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LEARNING BY PLAYING: DEVELOPING A BOARD GAME FOR
PRESCHOOL CHILDREN

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<p>Title</p> <p>Learning by Playing: Developing a Board Game for Preschool Children</p> <p>Commissioned by The English Kindergarten in Joensuu</p>	
<p>Abstract</p> <p>The aim of the thesis was to create a board game to support the second language learning of preschool children and be a useful teaching tool for their teachers. The process leans on theories on language development, linguistic awareness, second language learning and learning by playing.</p> <p>The thesis was carried out using a functional approach that involved testing and evaluating the prototypes of the product, with the participation of the preschool children and their teachers.</p> <p>The process proved that games can be a useful tool in learning a second language in a bilingual preschool environment. The board game is also a useful tool for the preschool teacher, who can extend its use in various ways in the classroom, for example using it as a visual aid.</p> <p>The board game can be further developed to suit different learning groups in both early childhood and primary education. Furthermore, it may serve as a prototype for a mass-produced board game.</p>	
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<p>Nimeke: Learning by playing: developing a board game for preschool children</p> <p>Toimeksiantaja: Joensuun englanninkielinen leikkikoulu</p>	
<p>Tiivistelmä</p> <p>Opinnäytetyön tavoitteena oli luoda lautapeli tukemaan esikoululaisten toisen kielen oppimista ja hyödylliseksi opettamisen välineeksi opettajille. Teoreettinen viitekehys rakentuu kielen kehityksen, kielellisen tietoisuuden ja toisen kielen oppimisen sekä pelaamalla/leikkimällä oppimisen teorioista.</p> <p>Opinnäytetyö on toiminnallinen, ja prosessiin kuului tuotteen prototyyppien testaus ja arviointi yhteistyössä esikoululaisten ja heidän opettajiensa kanssa.</p> <p>Prosessi osoittaa, että pelit voivat olla hyödyllinen väline toisen kielen oppimisessa kaksikielisessä esikouluympäristössä. Peli on myös hyödyllinen esikoulun opettajalle, joka voi käyttää peliä monin eri tavoin, esimerkiksi visuaalisena apuvälineenä opetuksessa.</p> <p>Lautapeliä voi kehittää edelleen soveltumaan monille eri käyttäjäryhmille niin esi- kuin perusopetuksessakin. Se voi myös toimia prototyyppinä massatuotetulle lautapelille.</p>	
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1 Introduction

Children learn by playing, and this way of learning is the most innate and natural way to learn. According to Lev Vygotsky, play is the preeminent educational activity of early childhood (Berk and Winsler 1997, 57). But how can play be utilized in the kindergarten environment so that it can be a useful tool for the teacher and enjoyable as well as educational for the children at the same time? This thesis narrows down the endless possibilities of play as a learning tool by presenting a study which looks at the second language learning of preschool children by means of a board game.

I have chosen a functional approach for my thesis in cooperation with my commissioner, the English Kindergarten in Joensuu (from now on referred to as the kindergarten). A functional approach, based on qualitative research, was selected due to the practise-based nature of the study. Because the work involved creating a product, it was necessary to test the prototypes of the product several times in cooperation with the children and their teachers. The framework of my thesis is early childhood education and creating a board game for the preschool environment. The Kindergarten is introduced in more detail in Chapter 5.1, "The preschool in the kindergarten context".

The choice of themes has sprung from my early childhood education studies and my interest in language learning and creating enjoyable play environments. The aims, goals, themes and methods of my work have been chosen in cooperation with my commissioner and my supervisors at the Karelia University of Applied Sciences. The themes in this work have also broader value: the National Core Curriculum for Pre-primary Education emphasizes the importance of advancing

the linguistic development and linguistic awareness of the preschool children. As stated in the curriculum, the children's literacy development is also supported by play and functional exercises (the National Core Curriculum for Pre-primary Education.)

In a world of rapidly developing technology, a traditional board game still has value. Human interaction cannot be replaced by anything virtual. Professor of Psychology at California State University Dr. Larry Rosen sees that it is necessary to examine our technology use, to make sure it is not getting in the way of our being sociable (Rosen in Wall Street Journal Online 2015). Children in early childhood education are growing and learning at a rapid rate, and we must take care to monitor their use of technology in a way that they will not miss out on "real" interactions and emotions. It is also our responsibility as educators to offer them enjoyable, educational as well as safe play and learning environments. According to Allison Elliot, our efforts must be on creating "social, playful contexts that foster cognition, language and literacy" (Elliot in Ebbeck and Waniganayake 2010, 69).

With the aforementioned *social and playful contexts* in mind, I set out to create a board game that would be a useful second-language learning tool. The game design process, the evaluation process and the finished product are explained in detail in Chapter 8, Process.

2 Early childhood education and the preschool environment

2.1. Early childhood education

Early childhood education is educational interaction that takes place in various environments, aiming to promote the balanced growth, development and learning of small children. The early education provided, controlled and supported by the society consists of care, rearing and education (National Institute for Health and Welfare 2016).

A good-quality early childhood education requires a clear view of why and how the education is given in practice (Hujala and Turja 2011, 13). Good-quality education requires careful planning, and it has been proven that children in early childhood education have benefited from careful planning emotionally, socially and also in the field of cognitive development (Hujala and Turja 2011, 15).

The planning and practice of early childhood education is based on Finnish law. The legislation for early childhood legislation has recently been reviewed and renewed, the new legislation was passed on August 1. 2015. The law defines The Finnish National Board of Education as the professional body responsible for giving guidelines on early childhood education (Law on Early Childhood Education at Finlex Database 2016).

The local authorities responsible for early childhood education are required to make their own education plans according to the national guidelines. According to law, each individual child in early education establishments must have their own early education plan (Law on Early Childhood Education at Finlex Database 2016).

2.2. Preschool

Preschool education in Finland is mandatory for all children before they start primary school at age seven. Preschool education is offered in mostly in kindergartens and in some schools. The duration of preschool is one year, two semesters (Finnish National Board of Education 2016).

However, it is not mandatory for the child to come to a kindergarten or a school for the required preschool education, if the parents can organise the education in a way that is in accordance with the law (Ministry of Education and Culture 2016).

The central task of preschool education is to promote the growth, development and learning possibilities of the child. Preschool activities must support a child's

positive self-image and positive outlook as a learner (National Core Curriculum for Pre-primary Education 2016.)

The preschool education (also known as pre-primary education) is based on the developmental stage of the age group, and is play-oriented, not school-like. The education aims to promote the linguistic development of the child, as well as the ability to learn new things. The child learns basic knowledge and skills in preparation for primary education (Finnish National Board of Education 2016.)

3 Language learning and development

3.1. Language development in the preschool age group

Language development is an integral part of a child's overall development (Leiwo 1989, 37). The development of language is closely linked to the development of speech, but also to the development of intelligence, memory, and thinking (Nurmilaakso and Välimäki 2011, 31). There are various theories available on language development in the field of developmental psychology, Piaget and Vygostky being among the most well-known theorists. Although I make references to developmental psychology and especially Vygotsky, this thesis will not go in depth into this area in order to keep the field of study within its framework. Still, it is worth noting that the study of language development cannot be separated from the overall development of the child. The development of the brain naturally plays a major role in linguistic development, and it has been proven in a recent study by Skeide, Brauer and Friederici that 6-7 year old children do not process syntax independently from semantics at the neural level (Bavin and Naigles 2015, 83).

6-7 year old children are able to notice the form and meaning of linguistic expression simultaneously, but they cannot usually understand the use of adjectives in describing psychological qualities of persons. Koppinen, Lyytinen and Rasku-Puttonen give an example of this: a child cannot understand the meaning of "a cold person", as they understand cold only as a temperature that

is felt, not as a quality of a living being (Koppinen, Lyytinen and Rasku-Puttonen 1989, 67.)

Smaller children develop their vocabulary at a rapid rate, and have the readiness to learn and use rules by which words are conjugated and formed into sentences (Nurmi et.al 2010, 35). Children actually understand words and language before they can speak. By three years of age, the speech of a child is almost or completely comprehensible. Children are becoming linguistically aware; they adopt word games and chants or nursery rhymes. Three-year olds can ask questions in a sentence form and give orders. The speech of 4-5 year old children already have adult-like use of words in different word cases. Children in this age group are able to form clear sentences and also describe time, space and location. They can also tell stories. At six years of age, children usually command more than 10 000 words, and they are able to name objects and symbols fluently. They can concentrate on listening and ask questions about what they have heard, and learn to take turns when speaking with others. Six-year olds can follow spoken instructions (Nurmi et.al 2010, 45.) 5-6 year old children have an almost adult-level command of grammar (Leiwo 1989, 54). It can be said that the preschool age group are already quite advanced in their linguistic development and have all the prerequisites for literacy, and some children in the age group do learn to read before school.

According to the National Core Curriculum for Pre-primary Education, preschool education must support the development of children's linguistic skills, from semantic awareness towards more detailed awareness of structure and form of language. Central to this task is to strengthen the child's interest in spoken language and reading and writing. Using example-based linguistic teaching and ample positive feedback are important in learning (National Core Curriculum for Pre-primary Education 2016.)

It is also worth noting that play is an integral part of language development. Children communicate and negotiate when playing, they talk to each other and to their toys- and as their toys when assuming the role of a doll, for example. When learning feels natural and fun, it happens organically and without pressure.

Adults can join in the play when needed, to guide, to give encouragement and praise. Adult engagement in play can help children to expand their thoughts, ideas and use of language (Elliot in Ebbeck and Waniganayake 2010, 73.)

3.2. Linguistic awareness

Linguistic awareness is a linguistic process that can be separated from other areas of development between the ages 4-8. When becoming linguistically aware, the child begins to notice the structure, function of words, not only their meaning (Tornéus 1986, 11, Valkonen and Vilska in Niikko 2002).

According to Margit Tornéus, linguistic awareness includes the ability to distance oneself from language and reflect upon it (Tornéus 1986, 11). This is called metalinguistic ability. The child is able to look at language from the outside in, as it were. Metalinguistic abilities vary naturally from one person to another, but a child's metalinguistic ability can be supported in early education (Tornéus 1991, 10).

Margit Tornéus gives four subcategories to linguistic awareness: phonological, morphological, syntactic, and pragmatic awareness. Phonological awareness refers to realising the sounds in language (Tornéus 1991, 15). Morphological awareness is awareness of words, and how sentences are formed by words (Tornéus 1990, 30). Syntactic awareness is awareness of the rules of language (Tornéus 1990, 39), and pragmatic awareness refers to awareness of the meaning of language, and the ability to differentiate between logical and illogical sentences, to use language in a situation-appropriate manner. (Tornéus 1991, 49-50).

In the world of the preschool child, linguistic awareness plays a big part, as the child is being steered towards literacy in his or her last year of early education. The development of linguistic awareness and metalinguistic ability is important in developing a problem-free process in learning to read and write (Tornéus 1986, 15).

The child's linguistic awareness is being supported in the early education system by means of rhymes, stories and other activities involving speech or song, often accompanied by movement, such as chanting rhymes in tune to body movement (Valkonen and Vilska in Niikko 2002).

Play is a key vehicle in developing language, as Allison Elliot states in her essay on playful pedagogies (Elliot in Ebbeck and Waniganayake 2010, 73). The child's developing literacy is supported by play and functional exercises. Teaching as well as the learning environment are designed in a way that enables the children to observe, study and try spoken and written language and to broaden their vocabularies (National Core Curriculum for Pre-primary Education 2016.)

3.3. Second language learning and bilingualism

Children are often perceived to learn foreign languages more successfully than adults, but there are other factors contributing to learning success, such as supportive contexts, opportunities to practice, motivation and the quality of formal instruction (Pinter 2011, 49).

The definition of bilingualism varies. According to Anna-Lena Østern, defining bilingualism is challenging, because the definitions can become either too broad or too narrow (Østern 1991, 42). The most narrow definition of a bilingual person is someone who has learned two languages simultaneously before the age of four (Hassinen 2005, 16).

For the purposes of this thesis, I use the term bilingual to refer to the official languages of the kindergarten (both Finnish and English are used), and also to bilingual (commanding two languages at equal level) children.

In this thesis, I use the abbreviation ESL (English as a second language) and leave bilingualism in the background, because there was only one Finnish-English bilingual child in the preschool group. Bilingualism is still worth mentioning, because there are many children in early education environments that are bilingual in other languages than the language used in the kindergarten that they are attending.

Learning a second language becomes easier when a child's native language is already well-established (Pinter 2011, 75). This makes the early education environment from age three onwards a good stage to start learning English as a second language. Because a 5-6 year old already has almost an adult-level command of the grammar of his or her native language (Leiwo 1989, 54), an ESL learning environment for a Finnish-speaking child may give the child a great boost to acquire a level of English proficiency before ESL learning starts in the comprehensive school system.

According to the native English-speaking teacher at the kindergarten, the more proficient English learners can be role models for the less proficient; they can provide encouragement and praise which can be uplifting to both sides (Kindergarten teacher interview, 20.9.2016). This is the kind of supportive context of second language learning that Pinter refers to in her book (Pinter 2011, 49). Language learning at an early age comes more easily to most, preschool is a good time to expose the children to other languages. (Kindergarten teacher interview, 20.9.2016).

4 Learning by playing

4.1. Play as a learning tool

In the context of this thesis, learning by playing refers to playing the board game. In a broader context, learning by playing means utilizing any kind of play activity as a learning tool. The learning can be either spontaneous or offered by a teacher who directs the play activity or takes part in it. Although directing play can be easy

and sometimes necessary, for example to quiet a conflict or reach a teaching goal, a teacher ought to *allow* play to happen naturally rather than orchestrate it when at all possible. It is important to include the children as active actors in their own lives. In a child-centered approach to learning, learning is connected to the children's everyday activities, not something separate from play and the other goings-on in a day (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 90).

Play is defined as an activity that is voluntary and stems from the child's own inner motivation (Nurmi et. al 2010, 57). It can be argued that play is not always voluntary; Vygotsky put forward the idea, that play constantly demands that children act against their immediate impulses, for example when playing a game (Berk and Winsler 1997, 56). Play is the way to grow and learn for children under school-starting age (Tiusanen-Sirén). Therefore there is no need for excess classroom-like exercises in this age group. This view is supported by Hujala and Turja: the preschool children learn through play, and learning this way promotes skills that are later needed in school (Hujala and Turja 2016, 21). Play is essential to children's learning (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 89). Keeping this in mind, educators should be inspired to promote play, and to utilize both their professional knowledge and creativity in creating suitable play environments. Play can enable children to practise the use of language daily for hours (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 98), and thus it is quite important what we do with those hours in an early education setting.

Learning by playing in a broader context is more than just children learning new skills or linguistic abilities through play. Hujala, Helenius and Hyvönen describe learning as a co-operational process; play in an educational context is a medium of learning for children, and at the same time enables teachers to learn about children (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 91). The following chapter delves into the role of the preschool teacher, who can act as a provider and co-operator in creating learning environments, not necessarily as a director alone.

4.2. The role of the preschool teacher

The preschool teacher can use play and games in a variety of ways to teach the children, or promote their learning. Sometimes a teacher must also promote play itself, or even teach the children to play. There are children who develop playing skills very slowly. Why this is, varies from person to person, and should be left to another study.

The promotion of play is more than making sure the play environment is up to standard and the children can play together; it requires high-level professionalism and good organisatory skills, as Leena Tiusanen-Sirén states in an e-article (Tiusanen-Sirén 2016). It takes time and effort, in addition to professionalism, to understand play and to acquire new skills to guide playing children (Helenius and Korhonen in Hujala and Turja 2011, 77).

In a Finnish preschool setting, play is seen as more than a means of preparing for literacy and getting ready for school. Play is valuable in itself, not only as a learning tool or a means of obtaining results dictated by a curriculum. Children enter primary education the year they turn seven, and skills like reading and writing are not required when entering the school system. The role of the preschool teacher can be described as two-fold; caregiver and teacher. It is important that the children experience joy in learning and experience success in their activities, because that gives them confidence. The teacher sees the children as individuals, and supports their growth accordingly. In preschool education, it is more important to let the children develop emotionally than prime them for school (Jantunen in Jantunen and Lautela 2011, 57).

The preschool teacher can be innovative in creating environments and opportunities for both play and learning. Developing and supporting play in preschool is an important goal, more so than school-like activities (Tiusanen-Sirén 2016). It is imperative that the teacher is conscious of the views of the children and the views of adults, and is aware of how children discover their own meaning-making processes. This is called contextual consciousness, and it

allows the children to be an active part of their own education, not just receivers of teaching (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 91).

Creating suitable environments for learning through play is part of the teacher's professionalism. However, too much planning and too much ready-made environments are to be discouraged, because children need space for independent growth and discovery (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 92). There must be a balance between structure and freedom, and space also for hearing the children's point of view, not to mention allowing the teacher to change course, marvel at new discoveries together with the children, and also admit to "not knowing" sometimes.

The kindergarten environment plays a considerable part in what children can do, and it is essential to create such an environment that promotes play and learning as well as using existing skills (Helenius and Korhonen in Hujala and Turja 2011, 76). The kindergarten environment as a whole is the responsibility of the adults, but planning, changing and enhancing the common environment can be much more productive, innovative and fun (not to mention equal) when children are involved in the process. The kindergarten exists for the benefit of the children, and keeping this in mind makes the involvement and active role of the children natural and even obligatory. In a child-centered approach, the child is recognised as an active participant, a subject in his or her own life (Hujala, Junkkari and Mattila in *Varhaiskasvatus tänään* 2016).

4.3. Relevant previous research

For this thesis, relevant prior studies are studies on the linguistic development in children and second language learning. There is a great variety of doctorate-level and other studies in these fields, but studies that are similar to the theme of my thesis are scarce. There is a study on the effects of computer game playing on pre-school and first-year elementary school children by Miia Ronimus (Ronimus

2012), but the study focuses on motivation, not linguistic abilities. The researchers at Carnegie-Mellon University and Boston College have found out that mathematical skills can be improved by playing numerical board games (Science Daily), but again, this does not directly apply to my work as my focus is linguistic.

Studies that focus on linguistic development, bilingualism and second-language learning are plentiful. To name a couple, Sirje Hassinen's doctorate study on bilingual children (Hassinen, 2002), Catharina Lojander-Visapää's doctorate study on the choice of language in bilingual children (Lojander-Visapää, 2000). In a broader perspective, the works of Lev Vygotsky and Jean Piaget are relevant to this work, especially in the areas that have to do with language learning and the role of play in a child's cognitive development. Vygotsky especially has studied children's play and game environments and the role of play in development. Piaget had a different perspective on play, regarding it as assimilation, not a forward-moving learning process like Vygotsky (Berk and Winsler 1995, 56-57.) The Vygotskian perspective can thus be seen as more relevant to my work.

There are some board-game development theses available at BA level, but scarcely any that are relevant to my work or in the same field of study. A board game was created by BA in Social Services students, with focus on Christian child and youth education, the theme of the game being Christian missionary work (Marttila and Niemistö, 2008). This was the only thesis or study that was even close to my work. Recent studies related to language learning by playing tend to focus on using virtual and electronic learning environments, such as educational computer games.

5 The setting: a preschool learning environment

5.1 The preschool in the kindergarten context

The English Kindergarten in Joensuu has places for 27 children, and at the time of this thesis work, there were seven preschool children. The smaller and the preschool children were all in the same group, and preschool children had their own preschool lessons twice a week for a whole morning. They are taught in both Finnish and English. The preschool teaching follows the National Core Curriculum for Pre-primary Education, with its own emphasis on learning the English language.

The philosophy of the kindergarten is to familiarise the child with the English language and different cultures in everyday life. The kindergarten aims to provide a multi-cultural, international, loving and approving atmosphere, where everyone is appreciated. Children's, families and teachers cultural traditions from different cultural backgrounds are brought up alongside the Finnish cultural tradition. Nature and environmental education are also part of the curriculum.(English Kindergarten in Joensuu 2016.)

The Native English speaking teacher is responsible for teaching English and does not use Finnish at work. Other staff use English when speaking to the native English speaking teacher, although they mainly operate in Finnish. The head teacher uses English in some of her teaching and other activities.

5.2 Bilingual preschool

All the preschool children that were part of this work clearly understood English, some more, some less. Even so, everyone's ESL learning process is kept active as the other teacher only uses English. As the children in the kindergarten are taught in both Finnish and English, they are immersed in the English language every day. Some activities, such as morning circle (a morning meeting) are conducted in English by all teachers.

The National Core Curriculum for Pre-Primary Education states that the goal of bilingual preschool education is “to utilize the children’s early language acquisition sensitivity period by offering language education that stretches beyond standard preschool education.” This is offered by creating motivating situations and environments for language learning. The guidelines also say that children are offered possibilities to acquire language skills in functional and play-oriented ways (National Core Curriculum for Pre-Primary Education 2016.) In the kindergarten, the children are encouraged to use their language skills in everyday activities and communication (English Kindergarten in Joensuu 2016).

Children do tend to light up when they are allowed to take an active part, and there is much potential in every child if we as adults and teachers only let them become active actors in their own lives. There is actually a link between the current National Core Curriculum for Pre-primary Education and the Reggio-Emilia approach, as both promote the child’s active part and collaboration in learning. Kam and Ebbeck state that educators should provide children with opportunities to develop relationships and enjoy experiences to promote learning (Kam and Ebbeck in Ebbeck and Waniganayake 2010, 162). In the National Core Curriculum for Pre-primary Education learning is addressed as a co-operational process, where the child is a key agent who has opportunities for meaningful, child-initiated experiences (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 91).

Cooperation, learning and teaching in two languages present both challenges and possibilities. It cannot be expected that all the preschool children have the same level of English, because some of them have been studying it longer than others. Sometimes there are bilingual children in the group, as was the case during my study. According to the preschool teacher, the challenges in teaching various levels of proficiency in one group lie in maintaining a balance of interest (not too complicated language for the non-fluent learners and not too simple for the fluent). Preschool work takes longer for those who are less fluent, therefore having extra activities for them to do while the others finish helps. Also, more visuals are needed to ensure that the non-fluent children understand (Kindergarten teacher interview, 20.9.2016.)

6 Basis, aims and goals of the thesis

6.1. Basis for the thesis

The basis for the thesis was to create a board game to support the language learning of the preschool age group. Detailed aims and goals are presented in subchapter 6.4., *Aims and goals*.

The environment for conducting the study was the preschool environment at Joensuu English Kindergarten. Central cooperators in the process were the seven preschool children and their teachers, head of kindergarten and the native English speaking teacher. The cost of the materials for the prototypes and the finished product were covered by the commissioner.

The theoretical framework for the thesis had to be narrowed down, and it was agreed on with my commissioner and my thesis supervisors that the framework was children's language development and linguistic awareness, namely morphological awareness. Naturally, theories on learning through play had to be included, because playing a board game is a form of play, whether it is spontaneous or used as a learning tool.

6.2. A functional approach

The only way to carry out this thesis was a functional approach (also known as practise-based approach), as it involved making a product for a specific group, and the participation of the target group was agreed on as necessary to test the product.

A functional thesis begins with ideas and with a question: what interests does one have? The area of interest has also to be motivating, and interesting for the prospective commissioner as well (Vilkkä and Airaksinen 2003, 23.) In my case,

finding a common interest with my commissioner was easy, and creating something tangible and useful was inspiring.

Careful planning is of the essence. You have to be able to imagine how your ideas and plans will work in practice. If the thesis will produce an actual product, you have to calculate its cost and either be willing to pay for it yourself or negotiate that your commissioner cover some or all of the cost (Vilkka and Airaksinen 2003, 27-28.)

A functional thesis requires a theoretical framework (Vilkka and Airaksinen 2003, 30). Narrowing down the subject and theoretical framework are important; it is better to go deep in a narrow field of study than stay shallow and try to cover a lot of areas.

6.3. Aims and goals

Aims and goals for the thesis were defined in cooperation with my commissioner. The main goal was to create a board game that would support the language learning of the children and be a useful teaching tool for the teachers. To reach the goal, it was important to create at least one prototype of the game and evaluate its qualities by playing the game with the children. It was also essential to receive feedback from the children and their teachers.

My personal aim was also to learn more about the educational qualities of play and how I could create and use tools (such as games) to support the learning of children. This is also a future goal for my work as a kindergarten teacher; to create inspiring and creative learning and play environments. I am interested in creative methods and the participation of children in decision-making about their own environment and activities, so everything is not teacher-directed. “A different thing happens if the children know that there is *a feeling of trust in their capacities...*”, (Vecchi 2010, 122) is an idea I want to keep in mind when working with children.

7 Methods

7.1. Evaluation

The approach of my thesis is functional, and as such it leans on the principals of qualitative research. I utilised the research technique of *evaluation*. A broader definition for evaluation is “the systematic assessment of the worth or merit of some object” (Research Methods Knowledge Base 2016).

Evaluation as a broader term can be divided into “basic forms”, those being *inclusive evaluation, evaluation with emphasis on participation, and evaluation focusing on observation*. These basic forms can be used alone or in combination (Arvionnin ABC 2016.) In this thesis work, evaluation with emphasis on participation, and evaluation focusing on observation are the most relevant.

My commissioner and I agreed on two evaluation questions to aid the evaluation process: Firstly; *does the game support the second language learning of the preschool children*, and secondly, *can the game be used as a teaching tool and how?* Evaluation was chosen as a method in this work because of the necessity to observe children playing the game and receive feedback by discussing with the children and their teachers. The evaluation process in this context includes four actions: *playing (several versions or prototypes) the game, observation, discussion and interviews*. The children were a vital part of the evaluation process. This method enabled me to receive direct and sincere feedback as well as make decisions based on my evaluation form notes. I discussed the testing sessions with the staff of the kindergarten, to receive the views on how the children react to the game, and also to obtain other necessary information. In the beginning of the process, I found no reason to create formal interview scripts or use any interview themes, I utilized a free interview technique. Towards the end of the process, I formed some questions and asked for a written reply. Discussion in the context of this work meant receiving feedback from the kindergarten teachers and the children, and also keeping in touch in between our meetings, if

any questions or ideas should arise. Playing the game involved 3-4 players at a time, and also a member of staff present (observing, not participating) in addition to myself.

By observation I mean observing the children when they played the prototypes of the game. Observation (in qualitative research) is the systematic description of events, behaviours, and artefacts in the social setting chosen for study (FQS Qualitative Social Research). I observed the way the children learnt, deduced, and communicated, the main focus of my observation being the learning of the English language in speaking and understanding it. Observation in this type of research is often described as “unstructured”, because there are no pre-determined categories or questions (University of Sheffield 2016). I took photographs and notes. An evaluation form (Appendix 2) was also used. The photographs taken in the kindergarten setting are photographic notes to help my evaluation and are not meant for publishing, whereas the photographs in this thesis (Appendices 4-6) are taken of my design process to make it visible to the reader.

In addition to using an evaluation form, I documented my notes and observations in a thesis diary. The evaluation process formed four kinds of data: *observation notes in a form format, general notes in a diary, interview notes and photographs*. The entire process is described in detail in chapter 8, Process. The collected data will be destroyed after the work and product are published.

7.2. Participatory action

Participatory action, inclusion and empowerment are central in the field of social services studies and professional practise thereof. It could be argued that asking the children play the board game is a participatory method in itself, but I wanted more inclusion. Participatory action was included as a method later on in this thesis work, in the last stages of planning the final prototype of the game. The way the children participated is explained in detail in part 8 (process).

Participatory research methods are geared towards planning and conducting the research process *with* those people whose life-world and meaningful actions are under study (FQS Qualitative Social Research 2016).

I am using the research term participatory action in this context to mean the active participation of the children, as a voluntary part of the process. The term participation seemed insufficient to describe what was carried out, because participation can be minimal and involuntary, and in this case, taking part at this stage of the process was voluntary, with the children being active actors and cooperators.

8 Process

8.1. Planning and discussing ideas

The thesis process began in June 2014 with a meeting with my commissioner. The head teacher of the kindergarten and I discussed possibilities to carry out a functional thesis process, with a tangible product as a result. The head teacher preferred an English language work as such would be more useful to the whole kindergarten community, meaning teachers and children. We agreed that the product should be a game that would help the children to learn English. Later in the process we also included another goal; the game should be useful in teaching as well, so that the preschool teachers could use it as a teaching tool. It was the express wish of the teachers of the kindergarten that I should first produce a prototype of the game.

We agreed that the first steps should be informing the children's parents about the project, and obtaining permission forms so that the children could participate by playing the prototype(s) of the game. Prototype in this context is the same as a prototype in industrial design; a physical object, a tangible artefact created to approximate the product (Eppinger and Ulrich 2003, 247).

It was also agreed upon that the permission form should include the possibility to deny all participation, or to deny the right of photographing one's child partially/at all.

Careful planning and creating a framework for the process was important and of course necessary. The idea and goals of a thesis must be carefully planned, and it is crucial to map out what is to be done, how it is done, and why (Vilkka and Airaksinen 2003, 26).

When developing a product for a specific target group, it is essential to be aware of the needs of the target group. As this process was not a commercial one, I was able to concentrate more on the educational value of the product and the wishes of my commissioner, rather than marketing and commercial value of the product.

According to Tapani Jokinen, product design and development is multi-faceted creative work, that does not fit into rigid methodological or organisatory brackets. However, a basic product development path can be divided into four stages: *starting, drafting, developing and finishing* (Jokinen 2016.) The actions presented in the following chapters do fall roughly into these categories. Selection of target group and obtaining permission from parents (chapter 8.2.) is part of the starting stage. First prototype and evaluation (chapter 8.3.) and second prototype and evaluation (chapter 8.4.) are part of drafting, as is participatory action (chapter 8.5.) Actions described in chapter 8.6. (finished product) are part of the finishing stage.

8.2. Selection of target group and obtaining permission from parents

The work began again after the summer break in the autumn of 2014. In November, at a meeting with the kindergarten teachers, we talked more extensively about the qualities of the game. As the children in the kindergarten are aged 3-7, we narrowed the age bracket down to the preschool age group, ages 5-7. This also made the designing of the product easier, as we concluded that a game that is suitable for smaller children may prove boring for older ones, and a game that is suitable for preschool children may be too difficult for smaller children. This was helpful in narrowing down the theoretical framework of the thesis as well. At preschool age, children usually command more than 10 000 words, and have the ability to name objects and symbols fluently. They can concentrate on listening and ask questions about what they have heard, and

learn to take turns when speaking with others. (Nurmi et. al 2010, 45.) A game focusing on ESL learning felt easier to design with this evidence on the developmental stage of the preschool age group in mind.

At this stage, we discussed the visual representation of the game board and the qualities of the game. We agreed that the game should be easy to use, fun, and colourful as well as an useful learning tool. I did not look at any existing board games, in order not to accidentally draw any ideas from them that may border on copyright infringement. Instead, I relied on my memory to think about the qualities of an enjoyable board game, and in creating of the first prototype, I also took into account the target age group. We decided that the preschool children would play the prototypes of the game, after obtaining permission from their parents. The permission form was written out in a way that allowed parents to deny all participation, or to allow participation but with restrictions regarding photographs. The form can be found in Appendix 1.

Testing the game by its actual future user age group was done in order to get valuable information for the further development of the game. This information included the general user-friendliness of the game and its components (cards, game markers, game board picture and material) as well as the language-learning aspects of the game.

8.3. First prototype and evaluation

I worked on the first prototype with the commissioner's wishes and the preschool requirements in mind. I had an idea of a simple path-like game, where the players would "travel" towards a goal by tossing dice. The path had action points where, depending on which point you had to stop at, you had to either draw, speak or make a little pantomime. The game at this stage had three stacks of action cards, "Speak", "Draw" and "Act". I designed three kinds of activities to keep the game interesting, and "Act"- cards in order to allow the children to move, as physical activities are important for children (Hujala, Helenius and Hyvönen in Ebbeck and Waniganayake 2010, 93). The activities were also designed to encourage the

children to speak English and use their existing vocabulary, as well as to possibly learn new words. A photograph of the first prototype is in Appendix 4.

I chose the components of the game based on the developmental stage of the preschool age group and their level of English (some were beginners with only a few words in their vocabulary, some had been in the kindergarten since they were three and thus had a more advanced vocabulary and the ability to form sentences and understand the language well. There was one completely bilingual child in the group.) Because six-year olds are already able to concentrate quite well, they can concentrate on playing a game where there is some waiting for one's turn. Around preschool age, children are also able to take into account each other's suggestions and opinions. They can take turns in talking and follow rules (Nurmi et. al 2010, 55.) The ability to follow rules is important in a board game with this many components.

At this point, the planning was mostly innovative creating, because I based the first prototype on the wishes of the teachers and my own creative ideas, as well as my knowledge of the developmental stage of the preschool group. I knew that evaluation (playing the game and observing the playing) would offer more information on how to proceed with product development. It was important not to try to make anything too finished at this point. Still, for the sake of making the most of the evaluation process, the prototype had to look like a game, not just dots on paper.

I drew the first prototype game board on large, good-quality watercolour paper and painted it (see photograph in Appendix 4). I did not make any sketches before I drew the board, because I had such a clear image of the end result in my mind. It is common, when designing a product like this, to make initial sketches and paintings, and to construct prototypes (Lawson 2008, 13).

The first testing session came about on March 27, 2015. All seven preschool children were present, and the teacher divided them into two groups. The first group that played the game included four children. At this point, I did not yet have an evaluation form, so I made notes in a notebook. In later phases of the process,

I did use an evaluation form (Appendix 2) to make the analyzing of the collected data easier.

I immediately noticed that the game had too few action stops, especially of the “Draw” kind, as the children had some difficulty in waiting for their own turn and trouble concentrating. This led me to deduct that the actions stops along the “path” of the game had to be more frequent. I also had made the “Draw” cards too difficult by *writing* the task on them- not thinking that all of the children cannot read yet. It is very difficult to draw something when you cannot read from the card what it is you are supposed to draw.

I noticed that when I adhered to speaking only English, the children spoke English more freely and their language skills seemed to be activated, especially in those children that were already more proficient. This supports the view that adult engagement in play can help expand the use of language (Elliot in Ebbeck and Waniganayake 2010, 73). As for the game, the head teacher noted (as did I), that the game board itself must be bigger so the players fit around it more comfortably. The head teacher also noted that the game would be helpful for the teacher as well; the teacher would be able to guide the players, ask them to elaborate on their answers and ask additional questions to encourage the children to speak. The head teacher found the duration of the game to be good- both groups played for about 25 minutes- but we did agree on that perhaps a few minutes shorter would be optimal.

All in all, the making of the first prototype and the first playing session were sort of shooting in the dark but provided valuable information instantly, and I began to see the value of such a rather unstructured process. It was clear that we would learn more as we went along.

8.4. Second prototype and evaluation

I had the second prototype ready for a testing session on April 17, 2015. I had made the game board bigger and also made the game markers square instead of round so they would not roll off the board. I had also made the symbols on the

action cards more clear, so that the “Draw”-cards had a picture of a red pencil on them, the “Act”-cards a green smiley-face, and the “Speak” -cards had a picture of a mouth. All cards also had the word of the action next to the picture. By this time, I had also written the rules of the game (Appendix 3) and designed an evaluation form (Appendix 2) for myself so I could more easily follow how the game served its purpose and how the children reacted to it.

On the day of the the second testing session, there were six preschool children out of seven present, so they played in groups of three and four. The game now took about five minutes less than before, and the children in the second test group spontaneously exclaimed that the new game was much better and “better looking” than the previous one. It was the same game, of course, but with improvements: more action stops and a bigger size.

As they played, the children’s use of English increased. They still chatted or gave each other instructions in Finnish, but they performed the actions (guessing what was being drawn or acted in pantomime) in English. Also, when the holder of the card had to explain to the others what was in the card (“Speak”-cards), English was used quite fearlessly, if not always correctly. This is where the teacher can help. The important realisation at this point was that playing the game can actually encourage the children to use their language skills and learn from others. Playing in a peer group can be seen as a “supportive context” of language learning as put forward by Anamaria Pinter (Pinter 2011, 49). The context remains supportive if the teacher is supportive, too.

The children’s use of their existing vocabulary and learning new words when playing also supports the idea that the game can to some extent advance their morphological awareness in ESL learning. The game can be enhanced to support this process by adding new cards to the game or varying the number or cards used so there will be new words and/or different words to use and learn each time the game is played. The native English-speaking teacher also stated in the written feedback I collected later, that the game helps strengthen the children’s vocabulary (Kindergarten teacher feedback, 10.6.2015).

On May 3, we had a third testing session with the native English speaker teacher present. The children were divided into two groups as during the previous sessions, but this time the teacher divided them according to their language skills. The first group was a beginners level one, where children did not yet speak or understand English very much. The other group was more proficient, including one completely bilingual child.

The playing went smoothly for both groups and it was valuable for my work to have a teacher present the whole time. The children were also encouraged to give feedback on the game. They liked the drawing (Draw) and pantomime (Act) tasks the best. One child reported that “English is difficult”, although she clearly was one of the most fluent speakers present and clearly understood everything that was said.

The overall duration of the game was now about 20 minutes, although if the children could concentrate more, it could be shorter. Again, the children’s ability to use their language skills seemed to pick up as the game went on. The teacher said in her feedback that for educational purposes, it would take more than 20 minutes, as the teacher would come in with comments, questions and encouragement. The teacher also saw that the game could accommodate all groups, meaning children in various stages of language learning. Also, the amount of activities in the game was now seen as optimal by the teacher.

This version of the game and the visual representation of the game board was now approved by the teachers as the final version. The final product would include a more durable material or covering for the game board, but this at this stage, the final material was not yet decided upon.

8.5. Participatory action

After the third testing session, I began to think about more ways to include the children in the process. Participatory action and inclusion are central themes in the field of social services studies and also the professional practice thereof. I

have chosen the term participation here to describe the process how I enabled the children to become part of the planning, not just part of the testing. Inclusion can be defined in many ways, but in this case, it mostly means taking an active part in making an impact on a process (Jelli järjestötietopalvelu 2016).

I thought carefully about what the children could do in the time-frame that was given to us in their daily routine. I wanted to do something that was not too ready-made or teacher-oriented or structured. I wanted the children to experience the same kind of creative freedom (or at least some of it) I had been given by their teachers at the start of the process.

On June 6, 2015, I went back to the kindergarten. I talked about the game board and the elements of the game with the children and the teachers. The children expressed their wish to have bigger game markers, and asked me if they could make the markers themselves. (They knew that I had made the markers we used). They also wanted to make more pictures for the cards. The teachers had noticed that in some cards, the pictures shone through. This flaw had to be corrected, because the other players are not supposed to see the card until someone guesses what is being drawn or acted in pantomime. We agreed that the next time, the children would make their own markers and dice out of polymer clay, the same material I had used. They could also make more cards, and their own game boards. The teachers agreed that this was a suitable amount of participation for the children, and emphasized that the final product must be done by me, so that everything is tidy, usable and legible.

The native English-speaking teacher commented, that the order of doing things was just right; first prototype and testing, then the children's active participation. As the teachers wished the end result to be a fully adult-made product, this made sense to me also.

On June 9, I went back to the kindergarten with crafts supplies. The preschool children made their own game boards on thick watercolour paper. Not all preschoolers were present, so we divided the four that were, into two pairs. Both pairs made their own game boards with felt tip pens and crayons on thick white

paper. Everyone also made game markers out of polymer clay, which is hardened in the oven and is a little like hard plastic when done. The children also cut pictures out of magazines I had brought with me, for cards to be used in their own games. The other pair was great friends and worked well together, the other had challenges in concentration and cooperation, so I asked them to draw the game boards so that one would do the left side and the other the right side. This worked remarkably well. Interestingly, both pairs wanted to do a game board just like mine, although they had not seen it for a few days. It is worth noting that doing all this was voluntary. I told the children that if they did not want to participate, or did not feel like finishing the task, it was acceptable to do something else. The other pair tired after a while, but the other finished their game board and made loads of picture cards for it. I “baked” everyone’s game markers in the oven and gave everyone a piece to take home, the rest I kept for the actual game, because although the final product was to be made by me, the markers the children had made were very good and could be included in the game along with the markers I had made.

The participation of the children did not produce any significant change in plans or give any extra value in terms of the *making* of the product, but it gave them joy and the chance to do something voluntary and less structured in their preschool time. This also helped me realise that preschool children are able to make board games; it is of no importance if the results are not perfect or the rules they make up are a bit vague. The importance is in participation and being allowed to create something together and as individuals. Children also learn cooperation and concentration as they work on a creative project together. The participation of the children also proved that children are competent, eager to express their own ideas, and able to collaborate with their peers and adults (Kam and Ebbeck in Ebbeck and Waniganayake 2010, 162).

This thesis could also be carried out so that the children provide the initial ideas and the initial pictures, but as we had agreed on a different approach and were so far ahead at this point, I was not going to do everything all over again. I simply acknowledged the possibility of a different kind of process.

8.6. Finished product

We continued discussing the product in October 2016. Because there was a reasonable limit to the cost of the product, I thought carefully about what materials to use. We agreed that the final game board was to be made by improving the second prototype, which had already been approved as the final game version.

The choice of materials was not made simply to keep the costs low. As ecological values are important to both my commissioner and I, I wanted to keep the use of non-biodegradable materials to a minimum. The only hard plastic parts of the product are the dice and the game markers, and the making of these out of polymer clay was the best option, because I do not have the skill to make them out of wood. Also, by using polymer clay the children were able to participate in making these items. The 75 cards that are part of the game had to be laminated, because cardboard cards tend to crinkle and fade in use relatively quickly. The game board was made out of non-toxic watercolour paper using non-toxic colours; the varnish had to be used to bring out the colours and make them more durable. The clear adhesive plastic was used to protect the board. As a couple of layers of watercolour paper, albeit good-quality, would not last very long in use. It was important to make the game nice to the touch and safe to use, as well as visually pleasing. I interviewed a Waldorf education professional to get more insight on the importance of materials in early education environments. The Waldorf schools and kindergartens pay a lot of care and attention to the choice of toys and other items, and favour natural fabrics and textures. The way objects look and feel have an effect on the child, as natural materials help the child to be calm. When the environment is not cluttered with plastic and the toys leave room for imagination, it also helps the child learn and develop in a peaceful, safe environment (Kindergarten teacher Waldorf preschool interview 14.9.2016.)

As adults, we can often see this in our own work spaces; for some, it is harder to be relaxed and to concentrate in cluttered, too colourful or noisy environments.

I also looked into the Reggio-Emilia perspective on play environments to get yet another view. The Reggio-Emilia approach sees that the environment strongly impacts the behaviour of children (Kam and Ebbeck in Ebbeck and

Waniganayake 2010, 167). This speaks in favour of paying careful attention to materials and environments in a kindergarten setting. In the Reggio-Emilia approach, children are actively involved in creating their environments, so there is a lot more choice there compared to the Waldorf environment. My commissioner does not follow any particular pedagogy, so there was a lot of freedom to carry out the design process and to make the final product. However, it was useful to look at different pedagogical approaches to see that the process could be carried out in a variety of ways and involving a variety of artists, meaning the children.

I painted the game board using watercolour and water-soluble coloured pencils to make the colours stand out more. The board also had to be made more durable somehow. Before I set out to do this, I made a test on couple of small papers with painting on them to see how the colours would react with regular varnish and watercolour varnish. The regular varnish smeared the colours, but the watercolour varnish worked well. After the varnish had dried, I covered the board with clear adhesive plastic that is often used to cover books.

I checked all the cards and noticed that a majority of them were see-through when held against light, although I had used watercolour paper. I solved this problem by gluing another layer on paper on the backs of the cards, and glued the “act”, “draw”, and “speak” symbols on them. I created the symbols by taking a photo of each of the symbols of the second prototype version of the game, and then printed them out in greyscale, cut them out and glued on the backs of the cards. This made the cards look neat, as all had the same grey shade. Photographs on finishing the product are in Appendices 5-6. The time spent on finalizing the product was five working days.

The product is handed over to the commissioner by 15 December, 2016. The kindergarten will publish a photograph and information about the product on their Facebook page after December 15.

9 Discussion

9.1. Reliability and ethics

To ensure the reliability of my work, I had a kindergarten teacher follow the testing of the game, and read the process part of the thesis before I completed it. The reliability of the whole process is presented in this report in the theoretical framework and in the description of the process. The reliability of the thesis is thus in the text itself, as explained by Eskola and Suoranta (Eskola and Suoranta 1998, 220).

I also read previous functional theses to find out how others have dealt with the questions of reliability and ethics. Ethical considerations of this work have to do with protecting the identity of the children and using the children as test players. Participation was necessary, but it had to remain voluntary. Parental permission was necessary. When working with children, it is important to keep in mind that early education professionals must promote the overall wellbeing of the child and offer positive learning experiences, and also to set an example. The ethical guidelines for early education professionals emphasize honesty, equality, humanity and freedom (Finnish Union of Kindergarten Teachers 2016.)

I took into account the views of the kindergarten teachers, and valued their professional knowledge and experience. I also interviewed a preschool teacher from another kindergarten to get a different perspective on working with preschool children and views on play environments. (Kindergarten teacher Waldorf preschool interview 14.9.2016).

9.2. Evaluation of the thesis and product

The thesis process was on hold for a year because I went to work in August 2015, and resumed my studies again in August 2016. Because I had detailed notes on everything that was done before this break, it was easy to pick up the work again.

The participation of the children and their teachers in the process was very important. Without the possibility to test the product prototypes with the children and involve them in the process, I could not have created a *useful* product at all.

The narrowing down the theoretical framework felt difficult in the beginning, but looking back, anything broader would have been too much. Looking at language development, linguistic awareness and learning through play were essential in this case, not only because my work dealt with language learning but also because all these themes are mentioned and stressed in the National Core Curriculum for Pre-primary Education. Understanding the linguistic development of the target group made it easier to design the product to serve their needs. I noticed quite soon in the process that the theory on linguistic awareness would not be significant to this work, and it was the right choice to narrow down the theoretical framework in this area. What I needed the most was the theory of the linguistic development stage of the preschool children and information on learning by playing.

An integral part of the thesis process was testing the prototypes of the product and involving the children in this. The number of testing sessions was optimal, any less would have been too few, and any more would have been unnecessary. In the final phases of the thesis process, it became clear that the most important aspects of the theoretical framework were information on linguistic development, evaluation, participation and learning by playing. Without evaluation (testing, interviews), and participation the commissioned product and report could not have been created. All in all, it is safe to say that the evaluation process and background information on the linguistic development of preschool children were the most important factors in creating the product. Looking at aspects of product development was of course needed, but it is fair to say that a kindergarten teacher can create a game like this very well without any information on product development, if the game is not intended for a larger market than one kindergarten class.

The finished product was presented to my commissioner on November 1, 2016, and it was approved as such. The teachers commented that the final game board

looked bright and colourful, and that all the work done had been carried out according to their wishes.

9.3. Reaching aims and goals

The aim (or goal) of this thesis was to create a board game that would support the second language learning of the children and be a useful teaching tool for the teachers.

The information needed to reach this two-fold aim was found by observing the children, using an evaluation form, talking to their teachers after the playing sessions, and looking at all this in the theoretical framework presented in this thesis. The evaluation process and the participation of the children were central to reaching the aim, as these actions offered information about the prototypes of the game and what improvements had to be made. As I mentioned in chapter 8.4., the children's use of their existing vocabulary and learning new words when playing also supports the idea that the game can to some extent advance their morphological awareness in ESL learning. Based on the evaluation process, the way that the game supports children's second language learning is limited to vocabulary and comprehension, with a smaller emphasis on sentence formation. With the involvement of the teacher the learning opportunities are broadened, as the teacher can offer encouragement and support.

The teacher can use the game as a teaching tool in various ways; the teacher is able to guide the players when necessary, ask them to elaborate on their answers and ask additional questions to encourage the children to speak. As the teacher noted that children with less ESL proficiency need to spend more time on preschool tasks and need more visuals, some components of the games such as the picture cards may be useful in teaching. As stated in chapter 3.2. of this thesis, play is a key vehicle in developing language (Elliot in Ebbeck and Waniganayake 2010, 73), and the child's literacy development is supported by play.

As the preschool group involved in this work was the same one all along, it made the evaluation of the children's progress and existing skills easier. They all had about the same level of Finnish, but their English was at individual levels from a beginner to a bilingual level. It can be said that their native language is at its normal developmental stage. As stated in chapter 3.1, the preschool children are becoming linguistically aware, having almost an adult level command of grammar (Leiwo 1989, 54). However, this did not apply to their ESL learning, where they all represented different levels of development. The game is intended to encourage them to use their existing skills and learn more, and hopefully also to strengthen their interest in spoken language, a goal that is written in the National Core Curriculum for Pre-primary education as well (National Core Curriculum for Pre-primary education 2016).

The evaluation process proved that the board game does support the second language learning of the children by being a "supportive context" as described by Pinter (Pinter 2011, 49). The feedback of the preschool teacher as well as Elliot's description of adult engagement in play (Elliot in Ebbeck and Waniganayake 2010, 73) prove that the board game can be used as a teaching tool in a second language learning setting.

9.4. Lessons learned and value for professional growth

The participation and inclusion of children in the decisions and plans that have influence in their development and life in general has been a theme I have been intrigued by throughout my studies. I have gone from a more traditional approach of thinking children must not be allowed to make decisions because it may confuse them or their input is not plausible, usable or valid, to seeing the ability and wisdom of children to make plans, decisions, to come up with great ideas and create new information. It is also worth admitting that my initial approach to early childhood education stemmed from my own experiences as a child and the school system I have been subjected to. If I was to do this kind of research again, and I had more time, I would start by participatory and inclusive action just to see

what kind of results that would produce. This is not to say that the way we did things this time was wrong, because the approach I had now served the needs and schedule of both my commissioner and the completion of my thesis.

As for professional growth, or professional development, I have to state that I am un-learning, or de-programming. This too has been an ongoing process throughout my studies. By this I mean giving up on some unnecessary stubbornness on how and how quickly things should happen. In the field of social services, we deal with people and their lives, not machines with clear instructions. There is no all-encompassing guidebook for a successful career; there is only the realisation that growth is ongoing and it should be taken as a joy, not as a mad race for some perfect ending. Patience is a virtue I am yet to reach, but the thesis process (not my first) and the whole course of the studies has taught me that good planning is also a virtue and helps one not to lose patience or the sight of a goal.

9.5. Possibilities for further development

The thesis will be of wider use, because this kind of game (focusing on linguistic development and second-language learning in an early education environment) has not been developed or launched, to the best of my knowledge, as part of a thesis process in Finland before. The game as well as the study have potential for further development, perhaps in developing an electronic version of the game, although I am in favour of board games. A version of the game could be developed in other languages, and also children who use the game can make more cards and perhaps make up even new actions such as singing or writing.

I did look at the aspects of product development as part of my ground work and as a way of keeping myself inspired, but did not in-depth into the theme because the focus of my work is in early childhood education rather than industrial design.

The thesis could be extended into a Master's level work or even a PhD, by extending the field of study into actual research and widening the perspective to suit the requirements of such an endeavour.

9.6. Legal notice

The copyright of the finished product is the author's.

The product (board game) handed over to the commissioner is the sole property of the commissioner and the commissioner decides upon its use from December 2016 onwards.

The photographs taken in the process of finishing the product are taken by the author and are subject to copyright. The photographs taken in the kindergarten are photographic notes to support evaluation, and do not appear in this work.

The printed and written data collected in this work (signed permission forms, filled evaluation forms and thesis diary with detailed notes, including photographic notes) will be destroyed by the author of this work after handing the finished product to the commissioner. The electronic data (notes saved on computer) will likewise be deleted after the product is handed over.

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Permission form

Permission form/Lupalomake

Dear parent/parents,

My name is Minna Ronkainen and I am working on my BA thesis (Social Services) at the Karelia University of Applied Sciences. I am doing my thesis by commission from the English Language Kindergarten. The work involves developing a board game for children. The purpose of the game is to support the development of linguistic skills of the children, as well as aid their English language learning. I will carry out "test runs" for improving the game, and this involves the children playing the game. I will be taking photos of the process, but if you do not wish your child to be featured in photos, please indicate it in this form. The thesis will be published online (without photos), the version containing photos will remain in printed format only, at the library of the Karelia UAS.

The game is aimed at the preschool age group, but because others can take part as well, the permission form is given to all parents.

Hyvät vanhemmat/vanhempi,

Olen Minna Ronkainen, sosionomiopiskelija Karelia-ammattikorkeakoulussa. Teen opinnäytetyötäni, jonka toimeksiantaja on Joensuun Englanninkielinen Leikkikoulu. Opinnäytetyössäni suunnittelen lautapeliä lapsille. Pelin tarkoitus on tukea lasten kielellisten taitojen kehitystä ja englannin kielen oppimista. Tulen järjestämään pelin testauksia leikkikoululla, ja testaajina toimivat lapset peliä pelaten. Otan prosessista valokuvia, mutta jos et halua lapsesi näkyvän kuvissa, ole hyvä ja ilmoita siitä tällä lomakkeella. Opinnäytetyö julkaistaan internetissä ilman valokuvia, kuvia sisältävä (paperi)versio jää oppilaitoksen kirjastoon.

Peliä kehitetään pääasiassa esikouluikäisten ikäryhmälle, mutta koska muutkin saavat osallistua, lupalomake annetaan kaikille vanhemmille.

Thank you for your cooperation, Yhteistyöstä kiittäen: Minna
minna.ronkainen@edu.karelia.fi

Name of child/lapsen nimi: _____

Name of parent/parents/guardian/vanhemman/vanhempien nimi:

Please tick the appropriate box/Ole hyvä ja rastita sopiva vaihtoehto:

My child can appear in photos/Lapseni saa esiintyä valokuvissa

I do not want my child to appear in photos/ Lapseni ei saa esiintyä valokuvissa

My child can appear in photos, if he/she is not photographed with the face showing/Lapseni saa esiintyä valokuvissa, joissa kasvot eivät näy.

Other considerations (please specify)/ Muuta huomioitavaa (ole hyvä ja kirjaa tähän):

Please return this form to the kindergarten by 12.1.2015/Ole hyvä ja palauta lomake leikkikoululle 12.1.2015 mennessä.

Rules of the board game

BOARD GAME “GOING TO THE COUNTRY” RULES AND INFORMATION

NUMBER OF PLAYERS: ideally 3-4

RULES: The players choose their preferred game markers and place them in the START-corner of the game. Players take turns in tossing the die and move along the game path according to the numbers on the die. When a player hits a spot marked with a symbol, he/she must pick a card marked with the same symbol and carry out the action presented in the card. When hitting the “WAIT”- spot, the player must remain at the spot for one full round (missing his/her next turn). “ONE STEP FORWARD”- sport means the player can move one step forward, “ONE STEP BACKWARDS” takes the player one step backwards. The symbol cards are ACT, DRAW and SPEAK. When a player has an ACT card. he/she must act, in pantomime, the action presented in the card, without showing the card to the other players. The other players guess, until someone guesses right. When a player has a DRAW-card, he/she must make a drawing about the photographic image that is presented in the card, again without showing the card to the others. The others guess, and again, the playing can commence when someone guesses right. When a player has a SPEAK-card, he/she explains to the other players what is in the card, again, not showing the card to others. When the player is done explaining the card, he shows it to the other players. (This task is not about guessing, but about using your spoken language skills to communicate a picture in words). The one who hits the Finish-corner first wins, but the game continues until everyone has reached it.

COMPONENTS OF THE GAME: Game board, game markers in different colours, one large plastic die, 75 laminated cards.

PLEASE NOTE! The players need paper and pencils as the game involves drawing. These materials are not included in the game package. The game includes small plastic parts (markers, die), do not allow children under five (5) years of age to play the game unattended. The game is intended for 5-7 year olds, but anyone older than that can enjoy playing, too!

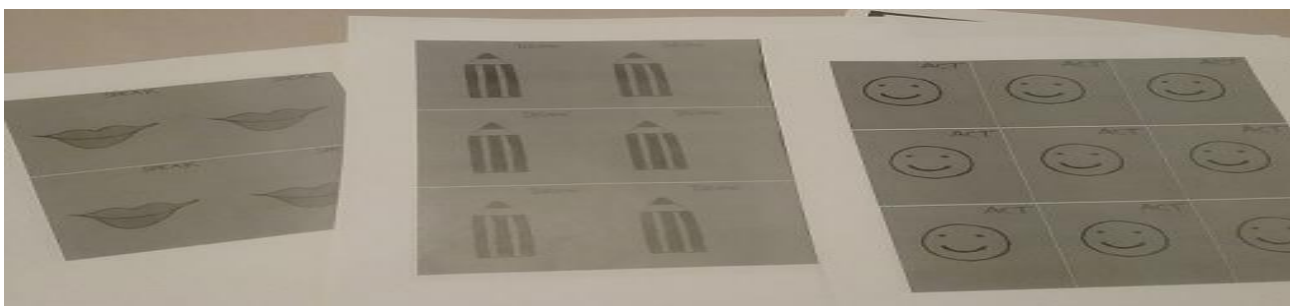
Photographs of the game design process



First prototype (game board and cards)



Action cards from the second prototype



Making the final version of the cards: printing all symbols in greyscale....

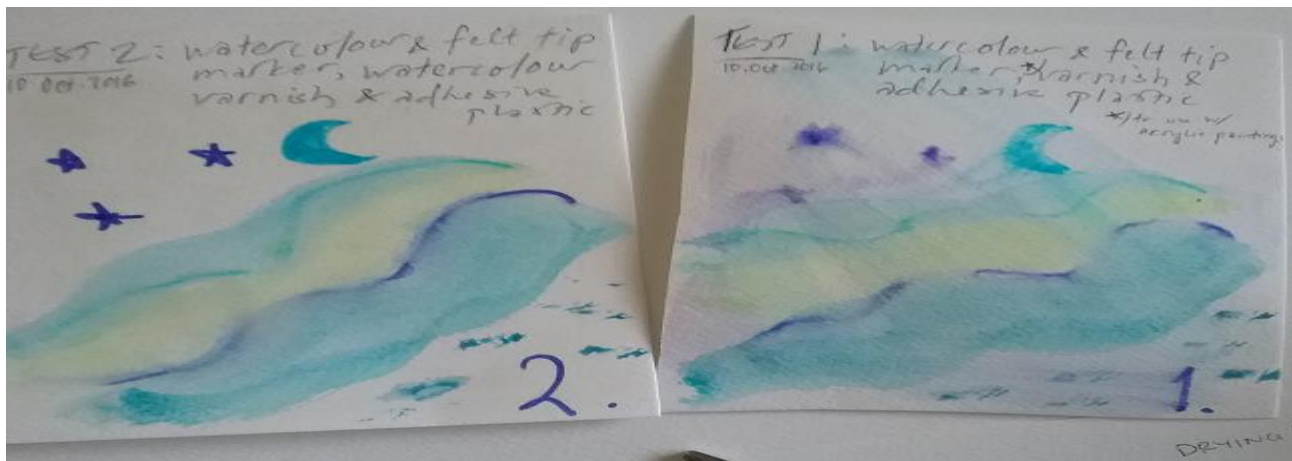
Appendix 5 5 (8)



...then cutting the symbols and gluing them onto the cards.



Cutting the cards into shape after laminating. The edges were made round for safety



Testing two types of varnish and timing drying time before application to game board



Making the second prototype into the finished product by adding colour, varnish and adhesive plastic



Finished game board.

Interview questions for kindergarten teachers


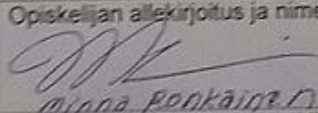
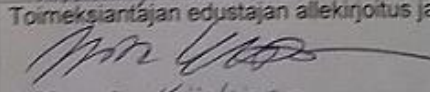
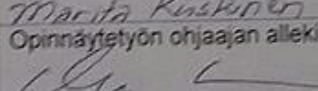
Questions for Waldorf kindergarten preschool teacher, September 14. 2016

1. What kinds of games and play does the preschool child like to concentrate on?
2. How much importance do you place on the aesthetical value of games and toys (such as harmonious pictures, hand-made products, materials that are nice to the touch)? In what ways do these things support the learning and development of the child?
3. Can preschool children learn new skills when they play amongst themselves without the teacher's guidance?
4. Can play and playing games promote the child's language development or add to the child's vocabulary?
5. Is learning by playing important in preschool, or would a more structured, school-like approach be better? What kind of balance must there be between free play, teacher-guided play and structured teaching?

Questions for kindergarten teacher (commissioner), September 20. 2016

1. What kind of challenges do you face in teaching a preschool group that has different levels of English proficiency?
2. What positive sides and possibilities there are in teaching preschool children who are learning English as a second language?
3. The chapters written about the game testing process are in the attached file. I have written them based on my findings and notes that I have kept. Would you please read them and tell me if you feel differently about some of the findings based on what you saw during the testing session.

Commission contract

 Karelia <small>AMMATTIKORKEAKOULU</small>		OPINNÄYTETYÖN TOIMEKSIANTOSOPIMUS
Toimeksiantaja		
Organisaation nimi:	Jorvin koulun tekninen koulutus	
Toimeksiantajan edustaja:	Marita Kuiskinen	
Osoite:	Kirkkokuja 7, 00110 Jorvin	
Puhelinnumero:		
Sähköposti:		
Opiskelijan/opiskelijoiden tiedot		
Koulutusohjelma:	Sovelluksen koulutusohjelma	
Opiskelijanumero(t) ja nimi(et):	1201320 Minna Penkainen	
Puhelinnumero:		
Sähköposti:	taideterapia.mercosneito@gmail.com	
Toimeksiannon kuvaus		
Aihe	"Learning by playing, developing a board game for preschool children" Toiminnallinen opinnäytetyö	
Toteutusmuoto		
Aikataulu	Työn luovutus toimeksiantajalle 15.12.2016 mennessä	
Kustannusarvio ja kustannusvastuu	Materiaalikulutus katto 100€. Toimeksiantaja vastaa kustannuksista.	
Toimeksiantajan sitoumukset		
Palautteen antamisen tuotteen arvioinnin ja hyväksymisen kustannuksia vastaavien.		
Opiskelijan sitoumukset		
Sovelluksen tuotteen ja raportin (opinnäytetyö) toimittaminen sovitussa alassa. Kirjoite kustannuksista.		
Opinnäytetyön ohjaus Karelia-amm:ssa		
Ohjaaja(t):	Miia Pasanen, Heli Makkonen	
Opinnäytetyön julkisuus		
Opinnäytetyö on julkinen asiakirja ja se voidaan julkaista Theseus-verkkokirjastossa.		
Allekirjoitukset		
Päiväys	Opiskelijan allekirjoitus ja nimenselvennys	
12.10.2016	 Minna Penkainen	
Päiväys	Toimeksiantajan edustajan allekirjoitus ja nimenselvennys	
12.10.2016	 Marita Kuiskinen	
Päiväys	Opinnäytetyön ohjaajan allekirjoitus ja nimenselvennys	
12.10.2016	 Miia Pasanen	

