	
S3	Chem uzum.	All	
S2	Arpiic heto es em.	All	
S3	Es el qezanic heto. Bayc chem sirum es sok. Ari, gnanq.	All	
T	Put this in the trash can, in the trash can, there, Sarin, look at me, there in the trash can, aha.. take the sponge first. Come here.. No, Sarin wait, let me, let me help you.. now wash.. oh, why is it like this? We want some liquid, ok? Now, wait, wait here.	S2, S1	50 sec.
S3	Arpi, Arpi		
T	No, not like this, like a good girl ok? Like a good girl. Take this, No Regina, wait, like a good girl ok?	S3	10 sec.
S3	Im kanachn em uzum.	all	
T	You want what? Where is your lemon squeezer Regina? Go and bring it. Good job Arpi. They are very clean you know? You washed this? And let's put it like this. Aha	all	14 sec.
S1	Vay, mi qich sa verve kbardzracneq?	S1	
T	Yes, ok.		2 sec.
S2	Him aim hertn e.		
S3	Myus@ imn e.		
T	Ok? You can put the spoon here.	S1	4 sec.
T	Regina, let's see what is left there.	All	3 sec.
T	Good job! Very clean, good job.	S1, S2	3 sec.
S2	Arpi de ari es anem.	S1	
T	Let her finish Sarin.	S1, S2	2 sec.

S2	Arpi.. Shut ara Arpi.	S1	
T	Ok, one is Arpi's, one is Sarin's, give it to them. One to Sarin, Sarin. Regina, thank you, and one to Arpi. Arpi and this one. What are you doing Arpi? What are you doing, Arpi? Wait, wait.. I'm washing the..?	All	26 sec.
S1	I'm washing the plates.	All	
T	Oh, plate. And what do you need to wash the plate? You need water and..? Hot water and sponge.	All	12 sec.
S1	Sponge.	T	
T	And? And washing liquid, yes? And then you wash the plate. Now, hold it, hold it under the water. Keep it under water.	All	17 sec.
S2	Arpi verjacru.	S1	
T	Wait, wait Sarin.	All	2 sec.
S3	Wait Sarin! Wait Sarin!	All	
T	Wait, please, say, wait please.	All	4 sec.
S3	Wait, please.	All.	
T	Aha, good. You are waiting to.. You're waiting for Arpi and Sarin to wash the dishes and then it's your turn, yes? Uhum.. good job! Let's see if it is clean. No don't do like this, just wash it like this. I'll show you, I'll show you. Wash it like this, ok? And like this, and then at the end keep it under water and put it in the rack. Thank you. One more. You will wash glass this way, look, look! Aha, this way, yes. Then, put the sponge there. Keep it under water, ok, thank you, now put it here. Ok? Thank you, put the sponge here, wash your hands. Thank you, Arpi. Finish.	All	1min 11sec.
S2	Arpi	All	
T	Ok, wait, Sarin. Arpi, did you wash your hands? Thank you. Ok, now. Now jump from here. Ok, let's see, let's have paper towel, here. You can dry your hands yourself. Aha, do it, do it, and put it.. put it there. You want more? Sarin! Wait Sarin! Arpi, please, put it in the trash can. Thank you. Arpi, would you please wait for us?	All	45 sec.
S3	Mi ara!	T	
S1	Im kapik@ tesel es?	T	
T	Say "Have you seen my monkey?" We keep this, we keep this.. Monkey is here, wow nice, is it yours?	All	15 sec.
S3	Is it yours?	All	
T	How old is your monkey?	All	2 sec.
S1	Five.	All	
T	Five years old? Ok. They are the same age. Ok, let's see Sarin.	All	8 sec.
S3	Let's see, Sarin.	All	
S2	Hima apsen.	T, S3	
T	Aha, ok, do it. Take the plate. What are you washing, Sarin? Regina, would you please put this in the trash can?	S2, S3	10 sec.
S3	What?	T, S2	
T	In the trash can, thank you. Ok, now, what are you washing? Your plate	S2, S3	46 sec.

	yes? Thank you. Regina, you wait in line for Sarin to wash the dishes, ok? Good girl. Now, Sarin hold it under water, keep it under water, ok? Thank you. Aha, now the lemon squeezer and the spoon is left too.		
S3	Happy birthday to you!	T, S2	
T	Whose birthday is it? I know it's your cousin's birthday on Wednesday. Is it David's birthday?	S2, S3	7 sec.
S3	No!	T, S2	
T	Your birthday? Ooh, good! Now, jeep it under water and put it here. Oh, it fell. And your spoon, spoon, spoon, spoon. Sarin, say spoon, spoon.	S2, S3	19 sec.
S2	Spoon.	T, S3	
T	Spoon, Spoon. Ok? Thank you, keep it under water and put it here, and I'll open this for you, aha. Yes. Sarin, are you washing dishes or you're making lemonade? Which one? Sarin? Sarin? Are you making lemonade or washing the dishes.	S2, S3	38 sec.
S2	Washing..	T	
T	Washing the dishes, yes? What are you washing? A plate, a glass, a spoon and a lemon squeezer, yes? Yes Sarin? What are you washing? Let's see if it is clean. No, like this, ok?	S2, S3	26 sec.
T	Ok wash, wash the glass, take the sponge first, aha, like this, aha, ok, do it, ok put it here, ok? Now the plate, keep it under water, ok, now the spoon. Is this good? You like washing the dishes? Yes? Keep it under water, keep it under water and put it here. Yes, thank you, and the lemon squeezer, keep it under water, ok put it here.	S3	1 min 5 sec.
S3	Andzreva linum	T	
T	Ok, it's like rain, look. Look it's raining.	S3	5 sec.
S3	Raining.	T	
T	It's raining	S3	1 sec.
S3	Andzreva exel.	T	
T	Yes, it's raining, it's raining. But it's like a shower, not like a rain. See shower.	S3	7 sec.
S3	Shower	T	
T	Yes, take this one, wash it, aha, now keep it under water. That's enough, that's enough. Keep it under water and put it here. Ok, now wash the sponge, wash the sponge, aha, yes now let's put it here. Ok wash your hands, aha. That's enough, thank you Regina. Now, dry your hands here, ok, now put the paper towel in the trash can.	S3	38 sec.
T	Wait, ok.	S1, S3	2 sec.
S1	Es uzum em X anem.	T	
T	You want to be X or O?	S1, S3	3 sec.
S1	X	T	
T	Now you're O, ok? Now, put X.	S1, S3	4 sec.

S3	Sxal e.	T	
T	Ok, now Regina, it's your turn. It's your turn Regina, put O. O, O, like this, O, Ok? Now, Arpi, X. Now you O, it's Regina's turn O,	S1, S3	20 sec.
S1	Bac tex, bac.	T	
T	You should one, two, three, four, five, one of them. Yes, O, Now X	S1, S3	7 sec.
S1	Vonc anem vor haxtem?	T	
T	Now you can win! Huraa!! Regina won! Ok? Again, again, draw a grid.	S1, S3	10 sec.
S1	Che Regina, sxal es, tarber guyner chenq anum, mi guyn.	S3	
S2	Sra kaparich@ ura? Sra kaparich@ ura? Arpi sra kaparich@ ura?	T	
T	Arpi can a draw this? Can I draw that? Let me help you.. Here Arpi, say hello.	S1, S3	11 sec.
S1	Hello.	All	
T	Hello, this is Miss Armine. We have two Miss Armines now, yes?	All	7 sec.
S3	Urish kanacha.	T	
T	You want another green? This one? Yes this one. Is it a duck? What does a duck do? Quack-quack.	S1, S3	9 sec.
S1	Yes.	T	
T	Ok, I', coming again. Knock-knock-knock at the door.	S1, S3	6 sec.
S1	Stexic en bacum.	T	
T	Ok, knock-knock-knock at the door. Hello Arpi.	S1, S3	5 sec.
S1	Hello.	T	
T	How are you?	S1, S3	2 sec.
S1	I'm fine	T	
T	What are you doing?	S1, S3	2 sec.
S1	I.. qaylel.	T	
T	I'm walking, I', walking	S1, S3	3 sec.
S1	I'm walking.	T	
T	Where's Regina? Oh she's sleeping, Good morning Regina, wake up, wake up please, and where is the monkey? Where is the monkey?	S1, S3	14 sec.
S1	Monkeyn ela qnac.	T	
T	Oh, monkey is also sleeping? Hi Sarin.	S1, S3	4 sec.
S2	Hi.	T	
T	How are you?	S1, S3	2 sec.
S2	I'm fine.	T	
T	Say "I'm fine, thank you, how are you?"	S1, S3	5 sec.
S2	I'm fine, thank you	T	
T	How are you? Ask me "how are you?"	S1, S3	5 sec.
S2	How are you?	T	
T	I'm fine, thank you Sarin. Regina, no, no, no, don't do that please, come out, come out, come out, good, good, be careful, you may bump your head. Ok, what's the name of this monkey? What's its name?	S1, S3	19 sec.
S3	Monkey.	T	

T	Yes, what's this monkey's name Arpi?	S1, S3	3 sec.
S3	Georgem George.	T	
T	Is it George?	S1, S3	2 sec.
S1	No,	T	
T	Yes it is curious Geotge, yes? Ok it's a monkey yes?	S1, S3	6 sec.
S3	Curious George.	T	
T	Ok, the monkey's name is George. Ok.. whose slippers are these? Are these slippers yours Arpi?	S1, S3	11 sec.
S1	Yes.	T	
T	Ok, I want to go to my home. Can you please open the door for me? Knock-knock-knock! Arpi, please, can you open the door for us?	S1, S3	15 sec.
S1	Yes, vercreq, vercreq atorner@.	T	
S3	Ding-dong, ding-dong.	T	
T	Hello Regina, say "hello"	S1, S3	3 sec.
S3	Hello.	T	
T	How are you?	S1, S3	2 sec.
S3	Regina.	T	
T	Your name is Regina? How are you Regina? Is it your monkey?	S1, S3	7 Sec.
S1	No, it's a George, George.	T	
T	Ok, monkey's name is George. Why are you bringing the chairs here? So many chairs.	S1, S3	10 sec.
S3	Kgnaq durs dur@ tuk-tuk aneq?	T	
T	Ok, should I go out?	S1, S3	3 sec.
S3	Hello.	T	
T	Hi Regina, how are you?	S1, S3	3 sec.
S3	I'm fine.	T	
T	Is it your monkey? We have a lot of chairs, Arpi do you remember you fell down last session?	S1, S3	12 sec.
S1	Bayc es hima zguysh em.	T	
T	Take care, ok? Ok let's put them here,	S1, S3	4 sec.
S1	Vonc enq sexani vra jash utum? Hima el sranq sexani atorner en.	T	
T	Where is your home? Where is Arpi's home? I can't see. Is this the door? No? Knock-knock-knock, I want to enter. Arpi, why so many chairs? That's enough Arpi, that's enough. Ok come Sarin, Hello Regina, how wre you?	S1, S3	30 sec.
S1	No, no, no, no, no!	T	
T	Regina please will you come here.	S1, S3	4 sec.
S1	Hima es piti bolor atorner@ stex dasavorem. Stex jashasenyakn e.	T	
S2	Knock-knock-knock.	T	
T	Hi Sarin, how are you? Regina, please. Regina don't put it here ok?	S1, S3	6 sec.
T	Just wait, it's not enough, aha, yes Sarin here, don't go, don't go Regina. Arpi, it's cold on the floor, you shouldn't lie here. Arpi.. That's enough,	All	20 sec.

	that's enough.		
S1	That's enough Sarin.	T	
T	Thank you Sarin, give it to Arpi, Arpi there is no water in it? Go and pour water, Arpi, Arpi, pour water and then get back, yes.	All	17 sec.
S3	Nayi es nkarum menq enq.	T	
T	Good job Sarin, well done!	All	4 sec.
		All	
T	Do you want water?	All	2 sec.
S1	Yes.	All	
T	Yes, please.	All	2 sec.
S1	Yes, please.	All	
T	Here you are.	All	2 sec.
S1	Thank you.	All	
T	You are welcome. Regina do you want water? Not like that, put your biscuit in your plate, and the other one, aha, now keep your glass	All	10 sec.
S3	Yes please	All	
T	Ok, here you are. What do you say?	All	3 sec.
S3	Thank you.	All	
T	You're welcome. Ok Sarin keep it like this, ok.	All	5 sec.
S2	Thank you.	All	
T	Ok, you're welcome. Regina, do you want banana? Yes, please, take it. Take it like this. Sarin do you want banana?	All	15 sec.
S1	Es kisel em.	All	
T	She doesn't want it?	All	2 sec.
S1	No.	All	
T	Ok, we don't need it, after they want I'll ask. Not like that, it is in your plate it should be there. If you don't want to eat that's ok. Ok? Sarin, do you want apples?	All	20 sec.
S2	No.	All	
T	Yes Regina, Say "Yes please"	All	4 sec.
S3	Yes please	All	
T	Here you are. What do you say?	All	4 sec.
S3	Thank you.	All	
T	You want apples?	All	2 sec.
S1	No.	All	
T	No, thank you.	All	2 sec.
S1	No, thank you.	All	
T	Sarin?	All	1 sec.
S2	No, thank you.	All	
T	It's very delicious.	All	3 sec.
S2	No.	All	
T	No? Ok. Miss Melanie will have some apple. Mmm, it's very delicious.	All	6 sec.
S3	Nyam-nyam.	All	

T	What fruits do you like?	All	2 sec.
S1	Tangerine and strawberry.	All	
T	Good choice, I love them. I love strawberry you know. Not like that, put this beside your plate. Regina do not hurry we have enough time ok? Do you want tissue? Put it in your plate.	All	18 sec.
S3	Ktanenq axbarkxi mej kgcenq.	All	
T	Trash can, trash can, trash can, say trash can. Where do you put the? We put them in the trash can. Say.	All	13 sec.
S1	Trash can.	All	
T	Sarin?	All	1 sec.
S1	It is very delicious.	All	
T	Yes, it's very delicious.	All	3 sec.
S2	Yes it is very delicious.	All	
T	You like it? It is biscuit, biscuit. Take it, say thank you.	All	8 sec.
S3	Thank you.	All	
T	You're welcome. Uhum, I clean my hand	All	6 sec.
S1	Bayc inch hamex a es.	All	
T	You like it? It's delicious? Good that you liked it. Sit down; say "I want some biscuit, please. No eat, then. Regina put it there. After you finish eating then start. No, don't do like that. Ok say, I want some biscuit, please.	All	28 sec.
S2	I want some biscuit please.	All	
T	No, not like this Regina, you should put it here, put it here. Keep, keep the plate and say. Take it, take the plate and say "here you are".	All	11 sec.
S3	Here you are.	All	
T	Uhum, thank you.	All	3 sec.
S2	Thank you.	All	
T	You are..?	All	1 sec.
S3	You are.	All	
T	welcome	All	1 sec.
S3	Welcome.	All	
T	Ok, you want biscuit? So you can take. Take one, seems that you like it. I want a biscuit, you have it, you have it in your hand. Eat it and then.. No not like that. Can you sing for me? No you're eating, eat after that. Are you a baby? Are you giraffe or Regina? Are you giraffe or Regina? Which one? Giraffe? Yes?	All	35 sec.
S1	Giraffe es te Reginan?	All	
S3	Giraffe.	All	
T	You're Giraffe. Ok, who is she?	All	4 sec.
S3	Rabbit.	All	
T	Who is she?	All	2 sec.
S3	Mknik.	All	
T	Muse? Mouse?	All	2 sec.

S2	Lion.	All	
T	You are a giraffe?	All	3 sec.
S3	Yes.	All	
T	Are you a rabbit?	All	3 sec.
S1	No.	All	
T	You're what?	All	2 sec.
S1	Arpi.	All	
T	You're Arpi? She's Arpi, she's not rabbit, who is she?	All	6 sec.
S3	Arpi.	All	
T	Yes, she is Arpi	All	3 sec.
S2	Anuns patuhana.	All	
T	Window? Oh my God. Are you a window? Let's open the window. Hello window! Let's open the window, I want to drink water.	All	21 sec.
S2	Im anun@ xosox car e.	All	
T	You're speaking tree? Hello tree.	All	4 sec.
S3	Im anun@ giraffe a.	All	
T	You're a giraffe? Hello giraffe.	All	4 sec.
S2	Im anun@ akanj e.	All	
T	Ear? Hello ear. Can you talk to me? Yes?	All	6 sec.
S2	No.	All	
T	Where are your ears? Where are your ears? Yes, your eyes? Nose? Nose, nose, nose. Mouth? Teeth? No, this is tongue. Teeth, teeth. Show me your teeth. Teeth. Ok, show me your teeth. No that's tongue, close your mouth, oh my God, you're eating. You shouldn't do that. Now, where's your nose? Nose. Your ears, ears. How many ears? Two, yes, two. One, two. Your eyes? Your eyes? Close your eyes! Open your eyes! Close your eyes! Your eyes are open? Sarin, close your eyes, close your eyes. Regina close your eyes. Open your eyes, open your eyes.	All	1 min
S1	AAAAA!!	All	
S2	AAAAA!	All	
S3	AAAAA!!!	All	
T	No, don't become lions, ok? Now, where is your..? Let me see. Arpi do you remember the names of the fingers? Show me your fingers. Like this, open your hand. What was this? Little finger. This one?	All	19 sec.
S1	Ring finger.	All	
T	Ring finger.	All	2 sec.
S1	Ring finger.	All	
T	This one? Middle finger.	All	4 sec.
S1	Middle finger	All	
T	This one? Forefinger.	All	4 sec.
S1	Forefinger.	All	
S1	Forefinger.	All	
T	This one? Miss Mariam, what's this? It's what? It's thumb yes. What's this	All	20 sec.

	Miss Mariam? –Index. Index, or we say forefinger, yes? And, Regina, what's this?		
S3	Forefinger.	All	
S1	Middle finger	All	
S3	Middle finger.	All	
T	What's this?	All	2 sec.
S2	Middle finger.	All	
T	This is ring finger. Ring, ok like this. This is daddy finger, father finger, mother finger, brother finger, sister finger, baby finger. Ok, we sing. "Father finger, father finger where are you? Where are you?" Show it, show it. Where are you? "Here I am , here I am."	All	26 sec.
		All	
T	No fingers. Let's take this out, let's take this out.	All	6 sec.
S1	Es Reginan senc arec.	All	
T	That's ok.	All	2 sec.
S1	Reginan arec.	All	
T	Ok, we have tissue, ok.	All	4 sec.
S2	Regina, inchu arecir?	All	
T	She didn't do it deliberately.	All	4 sec.
S2	Chi kareli.	All	
S3	Ham el esc hem xosi, jxaynacel em.	All	
S2	Arpi im@ seva nayi.	All	
S1	Ba inchi xosecir?	All	
S2	Arpi de nayo vor seva. Arpi nayir im@ seva tes. Seva.	All	
S1	Qo xaxox@. Ov kuzi senc guyn stana?	All	
S3	Nayeq, es arel em senc.	All	
T	Where is your brush Regina?	All	3 sec.
S3	Es uzum em.	All	
T	No fingers. You shouldn't make your hands paint you know? You shouldn't do it.	All	7 sec.
S1	Yes. Miayn es maser@ che?	All	
T	Yes, just fingers, just fingers, not hands, ok? You shouldn't do it like that. Put it on the paper.	All	8 sec.
S1	Gexecika im klorak@?	All	
T	Yes, it's very nice, very beautiful. Aha, put it here and color it, color it.	All	7 sec.
S2	Arpi nayir tes inch guyn staca, mug pink.	All	
T	Dark pink yes? dark.	All	4 sec.
S1	Dark-@ mug?	All	
T	Dark, yes. Light and dark. Light, dark.	All	6 sec.
S1	Nayeq inch em arel.	All	
T	It's brown, how did you make the brown color? How did you make it? You mixed what with what? You mixed what color with what? No sarin,	All	25 sec.

	no sarin. Color it. Yes, just fingers. Sarin? Sarin? Just fingers.		
S3	Nayi inch guyn em stacel.	All	
T	Just fingers, ok. Just fingers, you shouldn't make your. That's ok Regina, that's ok. Paint it. Open your hand.	All	17 sec.
S3	Es mayayin kasem, gites Mayan im @nkeruhina. Nayi inch em arel, ov uzuma guyn@ stana senc piti aneq.	All	
T	How did you make that color? What did you mix? Red, blue, no not like that! Not like that, not like that, Regina. Ok Miss Mariam, that's ok, Miss Melanie won't play with them. You made you hands painty I told you not to do like that. You shouldn't do this parts, ok? Good girls. Ok.	All	42 sec.
T	Ready? No, stand up. You should catch the ball, ok, ready? Are you ready?	S1, S3	8 sec.
S1	Yes.	T	
T	One, two, three. Give to Miss Mariam, thank you, Regina, now catch, and throw it to me.	S1, S3	9 sec.
S1	Es nayum em dra hamar el lave m brnum.	T	
T	Oh, I should down to my knee. No, you stand up, you stand up Regina. Take it, Oh no, one hand back, one hand back. Oh Miss Mariam, down to one knee. No you can use your hand. Take it, throw it to me. Regina. One eye closed. Give it to me, Oh down to one knee. Down to one knee, throw it to Miss Mariam. Regina, I'm out. Now.	S1, S3	45 sec.
S1	Hima es uzum em Reginayi tex@ kangnem.	T	
T	No, it's not finished. Ok stand, you down to one knee. Down to one knee, Miss Mariam, Arpi and Regina, you are playing. Arpi, Regina, catch, throw, oh, no. One hand back, yes. Everybody down to one knee. No you can use your hands. Miss Mariam one eye closed. One hand back, not like this, Arpi	S1, S3	40 sec.
S3	Sexani taka mtel.	T	
T	Arpi, one hand back. Down to one knee, throw the ball, oh Regina why are you standing? Regina, Miss Mariam is out. Come out, now you two are left, ok? Now down to one knee, one hand back, down to one knee, one hand back, throw it to Arpi. Ok one eye closed. Regina, down to one knee, one hand back, one eye closed, Regina, Regina, you are throwing it to Arpi.	S1, S3	52 sec.
S1	Es durs eka	T	
T	Now the other game ok? The fruits name ok?	S1, S3	5 sec.
S1	No, no, no, eli, eli es xax@, xaxacinq.	T	
T	Ok, say a fruit name and then, apple.	S1, S3	5 sec.
S3	Apple.	T	
T	Down to one knee.	S1, S3	2 sec.
S1	Enqana ujex xpum.	T	
T	You shouldn't throw it like this. Ok, one more time, come here, banana.	S1, S3	7 sec.
S3	Xndzor,	T	

T	Apple	S1, S3	1 sec.
S3	Apple.	T	
T	No stand up, ok, down to one knee. Say a fruit name.	S1, S3	6 sec.
S1	Tangerine	T	
T	Tangerine. Miss Mariam is not playing, Tangerine, I couldn't. Cherry, say fruit name.	S1, S3	11 sec.
S3	Fruit name.	T	
T	No, no say.	S1, S3	2 sec.
S1	Mi ban asa angleren.	T	
S3	Apple.	T	
T	Apple you said it, no, another one, strawberry.	S1, S3	5 sec.
S3	Strawberry.	T	
S1	Eli a ujex gcum, noric enq sksum.	T	
T	Ok I will throw to you, you stand here, Regina, you stand there, ok stand up everybody, stand up everybody, apple.	S1, S3	13 sec.
S1	Tangerine.	T	
T	Regina, stand up, Regina,	S1, S3	3 sec.
S1	Che, che, che.	T	
T	Down to one knee. Now say the name of a fruit, cherry,	S1, S3	6 sec.
S3	Cherry.	T	
S1	Iran, no, no	T	
T	Cherry, peach.	S1, S3	2 sec.
S1	Plum.	T	
T	No, down to one knee, ok finished we are not playing, Because Regina doesn't know how to play.	S1, S3	12 sec.
S1	No, uzum es xaxanq te che?	T	
T	Like a good girl, ok? Down to one knee Regina, down to one knee.	S1, S3	7 sec.
S1	Me, es aseci plum.	T	
T	One hand back, put it on the table. Ok, let's go and wash you hands, can you finish?	S1, S3	10 sec.
S1	No.	T	
T	Ok,	All	1 sec.
S2	Blue circle.	All	
T	Yes, good job. Ok what's this? Let's see, what's this? Purple..?	All	8 sec.
S2	Purple circle	All	
T	Yes, is it a big circle or a small circle?	All	5 sec.
S2	Small, big, small.	All	
T	Very good, nice, Regina, Regina, is it a big circle or a small circle?	All	6 sec.
S3	Small circle, blue.	All	
T	Big, blue circle.	All	3 sec.
S3	Big blue circle.	All	
T	Yes, Arpi look big or small? Which one is big? Yes, and what's this?	All	12 sec.

	What's this one? I can help you.		
S1	Srancic.	All	
		All	
S1	Clean up, clean up, everybody clean up. Clean up, everybody clean up.	All	
S3	Clean up, clean up. Clean up, clean up.	All	
T	Put them here, Arpi where are you? Arpi you should help us.	All	7 sec.
S2	Clean up, clean up, everybody, everybody. Clean up, clean up.	All	
T	Yes it's there, put one color there.	All	4 sec.
S2	Clean up, clean, everybody.	All	
S1	Regina, mayrikd aystexa.	All	
T	Regina is cleaning up. Put purple here, yes, purple, purple.	All	8 sec.
S1	Clean up, clean up, everybody, clean up, clean up, everybody.	All	
T	Finished? You finished purple? No, we have lots of it. Here, purple.	All	9 sec.
S3	Clean up, clean up.	All	
T	Good Sarin, good job. Aha, put them here. It's not Regina's, it's ours. Regina it's not yours. Put it on the shelf, put it on the shelf.	All	16 sec.
S2	Clean up, clean up, everybody, clean up, clean up, everybody.	All	

Analysis

Total children:	3
Duration of the class:	66 min.
Total words:	4,698
Teacher words:	3,866
Student words:	832
Student words in English	291
Student words in Armenian	541
Total length of the FL exposure by the teacher:	40,2minutes
Direct exposure:	26.4 minutes per 3 children
Indirect exposure:	2 minutes per 2 children 11.8 minutes per 1 child (Ind. Total=13.2)
The most frequent 1000 words	67.88% <ul style="list-style-type: none"> • Function-40.89% • Content- 26.99%
The most frequent 1001-2000 words	9.56%
Off-List words	22.36%

Transcript 2

Number of kids: 4

Age: 3-5

	Content	Interact.	Dur.
T	And now this part, yes? Oops, aha, yes good job Tatevik. Now give your pink jacket to me, it's very nice. Astghik, did you see how to draw a rainbow? Red, orange, yellow, green, blue, purple, pink. Ok you can wear because it's cold here. Look, it's here. Oh, yes it's there, Miss Armine, is the rabbit mask there? Michelle wants it a lot. What color is it?	All	48 sec.
S1	Orange.	T	
T	Yes, good, it's orange.	All	4 sec.
S2	Orange.	All	
T	Oh, look, rabbit is here, come, come on in.	All	6 sec.
S2	Es el em uzum.	T	
T	Do you want one? Which one do you want?	All	5 sec.
S2	Es el em uzum maska hagnem.	T	
T	Yes which one?	All	2 sec.
S2	Es ed maskan chem uzum.	T	
T	Good job, oh, Astghik. Let's see.	S1	4 sec.
S2	Butterfly, butterfly.	T	
T	Butterfly is broken, it's not.. Look. Look what happened to our butterfly. Look, oh look.	All	10 sec.
S1	Kgaq?	T	
T	Butterfly yes, you are right, it's a butterfly too.	All	6 sec.
S2	Che, che, che	T	
T	You don't want it? aha, koala, we have koala, you may want the koala yes? Koala.	All	11 sec.
S2	Koala	T	
T	Yes, good. Who's the lion, Tatevik is the lion yes?	S2,S3,S4	7 sec.
S2	Sra anun@ inch a?	T	
T	Oh let me help you, let me see how we can do it. Yes, yes you did it.	S1	8 sec.
S1	Giteq sa vonca kochkvum?	T	
T	Yes, like this. Yes, Yes?	S1	5 sec.
S2	Kto eto? Kto eto?	T	
T	It's a camel. Say "What is it? what is it?" It's a camel. Tatevik hello.	All	9 sec.
S4	Hello.	T	
T	Hello, look at the rabbit an koala, please come, please come out. No Tatevik, don't go there, it's not a.. come, come, come out, do you want the mask? Yes? If yes come, I will give you one.	All	22 sec.
S1	Es el em uzum maska	T	
T	Which one do you want?	All	3 sec.
T	You? Who are you? Aliga, say "I'm the koala"	All	
T	Astghik ok I'm asking you, take this, who are you? "I am the cow", say "I am the cow", moo-moo cow, yes? Who are you? Say "I am the cow, I am the cow, moo-moo cow, yes? moo-moo cow"	S1	28 sec.

T	Now let's come out of the table , let's come out.	All	6 sec.
S2	Ay, chudovishe.	All	
T	Please come out, Astghik, oh let's not do that, look, everyone, look, let's not do that, Aliga, look, she's not listening. Astghik, you come with me.	All	17 sec.
S1	Yellow, yellow.	All	
T	Yes, look, how old are you Astghik, five?	All	6 sec.
S1	Yes.		
T	Five, how old are you? Four, How old are you Michelle? Five or four? Aliga, Aliga, shh, Aliga how old are you? Aliga how old are you? Five or four?	All	22 sec.
T	Hello Astghik how are you? Now please give me the masks, yes? I'm five years old, yes? you are five. Do you see our books?	All	18 sec.
T	Look Tatevik, look, look the marker is not writing. Let's sit here, it's for me to sit here yes? Look, look, look. It's the Red Riding Hood, yes? see, look it's the basket,	S1, S4	25 sec.
S4	Yes karjatevov mrsun em.	T	
T	Yes? Look, ooh, the wolf's ears, the wolf's ears, yes? Nose, where is your nose?	S1, S4	10 sec.
S4	Black.	T	
T	Black, here is your nose, yes? where is my nose? You can show me, my nose, show me, look, like this, nose, where is yours? It is here,	S1, S4	17 sec.
S2	Teseq es em	T	
T	Aliga, where is your nose?	All	3 sec.
S1	Nose.	All	
T	I like yellow, Astghik, I like yellow, I can see yellow, Astghik yellow, the fish is yellow, yes, where is yellow?	All	15 sec.
S1	Fish, fish	All	
T	Yes.	All	1 sec.
S2	Ay sranic eli kbereq?	All	
T	The ring? Astghik, look I know	All	4 sec.
S4	Es uzum em.	All	
T	Ok, I will give you, Aliga, no, no, no, no, no.	All	5 sec.
S2	Inchi? es uzum em sra vra parkem.	All	
T	No, let's go there, let's go there.	All	4 sec.
S2	Es uzum em sra vra parkem.	All	
T	No, no, Aliga.	All	3 sec.
T	No,no,no, Aliga, don't do that please. We should play here, yes?	All	10 sec.
S2	Privet zayac.	T	
T	Let's see, oh Astghik, you can make rainbow with this. Rainbow yes? Aliga rabbit, look at the rabbit.	All	11 sec.
S2	Yes, yes, yes.	All	
T	Yes, do you want to play with the clay? Yes, come, yes. Look.	All	10 sec.
S1	Jams sirun e?	All	
T	Yes, I like it, it's nice. Look, what is it? It's a pig yes? It's a pug yes? Aliga, what are you doing? Aliga, yes bring them. What is this? It's a cow yes? Look, the rabbit is here. Rabbit, rabbit. What is it? It's a pig. Yes? It's a pig.		35 sec.
S2	Ya znayu chto eto tvoyo.	T	
T	Aha Aliga you show the pictures to us and I will tell you what, Aliga, listen, you show the pictures, give me the pictures	S2,S3	12 sec.

S2	Net, Net, Net	T	
T	I will show them to you and you will tell what animal is it. What is it? Cheeks, cheek, say.	S2,S3	11 sec.
S2	Cheek. Bayc es uzum em vor ira het nayenq.	T	
T	What is it Aliga?	S2,S3	2 sec.
S2	Duck.	T	
T	Aha, you will answer I will give it to you ok? How about this one?	S2,S3	8 sec.
S2	Horse.	T	
T	Horse, yes, take this.	S2,S3	4 sec.
S2	Sheep.	T	
T	Sheep. Let's teach Michelle, say, Michelle, it's a sheep.. Rabbit, rabbit. Rabbit look, look, look, rabbit look, oh it's a sheep yes? Good.	S2,S3	17 sec.
S1	Ov e tort uzum?		
T	Me, I want cake, I like cake, Astghik do you want to do this? Yes? do you want to do it? Look, aha we will count, one..	All	13 sec.
S1	Two, three	T	
T	Yes, do you want to do? Yes? good, ley's continue, good job, yes Astghik, good job,	S1	11 sec.
S1	Four	T	
T	Four yes? four pumpkins, two bats yes? bat, ok say bat, Astghik look, say bat	S1	9 sec.
S1	Bat	T	
T	Two bats	S1	2 sec.
S1	Two bats	T	
T	Pumpkins, these are pumpkins, and these are cats, cat, cat yes? Now I will write down Astghik oh, no no no let's not do that Astghik, but don't do look, it's still here,	S1	21 sec.
T	Throw the ball, throw the ball to me, now catch it.	All	6 sec.
T	Look Astghik I will put it here ok?	S1	5 sec.
S1	No, no.	T	
T	Do you want to take it home with you?	S1	6 sec.
S1	Tanem tun	T	
T	No, let's put it here. For the next time you will do.	S1	6 sec.
S1	No	T	
T	Ok, Yellow ball, Aliga, look what happened, take my hand come here Aliga, take my hand. Look, look, look, let's do something together; let's play with the ball ok? Look.	All	23 sec.
T	Yellow, good job, blue.	S3, S4	4 sec.
S4	Pink	T	
T	Pink, I like pink, pink yes? Black	S3, S4	6 sec.
S4	Purple	T	
T	Purple, orange	S3,S4	3 sec.
S4	Green	T	
T	Green, now it's your turn, blue	S2, S3,S4	5 sec.
S2	Yellow	T	
T	Aha, good job, black	S2, S3,S4	4 sec.
S4	White	T	
T	White, good, red	S2, S3,S4	3 sec.
S2	Pink	T	

T	Pink, do you want to play? Rabbit	S2, S3,S4	5 sec.
S1	Aliga	T	
S4	Green	T	
T	Green, good, Astghik come here let's play together, we are playing a ball game, ok come here come, look tatevik, chair, chair, it's a chair, table, purple, table,	All	20 sec.
S4	Red	T	
T	Red, board	S3,S4	2 sec.
S4	Yellow	T	
T	Yellow, good, door.	S3, S3	3 sec.
S4	Black	T	
T	Black, now say table.	S3, S4	4 sec.
S4	Pink	T	
T	Pink, board	S3,S4	2 sec.
S4	White	T	
T	White, good, chair, say chair, oh good, look, the masks are ready we need to paint them and wear them yes? Oh thank you.	S3, S4	17 sec.
T	Astghik, look, look, look we have the masks, tiger, we need to paint them, color them, and then wear them, yes you want the rabbit?	All	18 sec.
S1	Yes	All	
T	Come here, Astghik is it good?	All	4 sec.
S1	Yes	All	
T	Ok, take it, oh no she wants a small one, like this. Now let's roll into a ball, roll into a ball, yes roll, roll, roll, roll, roll into a ball.	All	17 sec.
S2	Very very small	All	
T	Very very small ball, very very, small very small yes?	All	6 sec.
T	Look, Michelle, it's a pig, oh sheep, look, sheep, sheep, say sheep, say sheep, yes? Look, look at this Michelle, dog, oh Rabbit, let's find the rabbit, where is the rabbit? Rabbit, rabbit, rabbit, rabbit, where is it? Oh where is the rabbit? Oh it's here the rabbit is here, look Michelle, the rabbit, the rabbit, oh where is it? where is it? it's there, yes, yes look, moo the cow, the cow is here see, yes, it's there you're right it's the cow, moo look. Look at the cat, myau-myau cat, look at the cat, moo the cow yes? yes the cow, where is the pig? It's this one, look, duck quack-quack, yes it's the duck, now let's see let me find the other. Yes yes, how about this? Look, good job. Look egg. I like egg. Oh sheep, Michelle, look, look which one is the sheep? Oh it's there, moo yes cow, it's the cow, where is the sheep? It's there.	S3	83 sec.
S3	Yes	T	
T	Let's see what other animals are here, the horse, where is the horse? Horse horse, yes it's the horse, good very good, yes Michelle you are right, oh yes. Oh the horse yes? See, good let's see, moo, the cow, the cow yes? let's put the cow there, good, very good, aha wow the sheep, you are right, the sheep, yes, oh yes, yes Michelle, you are right, good job Michelle, high five, where is it? it's here the pig, pig is here yes? good job. Oh Finished, high five Michelle, high five, oh duck.	S3	62 sec.
S3	Duck	T	
T	Duck duck duck, quack-quack, tatevik come here, look, ooo who's the cow? Who's the cow? Tatevik is the cow? Let's see what's here. Let's find the penguin, where is the penguin?	S3	23 sec.
S4	Butterfly	T	

T	Butterfly, where is it? let's find the cat, where is the cat? White cat? It's here, it's here.	S3, S4	12 sec.
S4	One, two, three, four, five, six, seven, eight, nine, ten	T	
T	Good job yes, how about this cat?	S3, S4	7 sec.
S4	One, two, three, four, five, six, seven, eight, nine, ten	T	
T	Yes good job, look, look what is it? It's a cow, big cow, look, you know what's this?	S3, S4	11 sec.
S4	Rabbit	T	
T	Yes rabbit, rabbit, say rabbit	S3, S4	5 sec.
S4	Rabbit	T	
T	Yes, good, oh frog, frog, frog	S3, S4	5 sec.
S4	Hop-hop-hop	T	
T	Frog yes let's see, miu cat	S3, S4	5 sec.
S1	Miss Arpi, rabbit	All	
T	Yes, let's color the rabbit, let's color it, oh it's a stapler. Yes Yes, Now Astghik, can you color it? let's color it.	All	14 sec.
S1	Matitov?	All	
T	Yes, yes, yes, Good job, look what are these? It's a donkey it's funny, guitar, guitar	All	11 sec.
S4	Es kitar unem	All	
T	Two guitars yes? see two guitars, oh what are you making? Dance dance dance freeze, dance dance dance freeze.	All	13 sec.
S1	Two rabbits, two rabbits	All	
T	Two rabbits, yes, one, two, one two three four five. Pinguin, zebra, let's see what else is here. Look look let's sit there see it's a snowman, look, look at the penguin, look Tatevik, look it's orangutan.	All	26 sec.
S4	Sa kcuma	T	
T	Yes, it's very big	All	3 sec.
S4	Poqrer@ chen kcum.	All	
T	Yes	All	1 sec.
S4	Mecer@ kcum en, poqrer@ chem kcum	All	
T	But this one is very big, oh look I like it, look pink, yes.	All	8 sec.
S4	Purple	All	
T	Purple, yes, yes, purple	All	4 sec.
S4	Purple	All	
T	Yes, purple balloon.	All	4 sec.
S1	Green	All	
T	Green tree, tree, tree, it's a tree, say tree.	All	7 sec.
S1	Tree	All	
S4	One, two, three, four, five, six, seven, eight, nine, ten.	All	
T	Yes good job, look green	All	5 sec.
S4	Green	All	
T	Yes, blue, it's a cake, yes, is it black?	All	6 sec.
S1	Yes	All	
T	Why? Let it be pink, I can see orange, oh it's a ball, look Miss Mariam, it's a ball, o good Astghik, good job, it's a green one yes?	All	18 sec.
S1	Green	All	
T	Yes green, pink, I like pink, is it a bawling?	All	7 sec.
S2	Kapuyt guyn ara.	T	

T	Aha look Aliga	S1, S2	3 sec.
S2	Inq@ chi toxnum es el anem	T	
T	You will do this one, this is yours, ok? Good, let's make this one, this is Astghik's, this is Aliga's ok? Aliga let's start from here, let's color here first	S1, S2	21 sec.
S2	Inchi chi kareli es el anem?	T	
T	Because this is Astghik's, Astghik is doing this, yes? You have this one, No, no Astghik	S1, S2	10 sec.
S2	Inchi chi toxnum?	T	
T	Because she is doing, she is doing, you have yours, this is for you yes? Good it's nice, I like it. Good very good, look I'm going to color this one look, brown, because tiger is brown yes? What happened Aliga? Look Michelle, look, Yes Astghik	All	29 sec.
S1	Oh, oh	All	
T	Yes, yes, we need the cap, give me the cap I will fix it.	All	8 sec.
S1	Esor im aper@ ekela gyuxic	All	
T	Oh, good	All	2 sec.
S1	Sa karox eq kapel esteghic?	All	
T	Yes, yes, Michelle look, oh where is the orange one pencil, where is the orange one? Is it there? But it's a marker. Knees and toes, head shoulders knees and toes knees toes, eyes and ears and mouth and nose, head shoulders knees and toes knees and toes, touch your eyes, mouth, mouth	All	35 sec.
S1	Mouth es gitem inch a nshanakum, mouse-muk		
T	But this one is the mouth, look Astghik, look, look, it's a mouth, and that's one is a mouse yes?	S1, S4	12 sec.
S1	Mouse	T	
T	Yes Miki Mouse, head shoulders knees and toes knees and toes, touch your eyes, mouth, head shoulders knees and toes knees and toes, knees and toes. Oh snowman, it's a snowman, please take this I want to show them the snowman, these are his eyebrows, eyebrows	S1, S4	34 sec.
S1	No		
T	Yes it's the forehead, look it's a snowman, look, snowman		8 sec.
S1	Tesnem		
T	Snowman, now let's make the hat, this hat. Oh it's nice, I like it Aliga and Miss Mariam I like it a lot it's very nice, did you draw this? Good job.		18 sec.
T	It's the snack time let's go, Michelle it's the snack time, come let's go, let's go, let's go there and eat.	All	14 sec.
T	Do you want to stay here? Let's see, do you want to make a snowman?	S1, S2,S4	8 sec.
S1	Ov e es sra mej jur lrel?	S1, S2,S4	
S4	Heto es im@ menak kanem	S1, S2,S4	
T	Good Astghik, ok I'll be right back, I guess Michelle is not coming, lalalalalala, let's sing again	S1, S2,S4	12 sec
Ss	A, b, c,d,e,f,g,h,I,j,k,l,m,n,o,p,q,r,s,t,u,v,w,x,y,z	S1, S2,S4	
T	Now I know my a,b,c, next time hope you will sing it with me. Tatevik which glass do you want? Yellow or green? Green? Ok, Michelle is there she's not coming.	S1, S2,S4	
S1	Michelle	S1, S2,S4	
T	Michelle is not coming, I don't know	S1, S2,S4	5 sec.

S4	Michell@ gnac tun?	S1, S2,S4	
T	No, she's there, in the room. Who likes apple? I like apple.	S1, S2,S4	7 sec.
S1	Banana	S1, S2,S4	
T	Do you want banana?	S1, S2,S4	3 sec.
S2	Teseq inch em hagel	S1, S2,S4	
S1	Red, it's red	S1, S2,S4	
S2	Karmir zkest em hagel	S1, S2,S4	
S1	Red	S1, S2,S4	
T	Yes, it's red	S1, S2,S4	2 sec.
S4	Pink	S1, S2,S4	
T	It's pink, it's a glass	S1, S2,S4	3 sec.
S1	It's a glass	S1, S2,S4	
T	Red glass, what are you doing Astghik?	S1, S2,S4	5 sec.
S2	Ova senc ban tesel?	S1, S2,S4	
S4	Trjuma	S1, S2,S4	
T	Yes, Astghik, don't do like that, oh please be careful, come close to the table, closer, closer	S1, S2,S4	12 sec.
S4	Close-@ inch a?	S1, S2,S4	
T	Close, close to the table, now this is far, this is close, far, close, look glass and plate, the glass is on the plate, now the glass is under the plate, you want the glass? The plate too. It's yummy, very very yummy.	S1, S2,S4	26 sec.
S1	Banana	S1, S2,S4	
T	Banana? We cut it but it was not good, for the next time we will have banana, ok?	S1, S2,S4	11 sec.
S1	Menq ereqshabti orn enq galis u hingshabti?	S1, S2,S4	
T	Yes on Tuesday and Thursday.	S1, S2,S4	4 sec.
S4	Es mankapartez chem gnalu, galu em stex.	S1, S2,S4	
S1	It's a five, it's a three	S1, S2,S4	
T	Five yes.	S1, S2,S4	2 sec.
S1	Yes 5 tarekan em	S1, S2,S4	
T	Say "I am five years old"	S1, S2,S4	
S1	I am five, I am five.	S1, S2,S4	4 sec.
T	Good	S1, S2,S4	
S2	Square	S1, S2,S4	
T	It's a square	S1, S2,S4	2 sec
S2	Circle	S1, S2,S4	
T	Yes circle, Look, square	S1, S2,S4	4 sec.
S2	Triangle	S1, S2,S4	
T	Triangle very good.	S1, S2,S4	3 sec.
S2	Triangle	S1, S2,S4	
T	Triangle, look, triangle	S1, S2,S4	3 sec.
S1	Three apples	S1, S2,S4	
T	How many pieces do you have here?	S1, S2,S4	5 sec.
S2	One, two	S1, S2,S4	
T	Four pieces of apple	S1, S2,S4	3 sec.
S1	Three apple	S1, S2,S4	
T	Now we have three, now we have two	S1, S2,S4	4 sec.
S1	Hima chka, bolor@ vercri	S1, S2,S4	

T	No, no, let's put them back, thank you, you can take one if you want, no? you don't want?	S1, S2,S4	12 sec.
S1	Es arden verjacrel em	S1, S2,S4	
T	Ok, Yummy, thank you, thank you	S1, S2,S4	4 sec.
S1	Es shish@ tanem dnem ayndex gam	S1, S2,S4	
T	Ok, see one piece is here, one piece here , it's a square yes? square	S1, S2,S4	8 sec
S1	Lacuma Michelle@	S1, S2,S4	
T	Michelle? Oh, ok, let's wash our hands, listen, finish I will be back. Who's here? Who's here? Michelle is here.	S1, S2,S4	14 sec.
T	Please, I want water, thank you	S2, S4	5 sec.
S2	Qez iskakanic mi qich klnem	T	
T	Yes, do you want? Oh no you have, aha, good.	S2, S4	7 sec.
S4	Astghik@ pechenin vercnun er, tataxum er u utum er.	T	
T	Yes, she's doing like this all the time. What happens? What happened?	S2, S4	10 sec.
S4	Apple	T	
T	Do you want apple? Oh we don't have apple	S2, S4	6 sec.
S4	El chuneq?	T	
T	No	S2, S4	1 sec.
S2	Nayeq estex im dzerq@ hasnuma	T	
T	No, no, no, no	S2, S4	2 sec.
T	Aha let's take them, go there and wash them, let's just take yours, aha, ok come, let's try, let's try yes, good, good job, let's go to the room now. Michelle and Astghik, we are back, we are here. Oh it's nice, good job Michelle very good I like it, It's a house yes/ Good girl. You want to build the same yes? First we need to build a square and then go up and up. And this one too, you may need this one and this one oh thank you say thank you, let's help Astghik, Tatevik come here let't help Astghik, both together ok? Good job good girls. It's very good.	S1, S3,S4	68 sec.
T	Look, look, look, look, what happened Michelle? O yes, where is the Winni Poo it's here. Look, good, let's put them here, good look It's Michelle's house.	All	19 sec.
S2	Zamok, nash zamok	All	
T	Yes, O Michelle look, look, look, loo, look, what happened? Look	All	8 sec.
S2	Hima piti krishan sarqenq	All	
T	The roof, let's build the roof. Aha good, do you want to sit down and play here? Good. Clap, clap, clap, clap. It's a castle, look, Aliga look listen it's Michelle's house, let's give this back to her. Now let's make, O Thank you, thank you, thank you, yes, look let's make Aliga let's make ours, no no no, let's make a square. Ok Bye Michelle, Good girl, good girl, good rabbit. It's for you, you can take it. Thank you, good. Aliga, what color is it? It's green yes? Give me the yellow one, give me the yellow one.	All	64 sec.
S1	Tun@ qandeci	All	
T	Yes, play with this one yes? Because Michelle is going, you can play with it, Was it Michelle?	All	11 sec.
S2	Kak krasiva	All	
T	Yes, it's very nice, say it's nice, Aliga say it's nice yes?	All	7 sec.
S2	Sirun es sarqel	All	
T	It's very nice, I like it, very, very, yes it's very nice. Bye Michelle. Look what	All	28 sec.

	is it Aliga? It's a house, Yes you are right it's green, but it's a house. It's a house, tatevik, come here look, Tatevik look it's a house, say house, say house		
S4	House	All	
T	Good job, it's a house, now let's make it taller yes? Up to here, let's make it taller, let's make it taller, taller.	All	23 sec.
			6 sec.
T	Hello Rabbit, oh it's nice, I like it, good, very good	S1, S2,S4	68 sec.
S2	Hello	T	
T	Aliga which one do you want? Oh tiger good I like tiger, yellow ball, blue ball yes?	S1, S2,S4	11 sec.
S1	Es chem havaqelu	S1, S2,S4	
T	Hello Rabbit how are you?	S1, S2,S4	3 sec.
S1	I am fine.	S1, S2,S4	
T	Good, say Aliga this is for you.	S1, S2,S4	4 sec.
S1	Aliga, Aliga	S1, S2,S4	
T	Astghik did you say "thank you Miss Armine?"	S1, S2,S4	5 sec.
S1	Thank you Miss Armine	S1, S2,S4	
T	Good, good girl	S1, S2,S4	2 sec.
S2	Hello rabbit	S1, S2,S4	
S1	Hello	S1, S2,S4	
T	Say Hello rabbit, you both are green rabbits. Green, green.	S1, S2,S4	7 sec.
S1	Hello rabbit	S1, S2,S4	
S2	Hello rabbit	S1, S2,S4	
T	Say hello rabbit how are you	S1, S2,S4	4 sec.
S2	How are you?	S1, S2,S4	
S1	I am fine, how are you?	S1, S2,S4	
T	Say I am fine thank you	S1, S2,S4	3 sec.
S1	I am fine thank you	S1, S2,S4	
S1	Ya budu mamoy	S1, S2,S4	
T	Butterfly, butterfly, butterfly, look circle, where is the other circle? The big circle, I think it is one. Look square . You're eating carrots? Carrot o you're eating carrot, kindergarten? Rabbits are going to kindergarten, sleeping? Rabbits are sleeping	S1, S2,S4	32 sec.
S1	Aliga es ham qo mamam em ham el qo dastiarak@	S1, S2,S4	
T	Both mom and the babysitter, Aliga watch your head, good, are you going house, home? Going home? Let's go home, let's go home, oh this is your house, this is your house, yes? good. Oh Tatevik I like it	S1, S2,S4	34 sec.
S4	Butterfly	S1, S2,S4	
T	Let's see what color is the butterfly	S1, S2,S4	4 sec.
S4	Yellow	S1, S2,S4	
T	Yellow, red	S1, S2,S4	2 sec.
S4	Blue, red, red, red, red.	S1, S2,S4	
T	Now look, what is it? It's a square, yes?	S1, S2,S4	5 sec.
S4	Yellow	S1, S2,S4	
T	Square, yellow square.	S1, S2,S4	3 sec.
T	Yellow, red, blue, red, red, red, red, red, yellow, Oh green yes, orange, purple, let's put this here, now our butterfly is colorful. Rabbits what are you	S1, S2,S4	43 sec.

	doing? Green rabbits, is it your house? Is it your home? Rabbit Astghik, is it your home? Yes? you want to sleep? It's your pillow, you want to sleep here, it's night, let's imagine it's night		
S1	Yes	S1, S2,S4	
T	And the rabbits want to sleep yes? Let's sleep, it's night, it's night, Aliga watch your head.	S1, S2,S4	12 sec.
S1	Gnanq man galu	S1, S2,S4	
T	No, no, no it's night I will say when it's morning, ok? Aha. Sleep, sleep it's night, it's still night, now it's morning, it's morning, come	S1, S2,S4	17 sec.
S1	Ari gnanq man kapartez	S1, S2,S4	
T	Now wait, good morning rabbit	S1, S2,S4	4 sec.
S1	Good morning rabbit	S1, S2,S4	
T	Good morning rabbit	S1, S2,S4	3 sec.
S2	Good morning, oh chudovishe	S1, S2,S4	
T	She's a tiger, tiger	S1, S2,S4	
S2	Du klines mer dasatun, inq@ klini barin, inq@ klini barin u mer dasatun.	S1, S2,S4	3 sec.
S1	Kkapeq?	S1, S2,S4	
T	Oh yes	S1, S2,S4	2 sec.
S4	Chee s bari dasatu chem, es char dasatu em	S1, S2,S4	
T	Oh my God, why?	S1, S2,S4	3 sec.
S2	Hello Astghik	S1, S2,S4	
T	Say good morning	S1, S2,S4	3 sec.
S2	Es uzum em qnem	S1, S2,S4	
S1	Enc asem es nor, henc asem es nor	S1, S2,S4	
T	Say it's night, it's night, it's time to sleep.	S1, S2,S4	5 sec.
S1	It's night	S1, S2,S4	
T	Say it's time to sleep	S1, S2,S4	4 sec.
S1	It's time to sleep	S1, S2,S4	
T	Yes, good it's time to sleep you are right, oops sorry sorry	S1, S2,S4	7 sec.
S4	Es el em uzum napastak linem	S1, S2,S4	
T	See I told you, There will always be the third one, there is always the third one who wants the same thing as the rest	S1, S2,S4	14 sec.
S2	Aliga es vagrn em	S1, S2,S4	
T	Say tiger, you are the tiger	S1, S2,S4	4 sec.
S1	Es qo maman em	S1, S2,S4	
T	Say I'm your mom, oh what happened? Nothing come here, come here, come to me, see, is it ok now?	S1, S2,S4	13 sec.
S2	Arden ancav	S1, S2,S4	
T	Now let's clean up and go, she was great today, she was speaking, Aliga you may bump your head again ok? You may bump your head. Oh you're the rabbit. Look, she's the real rabbit, let's jump like the rabbit, yes, this is yours, you can take it. Aliga please come out, good morning. Miss Armine look Astghik is helping us, let's clap for Astghik, good girls, good, Aliga and Tatevik please help us, let's clean up. Everybody clean up.	S1, S2,S4	54 sec.
S2	Es bari aryucn em	S1, S2,S4	
T	You are the kind lion? Yes, oops, be careful. We have this one to put some.	S1, S2,S4	9 sec.
S1	No, no, no	S1, S2,S4	
T	No, no, no. Thank you, thank you, we have this one, we have this one to put. Good job Astghik, thank you, thank you very much, now you can go. Yes	S1, S2,S4	20 sec.

	home		
S2	Es uzum em sranov xaxam	S1, S2,S4	
T	With the rabbit? Ok, but Aliga, please don't go there you may bump your head again, you may bump you head again	S1, S2,S4	14 sec.
S2	Che che che che	S1, S2,S4	
T	You are careful? Say "I am careful". The bell is ringing, ringing, ringing. The bell is ringing, ringing, ring, ring, ring, the bell is ringing ringing, the bell is ringing ringing, ring, ring, now let's put it here, very good girl Astghik. Cute. Rabbits rabbits please come out it's morning, watch your head, watch your head, it's morning, it's morning	S1, S2,S4	
S2	No, no	S1, S2,S4	
T	Yes, don't go there, don't go there ok? You may bump your head, you may bump your head	S1, S2,S4	12 sec.
S2	No, no, no	S1, S2,S4	
T	I know I know? Hello, it's morning now, you can wake up. Aliga no, no, no	S1, S2,S4	9 sec.
S2	Vilezay, vilezay, vilezay	S1, S2,S4	
T	Aliga your head, head, head, head, head	S1, S2,S4	5 sec.
S2	No, no, no	S1, S2,S4	
S4	Yes, yes	S1, S2,S4	2 sec.
T	Oh, good morning,	S1, S2,S4	
S4	Aaliga	S1, S2,S4	
T	Ok when it's morning I'll let you know by ringing the bell. Rabbit look, look, you want to eat carrot?	S1, S2,S4	13 sec.
S2	Nado tebe iskat'	S1, S2,S4	
T	Oh your mom is here Aliga, your mom is here, look, look, look, Tatevik your mom is here too, look, your mom is there. tatev, are you sleeping? Let's take the pillow here and sleep here.	S1, S2,S4	23 sec.
S4	Dproc!	S1, S2,S4	
T	It's morning, it's morning, it's morning, it's morning yes? who wants to come out? Come out, it's morning. It's morning, it's morning, it's morning. Let's look I think your mom is there, yes? aliga your mom is there, come out, come out.	S1, S2,S4	31 sec.

Analysis

Total children:	4
Duration of the class:	67 min.
Total words:	3,837
Teacher words:	3,186
Student words:	651
Student words in English	196
Student words in Armenian	455
Total length of the FL exposure by the teacher:	34.3 min.
Direct exposure:	11.3 min.
Indirect exposure:	4.5 minutes per 3 children 5 minutes per 2 children 11.7 minutes per 1 child (Ind. Total=21.2 min)

The most frequent 1000 words	74.77% <ul style="list-style-type: none">• Function-37.87%• Content -36.89%
The most frequent 1001-2000 words	8.23%
Off-List words	16.50%

Transcript 3

Number of kids: 4

Age: 3-5

	Content	Interact.	Dur.
T	Aha let me help you	All	4 sec.
S1	Spasi hesa ktam	All	
S3	Indz el ktas ha?	All	
S2	Arajin@ indz	All	
S3	Ha, hima du es kanes es es ha?	All	
T	Valeri, what are these? These are pigs, pigs	All	6 sec.
S2	Hajordn el indz	All	
S3	Xi es jnjum?	All	
S1	Vorovhetev gcerov chi anum	All	
T	Look, everyone, tell me what is it? It's a duck baby, duckling, duckling, quack-quack-quack-quack, yes? how about this one? what is it? It's a baby sheep, yes? This is a piglet, it's a pig, small baby pig, yes? Now, how about this one? Chicken, who knows what is the chicken sound? Tsiv-tziv-tziv-tziv, it's the chicken sound yes? Now how about this cow, moo, say moo, it's a cow yes? It's a pig, skeleton	All	52 sec.
S2	Skeleton	All	
T	Look,	All	1 sec.
S2	Spider	All	
T	Spider, spider, look at the spider come let's see what else is here, let's kill the spider, skeleton, skeleton yes? Look it's a mouse, mouse, it's a panda	All	18 sec.
S3	Spider	All	
	Spider, spider, let's kill the spider, let's kill the spider, yes	All	
S1	Merav	All	
S2	Merav	All	
T	Yes, it's a goose	All	3 sec.
S2	Horse, horse	All	
T	It's a horse, horse, horse, kill the spider, how about this one? It's a dog	All	8 sec.
S1	Kapik!	All	
T	Monkey, say monkey	S1, S3	3 sec.
S2	Monkey	S1, S3	
S1	Monkey	S1, S3	
S3	Monkey	S1, S3	
T	Good, one, two, three	S1, S3	4 sec.
S1	One, two, three	S1, S3	
T	Yes, three balls, three balls yes? Now, let's see, one, two, three, yes? Say Davit, one, two, three. Ok everyone, are you ready? Let's find the cat, let's find the cat, where is the cat? Oh miu, it's here, the cat is here, lamb yes?	S1, S3	28 sec.
S3	Lamb	S1, S3	
T	Lamb yes? let's find the lamb, let me see it's there, look what happened Davit	S1, S3	10 sec.
S1	Es ei uzum.	S1, S3	
T	No, let's not do that, one by one, ok? The bird it's the bird, bird, Elen it's the	S1, S3	12 sec.

	horse, horse		
S2	Horse	S1, S3	
T	Ok, now let's turn the page, let's turn the page, ok everyone let's find the butterfly, let's find the butterfly, two butterflies, where are the butterflies? Butterflies, oh here they are, ok let's close it, Now let's find the snails, snails	S1, S3	30 sec.
S1	Snails	S1, S3	
T	Spiders are coming, spiders. Let's close it, snail, oh let's close it it's the cat, here are the snails, say snail	S1, S3	13 sec.
S3	Snail	S1, S3	
T	Say snail	S1, S3	2 sec.
S1	Snail	S1, S3	
T	Yes, snail, let's wait, let's do it one by one ok? Good, now let's find the bzzz, bee, bee, one by one, one by one, oh good job, bzz, the bees, bzzz, bee yes? bee look, look, look, look, two bees, let's find the frog, frog	S1, S3	27 sec.
S1	Es em asel	S1, S3	
T	Good job, valeri what color is the frog?	S1, S3	5 sec.
S1	Frog	S1, S3	
T	What color is it? It's green, green, green yes?	S1, S3	6 sec.
S3	Green	S1, S3	
T	What color is the frog?, say green, spider, say spider,	S1, S3	7 sec.
S3	Spider	S1, S3	
T	Good job, Davit and Valeri	S1, S3	4 sec.
S2	Spider, spider	All	
T	Spider, spider, come Elen, come here, let's find the bee, bees, actually there are two of them	All	12 sec.
S2	Bzz	All	
T	Here they are, bzz, bzz, bzz, bzz, bees yes? they are bees, where are they? Here they are, two bees yes?	All	13 sec.
S1	Two bees	All	
T	Now let's find the frog, grog, good job, frogs are there, two frogs, two green frogs. Oh spider like this look	All	14 sec.
S1	Yes	All	
T	Like this look, yes, yes? spiders are coming, spiders, spiders	All	8 sec.
S2	Senc, senc, tes	All	
T	Yes, the spider is taking the marker. Ball ball, I see your ball	All	8 sec.
S3	Ball	All	
T	Look at this Elen, it's a cat, let's find the cat, where is the cat? No, oh yes two cats, yhis is the bad marker yes? I see, yes it's not a good one. Ok now let's find the butterflies, look Elen two butterflies, fly fly butterfly, say fly fly butterfly, say, fly fly butterfly, fly fly butterfly, look come here, Elen let's find the monkey, three monkeys let's see where are they, yes monkeys are here, monkeys are here, now lets find the fish, three fish, where are they? Let's find the fish, oh say one..	S2	62 sec.
S2	One, two, three	S2	
T	Three fish yes? how about this one? Boat, one, two, three boats, good job, now let's find the girl, girl, yes the girls are there, good let's find the seagull where are they? Three seagull one-two-three, now let's turn the page, oh where are they? Now let's find the snakes, snakes	S2	35 sec.
S2	Tes es el trtur e	All	

T	Oh it's a snake	All	2 sec.
S1	Jijun ura?	All	
T	No, no, no, no, no it's a snake, odz. Snakes	All	5 sec.
S1	Ba jijun ura?	All	
S2	Monkey	All	
S1	Jiju	All	
T	Now let's find the elephant, the big elephant, or the frog, krr-krr-krr, frog, one, two, three, four frogs. Elen now let's find the elephants, oh what are they?	All	19 sec.
S2	Elephant	All	
T	Elephants yes, here they are yes? let me see where Mika is	All	8 sec.
S3	BAyc es el em anelu	All	
S1	Gites vor@?	All	
S2	Es gitem vor odzer@ verevum en aprum	All	
S1	HA senc helnum en bardzranum en verev	All	
S3	Es tesel em jri mej vor odzer@ chen bardzracel es tesel em	All	
S2	Es el tesel em vor odz@ bardzracela	All	
S3	Odz@ chi kara	All	
T	Now let's close it	All	3 sec.
S2	Spider	All	
T	Valeri come here I want to show you something	All	6 sec.
S2	Spider.	All	
T	Spider come here let's kill the spider, now let's change it look, look look, look, it's a loader, loader, loader yes?	All	14 sec.
S3	Es ira vra qarera tanum	All	
T	Let's see, good, nice, look, bike, it's a motorbike, motorbike	All	8 sec.
S1	Ura?	All	
T	Helicopter	All	1 sec.
S2	Helicopter	All	
T	Like helicopter, look it's yellow, red, orange, yes? nice helicopter. Train, look choo-choo, train	All	12 sec.
S1	Choo-choo	All	
S2	Es unem gnacq gites? Gnacq es unem	All	
T	Train? You have train?	All	3 sec.
S1	Yes el unem baycim@ jardvela	All	
T	Say train	All	2 sec.
S2	Train	All	
T	I have a train, good I have a train, Look cars, one two three	All	7 sec.
S1	One two three	All	
T	Yes, good job Valeri, you are right, three red cars yes?	All	7 sec.
S3	Es unem	All	
S2	Es el unem , es el unem	All	
T	Do you have a car? You have a car? Ok, look, flower, flower	All	8 sec.
S2	Flower	All	
T	Flower yellow flower, fruits, yes? fruits. Yummy fruits. Look, let's close the bee, no?	All	11 sec.
S1	Kktsi	All	
T	Yes, yes, yes, look, look, look, it's a bee,	All	5 sec.
S2	Es sranic unem bayc arden jardvaca,	All	

S1	Teseq esi tsova	All	
T	Yes it's a sea, oh look what we have here, look what we have here, pencil	All	9 sec.
S2	Pencil	All	
T	Look at the bee	All	2 sec.
S2	Bee	All	
T	Look what is it? ladybird	All	3 sec.
S2	Ladybird	All	
T	Ladybird	All	1 sec.
S2	Vor im dzerqin zatika kangnum , asum em zatik, zatik, zatik	All	
T	Ladybird	All	1 sec.
S2	Ciakan	All	
T	Rainbow, rainbow, rainbow, do you know the rainbow colors? Red, yellow, orange, green	All	12 sec.
S3	Good job,	All	
T	Blue, purple, pink, look	All	3 sec.
S2	Zatik, zatik	All	
T	Loo, Davit come here, look at the rainbow colors, listen, rainbow colors , red orange, yellow, green, blue purple, pink. Red, yellow, orange green, blue, purple, pink, It's a rainbow, it's a rainbow. It's a beautiful rainbow in the sky, its' a rainbow, it's a rainbow yes?	S3	33 sec.
S2	Zebra	S3	
T	Zebra, rabbit, tiger, tiger	S3	4 sec.
S3	Zebra	S3	
T	Zebra, yes, you are right, I caught the zebra.	S3	6 sec.
S2	Galisa, galisa vor brni	S3	
T	Davit come here, look, red, yellow	S3	5 sec.
S3	Yellow,	S3	
T	Blue	S3	1 sec.
S3	Blue	S3	
S1	Kcuma qez	S3	
S2	Zebraner@ chen kcum, zebraner@ chen kcum	S3	
T	Spider, see, look, look, look	S2	4 sec.
S2	Ladybird	S2	
T	Ladybird, two ladybirds, butterfly	S2	5 sec.
S2	Three	S2	
T	Three ladybirds, you are right, one butterfly, one butterfly. Dood job Mika, come here, come here, good. What color is it? red, blue. Snail, snail and orange	S2	19 sec.
S2	Inq@ qayluma	S2	
T	Red shoes, yes? big dinosaur, look, giraffe, giraffe, yes, dinosaur, dinosaur, giraffe, giraffe, dog, where is the dog? Where is it? dog, dog, dog, where is the dog? It's here, it's a big dog, see, big dog. Now let's find the snake, oh crocodile, crocodile yes? Where are the snakes? One is here, one is there, two snakes, spider, spider, yes? spider, look, look, look, pig where is the pig? It's here, the pig is here yes? lion, it's here, Valeri, come here, Davit come, can you tell me where si the dog here? Where is the dog? Dog, where is it? Yes you are right, Elen come here, show me where is the lion,	All	75 sec.
S2	Here	S3, S4	

T	Oh good job, yes good job, now snakes, can you tell me where are the snakes?	S3, S4	10 sec.
S2	Spider,	S3, S4	
T	Spider, yes	S3, S4	2 sec.
S3	Giraffe	S3, S4	
T	Dinosaur, look, dinosaur, dinosaur, crocodile, crocodile	S3, S4	7 sec.
S1	Crocodile	S3, S4	
T	Yes, yes, yes, yes, where is the zebra? Elen Elen come, where is the zebra? Where is it? Oh it's here	S3, S4	13 sec.
S2	No zebra, no	S3, S4	
T	Dinosaur	S3, S4	1 sec.
S1	Spider	S3, S4	
T	Dinosaur, crocodile, cow, where is the cow? Where is the frog? Pig, it's here, oh rabbit yes? Rabbit, look, look, look rabbit yes? Ball ball I see you rball, Now Elen, Mika Look, guitar, guitar, zilophone	S3, S4	25 sec.
S3	Guitar!!	S3, S4	
T	Guitar, trumpet,	S3, S4	2 sec.
S2	No, no, no, no	S3, S4	
T	Look, It's a trumpet, look, look, drum, this one? Drum, keyboard yes, do, re, mi, fa, sol, la, keyboard, keyboard yes? look guitar, say trumpet	S3, S4	18 sec.
S3	Trumpet	S3, S4	
T	Trumpet	S3, S4	1 sec.
S3	Trumpet	S3, S4	
T	Good, zilophone, zilophone, come, here, come here, look it's a guitar, it's a guitar, two guitars yes? Yes, recorder, Yes?	S1,S3,S4	15 sec.
S3	Yes	S3, S4	
T	Nice,	S3, S4	1 sec.
S3	Im papan dranic uni,	S3, S4	
T	Harmonica, let's see, horse, two horses, two sheep, Sun it's a sun yes? Elen, Davit, Valeri come here, let's get ready for the snack.	S4	18 sec.
T	Everyone, Elen, Nika, Davit, Valeri it's the snack time, let's go wash our hands and eat some yummy snacks yes? Come Elen come.	All	17 sec.
S2	Inch enq anum hima?	All	
S3	Utelu enq?	All	
T	Yes, you are going to eat some yummy snacks.	All	6 sec.
S2	Now next	All	
S3	Es em, es em	All	
S1	Axjiknerin zijum enq	All	
S2	Menq enq arajin@	All	
S1	Ayo, du es	All	
S3	Heto Davit@ Sasunci, giteq es Sasunci Daviti ardzan@ tesel e med im papana mez tarel	All	
T	Your father? Your father? You saw the monument of Sasunci Davit? Who is the next? Next, who is the next? Davit or Nika? Finished? Good, she's all independent, good job. Good girl Good very good yes. Good job, take it, now it's your turn, good, good, yes, Yes, good, good, yes, good, good job, let's dry them and do you know where to put that? No, please take it, please take it. Good job.	All	50 sec.
T	Ok, do you want water? Thank you	All	4 sec.

S3	Es verjacri, menq jur enq xnum?	All	
T	Yes	All	1 sec.
S3	Es verjacri	All	
T	Really? Apples? Banana?	All	3 sec.
S3	Bajak@ tveci	All	
T	Banana	All	1 sec.
S1	Es banana el chem uzum	All	
T	Thank you, you want water? Say water pleas, water, please	All	7 sec.
S1	Water please	All	
T	Good, now Mika please give it to Valeri, thank you, who wants more? Do you want some water? You? Say "I".	All	14 sec.
S3	I	All	
T	I want	All	2 sec.
S3	I want	All	
T	How about you? Do you want Nika? Yes? You have ok, Oh I don't have	All	9 sec.
S1	Es enqan arag em xnum vor camum em	All	
S2	Es el em arag xnum, mi qich dandax ker vor menq el pcrnenq.	All	
S3	Tesar inch ujex hazaci	All	
T	Yummy, yummy yes?	All	3 sec.
S1	Es verjacri el voch mi ban chem uzum	All	
S3	Es haxteci	All	
S1	Es arajin@ haxteci	All	
S2	Es el em arden pcrnum arajin@	All	
S1	Es em amena-amena arajin@	All	
T	Say water please, say	All	3 sec.
S4	Water please	All	
T	Yes, good boy. What color is your cup? It's yellow	All	6 sec.
S2	Pink	All	
T	Pink, pink, red, yes?	All	4 sec.
S3	Pink, yellow	All	
S2	Pink	All	
T	Green Davit, yours is green, apple is yummy	All	6 sec.
S1	Es aeajinn em, es arajinn em	All	
S2	Es em arajin@	All	
S1	Che du errordn es	All	
S3	Es arajinn em	All	
S1	Du chorrordn es	All	
S3	Es arajinn em inq@ arajinna	All	
S2	Che	All	
T	Who wants to eat some biscuit? Yummy biscuit.	All	6 sec.
S2	Es em arden linelu arajin@ giteq?	All	
S3	Erkuss arajinn enq, inq@ erkrordn a ha?	All	
S2	Ha menq arajinn enq utum, menq arajinn enq inqn a hajord@	All	
T	Hello, Say "hie, how are you"?	All	4 sec.
T	Aha, good, good, good, do you want to put it here?	All	7 sec.
S2	Es brneci, paxnum er arden, menq arajinn enq, menq enq arajin@	All	
T	Good, good, now put it here? Elen are you the next? Now you say I am the next, I am the next, I am the next, I am the next, ok thank you	All	17 sec.
S2	Menq enq arajin@	All	

T	Now put it upside down	All	3 sec.
S3	Menq enq arajin@	All	
T	I am the next, I am the next I am the next, I am the next, say	All	8 sec.
S2	I am the next	All	
T	I am the next, I am the next I am the next, the next, the next, the next yes? say	All	10 sec.
S2	Next	All	
S3	I am the next	All	
T	Thank you Valeri, aha, look, put them here, put them here yes? it's ok, thank you good boy, good job, thank you. Ok thank you	All	16 sec.
S3	Thank you, thank you	All	
T	Good boy, now wash your hands, say "I have finished".	All	7 sec.
S1	Finished.	All	
T	One, yes jump, here you are	All	4 sec.
S1	Es kanem	All	
T	We need more	All	2 sec.
S3	Maqrvec	All	
T	Who is the next? Say "I am the next"	All	4 sec.
S2	The next	All	
T	I am the next, I am the next, good job. Good job, now you can go to the room.	All	10 sec.
S2	Es arajin@ eka		
T	I am the next, I am the next, I am the next, I am the next, I am the next, ok thank you, good job, good, good, good, good, thank you, thank you.	S2, S3,S4	18 sec.
T	Aha, you are here. You are the next? Yes? Good boy, very good. Good girl, It's wet, very, very wet. Take the sponge. Ok, it's enough, it's enough. Good job. Thank you thank you, now Nika where is yours? They are here. Yes, give this one, good, yes, good job. Very careful, thank you, thank you, good job, put it here please, yes, squeeze it and put it there. Good, good. Seeds are here, look, you are going to have sprouts. It's here.	All	55 sec.
S2	No, no	All	
T	Yes, ok, now everyone look, we have this. Yes, good, look what we have here, look, look soft cotton, it's soft yes? Look we need to take some, do you want to be the first? Yes? Valeri can help us, oh my God, look, this is for Mika, and for David, wait, let's put some cotton on this, some cotton, yes, yes, yes, yes, yes, yes. Now let's give some to Nika. Now let's put some seed, let's put some seed, no, no, no, no not seed. Let's water it, look, look, there is no water? An for Elen, yes, now we can put some seed, seed yes?	All	65 sec.
S1	Hes klcnem	All	
T	Ok thank you, say thank you to Valeri, thank you, thank youm good, good	All	10 sec.
S1	Vsio, sexanina	All	
T	No, no. Here, aha, it's too much I think.	All	5 sec.
S3	El chka? Im@ shat-shat a	All	
T	Yes	All	1 sec.
S1	Eli lcnem?	All	
T	No, no, no, ot's enough, now let's put some seeds, ok, close the bottle. Thank you good job very good yes, that's yours, Now you know what, we'll put them here, now give it to me I'll put them here, thank you, thank you	All	28 sec.
S2	Gnacing	All	

T	Hurry up, hurry up.	All	2 sec.
T	Who wants to make this puzzle? Valeri come here do you want to make this puzzle with me? You want to help me? Oh snail yes? snail, yes fox, yes, yes, yes, very good, sheep yes?	S1, S4	23 sec.
S1	Mi hat ksarqeq?	S1, S4	
T	Jaguar, Jaguar	S1, S4	2 sec.
S1	Jaguar jaguar	S1, S4	
T	Jaguar yes? Elephant, elephant, parrots, parrots, one, two three four, four carrots, oh Monkey, snakes	S4	13 sec.
T	No, no, no, Davit, look at your hands, dirty, come there, let's make this puzzle together yes? Fruits Nika,	S3, S2	14 sec.
S4	Haf	S3, S4	
T	Miu	S3, S4	1 sec.
S3	Ras, dva, chetire	S3, S4	
T	One, two, three, look, Davit help, no it's not there, let's make this puzzle together, Elen, come here, tiger? Tiger and the bear, tiger, it's a tiger yes? Elen, Valeri Davit, come here, come here, come here, strawberry. Come here, come here look, it's the story of the duckling yes? look, look Elen, let's take a look at this one, she knows this.	S3, S4	43 sec.
T	One, two, three, four, five, six, seven. Seven eggs. Oh look at the little ducklings, one, two, three, four, five, six, seven ducklings. Look they are all yellow, come here look this is the other duckling, the ugly duckling, ugly. Let's see what happened next. Look here they are, all the ducklings, all six ducklings, the ugly duckling, what happened here? Mother duck said you are ugly.	S2	48 sec.
S2	Ugly	T	
T	Go, go away. Now here, the cow said you are?	S2	6 sec.
S2	Ugly, go away	T	
T	Go away, look at this, what the cat said? You are ugly, go away, go away	S2	9 sec.
S2	Go away.	T	
T	Now let's see the rabbit, the ugly duckling met a rabbit said you are ugly go away	S2	11 sec.
S2	Ugly, go away.	T	
T	Go away	S2	2 sec.
S2	Go away.	T	
T	Look, look Elen the ugly duckling is very sad, very sad yes? Let's see what happened then, the ugly duckling met a boy, what the boy said to the ugly duckling? You are ugly	S2	23 sec.
S2	Ugly	T	
T	Go away, go away	S2	3 sec.
T	Look now the girl met the ugly, what did she say?	S1, S2	7 sec.
S2	Go	T	
T	Go away you are ugly, you are ugly	S1, S2	5 sec.
S2	Ugly	T	
T	Look at the poor duckling, poor ugly duckling, it's all snow; it's very cold yes Look at the ducklings, poor duckling what happened? They are very sad, crying. Suddenly she met a swan, look at the swan, she said oh look in the water she is a beautiful swan, see now they are flying, flying yes? Look at the cow, cat, rabbit, yes? Now let's do this frog one, it's very funny, look it's a about a frog, a green frog, yes, look at this frog. Look at the frog's eyes, big	S1	104 sec.

	eyes yes? and a big mouth, yes very big mouth, the frog is here, this fly is flying, mmm lunch, said the frog, the fly was buzzing around, bzz, bzz, look at the fly's eyes, now look at the frog's eyes looking at the fly, yummy lunch, look the fly is happy, but loiook what happened next, the frog is looking, look, look how the frog is now see what happened, look at the frog's tongue.		
S2	Gorter@ mocakner en utum	T	
T	Yes, eyes, yummy fly, yummy fly, good lunch, yummy fly yes?	S1, S2	8 sec.
S1	Es el es.	T	
T	Yes. Here look, let's make this puzzle, let's make this puzzle together ok? One, two, three, Let's finish the puzzle, oh thank you, yes, yes, yes, thank you, let's see, oh wait, wait. No, no, oh thank you. Let's make this one too. Davit let's change your shoes, good job, let's change your shoes, let's change them here, change it. What are you drawing? What is that? Let's draw a face, Eyes, nose, mouth, face, now draw ears, can you? Ears, now hair, hair, and eyebrows, eyebrows look, oh it's under the eye, it should be above the eye, now draw eye now eyebrows. Eyebrow one, two, no can you draw eyelashes, eyelashes, good job, good job, very good, now tongue, can you draw a tongue? Yes tongue, good very nice, I like it, can you draw cheeks? Cheeks one, two, one here the other here, yes check, it's here, let's draw it red, take the red color, one here, yes and the other here good job, very good, now let's draw hands, can you draw hands? First of all the body, one two, yes good job, good, nice. Now let's draw a house, let's clean this part? Can a clean it? Now let's draw a house, can you draw a house?	All	141 sec.
S2	Arajin@ es em.	T	
T	House	All	1 sec.
S4	House?	All	
T	Yes, It's a face, face, it's a face, happy face, give this to me please, happy face, he's smiling, this one too, now I want to draw a house look, one window, can you draw another window here, yes here is the roof, this is the chimney, this is smoke, now draw another window, there are two windows, one, two, three, how many windows are there? one, two, three, now let's draw stairs, stairs, Stairs right? We step here, and then there is the door, the door. What are these? Doors? Good job, very good, nice, hands, fingers.	All	65 sec.

Analysis

Total children:	4
Duration of the class:	67 min.
Total words:	3,144
Teacher words:	2669
Student words:	475
Student words in English	113
Student words in Armenian	362
Total length of the FL exposure by the teacher:	29.3 min.
Direct exposure:	16.4 min.
Indirect exposure:	0.6 min. for 1 child 5.6 min. for 2 children

	6.8 min. for 3 children (Ind. Total 13 min.)
The most frequent 1000 words	68.97% <ul style="list-style-type: none"> • Function- 31.56% • Content- 37.41%
The most frequent 1001-2000 words	6.79%
Off-List words	23.36%

Transcript 4

Number of kids: 3

Age: 2-2.7

	Content	Interact.	Dur.
T	One, two	S1, S2	2 sec.
S1	A, b, c, d, e, f, g		
T	Good job, high five Gor, high five. High five, high five. Look, Nataly look it's the cow, moo-moo, it's the boy yes? Look cat, miu-miu, it's a boy. Gor look it's a horse, one, two, three, yes? yes? one, two, oh look at the ducks, one, two.	S1, S2	28 sec.
S1	Esor es lacum ei.		
T	Crying?	S1, S2	1 sec.
S1	Miss Arpi, senc lacum ei, lacum ei, lacum ei, heto chei uzum qo mot gayi		
T	Oh, no, why? Please, come here. Oh, good, look it's a sheep yes? It's a sheep	All	10 sec.
S1	Miaa Arpi, Miss Arpi, Mias Arpi		
T	It's a nice sun, yes, it's a nice sun yes? Let's draw it together. Nataly look, come here we are drawing a sun, look, come here we are drawing a sun, yes look it's a sun, look wow good, yes it's very nice, now let's make a happy, sun, happy sun, Gor look come here we are drawing a sun, yes? aha come here come here Gor. Oh it's a happy sun, Nataly take this marker, oh you want the blue one? Blue? Ok let's go there and draw another sun. Come here Nataly	S2, S3	56 sec.
S1	Miss Arpi, sranov xaxam?		
T	Yes, yes, yes, come here, let's clean it, let's clean it yes? Now let's draw a sun, one, two, three, are you ready? Yes? good, wow one, two good Nataly, good job, very good, aha, it's a blue sun yes? good girl, Sofie very nice now let's draw a green sun together, ok? One small now big, small sun, big sun, small sun, big sun, yes. Good, let's put it here.	All	44 sec.
S2	Nkarem	T	
T	Yes, please sit here Nataly	All	4 sec.
S1	Es tun@ lacum ei	All	
T	Why were you crying? Now let's bring this chair here. This is our table yes? Gor, our plant, come here, Nataly let's put this here, sit here, good girl, please sit here, aha now let's draw blue yes? blue, now black yes? black, you want to draw? Yes? you don't want to? Let's look at this book together	All	47 sec.
S1	Uzum em tun gnam	All	
T	Too soon to go home	All	3 sec.
S1	Uzum em gnam mamas spasuma indz.	All	
T	Red yes?	All	2 sec.
S1	Miss Arpi, Miss Arpi, maman ura?	All	
T	Your mom is at work	All	3 sec.
S1	Ura maman?	All	
T	You mom is at work she will come ok?	All	5 sec.
S1	Ura maman?	All	
T	She is there I don't know, she's at work look I am at work too.	All	7 sec.
S1	Nkarem, nkarem	All	

T	Ok, let's draw, I will give you paper, no, no, no you have, take this one, look put it here. You don't want to draw any more? Oh Nataly, have you seen this book? Look, look, look you favorite rabbit. Look now here we have laughing. Tey are laughing.	All	31 sec.
S1	Miss Arpi gnanq utenq?	All	
T	Yes it's nice, you want to eat? Nyam-nyam? But today you are not going to eat. Oh look, look they are laughing yes?	All	14 sec.
S2	Laughing	All	
T	Laughing yes Nataly you are right, they are laughing yes? Laugh, laugh, laugh. Wow it's a nice tower, I really like it a lot. Wow good job Sofie and Miss Mariam, oh it collapsed, it's ok, you will make another one. Look, Look They are laughing, laughing, yes? Look, Cinderella with the pumpkin, they are dancing yes? Where is your rabbit? Where us your rabbit? Nataly where is your rabbit? oh twinkle, twinkle, now let's see we have another book here, oh look, wow Miss Mariam it's a nice tower, look, look, look	All	66 sec.
S1	Mej@ matita	All	
T	Oh yes it's a marker yes? Gor look, Jump jump I can jump, jump jump I can jump, look,	All	12 sec.
S2	Gndak em uzum, poqr gndak em uzum	All	
T	The small ball?	All	3 sec.
S2	Ha	All	
T	Oh they are not here.	All	3 sec.
S2	Poqr gndak em uzum.	All	
T	Where are the small balls? Do you want this?	All	5 sec.
S2	Gndak	All	
T	No, the balls are not here, let's play with them	All	5 sec.
S1	Qo anun@ inch a?	All	
S3	Sofie	All	
T	Sofie, her name is Sofie, say "What's your name?" " My name is Sofie" aha now let's make a small ball, Gor look.	All	14 sec.
S2	Gndak em uzum.	All	
T	Gor look what we have here, come let's play. How old are you? It's a ball yes? let's play, aha thank you., Gor look, Gor look, it's blue yes? blue, oh it's too hard to pull, let me help you. Do you want me to make a big ball?	All	28 sec.
S1	Miss Arpi jarduma	All	
T	Look, no? Oh Gor let's play with the ball look, Gor one two, I see your ball, yellow ball, blue ball, look the ball, Kick it here good job, take the ball	All	19 sec.
S1	Ari tun gnanq	All	
T	Gor take the ball, take the ball, is it a ball yes? Nataly let's roll, let's roll with two hands, yes, like that, good job now we have a small ball and big ball, big blue ball yes? Oh Nataly look it's very nice, yes Nataly you want the green one?	S2, S3	30 sec.
S2	En gndaks	S2, S3	
T	The green one? Yes Nataly? Green one? Green yes? green ball yes you are right green ball, yes green ball, no, no, no let's put it here, yes, it's another ball, wow, very nice, look, look, look it's very nice yes? , very nice good job, oh the princess is inside, the princess is here, let's find the princess. Where is the princess is she there? Oh princess is there look, let's take the princess out, good job Sofie and Miss Mariam Good job.	S2, S3	54 sec.

T	Big ball, big blue ball yes? Oh you want to open this one too? Yes? Oh it's too big Nataly. No, no, no, hello I'm the bear, how are you lion? Sofie it's a bear, oh look at the lion oh it's the lion, oh no it's Gor it's not a lion, oh it's the lion now.	S2, S3	30 sec.
S1	Miss Arpi es chei imanum vor du		
T	Yes, look at the frog, yes? look frog story, look, five, six, seven, eight, nine, look, look at the frog, Sofie come here, come here, what do you want? Yes come here good girl we want to tell you a story about the frog, look at the frog. What color is the frog? Green yes? And two white eyes. Sofie what color is the frog? Green	S2, S3	41 sec.
S3	che	S2, S3	
T	One, two three, four	S2, S3	4 sec.
S2	Five.	S2, S3	
T	One, two, three, four, five,	S2, S3	5 sec.
S2	six	S2, S3	
T	Six, seven, eight	S2, S3	3 sec.
S2	Nine and ten	S2, S3	
T	Good, two big eyes yes? two big eyes, oh look at the frog, it's laughing, big frog.	S2, S3	10 sec.
S2	Girqn ura? girq@ ura?	S2, S3	
T	Oh look frog just ate the fly, it was yummy, yummy yes?, look at the frog it's fat and not hungry any more.	S2, S3	13 sec.
T	I'm the camel, I want this one, I'm the camel	S2	6 sec.
S2	Chem talis	T	
T	No? You are not giving it to me? I will cry.	S2	5 sec.
S2	Blue, blue		
T	Look, look, the green one is mine, ok I have one, no I want this one, this yellow one, no?	S2	11 sec.
S2	No,	T	
T	Oh I will cry	S2	3 sec.
S2	Klaci, uzuma lac lini	T	
T	What is it Sofie? It's a bear yes? it's a bear, polar bear, it's a penguin, yes? oh bird, bird.	S2	12 sec.
S1	Tati	T	
S2	Gndak em uzum	T	
T	Ball?	S2	1 sec.
S2	Poqr gndak em uzum	T	
T	Small ball? Small ball yes? say small ball	S2	6 sec.
S2	Small ball	T	
T	Yes she said small ball, good, small ball, this red one is mine.	S2	8 sec.
S2	Mine, mine, mine	T	
T	Mine, mine, mine, oh I want this one, this one is mine. This one is mine, I won't give it to you. I have this red one here, it's mine	S2	17 sec.
S2	Ura? Baci	T	
T	It's not here, you want the red ball? Say I want the red ball, one, two, three, I want my ball back, Nataly, please give me the yellow one. Just the yellow one, say no, no	S2	22 sec.
S2	No, no	T	

T	It's my ball, it's my ball	S2	4 sec.
S2	Paki	T	
T	This one is mine, the pink ball is mine, look the pink ball is mine,	S2	8 sec.
S2	Tur, tur	T	
T	No, say give the ball	S2	4 sec.
S2	Give the ball	T	
T	Give the ball? Oh, no this is mine the pink ball is mine, one, two, three, let's catch it. I don't have any ball with me now, please give me the yellow ball, please give me the yellow ball, where is it?	S2	26 sec.
T	Loo I have one here, look, look the yellow ball is with me, look, look the yellow ball is here	S2, S3	12 sec.
S2	No		
T	No? It's there, the red one is there, I will bring it, it's mine now I have two balls, look.	S2, S3	10 sec.
S1	Chem uzum, chem uzum		
T	Gor look, I am waiting for you, come, come, come here, look, look, see the camel say one, two three	All	13 sec.
S2	One, two, three,	All	
T	It's in your box.	S2, S3	3 sec.
S2	One, two, three	T	
T	Oh it's here, where is the other one? One, two three, take the red one. One two three, yes, yellow one? Or pink one? One, two, three, the pink one is there. One two, three, again, one, two, say two	S2, S3	24 sec.
S2	Two, three	T	
T	Four, five, yes	S2, S3	3 sec.
S2	Big	T	
T	Big, it's here the red one, say one, very good. The small one is here, Nataly the small one is there	S2, S3	12 sec.
S2	Che chem uzum,	T	
T	The pink one, now you have three balls, red, yellow and?	S2, S3	7 sec.
S2	Yellow	T	
T	Oh green, green, look, green, green, oh good, green, green I'm crying I want the yellow ball. No?	S2, S3	13 sec.
S2	No	T	
T	No	S2, S3	1 sec.
S1	Nataly tur	T	
T	Gor look, Nataly look, nyam-nyam-nyam the camel.Ok I will bring it from here.	All	10 sec.
S1	Irann em uzum	All	
T	Look here Gor , one, two, three	All	4 sec.
S1	Ura?	All	
T	It's here, say one, two, three, yes it's here look, now let me take the blue one, say, one two, it's here, say one two three, Nataly, Miss Armine please play with Nataly, oh here	All	22 sec.
S1	Bye	All	
T	Bye, bye-bye, are you going? Bye	All	5 sec.
S2	Gnum em	All	

T	See here we have two, five, four, ok, two, four, one, , seven, it's seven, ok, Sofie, yes good job now you are ready to go yes?	S3	11 sec.
S3	Yes.		
T	Yes, do it faster, faster, faster, yes. Good girl, let me hug you good girl, now you can go, you are ready to go yes?	S1, S3	14 sec.
T	Now look, what's in here, let's try, see nice, moo let's close it, the cow is here, the cow is here, one, two, three, one, two, the horse is here yes? Look, look, look Ashot look, it's caterpillar, caterpillar. It's the princess yes? Hello princess, how are you? Hello how are you? Hello, hello, hello princess, Ashot hello, hello how are you? How are you?	S1, S3	43 sec.
S1	Chem uzum iran, iran chem uzum		
T	Ok bye-bye	S1, S3	2 sec.
S1	Iran chem uzum		
T	Bye-bye, Sofie hello, one two, one two three four five, five four, five four three two one, Ashot come look. One two one two three four five. Dance dance dance dance freeze. Ashot come thank you, do you want this? Ok, two railways for you, two railways for Sofie. Choo-choo, it's a train, come come. Orange I like orange, look at the princess, the princess is coming. Now princess is coming this way and the zebra is coming this way, hello princess how are you? Ok bye princess. Ok it's time for the zebra to sleep,	S1, S3	56 sec.
T	Hello Natalie, hie, how are you?	All	4 sec.
S2	Hello, mama ari		
T	Nataly nice, you look very nice today, Nataly look it's a train, look it's nice yes? No? It's not nice? Ok now let's see what Nataly wants to play with, oh the zebra is coming, oh no, poor zebra, poor zebra. Head shoulders knees and toes knees and toes. Do you want to put it there?	All	34 sec.
S2	Ha	All	
T	Go and put it there, yes	All	4 sec.
S2	Gndak em serem	All	
T	Yes, small red ball yes?	All	4 sec.
S2	Gndak em serem	All	
T	Very small ball	All	3 sec.
S2	Very, very small ball	All	
S2	Mec	All	
T	That big ball? No? Small? Small very small?	All	6 sec.
S2	Ha	All	
T	Red or pink? The red ball or pink ball? I know now the camel will bring you the ball, Nataly look, the camel will bring you the ball. Can I take one ball please? Yes zebra which one do you want? Which one? I want the small pink one, Can I? Yes let me give it to you. What color do you want nataly?	S2, S3	37 sec.
S2	Ha	T	
T	Here Nataly, Now Sofie tell me what color do you want? Thank you good girl, which ball do you want? Which one? Red or yellow or pink? Pink? Yes, it's difficult for me, it's here, say thank you, good girl, good girl, Ashot do you want this red ball? Yes? no? come come and take it, come, Ashot, come, Nataly, do you want this red ball?	S2, S3	43 sec.
S2	Ha	S2, S3	
T	Say yes	S2, S3	2 sec.
S2	Yes	S2, S3	
T	Ere you are, say thank you, say thank you Camel	S2, S3	6 sec.

S2	Thank you	S2, S3	
T	Camel	S2, S3	1 sec.
S2	Eli em uzum	S2, S3	
T	You want two balls?	S2, S3	3 sec.
S2	Mek, erkus, ereq	S2, S3	
T	One, two, three, where is the third one? Is it here?	S2, S3	6 sec.
S2	Che	S2, S3	
T	Ok do you want the red one?	S2, S3	4 sec.
S2	Ha	S2, S3	
T	Or the yellow one?	S2, S3	3 sec.
S2	Yellow	S2, S3	
T	Yellow, here you are	S2, S3	3 sec.
S2	Tur	S2, S3	
T	Here you are, say thank you	S2, S3	4 sec.
S2	Thank you	S2, S3	
T	Now do you want this red one?	S2, S3	4 sec.
S2	Ha	S2, S3	
T	Say yes.	S2, S3	2 sec.
S2	Yes	S2, S3	
T	Say thank you, good job, yes, here you are. Here, oh no, no, no, Sofie take the ball, it's there the yellow ball, it is there	S2, S3	15 sec.
S2	Yes em vercnelu	S2, S3	
T	Yes? Is it yours? Good how many balls do you have? One, two, three, look it's here, take it, Sofie, one two three, it's under the table, you missed the pink one too. Oh thank you, it's a very very small ball yes? very small look, where is the donkey? This is very small pink ball yes?	S2, S3	36 sec.
S2	No, no, no, no	S2, S3	
T	No, no, no, no, please give me the red one, no? ok. Nataly, please give me the red one, no? One, two, three, the princess, poor princess, Ashot look, look what happened, take this small ball too, it's a ball. Look, baby bear, I like it. Natalie please give me two balls, will you give me two balls? No? Look where is the red ball? Here? Here? Nataly where is the red block? Here or here?	S2, S3	48 sec.
S2	Es	S2, S3	
T	Here?	S2, S3	1 sec.
S2	Ha	S2, S3	
T	It's empty? Maybe it's here?	S2, S3	4 sec.
S2	Ha	S2, S3	
T	Oh, good, it's there. Nataly my eyes are closed, now please give me the blue one, blue, is it there? there? somewhere else, we don't know. Look it's here, it's here.	S2, S3	20 sec.
S2	Tur	S2, S3	
T	Nataly I want a small ball, please give me the small ball. Look I close my eyes and I want you to give me.	S2, S3	13 sec.
S2	Gndak	S2, S3	
T	Nataly bring it here.	S2, S3	3 sec.
S2	Gndakm gndak	S2, S3	
T	Sofie, please give me the yellow block.	S2, S3	5 sec.
S2	Baci	S2, S3	

T	Can I take this one? This one. Yellow yellow, yes, thank you, now give me the green one, green, oh no this is not green, this is green.	S2, S3	17 sec.
S2	Nayi, nayi	All	
T	Good, it's a crocodile, crocodile	All	4 sec.
S2	Crocodile	All	
T	Yes crocodile Nataly, crocodile, where are the balls? It's an octopus. Who's sleeping? Who's sleeping? Look Ashot look, let me help you to open it. Look Ashot it's a red ball, red ball, come here camel, red ball, and pink ball look, red. Look Ashot	All	31 sec.
S1	Chem xaxa	All	
T	Hello, How are you Sofie? Let's cut the fruits, cut the fruits. I want to eat banana, where is the banana? Give me banana please, I want one more, oh thank you. I want pear, I want pear, yummy pear, now the second piece, now I want kiwi, kiwi where is my kiwi? Thank you, now I want orange, orange please.	All	39 sec.
S1	Chem uzum	All	
T	Sofie can you cut this orange for me? I want to eat orange. Please give me one piece, yummy, I want lemon, lemon, lemon, I want lemon.	All	28 sec.
S2	Nayi inch em berel	All	
T	I want to give strawberry to you, take Sofie, Do you want to eat strawberry? Look Nataly I'm eating kiwi, I ant the red one, I want the red one. One two three, look, look look, oh thank you.	All	24 sec.
S2	Es mek@ talis em	All	
T	Oh thank you. Good you have the blue ball?	All	6 sec.
S2	Ha	All	
T	Do you want the blue one?	All	4 sec.
S2	Che	All	
T	Where is it? Ashot where is it?	All	4 sec.
S2	Bolor@ stex en	All	
T	Will you give me the yellow ball? Will you give me the yellow ball please?	All	9 sec.
S2	Che	All	
T	Why? Look what we have here a blue ball, a blue ball	All	7 sec.
S2	Dir mej@, dir mej@	All	
T	Yes, I'll bring another one, look, now you have three balls , yellow, red, pink, look	All	11 sec.
S2	Ber	All	
T	Look, look, you have three balls? Three balls, say three balls	S2, S3	8 sec.
S2	Blue, blue	S2, S3	
T	Yes blue blue, Nataly you are right, look yellow yellow	S2, S3	7 sec.
S2	Yellow, yellow	S2, S3	
T	Yellow yellow	S2, S3	2 sec.
S2	Yellow yellow	S2, S3	
T	Yes you are right look, blue blue. One two three balls yes? you have three balls, good.	S2, S3	11 sec.
S2	Nayi, inch es anum?	All	
T	What color is it? red good, ok let's put them here, actually it's the snack time don't you want to go there and have snack?	All	16 sec.
S2	Es el sranic unem	All	
T	Nataly do you want to go there and have snack?	All	6 sec.

S2	Es el sranic unem	All	
T	Yes? Nataly, yes?	All	3 sec.
S2	Ha	All	
T	Let's go, look, wow, can you trance this number? Can you do this one?	All	9 sec.
S2	Che	All	
T	No? Look,	All	2 sec.
S2	Mama, mama, mama	All	
T	Your mom is here, let's go, she's there. Sofie look, bring it here, bring, look, yes trace this number. Take this Sofie, Ashot look, look, Ashot, good, look, good job, yes, yes trace number three, good job, yes, very good, now Sofie please come let's go and have our snack Ashot come, Sofie, let's go, ok? Good, look, yes, Sofie let's play with this ball, Ashot let's go, let's go and have the snack, Sofie take my hand.	All	53 sec.
T	Very good say thank you, my glass is yellow, what color is your glass? Red, it's red. Good girl, now Miss Mariam Sofie is coming, come and sit here good girl, very good. Take, take one, no I don't want thank you, put it in your plate, put it in your plate. Now look Ashot is eating, no, no, no, oh you want the pink glass? You want water? Miss Armine will bring water. No, no, no, Look Sofie look, Nataly, where are you going? Nataly is it yummy? Yummy yummy, mine is yellow	All	61 sec.
S2	Ha	All	
T	Yours is red	All	2 sec.
S2	Red	All	
T	Red, good girl, oh no don't do like that, good girl yes. Oh Let's put them here, Natalie let's put them here, please put them on the table, It's yummy, yummy, yummy to my tommy tommy tommy, It's yummy yummy yummu to my tommy tommy tommy, all right, yes Sofie look, Nataly come here, oh no don't you want to eat? No? Ok let's put it there yes. Nataly yes? See Sofie, she's singing that song, who's there? who'se there? no one, no one.	All	56 sec.
T	Yes? hmm yummy	All	3 sec.
S2	Es el em vercnun	All	
T	Do you want that?	All	3 sec.
S2	Ha	All	
T	Oh good	All	2 sec.
S2	Ha	All	
T	Very good, good girl, oh sorry. Do you want? Oh good finished, we have finished.	All	11 sec.
S2	Mi hat el leru	All	
T	Again? Do you want water? Please let me give you another one ok? It's there, Miss Armine, she likes you very much, good now please give me this one and then, no, no, no bring it here, bring it here, bring it closer. Aha good girl. Here you are, good boy. I think Ashot wants some too. Let me bring tissue, let me bring tissue, wait Sofie, wait, wait one minute please	All	46 sec.
S1	Mi qich.	All	
T	Ok that is fine. We should clean the water, Oh my God. Oh it's on the floor, the water is on the floor, yes. Is it wet? It's wet? Good, Nataly, Nataly wait.	All	19 sec.

Analysis

Total children:	3
Duration of the class:	73 min.
Total words:	3,167
Teacher words:	2,807
Student words:	360
Student words in English	56
Student words in Armenian	304
Total length of the FL exposure by the teacher:	30.5 minutes
Direct exposure:	15 min
Indirect exposure:	13 minutes per 1 child 2.4 minutes per 2 children (Ind. Total=15.4 min.)
The most frequent 1000 words	79.17% <ul style="list-style-type: none"> • Function- 34.77% • Content - 44.40%
The most frequent 1001-2000 words	4.76%
Off-List words	15.62%