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HOME LINGUAL ENVIRONMENT EFFECT ON DEVELOPMENT OF CHILD'S LANGUAGE IN MULTILINGUAL DAYCARE

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ABSTRACT

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The purpose of this thesis was to evaluate how the home lingual environments affect the development of a new language with children. The background research explored different concepts and perspectives of governmental bodies involved in early education. Then it focused on the Finnish perspective of early education and care in Tampere and concepts used in education with children. In this thesis children were compared from different home lingual environments and their development in a new language was evaluated by using the professional staff at the daycare as observers.

The comparison of the children's development in a new language was conducted by observing the children during their homework time with the teacher. The data was collected by secondary observers in the form of the teachers themselves. The teachers' observations were recorded on copies of a jointly developed form. This data was then plotted into graphs for clearer visual evaluation of trends. These trends were then evaluated in an effort to see how much of the trends could be attributed to the home lingual environment of the child. The observational data collection period was from the 28th of November 2008 to the 24th of March 2009.

It is unfeasible to draw a conclusion at this time. Data trends showed that a child from a multilingual home environment improved at an exceptional rate, while the monolingual child developed at a constant, but more flat rate. Repeating this study would be recommended modified by increasing data collection duration and number of participants. It would also be required to maintain an even number of multilingual and monolingual boys and girls, maintain the relative numbers between the multilingual and monolingual children, broaden the number of locations and revise the data sheet.

Key words: Daycare, multilingual, education, environment, language, development

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1 INTRODUCTION

This study is of keen interest to me in two ways. One being that my chosen professional area will be in daycare work with children and in particular with multilingual children. And the other being that I am a foreigner in my current country of residence and have a multilingual home environment in which the development of my own child is extremely interesting to observe and be part of.

In this study children's language developments were compared from two different home language environments, one child was from a monolingual home environment where one language is spoken at home. The second child is from a multilingual home environment where two languages were spoken at home. The children's development in a new language was evaluated by using the professional staff at the daycare as observers.

The evaluation data of the observers was collected on custom developed data sheets created in cooperation between the observers and researcher. This data was then plotted on graphs to provide a visual representation of the children's language development in selected areas of interest. From evaluating this data any patterns concerning the children's developments are discussed in relevance to the possible effect caused from their home lingual environments.

This study will first introduce the reader to the different concepts involved in early education and the different perspectives of governmental bodies in relation to early education. Then it will focus in more on the Finnish perspective of early education and care in the Tampere region. The background information will then cover concepts used in education with children before entering into the study itself conducted in a day care in the Tampere region.

2 PURPOSE AND PROCESS OF STUDY

My study question is evaluating how the home lingual environments affect the development of a new language with children.

Research method

Background information for the research was conducted in late 2007 to early 2008 on multilingual education in daycares in Finland. In this background study by the researcher T.Mouna and M.Hirvonen, the different perspectives of governmental organizations were examined focusing on reports from the United Nations, the European Union and Finland. Following the perspectives being examined the background information then focused on how daycares are regulated in Finland, concepts in learning, how children learn and finally the role of the professional educator.

The research was done by comparing children from two different home language environments, the first child was from a monolingual home environment where one language was spoken at home and the second child was from a multilingual home environment where two languages were spoken at home. These environments were confirmed by the use of a family information form (APPENDIX 2) to ensure the children selected were from the correct environments for the study.

The comparison of the children's development in a new language was done by observing the children primarily during their one to one homework time with the teacher. The data was collected by secondary observers in the form of the teachers themselves. The teachers observations were recorded on copies of a jointly developed form (APPENDIX 1) between the researcher, observers and supervisor. This data was then plotted into graphs for clearer visual evaluation of trends. These trends were then evaluated in an effort to see how much of the trends could be attributed to the home lingual environment of the child.

The observational data collection period was from the 28th of November 2008 to the 24th of March 2009. The final data collection was done 30th of March 2009. Observer data was recorded twice a week on Tuesday and Thursday mornings during the child's one to one time with the teacher. During these times the previous day's homework was discussed. These one to one evaluation times lasted from 10 to 20 minutes per child with the ideal time being 15 minutes per child.

Constant contact was maintained with the observers for the duration of the observation time. Generally contact was established once per fortnight, but observers did contact immediately, if something important was happening. Primarily this was in the case of dealing with the problems, that arose in the early parts of the observation. Problems were dealt with during face to face meetings at the nearest possible time to an incident. Solutions were achieved in cooperation between the researcher, observers and if needed contact with a supervisor.

3 CONCEPTS USED RELATED WITH MULTILINGUAL EDUCATION

In the following I will introduce the terminologies used in relation to multilingual education and concepts used both in my study and the background information.

3.1 Multilingualism

In my study the term multilingualism is used to refer to an occurrence regarding an individual child or speaker who uses two or more languages, a community of speakers where two or more languages are used, or between speakers of different languages.

3.2 Bilingual and multilingual education

The terms are used to define the use of more than one language being used as a medium of instruction in education. If more then one language is used it can be said to be bilingual or multilingual. Bilingual often refers to using two languages in education, whereas multilingual means more than two. In 1999 UNESCO adopted the term multilingual education, which refers to education in at least three languages: mother tongue, national language and international language. UNESCO sees as a requirement to be able to meet the needs at global as well as national level, and it is supporting bilingual and multilingual education at all levels of education (Education in a multilingual world 2003, 18; Types of Bilingualism 2003, 1; MONIKIELISYYS – YKSIKIELISYYS 2007, 1).

3.3 Mother tongue

The definition of "mother tongue" is not as black and white as it first might seem. Mother tongue may refer to the primary language, the language the individual is using the most and knows the best. Mother tongue may also refer to the language that has been learnt first. For my study the term is used to define the main language used in the home environment of the child. One also has to remember that formal mother tongue is normally used in educational issues and other policy statements, whereas the native mother tongue of an individual may

be something very different with all the possible varieties inside the language (Education in a multilingual world 2003, 14-16).

3.4 Language of instruction

When talking about mother tongue instruction one can mean two different things. Firstly, when mother tongue is taught as a subject and secondly, when the mother tongue is used as a language of instruction throughout the curriculum. Researches made have shown that instruction in ones mother tongue is not only beneficial to learning the primary language and other subjects, but also when learning a second language. When instruction is done in another language than that of ones own mother tongue, there is not only challenge of learning a new subject but also the challenges of learning a new language aside of other things. In general it can be said that most countries are using the primary language or official languages as a language of instruction, whereas some others want to pay attention to for example local languages that might belong to the minority. UNESCO is supporting mother tongue instruction by building on the knowledge of both the learner and the teacher. For the purpose of my study the term is also used to define the new language that the children are learning (Education in a multilingual world 2003, 14).

3.5 Language Immersion

Immersion is one of the primary methods used in multilingual education. A language immersion program consists of at least 50% of subjects are studied in the language of instruction. The success of such methods is dependant no many different factors such as;

- Depth of immersion in the learning language.
- Staff professionalism.
- Content of curriculum.
- Theme application.

Language immersion allows children to gain proficiency in the language of instruction while also developing their mother tongue. In total early immersion, learning begins in kindergarten or the first grade, and all subjects are studied in the language of instruction. In the case of late immersion, Estonia uses a system where grade six is the preparatory year where the subjects taught in Estonian (being the language of instruction) increase. In grades seven and eight, the amount of classes taught in Estonian increases to 76% of the curriculum. The remaining 24% includes a mother tongue (Russian) and a third language such as English (What is language immersion?, 1).

4 LANGUAGE PERSPECTIVES

In this section the views of the UNESCO's, European Union's and Finland's language perspectives are discussed. These perspectives have been developed through international conventions. Nowadays the variety of cultures and languages raises challenges for policy makers. Decisions need to be made that take into account not only the majority of the population but also the ones who belong to cultural minorities. Educational possibilities should be equal to all and of good quality.

4.1 Education in a multilingual world

Generalizing to some extent one can say that multilingualism inside a country is more like a norm than an exception, even though there are countries that are rather monolingual by mainly using one language. A country might also be using one official language but in spite of that have several other languages, such as national languages, used by citizens.

In the development of multilingual settings two backgrounds can be identified;
- The first is a situation where several languages have been used for the long time in one geographic area.
- The second is a modern situation where multilingualism is a result of immigration.

Research according to UNESCO 2007 has shown that education has the best result when the mother tongue of the learner is used. Some countries prefer to use one specific language in education, most likely the official or majority language, whereas other countries have chosen to emphasize local and national languages. In many countries the situation is still unequal since education and especially language of instruction is not offered in ones mother tongue. According to UNESCO in education local languages should be paid attention to, in order for people to cope with another language than their own. These are the challenges that UNESCO and other policy makers face in their decision making processes around the world. (Education in a multilingual world 2003, 12, 13, 16).

4.2 Multilingualism in the European Union

At the moment the European Union has 27 member countries and 23 official languages. Instead of using one unified language all over the EU each member country has given its wish on which language shall be used as its official language (Europa languages portal 2008, 1).

The European Union respects its member countries' languages and prohibits discrimination on the basis of language. Not only official or majority language is respected but also national languages are given a great value (Europa languages portal, Linguistic Diversity, 1).

Since the beginning, one of the European Union's values has been diversity, meaning, for example, many cultures, beliefs and languages. Variety of languages is seen as richness and as something that makes us all individuals. EU does not see it necessary to drive towards one common language or culture, but maintain the cultural diversity (A New Framework Strategy for Multilingualism 2005, 2-3).

According to the European Union's Commission of the European Communities multilingualism means both the individuals being able to use many languages as well as different languages found in a geographic area. One aim of the Commission's multilingualism policy is "to encourage language learning and promoting linguistic diversity in society". Developing individuals' language skills is essential for the European Union's policy and at the individual level enables citizens for example to work in another member country (A New Framework Strategy for Multilingualism 2005, 12-14).

4.3 Language skills in Finland

In Finland language skills have always been appreciated, when it comes to Swedish or the national language Sami, whose status have been secured in Finnish laws. All Finnish children are to learn either Finnish or Swedish, depending on their mother tongue, during their basic education. Since some decades ago Finnish students also started to learn foreign

languages as part of basic education, and nowadays languages like English, German or Russian are taught throughout the schooling system.

To some extent Finns still are rather monolingual, and big part of this is due to the way people live in an environment where foreigners are not visible. Immigrants are moving to Finland but still at this time with around 5 million people living in the country only small proportion are of foreign origin. This view is slowly changing when more and more languages are used, when, for example, business is done across borders, electronic communication is done on daily basis, currently different kind of exchange-programs are now also part of Finnish educational system (Kielikoulutuspoliittinen projekti KIEPO 2007, 1).

5 GUIDELINES OF ECEC IN FINLAND

In Finland there are different levels in early childhood education plans. The highest is the national plan that is the basis for all the other early education plans in Finland. The next level is the plan of the municipality, and as the closest for the family is the plan for the individual day care centre.

5.1 National curriculum guidelines on early childhood education and care in Finland (VASU)

The national plan is the basis for all early education plans. It is said that the child's VASU (varhaiskasvatussuunnitelma) shall support the child's individual growth, development and learning. It is done in cooperation with the parents and the staff at the day care, and it stresses the individuality of the child. VASU shall pay attention to such things as the child's experiences, strengths, interests and needs (Lapsen Vasu 2007, 1).

The national plan for early childhood education and care, ECEC, has two main goals. One is to "fulfil the day care needs of children under school age" and the other is to "provide early childhood education". The national guidelines are aiming at equality in ECEC-field throughout the country. Also guiding in the content and quality of the activities are part of the aims. The guidelines are also to increase "the professional awareness of the staff", to improve partnership between different professionals belonging to the child's life, as well as getting the parents more involved in ECEC (National Curriculum Guidelines on Early childhood education 2003, 2-39).

The values of ECEC-system in Finland are not only based on the national legislation but also in international Convention on the Rights of the Child, which says child's human dignity being the central point. According to the convention these basic values are also taken into the Finnish guidelines:

- Non-discrimination and equal treatment
- The child's best interest

- The child's right to life and full development
- The child's view taken into account

(National Curriculum Guidelines on Early childhood education and care in Finland 2003, 13).

Also other ECEC principles, based on Finnish basic rights regulations, other legal regulations and policy documents, are defined. They include:

- Warm personal relationships
- Secure growth, development and learning
- Secure, healthy environments that allow play and a wide range of activities
- Comprehension of the situation and voicing opinion
- Special support
- Freedom of cultural diversity

(National Curriculum Guidelines on Early childhood education and care in Finland 2003, 13).

In the Finnish early education-system there are children who belong to minority cultural groups. In ECEC guidelines such children are for example the Sami children, children using sign-language and immigrants. In ECEC each child is appreciated as an individual and therefore the child's own culture, history and customs are to be studied carefully by the staff. Child's own language and culture is supported, and the possible differences, in for example gender issues, are to be talked about with the family (National Curriculum Guidelines on Early childhood education and care in Finland 2003, 26, 33).

5.2 Early childhood education plan of Tampere-city

The early childhood education plan of Tampere-city is for both municipal- and private day care. As an example of Tampere's plan that we can look at is language and communication. To be able to learn it is necessary for the child to develop communication between the peers

and the adults. Communication skills begin from the childhood and are the basis for the experiences ahead. When the child is small he expresses himself with for example gestures, and little by little he will learn to use expressions and link them to various situations. In day care the child learns communication and language through for example playing, as well as in daily situations such as eating, going to bed and getting dressed. Language is connected to imagination and therefore the play is seen very important. When the child learns to communicate through language, he is able to ask questions and widen his world (Tampereen varhaiskasvatussuunnitelma 2007, 14-18).

6 EDUCATIONAL CONCEPTS WITH CHILDREN

Education in another language is not as simple as just immersing then child in the language to be learned. There are many other factors that need to be considers to make a flourishing learning environment. This section describes factors that need to be considered when developing a healthy learning environment for children.

6.1 Dimensions of the child's developmental needs

The child's developmental needs are seen around the world in the developed countries in much the same way. (Jowitt & O'Loughlin) published that in the United Kingdoms law makers identified the following criteria for a given child to develop in a healthy and normal manner.

- Child's health
- Child's education
- Child's emotional and behavioral development
- Child's identity
- Family and social relations ships
- Social presentation (understanding of the way in which appearance is perceived by the out side world)
- Self care skills

(Jowitt M. & O'Loughlin S. 2006, chapter 4).

When we talk about Early childhood education in Finland it is important to remember that the Finnish view day cares as Early Childhood Education and Care a more complete and enter twined package then do some other members of the European Union. So understanding the developmental needs of children and fulfilling them is as important as the education itself, these are seen as going hand in hand in a health childhood development environment.

6.2 Supporting the learning processes

There are many different theoretical approaches to learning, we all in fact learn in very different ways. The key thing to remember when we talk about learning and assisting learning in a practical way is to first realize there are three main identified ways in which children learn.

Visual Learners, that is to say children who by sight for example, reading and seeing pictures. Can have there learning process supported by:

- Have the child sit near the front of the room.
- Have the child's eye site checked regularly.
- Use flash cards to learn new words.
- Help the child visualize things they are learning.
- Write down key words, ideas or instructions.
- Draw pictures to explain new concepts and have them explain the pictures back to you.
- Color code things.
- Avoid distractions during study periods.
- Remember that the child needs to see things, not just hear them, to learn.

Auditory Learners, that is to say children who learn by listening. Can have their learning process supported by:

- Be sure the child sits where they can hear what is happening.
- Have the child's hearing checked regularly.
- Use flash cards to learn new things but read them out loud.
- Read stories, assignments, or directions out loud.
- Tape the child practicing spelling words and let them listen to the tape.
- Have test questions read out loud.
- Have the child study by reading things aloud.
- Remember the child dose not need to be looking at you to learn from you.

Tactile Learners, that is to say children who learn by touching and doing, understand and perceive the world though physical motion. Also known as 'Practical' or 'Hands on people', can have their learning process supported by:

- Provide opportunities to touch, build, move, or draw.
- Use lots of hands on activities like art projects, taking walks, or acting out stories.
- Let the child chew gum, walk around, or rock while reading or studying.
- Use flash cards and arrange them into groups to show the relations ship between ideas.
- Have the child trace words to learn spelling (finger spelling).
- Allow and encourage frequent breaks during reading and studying periods.
- Allow the child to tap a pencil, shake there foot, or hold something while learning.
- Use a computer to reinforce learning through the sense of touch.
- Remember that the child is not being fidgety to avoid learning.

(Union Plus College Planning Center 2008, 1).

This concept is important to understand that we all do not learn in the same way. In particular for the study it was very important to take this into account. This ensured that the selection for the location of the study could be balanced to the point where no one particular type of developing child would have an advantage. This issue was important to be addressed in detail. Controlling as many of these variables as possible would provide more validity to the end data. This would allow for more accurate trend evaluations of the children.

6.3 Educational themes used with children

Understanding how people learn helps us to fully realize the scope of the multilingual issue. But knowing how children learn is one thing making them want to learn can be another key challenging process. Outlined here are some of the topic of general education themes according to the National Curriculum guidelines and how these should be taken into account when planning the activities in early education.

Children learn through *play*. Each day's activities balance individual and group play. Children are given some freedom to participate in activities in which they are interested including learning opportunities, particularly in the areas of math and reading.
They use their imagination to have fun and learn about themselves and what they can do as a person. Letting children play with things that you can find commonly around the house. For example, clothes, toilet paper, paper towel rolls, empty containers, boxes of all types, hats, books, old calendars, etc allow the children to role play a very key and important part of play. Through this play children learn to interact with each further developing language (storytelling and acting games) and allowing them to express themselves creatively. Children also learn and develop social skills for given social occasions (ie. working together to build a neighborhood in a blocks and Lego's) that they encounter while role playing. This development of social skills and what is and is not acceptable behavior with guidance from there friends is seen by many as key to developing a healthy balanced socially moral student and eventually adult. Often a less structured approach is used to teach young children when using play actively as a tool, including small-group lessons; one-on-one instruction; and creative activities such as art, dance, and music (Bruce, T. 2005, chapter 5).

When talking about the physical activities in early education we do not mean to train the future heroes of sports but to get the physical activities to become a part of child's everyday life, as well as to offer moments of happiness and success. Daily physical activities are necessary for the child's healthy growth (National Curriculum Guidelines on Early childhood education 2003, 19-28).

Physical activities can be of different forms, both sessions guided by the staff as well as spontaneous activities in child's own conditions. Besides learning about your body and movement there are many other good outcomes. For example, the child develops his self-esteem and knowledge about himself, as well as rules and cooperating with others (Päiväkoti Karusellimaa, 1).

The activity of singing is a form of artistic experiences and self-expression. It helps children learn body parts, learn about lots of themes, and do different actions. They also enjoy nursery rhymes. They also love repetition as they learn a song or dance they become more confident in themselves to try new songs and dances. As an example of such activity we describe a singing-session in a local daycare centre of Tampere.

With each of these songs being a tool to learn something new for example while I was visiting a local daycare in Tampere the children were introduced to the color song. It was a simple song about red, green, yellow and blue. The children were assigned different colors and as they sung the song they did the described actions in the song. In this simple song the children where doing so many different learning tasks:

- Singing
- Dancing
- Learning the colors
- Relating the colors to other objects
- Interacting socially in a group

Towards the end of my stay the children were at first singing the song as they did in the daily task before lunch (coloring, math, logic puzzle, etc.) and later they where creating their own versions of the song using many more colors and variations.

From this one song the desire of the children to learn and explore multiplied tenfold providing evidence that singing is a successful tool for the education of young children.

Children enjoy asking questions and wondering this is defined as exploration. By doing this spontaneous exploration they can satisfy their need of curiosity and they feel like belonging to the world around them. Exploration is seen as an important part of the early education and therefore it should be supported in the environment, giving enough material and

keeping up the interesting atmosphere (National Curriculum Guidelines on Early childhood education 2003, 19-28).

7 ROLE OF THE PROFESSIONAL WORKER

Professionalism plays an important role in most of the fields but in a place where the client is a child and a future citizen, the role should be in great importance. Of course everyone's work is valuable but a professional can bring with himself many new aspects and knowledge. Child care workers nurture and care for children who have not yet entered formal schooling. They also supervise older children before and after school. These workers play an important role in children's development by caring for them when parents are at work or away for other reasons. In addition to attending to children's basic needs, child care workers organize activities and implement curricula that stimulate children's physical, emotional, intellectual, and social growth. They help children explore individual interests, develop talents and independence, build self-esteem, and learn how to get along with others.

Child care workers spend most of their day working with children. However, they do maintain contact and regular feed back with parents or guardians through informal meetings (before or after school when parent drop off or pick up children) or scheduled conferences to discuss each child's progress and needs. Many childcares suggest ways in which parents can stimulate their child's learning and development at home and also provide regular simple homework for children to do with there parents. This also helps the parents to keep track of there child's development and any potentially difficult areas of challenge. Good day cares actively recruits parent volunteers to work with the children and participate in administrative decisions and program planning as represented by their parent run board. This can for instance be seen in the local 'The English language school' daycare where every activity of the school needs to go through the parent run board.

Child care workers greet children as they arrive this serves two purposes one to allow the staff to know who has arrived for the day and two to reinforce basic social manners, help them with their jackets thou this is not so much an issue of dressing but more of responsibility of the child's own belongings (more social manners), and select an activity of interest for the child to begin there day with. This activity is generally chosen by the child

based on what there friends are doing and what is pre-prepared for the children to find to do around the room in the morning.

Helping to keep children healthy is another important part of the job.

- Children are nutritious meals and snacks and teach good eating habits and personal hygiene by the local English school.
- Ensure that children have proper rest periods.
- Identify children who may not feel well and, in some cases, may help parents locate programs that will provide basic health services.
- Watch for children who show signs of emotional or developmental problems and discuss these matters with their Co-workers and the child's parents.
- Early identification of children with special needs—such as those with behavioral, emotional, physical, or learning disabilities—is important to improve their future learning ability.

One important thing that a professional worker can bring to the group and the whole day care centre is the ability to see individual needs of each child. At the early point of ones career you might take for granted some things you have heard or learned and are kind of stuck with them. Once you learn more and grow as a professional, you are able to be more flexible and see the individuals more clearly. Understanding individual needs does not only mean seeing the children but also the other workers and their personality.

8 STUDYING THE HOME ENVIRONMENTAL EFFECT

Now that an understanding of the complexities of the multilingual early education phenomena has been portrayed I move on to study a focal point. To study the home linguistic environment affect on children four children from a local daycare in Tampere were selected to be observed. The children where selected based on there sex's and home linguistic environments. Two girls where selected the first from a multilingual home environment now labeled **child A** and the second form a monolingual home environment now labeled **child C**. The other two children were two boy's. The first boy was from a multilingual home environment now labeled **child B** and the second was from a monolingual home environment now labeled **child D**. This made it a pair of a boy and girl from different home environments, and each of these pairs came from a different room in the same daycare. Room one had 'child a' and 'child b' and room two had 'child c' and 'child d'.

Research data collection method.

Data collection was achieved through the use of a scaling form designed in co-operation between the professional workers and the researcher.

The professional workers of the daycare facilitated as the secondary observers for the duration of data collection.

The interaction of the researcher and the secondary observers will insure that the data method for collection, the scaled form, is completely understood by all parties.

This study is not seen as an ending step in studying the environmental affect but as a beginning. Upon conclusion of the study the questions raised will be used to refine future studies into the multilingual environmental affect.

8.1 Data Collection Tools

8.1.1 Secondary observers

The professional workers at the selected daycare took on the role of data collectors. Their professional skills in the field of early education are essential in the data collecting process, from the 5th of November 2008 and continued to the 27th of March 2009 in the Tampere region, to ensure accuracy that could not be achieved by a casual observer. This is due to the complex nature of language evaluation in young children.

Although this still presents the possibility of external factors like favoritism or preconceptions towards different children, the professional training of these observers should help reduce these types of risk.

8.1.2 The Scaled Form

The scaled form (APPENDIX 1) is designed for simple and clear use by the secondary observers and to ensure that as little time as possible of the observers is consumed in collecting the data. The form was developed to collect no personal data about the children.

The key elements of the Scaled form are:
- Date
  - Purely for the maintaining of chronological order for the duration of the data collecting process.
- Child identification letter
  - Each child will be assigned a letter by their respective secondary observers. This information will also be used by the researcher to interview the children's families. This connective link will not be published in any documentation.
- Language complexity
  - Focusing on the child's use of the language of immersion, word endings and sentence construction in the language of immersion.
- Daily use of language

- - Regularity of the child's use of the language of immersion over native languages.
  - Vocabulary Growth
    - Assimilation of new words into the daily language of the child's development
  - Class Comparison
    - An approximation of how the child relates to the overall group of children in regards to their development.
  - Other Factors

8.1.3 Family information sheet.

A sheet (APPENDIX 2) was created to clarify the home linguistic environment of child asking for basic information and clarifications in a written form about the home environment.

Details gathered include
- Family size
- Number of languages spoken at home
- Main language spoken at home
- Instruction of language usage by other family members
- Description of the child's language level from the parents' point of view.

There was also a part two to the family information sheet to be completed by the same parent. It simply asked for the description of the child's language level from the parent's point of view near the end of data collection. This along with the charted data was used in support of the end conclusion.

Official data collection period was from the 5th of November 2008 to the 27th of March.

8.2 Beginning the observational study

8.2.1 Selection of children and starting the study

Initially two groups of two children where selected from the same daycare based on their linguistic home environments.

The first two children where from room A. They consisted of the first child from a multilingual home environment. The second child from room A was from a monolingual home environment. The second two children where selected from room B and again consisted of a first child being from a multilingual home environment and a second child being from monolingual home environment.

Two of the children where male and two where female.

The data collection period was done by evaluation during the child's home work review time. This was a one to one time for the child with the teacher each day of the week in the mornings. Tuesdays and Thursdays where chosen as the ideal days to collect observation data. These days where selected as they where the most 'normal' school days during the week where the children are in their best schooling mind set.

Data collection began after the final secondary observers planning meeting on the 5th of November 2008 and continued to the 27th of March 2009.

8.2.2 Secondary observers planning meeting

The meeting before data collection started with the observers took place in an informal environment at the place of study. Re-Discussed where the researchers objectives, thoughts, and feelings on the study. Following the presentation of the Study the Secondary observers where asked for their thoughts and feelings on the study and its goals.

At the conclusion of the discussion it was agreed to allow extra time for the secondary observers to think on the study and data collection method and feed back anything that may have been overlooked during the discussion.

A time frame of a week was given to this thought process of the secondary observers.

During this week the secondary observers also informed the children and their parents they had selected of the proposed study by the researcher. Permission was also asked by the secondary observers directly of the parents for the participation of their children.

The secondary observers agreed on the 4th of November 2008 that the 5th of November 2008 was a good time to start data collection and agreed that everything appears to be done in the best possible way at this time.

8.2.3 Initial predictions

Initial predictions for the study point to that children from multilingual home environments should improve there language skills at a greater rate then children from a monolingual environment. We should also see that the girls of each pair improve at a slightly greater rate then the boys.

The researcher agrees with these predictions and is expecting to also see these trends in the final data evaluation.

The key interest of the research is not to see these predictions come true but to try to measure how much of a difference can be attributed to the home environmental influence of the children by controlling as many other environmental factor as possible.

8.3 Concerns, Complications and Problems.

8.3.1 Initial.

At the beginning of the study some concerns were noted and addressed. The scope of the study was increased form two children to four children in two groups to increase validity and to provide security in the case of a child's withdrawal or if some other reason needing to leaving the study.

An option was also discussed to increase the number of children participating to include more children on a general basis, for example, to have more children participating from monolingual home environment's to counter another possible issue of *the natural aptitude* of any of the children. This option was excluded due to the excessive demands it would have put on the observing staff.

The natural aptitudes of the child addresses the concern that people learn in different ways as discussed earlier, an example could be what if one of the selected study children was not linguistically minded and the other child is. Unfortunately this factor is hard to diagnose in young children.

Finding suitable children from the different lingual environments to evaluate could be a key issue. Finland is defined by its laws as a Bi lingual country, being that all official business in Finland can be conducted in either Finnish or Swedish and even the Sami language has rights making it in reality a multi lingual county. Locating monolingual home environments could therefore prove to be a problem.

8.3.2 Problems Encountered

In the room b

- A child who was new to the daycare system and from a different culture refused to speak any language to anyone for a considerable time, resulting in a reduction in data.
- During the Christmas break a child's family returned to their home country for a holiday and decided not to return.
- Upon selecting a new child to replace the child after Christmas and restart data collection the other child then moved to a new municipality and a new daycare.

Room B was then unable to provide a multilingual environment child and a monolingual environment child for comparison. This resulted in data collection in room B to be terminated. The collected data was in such a small amount it was deemed valueless for comparison and is discarded from the results.

8.3.3 Complications

The problems encountered in room B initially seemed not so concerning as data collection was continuing in room A. The plan for redundancy by increasing the scope appeared to have saved the study but it had in fact re-introduced a new environmental factor back into the study.

Each room had consisted of a boy child and a girl child. Their home environments had balanced them out to be equal but now we were collecting data on a multilingual environment girl and a monolingual environment boy.

This reintroduced the age old argument of girls do better at academic issues and boys do better at manual activities.

Finding now that the studies validity could be called into question, the decision was made to continue the study. New questions burned to be answered. If all the studies on the academic ability of girls over boys are true then predictions can still be calculated based on this old argument.

'How much of an advantage will be provided to the female child in the results?'

'What if the male child's language skills improve more?'

'What if the male child's language level ends is higher?'

## 8.4 Results from Data

Participants.

Child B

Child B is a female from a family consisting of mother, father and a younger brother. Two different languages are spoken at home. The language of instruction is not used at home and she is beginning from no language level in the language of instruction.

Child D

Child D is a male from a family consisting of a mother, father and younger brother. One language is spoken at home. The language of instruction is practiced sometimes with the parents. No Finnish is known (the common language of the children). At the beginning of evaluation this child is considered to have above average skills in English.

8.4.1 Overall View of Data

The data collected on the subject children has provided ample information to look for potential patters. The following overview charts show all plotted data in time order.
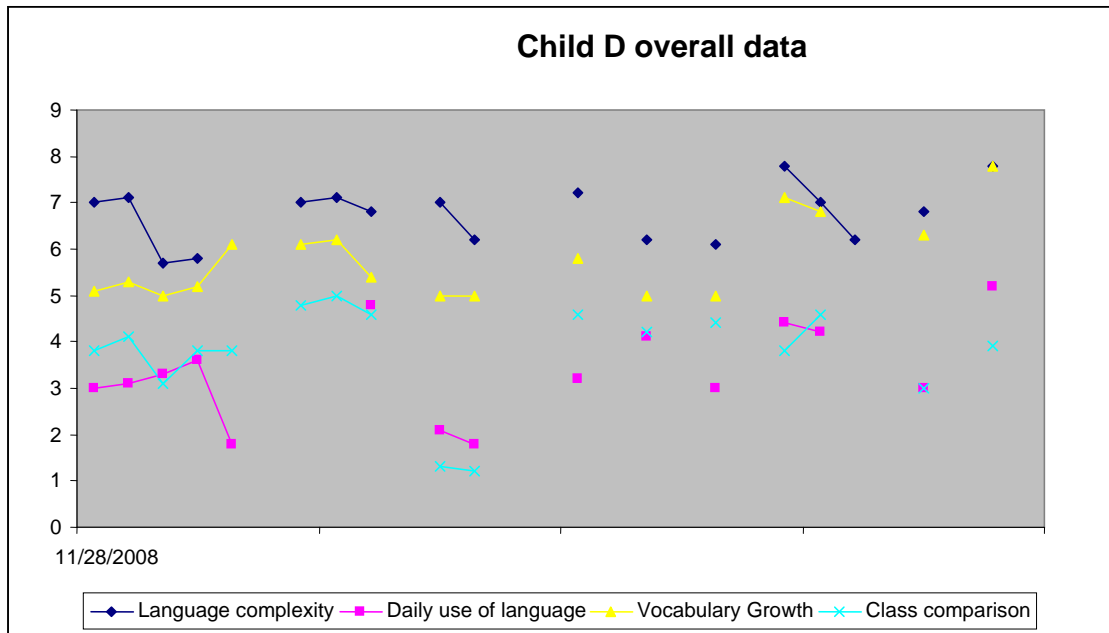
Child B
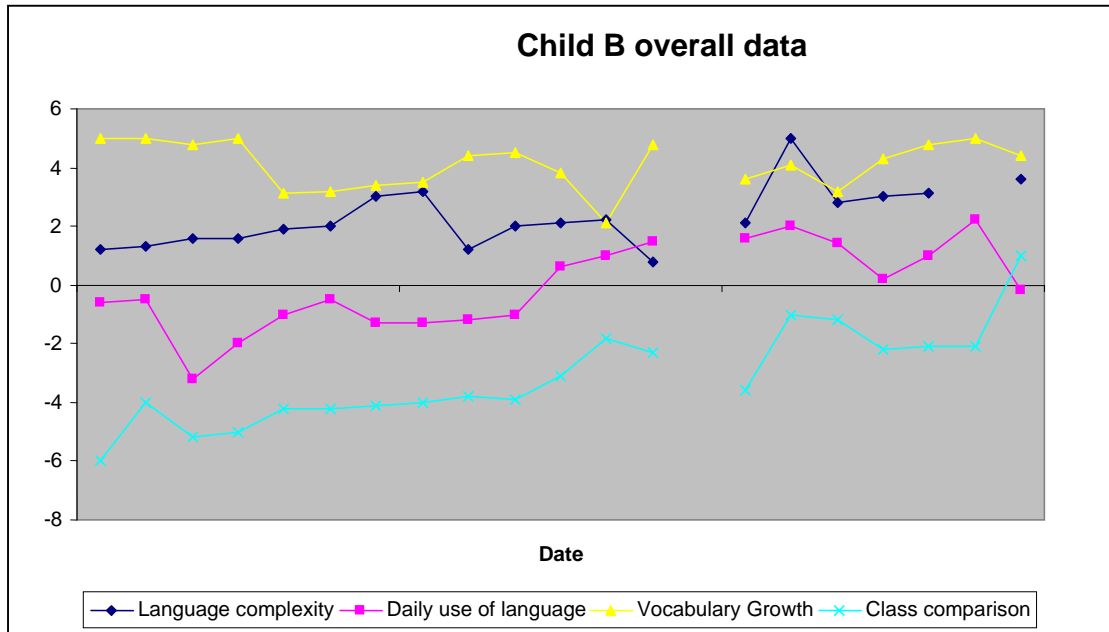
(figure 1 Child B overall data)

Child B's data collection started at the beginning of the 2009 year and concluded on the 24th of March 2009. She entered into the daycare with no knowledge in the language of instruction. Data collection was regular and constant due to good attendance by the subject. These can be seen in the data as the line flow continuously from start to end with the only break ion the line being the winter holiday period.
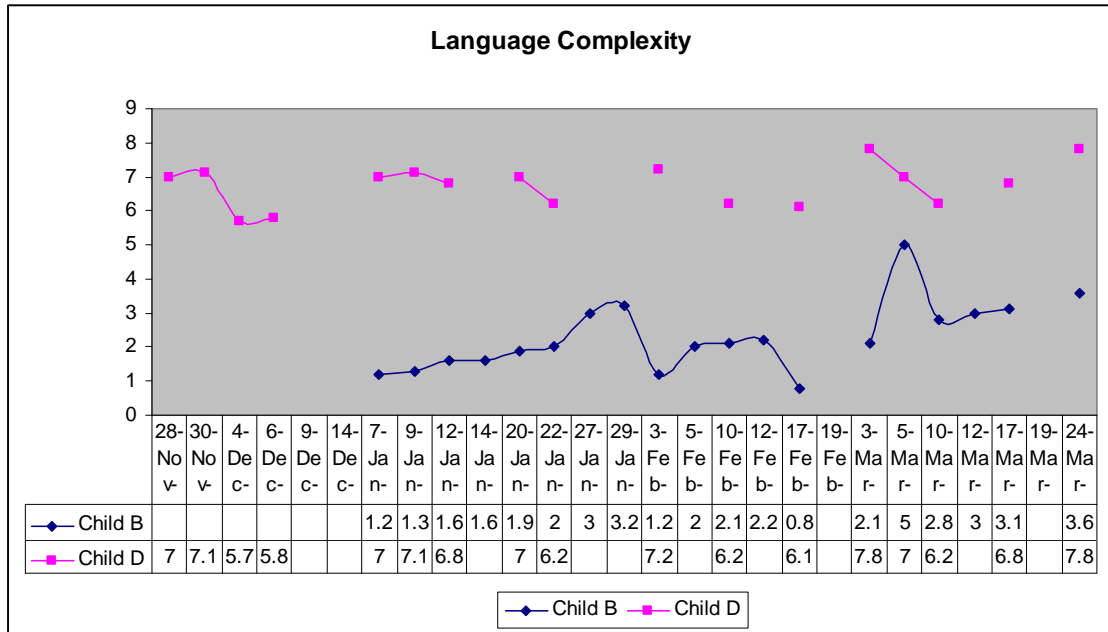
Child D

(figure 2 Child D overall data)

Child D's data collection began on the 28th of November 2008 and was the only original selected participant of the 4 original children. Data collection concluded on the 24th of March 2009. Data collection was a little more irregular due to attendance issues. This irregularity can be seen as points sit alone and not connected to other points.

8.4.2 Language Complexity

Focusing on the child's use of the language of immersion observers take into account use of endings and sentence construction in the language of immersion.

Language Complexity

	28-Nov	30-Nov	4-Dec	6-Dec	9-Dec	14-Dec	7-Jan	9-Jan	12-Jan	14-Jan	20-Jan	22-Jan	27-Jan	29-Jan	3-Feb	5-Feb	10-Feb	12-Feb	17-Feb	19-Feb	3-Mar	5-Mar	10-Mar	12-Mar	17-Mar	19-Mar	24-Mar
Child B							1.2	1.3	1.6	1.6	1.9	2	3	3.2	1.2	2	2.1	2.2	0.8		2.1	5	2.8	3	3.1		3.6
Child D	7	7.1	5.7	5.8			7	7.1	6.8		7	6.2			7.2		6.2		6.1		7.8	7	6.2		6.8		7.8

(Figure 3 Language complexity)

In this chart we can clearly see the difference in starting levels of the language of instruction for each child. Child D has begun the evaluation period with a high level of complexity in his spoken language skills and has maintained those levels with a trend to continue to improve his skills at a steady pace. Although at a look one might think that over all his development in complexity is stable. As we will see next the Vocabulary Growth shown in figure 1d shows a rapidly developing vocabulary.

Child B's Language complexity over the period has shown a four fold growth in development over the duration of observation and evaluation. The observer noted that Child B enjoyed practicing pluralizing new words during play time with classroom assistants and other students. Most observed children would learn a new word and move on, often using it incorrectly in basic form in later use. Could this be a side effect of knowing multiple languages or just a curious play theme? No one was sure.

8.4.3 Vocabulary Growth

Vocabulary growth shows the assimilation of new words into the daily language use of the child.
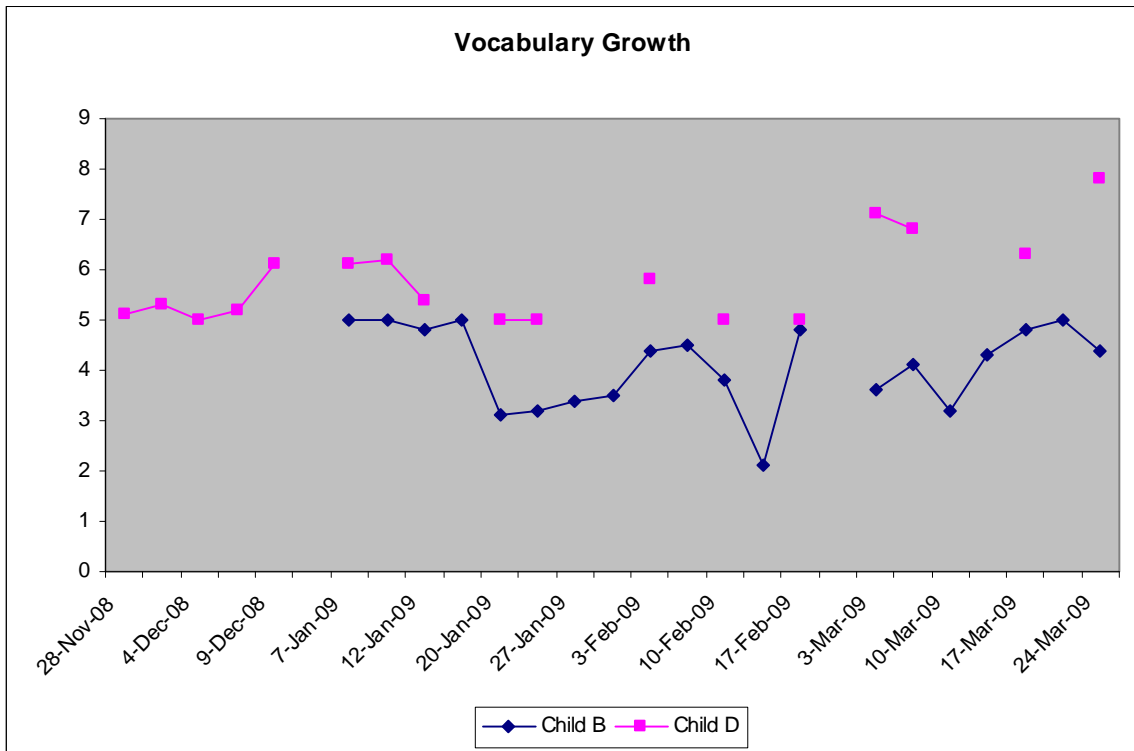

(Figure 4 Vocabulary Growth)

The above chart (figure 4) shows the children's use of new words during the observation period. Here Child B has shown a steady introduction of new words into her general usage. This stable rate of assimilation of new words is one of the more likely factors contributing to her overall language skills development speed.

Child D has also maintained a steady rate of assimilation during the early evaluation time. However, a trend to rapid acceleration in language development can also be seen to be beginning in the latter stages of observation. This is a general trend seen in most daycares towards the end of the year as the over all level of language skill improves in all students. Child B is not yet exhibiting this trend, but when we take into account the beginning levels of language skills and her overall development speed, it would be expected soon.

8.4.4 Daily use of Language

Daily use of language evaluates the regularity of which the child uses the language of instruction over their native mother tongue languages.
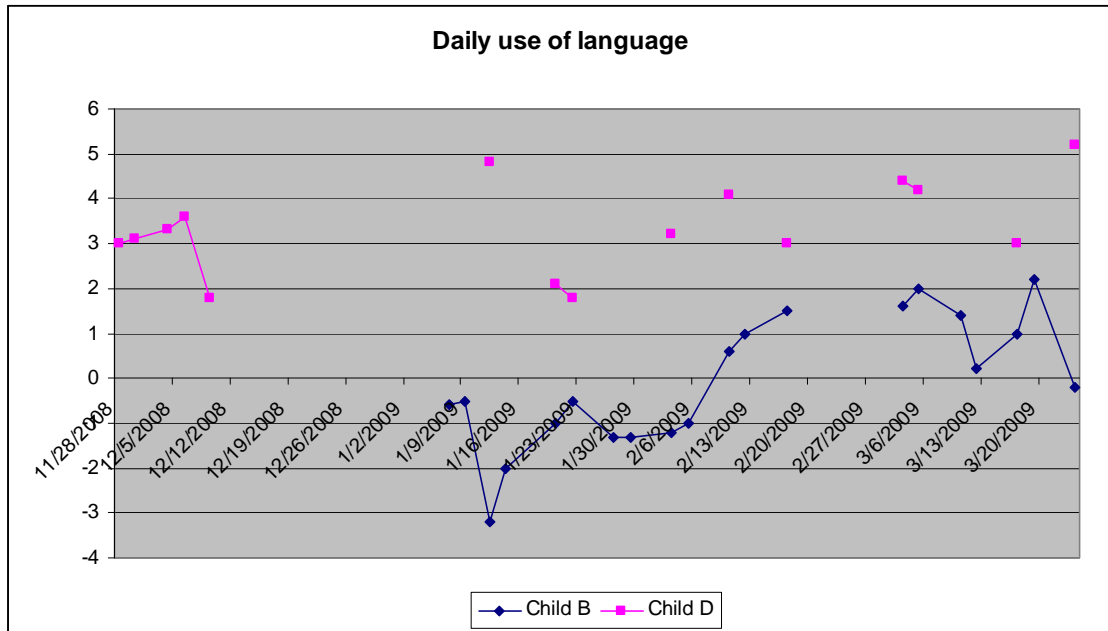
(Figure 5 Daily use of Language)

The Daily use of language chart shows the use of the language of instruction by the observed children. The base line of 0 represents the point at which the child uses more of the language of instruction than their mother tongue. The daily use of language chart can be used to show a median point of development by drawing a straight line between the dots of their plotted use of language points with the idea of keeping as many points as possible close to the line. The heavy fluctuation in results here is easily described by professionals who work in daycares. The children are heavily affected by the other children during their daily activities. They will swap between native tongue and language of instruction a lot. Many children need to be reminded to speak the language of instruction when they get excited or other wise stimulated. Another key factor is the cultural diversity of the groups and children will generally try to fit in with the dominant language of the moment.

In Figure 5 we can see that Child D maintains a high usage of the language of instruction but this can be attributed mainly to the fact he has no Finnish language skills and Finnish would be a language used a lot in times of excitement. An interesting point shown here is

Child B from day one of observation has managed to use almost 50% of her initial communication in the language of instruction. This shows she was repeating a lot words from the initial class. It is unclear as to why this has happened, the family information shows that this home language is not Finnish, but does not state that the child has no Finnish language skills. The median development line (if drawn in) shows a rapid incline in language use showing that soon it would be rare for the child D to use other languages during class time.

8.4.5 Class Comparison

The Class comparison chart is an approximation by the observers of how the child relates to the overall group of children in regards to their development. This takes into account that the group of children as a whole are always improving also.
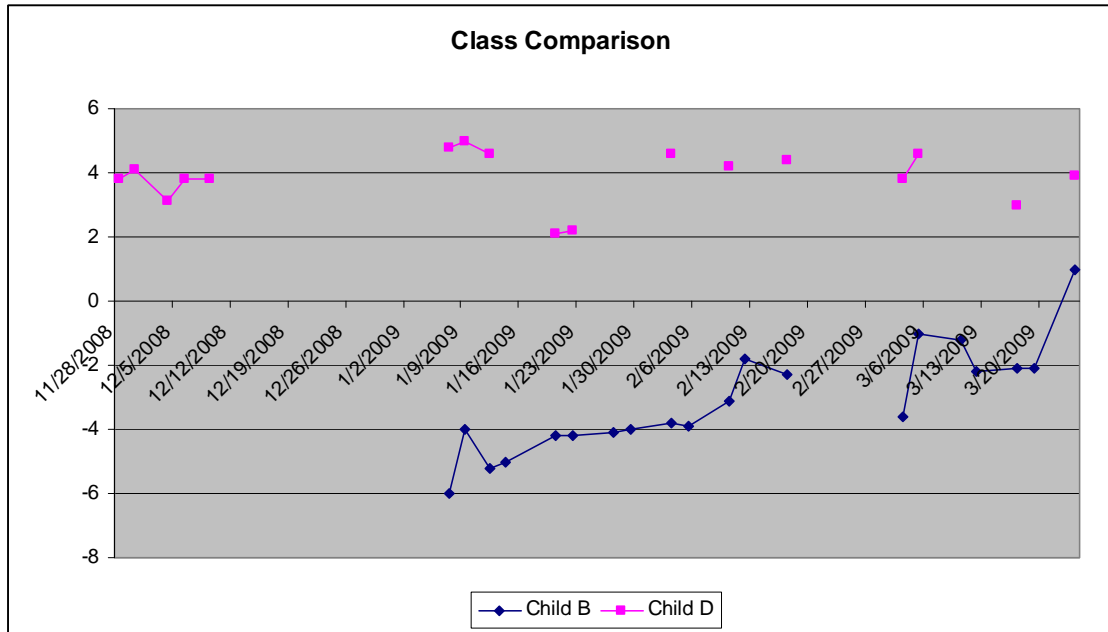
(Figure 6 Class Comparison)

In the class comparison figure the average class level is represented by 0 on the graph. Any child with a positive value is evaluated above the average level of language skill in the class and negative value below the class average. The chart shows a clear visual depiction of what has happened with the children's development during their time of observation. Child D has maintained a high level of language skills in comparison to the class and has been defined by the observers as one of the strongest in terms of language skill. His main problem continues to be pronunciation. Even as the rest of the class's level has improved his skill has continued to improve at a similar rate shown here as he has not fallen closer to the class median nor has he risen further from it. Child B, on the other hand, has started well below that class, in fact, starting from nothing. During the period of observation she has rapidly climbed in language skill level to just below the rest of the class. During her final week of observation it was seen she out performed the average level of the class. She has maintained a constant rapid development of her new language skills and observers have

been noted saying that if her development rate maintains - and they foresee no reason it will not- that she will end the school term as one of the students with stronger language skills.

8.5 Summing up the data.

Child B

Child B, the female child from a multilingual home environment, has shown rapid development. Observers commented that, throughout the observation period, the child was:

- Highly motivated
- Keen
- Skillful with punctuation
- Able to repeat precisely
- Very willing to try to speak the language of instruction
- Prepared to put in a big effort all round.

The child has shown that she has no fear of learning a new language or of trying to use it. This could be attributed to already learning two languages in the home environment. Throughout all areas of the evaluated measures used during the time of observation, Child B has maintained substantially higher than average development rates. This can be clearly seen in figure 6 above as she rapidly improved and eventually surpassed the levels of the average child in class. Figure 5 above shows clearly her desire to want to use the language she had learnt, while her steadily developing vocabulary (figure 4) and rapidly developing complexity of sentence structure supported and reflected that desire.

Child D

Child D, the male Child from a monolingual home environment showed good development. Comments by observers during the observation period were:

- Difficult strong accent
- Above average language level in class comparison
- Pronunciation problems
- Little growth in language usage
- Sentence structure stagnant

These comments also appear reflected in the data collected during the observation period. His comparison to the rest of the class (figure 6) shows that he ended the period with the same distance as he started, so in fact he improved on parallel with the class average. His daily use of the language of instruction in class (figure 5) showed that some days he spoke a lot some days he may not have felt like talking. This could have been influenced by how chatty the rest of the class was in the language of instruction taking into account that Child D has not Finnish language skills. His language complexity (figure 3) was evaluated to still be at the same level as where he started from, as when the period ended showing no great improvement in development. The vocabulary growth (figure 4) showed steady improvement. This seems directly attributable to the school curriculum and parents active participation in developing his language skills at home while they also learnt.

9 CONCLUSION

Drawing a conclusion at this time seems unfeasible. From an observational point of view Child B from a multilingual home environment has improved at an exceptional rate, while Child D has developed at a constant and more average rate. But this is hardly conclusive as even though efforts were made to try to isolate and remove other environmental factors from the evaluation they managed to creep back in.

Increasing the study from two children to four had been a sound plan to govern environmental factors. Unfortunately fate forced us to revise and adapt on the run. One child left on holidays and did not return. Another child transferred to a new daycare. So, the data collection was reduced back to two children. Another key factor is that, due to that turn of events, the research had fallen into the trap of the age old argument 'Girls learn academically faster than boys do'. While these factors exist, I can not definitively answer my question of 'How much effect does the home lingual environment have on multilingual education?'.

From the data we can see that the development of a child from a multilingual home environment is far greater in this case than the development of a child from a monolingual environment. The time duration of this observation showed a definite trend in the data indicating that there was enough data collected. The tools used in the observation have proven to be very successful in both the professionalism of the staff in data collection and evaluation, also in the data sheets themselves being simple, clear, effective and unobtrusive in the daily activities of the professional observers. These factors indicate that revising this observational study and trying again would be worth while.

If the study was repeated these would be my recommended changes for a revised study:
- Increasing the duration of the data collection period to a full school term.
- Increasing the number of participants in the study.
- Maintaining an even number of multi lingual boys and girls.
- Maintaining an even number of monolingual boys and girls.

- Maintaining the relative numbers between the multilingual children and the monolingual children.
- Broadening the number of locations, but maintain the Learning styles balance.
- Revising the data sheet (based on evaluating extra children), but maintain its simplicity.

Through these recommendations and modifications, the effects of the rogue variables that are involved in language development in children, can be better controlled. This would provide a better quality to the collected data. The increased duration in the collection of data would also ensure that trends in the data could be more readily identified. There would also be the added benefits of being able to see more of the trend and allow better comparison of the trend with other children from similar environments. This would allow for much more rounded arguments on the environments overall effect on the child's development.

The perceived future vision of the researcher is to see daycare environments evolved into bilingual care environments. Then continue to evolve into multilingual education and care environments in the distant future. Although this could be considered the grand dream of a dreamer, it seems not so distant to me. The dream could be achieved slowly through generational changes implemented at a state level or introduced at an accelerated rate through a developmental project. But from this dream I was abruptly awoken by a problem.

The problem came to light during the initial selection of children. One of the initial problems perceived by the researcher was completely off target. The essence of that problem is that Finland may technically be a multilingual country, but the majority of families (surveyed by the families of the daycare) in Finland are monolingual. It was difficult to find children from multilingual home environments. Finland is a perceived multilingual country, because all students study languages during their compulsory education. It appears though that once formal education is over, the additional language skills appear not encouraged or used with the children, but are more abandoned and shelved. This issue highlighted from the study could lead to another action.

That additional action could be to highlight the need for the development and distribution of information packs. These packs could express the importance of maintaining the additional language skills of people throughout life. This could encourage people not to return to being a monolingual element of society, but to pass on that multilingualism to the next generation. Education experts agree that having multiple language skills are beneficial to learning in general, so why not hand that advantage to our children.

This study as a whole has shown to be part of a tool to stress the importance of multilingualism in early education and in general daily life. This can achieved by introducing the children to as many languages as they are comfortable with at an early age. Sources such as the BBC have broadcasted scientific studies explaining how the grey matter of the brain is altered in bilingual people in the equivalent way that the muscles of a weightlifter are improved by lifting weights and exercising (Learning languages 'boosts brain' 2004, 1). By trying to shed more light on the different aspects of language development in early education we can try to identify which one of those aspects are the best 'weights to lift' and how much of that 'weight' should be 'lifted' for the best development of an individual child.

10 APPENDIXES

(APPENDIX 1: Data sheet)

Date _____

Family Members

M F B [ ] S [ ]

Number of languages used at home [ ]

Main language used at home. [   ]

Do other family members use English at home ? Y[ ] \N[ ]

How would you describe your child's English skills ?

_____
_____
_____
_____
_____

(APPENDIX 2: Family Info Sheet)

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