



Early childhood education and care environments that support children's attentiveness for learning

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This thesis was conducted to find out educators' experiences and insights about the effects of the learning environment. The thesis aims to give an overview of how the early childhood education and care environments affect children's attentiveness, what kind of difficulties children have and how educators can help children to attend better. In addition, a guideline for developing an environment that supports children's attentiveness was created.

The theoretical framework of the thesis is mainly based on the National Core Curriculum for early childhood education and care 2018 (Finnish: VASU) and the Act on early childhood education and care (540/2018). Also, it is based on the Hierarchy of Needs by Maslow, the socio-cultural understanding of learning and the Montessori Theory.

The data was collected through qualitative questionnaires, filled out by work life partners, which are early childhood education and care professionals out of two different day-care centers in Helsinki, Finland. For the questionnaire, open ended questions were used, so the participants were able to answer openly with their views and thoughts. This way, in-depth information on the topic were gathered. Through a thematic analysis, the results were analyzed and then, a functional dimension was added with creating a guideline for developing an environment that supports attentiveness.

Three main conclusions were drawn from the study. These include the importance of sufficient space and structure, the importance of meaningful social contacts and the importance of the caring and confident role of the educator. Additionally, the guideline, containing information on the background of the topic, tips for guidance work and supporting attention in different situations, was found to be useful according to the work life partners. Although progress has been made with this study, further studies are needed to continue to investigate supporting attentiveness on multiple levels.

Keywords: attentiveness, early childhood education and care, learning environments

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1 Introduction

The quality in ECEC is determined by the learning environments of early childhood education and care. Looking at the structural factors of quality, well-functioning and healthy facilities are a physical starting point for a learning environment with high-quality. But only these functional characteristics by themselves do not guarantee pedagogy with high-quality, because it is the pedagogical planning, which determines in the long run how the activities are shaped and how the child experiences these activities in the facility. (Finnish Education Evaluation Centre 2020, 52.) Furthermore, the Finnish National Agency for Education (2021), states that the learning environments mean “facilities, locations, communities, practices, and equipment which supports children’s growth, learning and interaction”. Also, according to the Ministry of Education and Culture (2018), early childhood education and care aims to ascertain that the children’s learning environment is development-oriented, that it promotes learning, is healthy, safe and accessible. Physical, social and psychological dimensions are included in the concept of the learning environment. Especially in interaction with other people and these immediate environments, children learn, grow and develop. The conception of learning is based on a view of the child’s active agency. Learning is seen as holistic, occurs everywhere and combines knowledge, skills, actions, emotions, sensory perceptions, bodily experiences, language and thinking. Children are entitled to the support and guidance of the personnel for their learning. (Finnish National Agency for Education 2021.)

In the previous, through background theory, we pointed out that the quality in ECEC is determined by the learning environments of ECEC. This shows that there is a need to investigate the learning environments of ECEC in the kindergartens we are working in, in order to provide high-quality learning environments.

We both work in private kindergartens who also act as our work life partners in this thesis. We will work together with them in a cooperative way, informing and communicating with each other. One student is working in a bilingual kindergarten with preschool children. It includes three groups and one preschool group. In total, there are 30 kids in the kindergarten. The employees consist of Early Childhood Educators and Care professionals (teachers and nurses). The other student is working with 3-to 4-year-old children. The kindergarten includes two groups and one preschool group. In total, there are 35 children in the kindergarten. The employees consist of early childhood education and care professionals, early childhood education and care students and substitute workers.

In order to set up the conclusions of our research thesis, it is important to clarify objectives, for that reason, our concrete objective is to find out educators' experiences and insights about

the effects of the learning environment. In addition, the aim is to create a guide/guideline for developing an environment that supports attentiveness. The thesis aims to give an overview of how the environment affects children's attentiveness, what kind of difficulties children have and how educators can help children to attend better.

2 Working life partner

The environment in the bilingual kindergarten includes three groups of kids and one preschool group. Each group has its own space where children do their daily activities and have space to play freely. In each space, there is a small corner for the morning circle. Each group also has a play board, where different games are placed and the children choose which game to play and with which child. This encourages participation among the children. In the pre-school group, apart from choosing the game, they also choose the space to play, so that each child adapts his or her game to the space. The learning environment is safe, positive and creative, where the kids learn new things through play, movement, learning and the joy of learning. The kindergarten has a warm atmosphere where the kids are considered individuals, supporting their growth and development in collaboration with families. The activities are planned according to the child's age development.

In the other private kindergarten, there are two groups of kindergarten children and one group of preschool children. Every group has their own room with materials appropriate to their age-levels. Every room has theme-related corners, e.g. building corner, painting corner, book corner, and many more. During free-play, according to their interests, the children are able to choose the corner they want to be in. Joint activities are implemented indoors as well as outdoors. Although every group has their own space, the facility is quite small, so precise routines are set in order to prevent too crowded spaces. The atmosphere in the facility is welcoming and warm, and the children are seen as unique and valuable individuals. The activities are based on the interests of the children and they are planned, implemented and evaluated with the children. The children's guardians are included in several processes. One goal of the kindergarten is to give the children the opportunity to develop or maintain the language. A goal of the families can be a later attendance of a bilingual school. The kindergarten prepares the children optimally for this path from the beginning and coordinates closely with the bilingual school.

The role as a work partner is about sharing detailed professional experiences and not so much about the shared personal interests. Besides, without a support like that, it is possible to feel more isolated and unsure, especially when there is a need to talk to someone in professional language. (William 2018.)

For this reason, having a working life partner has helped us and guided us in the professional field. Our working life partners were involved in finding a theme for the thesis through discussions about daily life in the kindergarten, also in connection to Vasu and they helped us to clarify and define the objectives.

3 Previous research of the topic

Keller, Davidesco and Tanner (2020) created a framework, which is organized along two key dimensions. One key dimension includes internal and external attention, and the other key dimension includes on-topic and off-topic attention (Figure 1). The framework was produced to understand attention in the classroom. Although their study refers more to students than to children, it still gives an insight that there are many ways to pay attention to specific things.

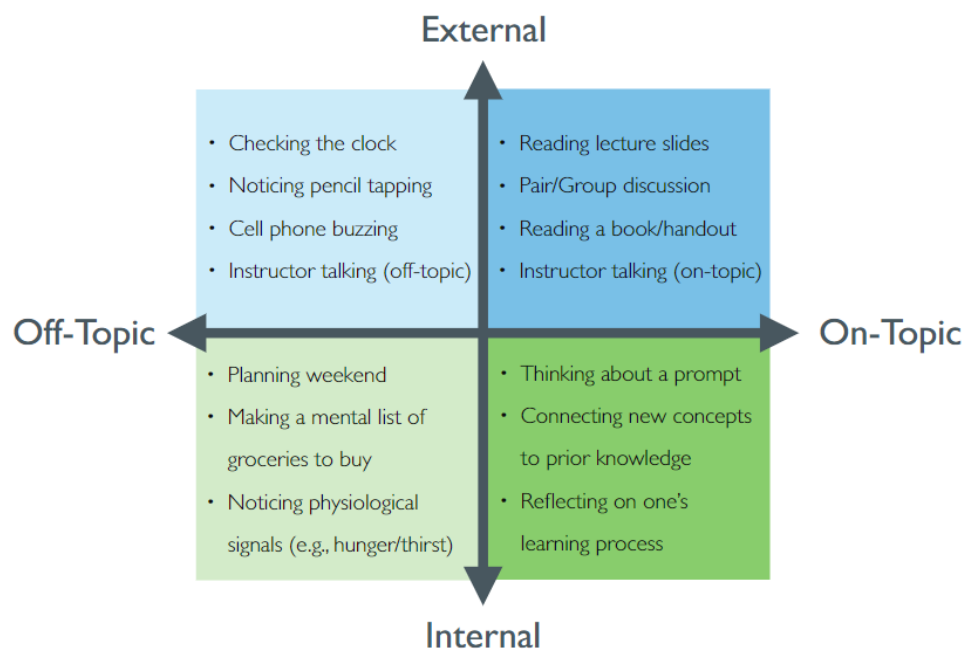


Figure 1. Internal/external attention and on topic/ off-topic-attention (Keller, Davidesco& Tanner 2020)

Educators could use the provided framework to take into account the attention in their classrooms. They also can design moments of activity more thoughtfully by acknowledging that the attention varies naturally and by taking into account how and when the attention of the students or children may be directed either internally or externally and on-topic or off-topic. This may help to understand better the many different ways students can pay attention. Also, it can help to better understand the ways in which different strategies of educating can guide the attention of the students or children. When guiding attention, it is important to

acknowledge that educators can orient children both to external content and also direct the attention of the children internally towards their own thoughts, ideas and reflections. (Keller, Davidesco & Tanner 2020.)

Obaki (2017), mentioned that an environment which is constructed to fit to the development of children should give opportunities to interact and play with different materials. It should also provide a space for resting and should include motherly care. Taking into account these indicators of caring and effectiveness in educating children, the educators should be able to plan a better outlook in the areas of the kindergarten. Besides, Obaki (2017), affirmed that environmentally appropriate classrooms include good lighting, age-appropriate materials in the particular learning areas and the focus on spaces for groups of children to work and play. Also, there should be enough seats and tables which fit to the children's ages.

Eveline A. Crone & Elly A. Konijn (2018), had a recent study where the cognitive neuroscience studies have used structural and functional magnetic resonance imaging (fMRI) to examine how the adolescent brain changes over the course of the adolescent years. The results of several studies demonstrate that cognitive and socio-affective development in adolescence is accompanied by extensive changes in the structure and function of the adolescent brain.

Raymond (2020) mentioned that, according to Montessori, concentration is, regarding the child's development, the first necessary thing. In order to find out how to concentrate, the child firstly needs things to concentrate upon. Then, a basis for the child's character and social behavior is laid. No one acting on the outside can cause a child to concentrate, which shows that there is an extreme importance of the child's surroundings. No one other than the child can organize their own psychic life.

4 Supporting the attention of children in early childhood education

This chapter outlines the theoretical framework of the thesis with its subchapters about several theories and the connection to Finnish framework and regulations regarding our topic. Also, the development of attention in childhood and the ECEC environment in supporting attention are more thoroughly described.

To develop this research thesis it is important to have a connection with the literature in the field and previous research. For that reason, in the following pages, three theories are presented: Maslow's Hierarchy of Needs which will discuss about environments that support children's attentiveness for learning, socio cultural understanding of learning to be spoken about how learning occurs during social interactions between individuals and Montessori Theory which will include curriculum around building attention, focus and concentration.

In the following pages there are collections of different theoretical knowledge. We have also researched the connection between in order to have support for further research on the subject of our thesis.

4.1 Connection to VASU and the Act on ECEC (540/2018)

“The National Core Curriculum for ECEC 2018 is an important source/document for ECEC in Finland. The key objectives and contents of ECEC, cooperation between the ECEC provider and children’s guardians, cross-sectoral cooperation as well as the contents of the child’s individual ECEC plan. In the following, we will refer to the Curriculum by the Finnish term “VASU””. (Finnish National Agency for Education 2021,9.)

In Vasu it is mentioned that “the mission of ECEC is to promote children’s holistic growth, development and learning in collaboration with their guardians. The knowledge and the skills acquired in ECEC strengthen children’s participation and active agency in the society”. (Finnish National Agency for Education 2021,14.)

Section 3 in the Act on ECEC tells about the aims of ECEC. One aim is that children should be provided with an environment that promotes growth, development, health and well-being in a holistic view. Another aim is to support and promote lifelong learning and the sense of equality. Activities should be implemented with the children and should include play, physical activity, arts and culture. (Ministry of Education and Culture 2018, 14.)

Additionally, mentioned in Section 10, “the learning environment in ECEC must promote development and learning and be healthy and safe, taking the child’s age and development into account”. The materials and equipment shall be relevant and take accessibility into account. (Ministry of Education and Culture 2018, 14+15.)

Also, the goal of environmental education is to “strengthen children’s relationship with nature and ability to act responsibly in nature as well as to guide them towards a sustainable way of living”. Environmental education consists of three dimensions: learning in the environment, learning about the environment and acting for the environment. (Finnish National Agency for Education 2021, 49.)

Our need has been proven by different articles and studies, to give support and credibility to our thesis. Helsinki’s Curriculum for ECEC (2019), says that the purpose of ECEC is to ensure that there is a stimulating, positive and warm learning education environment to encourage and foster play, activity and inclusion. According to VASU the “goal of ECEC is to ascertain that the children’s learning environment is development-oriented, promotes learning and is healthy and safe. In ECEC the perception of learning environment builds, among other things, physical,

social and psychological dimensions. Learning environments are designed and produced together with the children. The group must take into account the children 's interests, individual skills, abilities and needs. Learning environments are planned and developed to increase equity and gender equality. (Finnish National Agency for Education 2021, 33+34.)

4.2 Maslow's Hierarchy of Needs

This thesis is about environments, which support children's attentiveness for learning. McLeod (2007) describes that Maslow believed in needs (as shown in Figure 2) that lead to an environment, where greater learning can happen and higher needs can be fulfilled. With fulfilling the needs in one of the lower sections, children will be able to experience an environment and learning of one of the higher sections. This theory gives an insight on what needs should be fulfilled in order to create an environment, where the child is able to be attentive to learn new things and fulfill more needs. In this research, Maslow's Hierarchy of Needs can be used as a base to provide information of needs that an ECEC environment should fulfill, so that the children are able to be attentive for learning. In the following, there will be more detailed information about this theory.

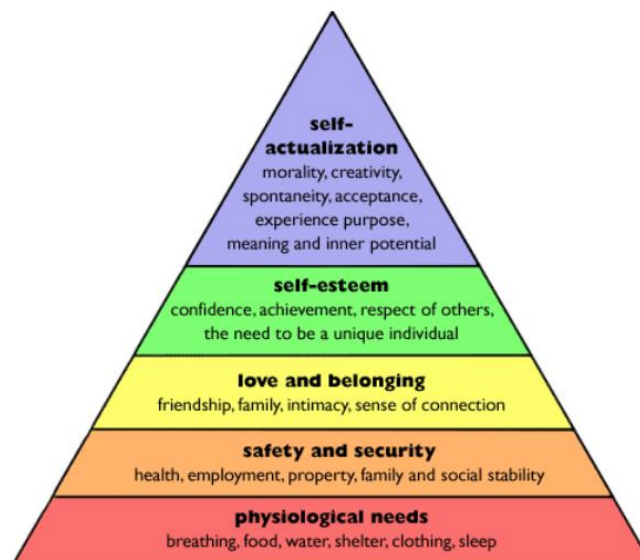


Figure 2. Hierarchy of Needs (Maslow 1943, 370)

The idea of Maslow's Hierarchy of Needs was that there are five areas of needs. The theory states that higher needs in the hierarchy begin to appear when persons feel that they have satisfied the previous need good enough. The physiological needs refer to basic physical needs.

In the eyes of a child, in this category of need the questions could be: Is the learning environment comfortable, am I cold, hungry or thirsty? Once the physiological requirements are fulfilled, the next need of a safe environment emerges. The question here could be: Am I safe or in danger when in the learning environment? The next need that arises includes feeling loved and accepted. Question: Do I belong here? Is it welcoming, am I respected and cared for? The need for esteem includes the desire to feel good about oneself. The theory states that the esteem has two parts. At first, it is about feeling good about oneself and feeling self-confident. Then, it is also about feeling valued by other persons. It is the feeling of that own performances and contributions were acknowledged by others. Question: Am I feeling good about myself? Am I learning valuable things? Self-actualization means feeling fulfilled or feeling that we are fulfilling our maximum potential. A feature unique to self-actualization is that it appears differently for everybody. This means that we feel we do what we ourselves believe are meant to do. This could be for one to help others, for another, to achieve something in an artistic or creative field, and for another, something very else. In Maslow's theories view, the achievement of the self-actualization is fairly uncommon. He mentioned popular individuals as examples, like Mother Teresa and Albert Einstein. The question here could be: Am I being the best I can be?. (Loveless 2022, Hopper 2020.)

4.3 Socio cultural understanding of learning

The socio-cultural understanding of learning in relation to our theme, explains about how learning occurs during social interactions between individuals, happening first through social interaction and then through individual internalization of social behaviors.

Vygotsky's sociocultural theory of learning explains that learning occurs during social interactions between individuals. It is one of the dominant theories of education today. It believes learning happens first through social interaction and second through individual internalization of social behaviors. In sociocultural theory, students and teachers form relationships in the classroom to help the student learn. The relationships help facilitate social interaction and active participation in the learning tasks. Students learn through observation, listening and talking through their tasks. (Drew 2021.)

Vygotsky's sociocultural theory refers to the consideration of how human growth is a social evolution in which children gain cultural values, beliefs and problem-solving skills. In addition, this theory is also based on the Zone of Proximal Development. (McLeod 2020.)

Vygotsky's theory states that the Zone of Proximal Development is the area in which the guidance of a child should be taken into account in order to develop different skills and actions together with the mental functions. He also mentions the communication of different

individuals as an important element. Vygotsky suggests that professionals can use activities for joint and harmonious learning. (McLeod 2020.)

4.4 Montessori Theory

In the following theory and in relation to the topic about children's attentiveness for learning. It is mentioned how it is essential to design a curriculum around building attention, focus and concentration and the importance of the learning activities in the classroom.

Preschlack (n.d.) mentioned that Montessori recognized that to establish one ability to concentrate it is essential. Montessori was observing and investigating what tools, materials and things have an influence on children's attentiveness. With this information, she used mainly these things, because they were boosting the attention of the children. With concentration, the children can take the condition of being sharply alert of one's environment and sensory information, while, at the same time, concentrate on one special game or task. By this, Montessori refers to "being mindful". The things in the classroom were also arranged in a way that the children could learn how to organize themselves. (Preschlack n.d. .)

The key point in Montessori's pedagogy is to provide an environment where children are able to develop concentration and attention. Also, regarding the activities, they should be structured in a way that they are useful for the development of thinking, concentrating, and learning. (Raymond 2020.)

4.5 The development of attention in childhood

Firstly, it's important to know what the definition of attentiveness is. In this case, Cambridge (2022) mentions that attentiveness "is the fact of paying attention and listening carefully". Attention plays a primary role in learning and in the acquisition of information. Especially due to the fact that nowadays there are more cases of attentional problems, for example ADD or attention deficit disorder in childhood. It is crucial to acknowledge the importance of early attention. (Loyola University Chicago.)

Additionally, pay attention is the capacity to concentrate and focus in a element or person while ignoring different elements of the environment that also demand attention. It is also related to increasing the capacities and abilities of each individual to be able to educate and develop himself. For the child to be attentive, has to see what is around him, emphasizing the nature of the elements. This is of great importance in order to function correctly at school and

to increase the capacity for self-regulation. This means that the individual or child acts in a cordial way in order to achieve a goal. (California Childcare Health Program n.d. .)

4.6 The ECEC environment in supporting attention

In Vasu it is mentioned that the “learning environments are planned to be constructed together with the children. In ECEC, the concept of learning environment includes, among other things, physical, social and psychological dimensions”. The objectives of learning environments apply for ECEC can be achieved and support the development of the children’s healthy self-esteem, social and learning skills. They shall support children’s natural curiosity and need to learn as well as guide them to play, be active, explore and express themselves. Learning environments bring the children alternatives for doing things that they enjoy, such as physical activity in functional and quick ways, games and play for resting time in a peaceful way. Learning environments are planned and developed to strengthen equity and gender equality. This permit to escape from classic stereotypes. The learning environments encourage children’s linguistic development and language awareness to make cultural diversity visible. (Finnish National Agency for Education 2021, 34.)

The learning environment is based on different areas and spaces. Children have the opportunity to do regular check-ups to see the quality of the learning environment. For example, in a traditional school we will find desks and blackboards. The learning environment is also based on how the educational classroom is arranged. Teachers have an important role to play in how they organize the educational space to aid learning. (The Glossary of Educational Reform 2014.)

Learning environments are based on developmental spaces that benefit children. Learning environments are comprised of different educational classrooms, play areas, indoor and outdoor spaces. In addition, learning environments are usually spaces with a good, positive and warm atmosphere. (Early Childhood Learning and Knowledge Center n.d. .) Iris Center (2022) stated that to create a positive environment for learning and development for the kids, there should be three contents that they should plan, design and involve with priorities and philosophy. These three contents are the physical environment, social environment and temporal environment.

Physical environment means the aspect of a design perspective in a given classroom and of the learning spaces. On one hand, the teachers should create and plan an environment by regulating the spaces, equipment, and materials to expand the learning environment and the commitment of every child. A good designed physical environment has to be with different activity areas with clear, physical, and visual lines. The equipment should make spaces comfortable and safe for the children. Another requirement of the physical environment is to be able to select the

appropriate and necessary materials to be age-appropriate. Of course, it has to be linguistically and culturally compatible for the children in the classroom. It is important that there is visual material, like colorful posters, daily schedules, the routines, and more, in order to help the children to know what to do and to understand the environment. When the teachers design and plan the physical environment, they should look at the light and the sound to create an appropriate and constructive environment. (Iris Center 2022a.)

Social environment term means how the plan of the classroom helps the cooperation that happens between the children, teachers, and family members. A well-designed social environment helps the relationships and produces a good and positive communication with the members involved in the classroom. Besides, the professionals help and give support in a good way to the children in order to obtain their social objectives. Besides, children consider to spend time every day in diverse groups. For example, different groups and sizes enable children with different needs and different opportunities to cooperate with each other and promote a socialization and learning. Small groups enable children to communicate better with each other, develop skills and cooperate well with each other. Also, there is a possibility for children to practice their language and vocabulary skills. For the teachers, the small groups promote a good communication development with children. (Iris Center 2022b.)

As far as the temporal environment is concerned, it is based on the time, progression, routines and activities that occur in a school day. Temporal environment includes the schedules of activities, free play time, lunch time, break time and different group activities. Having schedules and routines create a sense of safety for children and helps them to see different strategies from different points of view. It is also important for them to learn manners in an educational way. In a temporary environment, planning and design is also important. For that, professionals should take into account the needs of each child, as each child has specific needs. The aim of the temporary environment is that children learn to cope with different situations in an independent and autonomous way. (Iris Center 2022c.)

5 Implementing the study

With all the previous information gathered, this chapter is about the planning-, and implementation process of our questionnaire. It describes the research method we used in order to obtain in-depth information of the topic from the view of the educators. Furthermore, the creation of the questions is pointed out and finally, the planning and development stages of the guideline are presented. Through more discussions on the topic, we received literature suggestions from our working life partners, which we integrated into our thesis after reading them. The next step in our thesis process was to prepare the questionnaire. With the help of our working life partner, we went through the questionnaire questions which we prepared in

advance and then made changes together in order to specify the questions. We then discussed the importance of our topic in team meetings with our working life partner and asked the personnel to take part in our study.

5.1 Research method

The design of the study is a research based thesis, combined with a functional base for the guidelines. We have chosen a research thesis in order to gain knowledge of the subject matter by reviewing the literature and its methods, to get deeper knowledge through qualitative questionnaires with Early Childhood Education and Care professionals and to finally answer our research question and create a guide as a functional dimension.

Using research methods is crucial for the collection and analysis of information. Developing them is an important part of a research design, and when doing it, two outcomes have to be decided. On one hand, it has to be defined as the way of collecting the data. The research methods strongly dependent on the type of data that the study requires: qualitative or quantitative, primary or secondary, and descriptive or experimental. On the other hand, it determines how the data is analyzed, this means, deciding if the data will be quantitative or qualitative. (Sribber n.d.)

The method used to answer the objective of the thesis was through qualitative questionnaires. The questionnaires were answered by educators who work in Early Childhood Education and Care. We chose to include all educators in taking part in the questionnaire, because we wanted to have answers on our questions out of many professional fields in Early Childhood Education and Care. The expertise of all the professionals and workers together form a holistic cooperation, where the children can grow in a safe environment.

We chose this method because, according to McLeod (2018), through questionnaires, information can be gathered fast and it is not necessary to be somewhere present in person. The use of open questions is considered to be good when working with questionnaires. It is then easier for the participant to describe their opinions in their own way. In this way, it is possible to get in-depth information.

We were collecting 10 qualitative questionnaires with professionals working in Early Childhood Education and Care. There were open questions, so the participants were able to answer openly with their views and thoughts. Besides, we added a functional dimension to the work with creating a guide/guideline for developing an environment that supports attentiveness.

At the beginning, we were organizing our data by choosing questions based on what we wanted to know, and we chose a format (Google Forms) based on our target audience. After this

process, and when participants had answered the questions, we did a quick overview of the results to familiarize with the information. Then, we categorized the answers into thematic fields and pointed out the answers in these thematic fields. We chose to do so, because thematic analysis is “an appropriate and powerful method to use when seeking to understand a set of experiences, thoughts, or behavior across a data set”. (Braun&Clarke 2012).

After this, we also pointed out some specific participant voices concerning our objectives. We wrote an action plan by creating a guide/guideline for developing an environment that supports attentiveness.

We chose these questions because we thought they are important to further deepen our thesis topic. The responses were analyzed through a thematic analysis and used for the creation of the guide/guideline for developing an environment that supports attentiveness.

In the process of the thesis, we followed Laurea’s guidelines for referencing. We used sources written by trustworthy authors and organizations. We ensured the anonymity of individuals and organizations who participated in the questionnaires. We also ensured the protection of privacy.

In order to meet our goal, we formed well-thought questions for the questionnaire related to the previous impressions we got through the literature. We also kept the objectives of this thesis in mind when we formed the questions.

To analyze our results, we used the method of thematic analysis, which is common to use when working with qualitative data. It can be used when working with questionnaires and other methods, where there is an amount of texts. The most common way to do a thematic analysis is by firstly reading through the gathered text or texts again to become aware of what it expresses. Then it is about reading through again and marking important parts of the text. After reviewing the marked parts again, the next step is to think of different themes related to the parts. Then these different themes can be named and the result can then be written together. This type of analysis is considered to be a good methodology especially for collection of qualitative data, such as opinions, beliefs, understanding, experiences. (Caulfield 2022.)

5.2 Interview form research

In connection with the theory we utilized, the questions in the questionnaire (Appendix 1) were chosen and asked with the aim that the answers would allow us to see participants point of view and to be able to create a guideline for developing an environment that supports attentiveness.

We divided the questionnaire into three question sections so that participants could visually recognize the questions: dimensions of learning environments supporting attentiveness, natural and built environment, and developing learning environments.

During the construction of a questionnaire, there are some considerations to take in order to ensure accurate and understandable questions. Some of them are keeping the questions short and simple, get rid of any possible prejudice within the sentences, making sure that the formulation of the questions does not favor any perspective. In the case that a topic is very delicate or sensitive, a good advice is to prepare more indirect questions, avoiding the straight ones. By doing this, you can prevent participants from being intimidated and reluctant to share their real answers. Apart from this, the questionnaire should be as short and concise as possible, as it needs to be engaging for the participant. Long questionnaires tend to make the participants lose its interest. Another important consideration is to always ensure confidentiality to the participants right at the beginning of the questionnaire. (Pfeiffer Library n.d.)

5.3 Constructing the guidelines

Once the participants had answered the questionnaire, and based on our analysis, the creation of the guide/guideline for developing an environment that supports attentiveness followed as next step. The guideline consists of the background of the guide, tips for guidance work and supporting attention in different situations.

Guidelines are “documents that synthesize current evidence on how to most effectively organize and deliver health services for a given condition”. (Gagliardi, Marshall & Huckson 2015).

Developmental research follows a systematic structure. This kind of research is used in contexts of educational development. In a systematic manner, processes and the evaluation and development of them are studied. They have to be studied in such a systematic way so that they are reliable and effective. This research format is for providing information about real life and real experiences. It determines the importance of practices which have not been sufficiently researched before and however, are used in everyday life. This type of research is able to offer a direct response to the different demands for research, and also meets the necessary requirements of experts. (Richey & Klein 2005.)

6 Outcome

In order to structure the outcome of the questionnaire, we organized the results by the thematic sections of our questionnaire. In each thematic section, we describe at first the general results, then we report the more detailed results. We will then present individual responses and relevant quotes from the participants.

6.1 Dimensions of learning environments supporting attentiveness

The answers in this section refer to things that distract and things that encourage children's attention (things that are influencing children's attention). Also, the answers refer to the social, physical, and psychological aspects of learning environments.

Regarding things that influence children's attention, the participants mentioned space/structure, materials/tools, and noise as the main influences on children's attention. It should be avoided that the spaces are too crowded with people coming in and out or people walking constantly through the room, and it should be thought about if there is enough space and tools for the children regarding the chairs, table space, and supplies. The materials and toys should have a good quality, they should be easily available for the children and encourage play and learning. Also, the factor of the time structure/routines is mentioned. There also should be various tools, games, and space for the children.

“A good time structure in the facility gives the children security and orientation.”

- Participant quote

“Children must be able to act independently in their learning environment in order to be able to learn attentively and with motivation.” - **Participant quote**

Looking at the social environment supporting the attentiveness of the children, the participants express the importance of every child's opinion, making decisions together and then, feeling as a team. The environment should be trusting and caring, so that the children feel free to share their ideas. The social commitments should be made together in a participatory and democratic way, for example making group rules which are decided together with all the children. This is a way in which each child can be perceived with his or her individual abilities and needs and it will then also strengthen the social togetherness.

“Every child should be given the opportunity to express themselves and to show themselves, be it linguistically, creatively or physically.” - **Participant quote**

“Offer joint activities and projects that lead to a sense of achievement and therefore strengthen the group feeling.” - Participant quote

On the aspect of the physical learning environment, the participants highlighted that the structure should be in a way that the children can reach materials and tools independently without major help from the teachers. The environment should be well-planned with enough space, safe and appropriate materials, but without too many attractions. There should be various, suitably challenging games available for the children. The space should be designed appropriately for age and development. Children should also have a space where they can store their own belongings and drawings, like a “property drawer.”

“Children must be motivated to try out their own actions autonomously in order to develop themselves. The environment should be designed in such a way that a child feels secure and is able to act independently.” - Participant quote

“Children should have the opportunity to explore the world both inside and outside. Looking outside is important because new things can be discovered and individual learning is made possible, since new perspectives contain new knowledge.” - Participant quote

Regarding the influence of the psychological environment on the learning of the children, the participants pointed out that everything is influencing the development of the child, but the important part is the formation of a child’s resilience. When the child receives positive feedback on his or her actions and experiences and appreciation, he or she can cope positively with stress and external influences and be able to learn.

It was highlighted that an open communication with the children’s guardians is important, e.g. when a child moves to a new apartment and because of that has difficulties to concentrate or alter their behavior. Also, the educator’s behavior and confidence is important, because children have a keen sense of when there are conflicts between the teachers and if the teachers instructions are confusing, it also confuses the child.

“Children need structure, a regular daily routine and firm boundaries within which they are allowed to move freely. They need a friendly and appreciative learning atmosphere in order to learn well.” - Participant quote

6.2 Natural and built environment

The term 'natural environment' refers to the non-human-made surroundings and conditions in which all living and non-living things exist on Earth. The natural environment is in contrast with the 'built environment' which refers to areas that have been fundamentally transformed and influenced by human activity.

On one hand, the answers in the natural environment respond to the need for the nature factor where participants mention that being in nature helps to calm down, improves health and helps in attentiveness. The participants mentioned that the fresh air activates children's brain work. The concept of motivation also appears to discover and explore while learning.

“Nature has a positive effect on the motivation to discover and explore and thus learn, improves self-discipline and promotes a sense of independence” -

Participant quote

“Nature is a learning space itself, children can make experiences which are impossible in a room” -

Participant quote

On the other hand, the answers in the built environment are centered on the space/room, where it is important to have no distractions for optimal and positive attentiveness. For example, the participants refer to the color arrangement and happiness where participants perceive a relationship between them.

“If the built environment is well planned and made it could support kids who have difficulties of concentrating” -

Participant quote

“The built environment should be designed so that children can find age- and developmentally-appropriate play materials and group spaces and enjoy learning on their own and integrating them into their play” -

Participant quote

6.3 Developing learning environments

The answers in the developing learning environment section were divided into what kind of difficulties children face regarding attentiveness and how they increase children's attentiveness. Besides, there were two questions about how they think the needs of the children are taken into account to plan the learning environment and how to develop it in the future, and what kind of support they would need for it.

Referring to the difficulties children face regarding attentiveness and how they increase children's attentiveness, the participants emphasize the use of media, too many distractions, kids noise, concentration and learning difficulties. Besides, they mentioned that the children are in different stages of development, which affects attention spans. Furthermore, on how to increase children's attentiveness, some of participants quoted about clear actions, showing examples, getting their attention through a bells sound. Besides, the participants said that there is no need to have 20 toys, so reducing the toys helps to create a more quiet environment and give specific learning situations. Moreover, take into account the kids, the individual level of development and interests of the kids to have them motivated.

"This means that the level of physical and mental development for the task is crucial. The physical and mental stages of development are crucial and deficits can make it difficult to pay attention" - **Participant quote**

"Children are easily distracted by other children or by noises. Some children need constant attention or reassurance" - **Participant quote**

"By putting the children in a quiet place or putting them on quiet music" - **Participant quote**

In addition, on how they think the needs of the children are taken into account to plan the learning environment and how to develop the learning environment in the future, and what kind of support would they need for it. The participants agree that the kids need to participate more in the plan for the learning environment, because they are not taken into account enough. Also taking account of the safety of the learning environment, individual skills and interests of the child. Furthermore, about how to develop the learning environment in the future and what kind of support would they need for it, the participants mentioned about the observation of kids needs, divide the kids into small rooms, have a good atmosphere, adding relaxing and quiet rooms/spaces, take more into account the psychological aspects and conditions, different play role areas, more indoor stations where the children can experiment freely and undisturbed in order to gain sufficient self-experience.

"Sometimes it's banned to put any children's work on the wall to not ruin the "fancy" daycare wallpaper. There should be more empty space/tables on the wall for the kids. Answer is: not very well" - **Participant quote**

"I would add more space for children's art work. Adding smartboards in order to use in educational way like watching educational videos, slides etc" - **Participant quote**

“Above all, I would create a sensory stimulating environment that appeals to all the senses equally and thus promotes cognitive development. Similarly, a good and secure bond with the child should be established so that the child can detach and explore its environment itself” - Participant quote

7 Conclusions

The aim of this research thesis was to answer and explore in what way the environment is important for the child’s attentiveness. This study tried to find out more about educators’ experiences and insights about the effects of the learning environment. From previous research of the topic, theoretical content, theories and a connection with literature, we have been able to approach different studies and information on the main theme: ECEC environment that supports children’s attentiveness. Attentiveness for learning is influenced by many factors. The social, physical and psychological environment play a great role in that.

After presenting the outcome of the implementation in the last chapter, this chapter takes a closer look to the conclusions. In the following, the main results are presented. A very important part to mention at first is the fact that all of the various results related to children’s attentiveness in learning are closely interconnected with each other. It is difficult to see them as parts detached from each other.

The first conclusion that was drawn from the study is that sufficient space and structure needs to be provided in order to positively influence children’s attentiveness for learning. The space and structure should be in a way that the children are able to act independently in their environment, meaning they should be able to reach materials and tools without major help from teachers. They are then able to try out their own actions autonomously, so they are able to develop themselves. In order for the children to act independently, there are some structural requirements, which should be met. The space should be constructed in a way that there is enough space for all the children to fit in regarding table spaces, chairs, and other. The spaces should be designed appropriately for age. Also, a very important part in the space and structure are the materials and tools, which should have a good quality and there should also be various games that are suitably challenging for the children regarding their development. The space should also be created in a way that there is no constant disturbance through people coming in and out and walking through the room, because then there is an even higher noise level in the room, which makes it hard for the children to focus and pay attention to what they are doing. The challenge in offering sufficient space and structure lies in the conditions of the facility. Enough space and structure is needed for children’s attentiveness for learning, but the facilities rooms can not always be enlarged. This presents facilities with the challenge of having a very good layout with respect to the given, eventually very small room. For the future a

cooperation with professionals concerning the interior design of kindergartens would therefore be possible. Also to mention is, that facilities with small room capacities could extend the daily structure in terms of spending more time in nature, since the results of our study showed that nature supports attentiveness in a way of helping to calm down and activating children's brain work.

Another conclusion drawn from our study is the importance of meaningful social contacts. Every child's opinion should be taken into account in order for the individual child to feel safe and cared for. When each child is perceived with their own individual abilities and needs, it will also strengthen the social togetherness. Decisions should then be made together in a participatory and democratic way. When every child's opinion is taken into account and the children are motivated to share their opinions and to discover, they are more likely to be attentive in various situations. The difficulty here lies, according to our study, in the fact that children are in different stages of development and the attention span of the individual can vary. That is why it can be difficult to coordinate a group in which there are many children with different stages of development. Further studies in the field of supporting attentiveness for learning with groups of children in different stages of development could help to provide more information for educators facing this challenge.

Our last main result is about the importance of the caring and confident role of the educator. With clear actions, a self-confident appearance, and through an open and ongoing communication with the children's guardians and the children themselves, it is possible to create a positive psychological environment for the children. Forming a child's resilience through constant positive feedback on the children's actions and experiences and providing them with appreciation will, according to our study, lead them to cope positively with stress and other external influences and provide them with a base to be able to learn in their psychological environment. Talking with the children's guardians provides the educators with important information on the children's life and thus, helps the educator to understand the child and create meaningful individual experiences with the child. The educator's confidence also plays a big role with respect to catch the attention of the children. If the educator's instructions are confusing, it also confuses the child. But if the educator is self-confident in interacting with the children, they will be more likely to pay attention and get excited. Training in the use of parental work and in the context of strengthening self-confidence could support educators.

The results of the study were structured in thematic sections. For preparing the guideline, these thematic sections were used and all of the gathered information were put into a clearer format for a better readability. This led to a three point structure, consisting of firstly the background of the guide, secondly tips for guidance work and thirdly supporting attention in

different situations. The information contained therein are intended primarily for educators who work in early childhood education and care.

8 Reflection and Evaluation

After having completed the thesis and writing the conclusions, this chapter contains the reflections and evaluations of how the thesis provided an answer to research problems or development tasks. It will also be evaluated how we have achieved the objectives of the study and how the thesis increased knowledge in the area under study. We critically evaluate our thesis process and the ethical and reliability dimensions. Besides, feedback from working life.

The objective of the thesis is to determine, investigate and explore experiences and insights about the effects of the learning environment. In addition, the aim is to create a guide/guideline for developing an environment that supports attentiveness. The thesis aims to give an overview of how the environment affects children's attentiveness, what kind of difficulties children have and how educators can help children to attend better. This data was provided in context with literature, sources and a questionnaire to verify and provide additional information. We achieved the objectives of our research thesis from previous research of the topic, theoretical content, theories, a connection with literature, and with the answers obtained from the questionnaire.

Through the implementation of the thesis, new concepts, theories and theoretical frameworks have appeared. Thanks to them, we were able to gain knowledge of the field in order to be able to carry out a good execution of the thesis, together with the information and previous research of the thesis. As we mentioned before, the increase of knowledge in the area comes from previous research of the topic, theoretical content, theories and a connection with literature, we have been able to approach different studies and information on the main theme: ECEC environment that supports children's attentiveness.

Referring to the process of writing the thesis, everything started by asking ourselves why we should do research on Early childhood education and care environments that support children's attentiveness for learning. Previously, through background theory, we pointed out that the quality in ECEC is determined by the learning environments of ECEC. This shows that there is a need to investigate the learning environments of ECEC in the kindergartens we are working in, in order to provide a high-quality learning environment.

Once the topic was raised, the reflections were opened and we have been deeply analyzing them. We tried to collect the previous research on the topic, focusing on supporting the attention of children in ECEC. We were also looking for theories to contextualize a theoretical

framework, combined with the development of attention in childhood and ECEC environment in supporting attention.

Once we had all the information and all the research done, we started with the implementation process. We were sure that we wanted to do a research thesis combined with a functional base for the guidelines. We have chosen a research thesis in order to gain knowledge of the subject matter by reviewing the literature and its methods, to get deeper knowledge through qualitative questionnaires with Early Childhood Education and Care professionals and to finally answer our research question and create a guide as a functional dimension. At the end, we collected 10 qualitative questionnaires for the professionals working in Early Childhood Education and Care. We chose to make the form by using Google Forms based on our target audience.

The first part was enriching, as nowadays we have the tools to search for information, either through the internet or with paper resources, such as VASU. We found some difficulties to have a clear structure of the thesis, but once it was formulated, we had no problem to start searching for information and writing the thesis.

The process of waiting for the questionnaires to be ready was a bit laborious. Because the surveys were addressed for professionals working in Early Childhood Education and Care. The results took some time to arrive, as the workers were not able to answer during their working hours. At the end, we have obtained satisfactory answers that are in line with what we are proposing in the theoretical framework. When we got the results, we were able to have the information we needed to write the concluding parts of the thesis and the guideline. About the guideline, our evaluation is clear. We have learned to write a guide that is useful for those who read it and provides the necessary information. We have improved the writing and the content with several corrections and we hope that the result will be beneficial for educators.

During the whole process of the thesis, we followed Laurea's guidelines for referencing. We are using sources written by trustworthy authors and organizations. We also ensure the anonymity of individuals and organizations participating in the questionnaires, as well as the protection of privacy. In order to meet our goal, we have formed well-thought questions for the questionnaire related to the previous impressions we got through the literature, ensuring that we kept the objectives of this thesis in mind when forming the questions.

In summary, our personal reflection on the whole thesis is positive. We have had different inflection points along the process: at some stages we didn't know how to move on or which direction to take, we lacked confidence and we didn't find the time to do it, as we are both full time employees. But, in the end, we motivated each other, found time and order with the help of our tutors. All in all, it can be said that the result is positive. We have learnt about the concept of attentiveness, previous research of the topic, theoretical content, theories and a

connection with literature and we have spent a lot of time searching and contrasting information. We believe that with the guideline we can offer a good help for ECEC professionals regarding promoting the attentiveness for learning.

To conclude, the working life evaluation has been a success. From our workplaces they have seen how hard we have worked to achieve a good result for the thesis. They have appreciated how involved we have been both in researching information and in the implementation and design of the questionnaire. It has been mentioned how well the questionnaire was structured and how well formulated the questions were, following a clear and precise order. So, our working life partners were very satisfied with the results of our thesis. They find our guideline useful and valuable for the work in early childhood education and care and they will use and spread the information it provides, now and also in the future.

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Appendix 1: Letter to key informants

LETTER TO KEY INFORMANTS

Dear Participants,

We are Paula Garcia-Valero and Maxi Engler, both work in kindergartens and studying at the open University of Applied Sciences Laurea. We are currently working on our bachelor thesis, as part of which we decided to conduct a study in order to receive in-depth information from early childhood professionals on our topic.

According to the National Core Curriculum for Early Childhood Education and Care 2018, the quality in ECEC is determined by the learning environments of ECEC (Finnish National Agency for Education, 2021). This showed us a need to investigate the learning environments of ECEC in the kindergartens we are working in, in order to provide high-quality learning environments for the children. So, in this thesis, our topic of research is: “Early childhood education and care environments that support children’s attentiveness for learning”.

We would like to:

- Find out what effects the learning environments have on children’s attentiveness according to Early Childhood Educators.
- Create a guide for developing an environment that supports attentiveness.

We decided to survey Early Childhood professionals who work in our kindergartens. The research questions are open-ended, so you can share your views in your own words. The form should be returned no later than one week after receipt of the form.

We will ensure the anonymity of individuals and organizations participating in the questionnaires. We will ensure the protection of privacy. Answering is voluntary and takes place anonymously. Your identities cannot be deduced from the answers. Research material is collected only for the purpose of this thesis and it will be destroyed after the completion of the research. By answering the questionnaire, you express your consent to participate in the research. The thesis report will be published in Theseus. The individual participants and organizations cannot be identified from the completed report.

Here you will find the link to the study:



Thank you very much in advance for your answers!

Paula Garcia-Valero

Maxi Engler

Supervisor: Henna Jalasmäki

Appendix 2: Research questions

Study- "Early childhood education and care environments that support children's attentiveness for learning"

Dimensions of learning environments supporting attentiveness

What kind of things do you think affect children's attention from the perspective of the learning environment?

How do you build the social environment (e.g. children's relationships) in your group in order to support children's attentiveness?

What kind of physical learning centers (e.g. classroom and kindergarten design) do you think are important for the learning environment regarding children's attentiveness ?

What do you think about how the psychological environment (e.g. behavior, stress, management...) influences the learning of children?

Natural and built environment

The term 'natural environment' refers to the non-human-made surroundings and conditions in which all living and non-living things exist on Earth. The natural environment is in contrast with the 'built environment' which refers to areas that have been fundamentally transformed and influenced by human activity.

How do you think the natural environment affects/supports children's attentiveness?

How do you think the built environment affects/supports children's attentiveness?

Developing Learning Environments

What kind of difficulties do children face regarding attentiveness?

How do you increase children's attentiveness?

How do you think the needs of the children are taken into account to plan the learning environment?

How would you develop the learning environment in the future and what kind of support would you need for it?

Appendix 3: Guideline for developing an environment that supports children's attentiveness

Learning environments to support the regulation of children's attentiveness

A guideline for workers

Below is a guide contents for ECEC educators, in which you will find the following sections:



In order to know about this guide, first we need to explain what a guide is. A guide has the purpose of describing something and the use of it briefly. The guide can be written like a book. (Emily 2020.) Besides, guidelines are documents that incorporate present date on how to most effectively organize, construct and deliver health services for a given condition. (Gagliardi, Marshall & Huckson 2015).

The aim of the guide is to provide ECEC workers tips/advice on how to regulate the learning environment to support children's attentiveness.

1. Background of the guide

Obaki (2017), mentioned that an environment which is constructed to fit to the development of children should give opportunities to interact and play with different materials. It should also provide a space for resting and should include motherly care. Taking into account these indicators of caring and effectiveness in educating children, the educators should be able to plan a better outlook in the areas of the kindergarten. Besides, Obaki (2017), affirmed that environmentally appropriate classrooms include good lighting, age-appropriate materials in the particular learning areas and the focus on spaces for groups of children to work and play. Also, there should be enough seats and tables which fit to the children's ages.

In Vasu it is mentioned that “the mission of ECEC is to promote children's holistic growth, development and learning in collaboration with their guardians. The knowledge and the skills acquired in ECEC strengthen children's participation and active agency in the society”. (Finnish National Agency for Education 2021, 14.)

The goal of environmental education is to “strengthen children's relationship with nature and ability to act responsibly in nature as well as to guide them towards a sustainable way of living”. Environmental education consists of three dimensions: learning in the environment, learning about the environment and acting for the environment. (Finnish National Agency for Education 2021, 49.)

Learning environments bring the children alternatives for doing things that they enjoy, such as physical activity in functional and quick ways, games and play for resting time in a peaceful way. Learning environments are planned and developed to strengthen equity and gender equality. This permit to escape from classic stereotypes. The learning environments encourage children's linguistic development and language awareness to make cultural diversity visible. (Finnish National Agency for Education 2021, 34.)

Attentiveness “is the fact of paying attention and listening carefully”. “Attention plays a primary role in learning and in the acquisition of information. Especially due to the fact that nowadays there are more cases of attentional problems, for example ADD or attention deficit disorder in childhood. It is crucial to acknowledge the importance of early attention. (Loyola University Chicago n.d. .)

Pay attention is the capacity to concentrate and focus in a element or person while ignoring different elements of the environment that also demand attention. It is also related to increasing the capacities and abilities of each individual to be able to educate and develop himself. For the child to be attentive, has to see what is around him, emphasizing the nature of the elements. This is of great importance in order to function correctly at school and to

increase the capacity for self-regulation. This means that the individual or child acts in a cordial way in order to achieve a goal. (California Childcare Health Program n.d. .)

2. Tips for guidance work

As mentioned earlier, the aim of the manual is to provide ECEC workers tips/advice on how to regulate the learning environment to support children's attentiveness. For that reason, and with the help of professionals and previous research, below you will find different tips/advice.

We can divide the learning environment into three sections: dimensions of learning environments supporting attentiveness, natural and built environment, and developing learning environments.

2.1 Dimensions of learning environments supporting attentiveness

The things that affect children's attention are the crowded spaces full of material, noisy spaces (kids playing around, people walking through the room...), and the learning environment is too big or too small.

The way that we can build the **social environment** in order to support children's attentiveness is with small groups and activities in different spaces. It is important to take up ideas and interests of the children, and it also helps a lot to catch their attention. Promote **helpfulness and consideration** among children. Proper for the age group, what are the kids interests, the flow of the toys, dividing the area so the kids can play/learn nicely. The group should see itself as a team. During work phases, quieter children sit next to more restless children. Offer joint activities and projects that lead to a sense of achievement and therefore strengthen the group feeling. Every child should be given the opportunity to express themselves and to show themselves, be it linguistically, creatively or physically.

The **physical learning** centers regarding children's attentiveness is based on all materials need to be easily accessible and in reach for the children and fit their needs (e.g. tables of the right height, games that are suitably challenging). The room should allow **space for creativity**. There needs to be seating and table space for all children, as well as a "property drawer" where every child can store his own belongings and drawings. Children also need **open spaces** to play on the floor, to construct and to build. Learning takes place in very many forms and physical activity does help create understanding. A space that conveys **confidence and tranquility**, helping the child to feel safe enough to make mistakes, a place where the child feels good, safe and well taken care of, encourages curiosity and give room to explore. It would

be good to have a room that you can use individually. It is important that you can sit in a circle, but also have a place where you can work alone. The kindergarten or the group room should be designed so that the children can **learn independently and self-directed**. It should be designed appropriately for age and development and be easily accessible for the children without major help from the teachers. A child's physical learning environment should be designed in such a way that a child can easily find his or her way around it. The structures in the rooms should be **child-friendly** and make it easy for a child to find the way around, which means that the children can access their materials and toys independently and can move freely and safely around the rooms. They must be motivated to try out their own actions autonomously in order to develop themselves. The environment should be designed in such a way that a child feels secure and is able to act independently. Children should have the opportunity to **explore the world** both inside and outside. Looking outside is important because new things can be discovered and individual learning is made possible, since new perspectives contain new knowledge.

The **psychological environment** has a great influence on the learning of children. A big change/stress like moving to a new apartment can influence the children and make it more difficult for them to concentrate or alter their behavior. It is important to keep these things in mind and try and **communicate openly** with the parents. It affects the child a lot. A child who feels insecure in the group or is afraid of the educator has little confidence. A child who is stressed cannot focus his thoughts on what he is doing. And if there is a lot of unrest or quarreling in the group, the child is also distracted more quickly. A teacher whose instructions are confused confuses the child. Psychological factors influence **learning and attention**. Children need **structure**, a regular **daily routine** and firm boundaries within which they are allowed to move freely. They need a **friendly and appreciative learning atmosphere** in order to learn well. Everything influences the development of the child, but what is important is the formation of a child's resilience.

2.2 Natural and built environment

The way that the **natural environment** affects/supports children's attentiveness is to concentrate and to calm down as well as moving in nature can help to regulate the child's activity better than moving in a room. And it supports health, which is also helpful for **concentration**. Beside this, nature is a learning space itself, children can make **experiences** which are impossible in a room. It calms kids and the brain works better. Being

in nature is not only valuable for our mental and physical health. A diverse, natural environment, such as the forest or the meadow, but also gardens and parks, represent ideal learning environments. Nature has a positive effect on the **motivation** to discover and explore and thus learn, improves **self-discipline** and promotes a sense of **independence**. **Self-confidence** increases through independent action, but also allowing and learning from mistakes. The natural environment allows the child to develop **new skills** independently. The child can pursue its own interests and is highly motivated. Playing outside speaks to all of the children's senses. In nature, children can discover independently and come across **new experiences** without having to be educated to do so. The child can choose what they find exciting and deepen their own interests through experimentation and research.

Besides, the **built environment** affects/supports children's attentiveness with a well built and equipped room can help, as described before. But most of the built environment limit the children's urge to **discover and explore**. Many places are too busy and have too much distractions, what makes it dangerous eg. for children in the traffic. Thoughtfully built environment can at least bring some of nature's experiences in an artificial way, what is better than nothing. If the built environment is well planned and made it could support kids who have difficulties concentrating. The built environment can be restrictive for children. The built environment should be designed so that children can find **age- and developmentally-appropriate** play materials and **group spaces** and enjoy learning on their own and integrating them into their play. If a child has the opportunity to explore its environment independently, it can learn from the **experience** and is motivated to want to discover more and to **develop** its own solution strategies.

2.3 Developing learning environment

The difficulties that children have regarding attentiveness are many things happening at the same time. Smart phones and TV are a big issue. Bit-sized video clips, fast paced games can get children "addicted" and are also used too commonly to keep kids quiet or make sure that they don't get bored. Children have a harder and harder time to get their parents' undivided attention because parents as well are often on the phone. Also, it is only possible to pay attention when there are phases in between where the child can relax and rest. The **physical and mental stages of development** are crucial and deficits can make it difficult to pay attention.

The way that we can increase children's attentiveness is with clear actions, showing examples, and getting their attention through a bell sound. Often it helps to reduce stuff - no need for 20

toys when there can be e.g. building blocks instead. Also it helps to create a more **quiet environment** and give specific learning situations **clear structures** (e.g. during the morning meeting - to make sure that the child knows what is expected from it and what it can expect). Reduce own stress, give time, when the child explores, let it make its own experience instead of giving ready-made solutions and information, listen to the child until the end creating a group-atmosphere which is not too loud and not too busy if needed, give an extra table to the child, with no other children distracting him or her, if needed hearing protectors. **Small groups**, be aware that there isn't too much stuff on the wall or surrounding, volume levels, pictures helping you what are you talking / teaching about. Making myself interesting by doing mimics and speaking with expressive voice- children are paying attention right away. By putting the children in a **quiet place** or putting them on quiet music. Provide children with an **age-appropriate group** space that is adapted to their development and interests. Build a good and secure bond with the children and strengthen the group's sense of belonging through joint projects. The individual level of development and the interests of the children should always be integrated into the learning process. Because when a child is self-motivated and interested, they can be very attentive and acquire **new knowledge**.

The needs of the children are taken into account to plan the learning environment by interests, strong and weak strengths to develop. Not enough, for example when an architect plans a kindergarten he/she should have educators as support. We have to observe and make notes of every child. Also **vasu-conversations** with the parents so then you can plan better and take all the stuff into account. There should be more empty space/tablos on the wall for the kids. Answer is: not very well. The needs of the children are not taken into account enough. In newer schools / kindergartens it is now standard that special facilities are planned there. The children are observed to see what **stage of development** they are in and what their interests are. Now the environment can be designed to stimulate learning by offering the children the next developmental steps. The planning of the learning environment involves **observing the children** and engaging in dialogue with the children, questions, opinions, skills and interests of the children are integrated into the planning. The rooms are used and adapted **flexibly**, depending on the needs of the children. The daily stay in nature as well as the offering of cultural offers expand the acquisition of knowledge/interests. Giving age-specific opportunities for physical activity provides opportunities for **self-awareness** and testing of limits.

About to develop the learning environment in the future and what kind of support would we need for it with observation of the needs for the children in a group and divide the room in **small activity corners** for them to learn with the most peaceful atmosphere as possible.

Kindergartens should be **spacious** and allow areas for relaxation and quietness. The groups should be small - and nature should be always close by. In school or kindergarten less children in one room and / or more smaller learning spaces instead of one big one. Take more account of the **psychological aspects** and the conditions in which children grow up and learn and adapt the learning goals and methods for this. Making the learning environment quieter and have more space. But that would require a new space and an architect. Above all, I would create a **sensory stimulating environment** that appeals to all the senses equally and thus promotes cognitive development. Similarly, a good and secure bond with the child should be established so that the child can detach and explore its environment itself. Offering more climbing and building opportunities outdoors, more indoor stations where the children can experiment freely and undisturbed in order to gain sufficient self-experience. Integrate a Snoezelen area/corner for retreat options and senses or body awareness.

3. Supporting attention in different situations

Regarding supporting attention in different situations, we created a table that shows the everyday situations in a kindergarten. Examples of supporting attention are described on the basis of these everyday situations. Of course, there are many more situations to think of, but this should only serve as an example. It can be extended as desired.

Situation	Supporting attention as educator
Arrival of the children	Check that there is sufficient space for the children's belongings in the dressing area. Warmly welcome the child. Also warmly welcome the guardian. Be aware of goodbye rituals between child and guardian. If needed, accompany the child to the group.
Free-play	Think carefully of the arrangement of the room (sufficient good quality and age-appropriate furniture, materials, tools and games, easily accessible and in reach for the children for independent and self-directed learning). Make sure to give them room for themselves, but also make sure they know you are there if support or guidance is needed (free-play is a great situation to get to know the children's interests and learning development). Encourage them to try new things.
Program (e.g. morning circles, thematic activities, preschool work)	When looking at activities, integrate the children in planning, implementing and evaluating them. Plan activities based on the children's interests (this makes it very interesting for the children to participate and pay attention). Listen carefully to the children's ideas and encourage them to tell their opinion. Also explore with them what possibilities, materials and tools there are and what could be challenges (participate in the process together).
Eating situations	Provide sufficient space and age-appropriate furniture and tableware. Encourage them to say their opinion. Encourage them to try something new.
Outdoor play	Create moments with the children where they can experiment and research, together or on their own, according to their interests. Leave them room to experiment by themselves. Play along with the children.
Pick-up of the children	Time for exchange with the guardians (what was the day like in the kindergarten, how was the child doing there, what is going on in the child's life at home).

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