

Ghörsch mi?



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Bachelor Project for facilitating cooperative emotional development of children.

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Abstract

The bachelor project “Ghörsch mi?” is about facilitating cooperative emotional development and emotional competence of children of kindergarten age.

Terms related to the subject of emotions are explained, and the thesis deals with three different pedagogical approaches of school systems in Switzerland. It describes findings and insights from observations, interviews and experiments made.

The goal was to understand how we as adults can support children’s emotional competence, strengthen their mental health as well as promote mutual learning together among each other. This evolved into the underlying research questions:

How can adults promote and support emotional competence in children aged from three to six? How does an interactive tool in a private setting provide additional support for children’s emotional development, such as recognizing and perceiving feelings and self-reflection?

The three observations, the interviews with teachers and caregivers, as well as the experiments made for and with children served as the basis for this work.

An important statement of this project is to encourage parents, caregivers and the Swiss society to attach great importance to the emotional development, emotional competence as well as empathy development of children. Furthermore, the final prototype should motivate children to deal more intensively with their own emotions in an experimental way. In order to strengthen their mental health and cope with the pressure and stress to which they are exposed daily.

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Main Content

1. Introduction

The pressure on children and adolescents to perform at school and in their everyday life in Swiss society is increasing enormously. It can be seen that many factors enhance the risk of children being exposed to great stress at an early age and that this leads to frustration and could eventually even lead to mental illnesses. The stress and pressure do not get any better in young adulthood.

Children are our future, and it is a fact that psychological problems can already start in childhood due to the pressure and stress children are exposed to. This does not mean that every child will or does suffer from mental illnesses. Nevertheless, this is a topic that should be addressed more often in public. We should support and promote the mental and physical health of children. This includes emotional support, recognizing warning signs in case a child is overstrained and most importantly, offering professional help to the affected children in case needed. (Reicher, 2021)

During the desk research phase, this bachelor project looked into different approaches of pedagogical approaches to the Swiss school system. And tackled the various terms on the subject of emotions and feelings. It is important to know that emotional development forms an important basis for emotionally competent behaviour and occurs especially in the first six years of life. For this reason, the focus was placed on children between the ages of three and six. (Hirseland, 2020)

Additionally, it has also been found to be extremely beneficial for children's mental health, to support the development of emotions, self-regulation and social skills. For this reason, the goal was to find out how we can promote the emotional competence of the

children. And whether it is possible to support them with an interactive tool for everyday use in a private setting. That tool should also provide them with an opportunity to develop a deeper understanding of the different feelings and especially of their own feelings. In the context of this bachelor project, the question was investigated of how we as adults can support the emotional development and competence of children between the ages of three and six. And whether it is possible to develop an interactive tool that supports children in dealing with and talking about their own emotions and gives them the opportunity to deal with the emotions of other children and their families.

During the process, a possible solution for using interaction design to promote children's emotional competence emerged. The idea for that tool developed on the basis of the various interviews, observations, experiments and conversations with children.

In the course of the next pages, relevant terms on the subject of emotions and feelings will be explained. In addition, the Montessori pedagogy is described, and different experiments and tests with children will be presented. This thesis will also show the prototypes, which are based on the insights of the mentioned observations.



Figure 1: Final Prototype

2. Research Field

In the first part, the research area is introduced. This includes the key data around the personal background and context, as well as the explanation of important terms that serve for a deeper understanding of the topic.

2.1 Background and Context

Through my own interest in the mental health of our society, I have often dealt with that topic and read many books about it. At some point, it turned out that I was particularly interested in the origins of mental illnesses and how we might be able to reduce the risk of suffering from them.

During the research, it became clear that some mental illnesses, for example, depression, can originate in childhood. One of the reasons could be the lack of affection and the lack of awareness of our own emotions. I am aware that this cause affects only a very small number of people with mental health issues. And that there are countless methods and strategies on how to treat a mental illness. And that each person finds a different method of therapy helpful. For this reason, I would like to clarify that my research and observations and knowledge are drawn exclusively from my own point of view, and I do not judge any methodology as right or wrong in handling emotions. My statements are based on books, magazines and articles that I have read as well as my personal experiences and conversations with educators or parents.

For me, it is a fact that in Swiss society, we are too little aware of the enormous pressure the children are exposed to. We rarely speak about mental illnesses and about our own emotions. And I want to change that, and I have already started with my family and friends, and I want to pull this further and give everyone the chance to talk about feelings and emotions and become aware of them.



Figure 2: Green Colourmonster

2.2 Important Terms

2.2.1 Definition of Emotions and Feelings

As an introduction to the topic of emotional development and emotion regulation in children, it should be clarified in advance what emotions and feelings are and how they differ from each other. The author Richard David Precht writes in his book that brain researchers distinguish emotions and feelings as follows. Emotions are the complex interaction of chemical and neuronal reactions. They form certain patterns and often look very similar in humans and animals. Emotions are stereotyped and automatic processes. Feelings, on the other hand, are a much more complicated matter in which a portion of consciousness always comes into play. Feelings can be hidden, but emotions are difficult to hide because they cannot be controlled. Feelings are a mixture of emotions and ideas and are very personal. (Precht, 2012)

“Planet Wissen” explains that there is no clear and universal definition of emotions yet. They clarify that scientists so far rely only on a working definition, which is more comparable to a description of a phenomenon than to a definition in the actual sense. Others see in it a neurophysiological reaction, which takes place only in the brain and which we humans cannot influence. Some are of the opinion that emotions are only a social construction. Because in the end, it depends on the social environment that shapes us and which feelings we have in certain situations. (Wengel, 2020)

Biologically, emotions are complex behavioural patterns that have evolved over the course of evolution, as Precht wrote in his book. Emotions help us to orient ourselves in everyday life. We make many decisions from the gut. Even when we want to weigh things up rationally and let reason decide, it is often this first impulse that leads us to make one decision

or another. Our emotions are an evaluation system that may be more or less well equipped. It is not complete from the start but is constantly expanded and refined by our everyday experiences. It is clear that nothing that we experience is without an effect. Every experience we have, everything we learn, is linked in the brain to the corresponding feeling we experience in that situation. The more intense this feeling is, the more clearly it remains anchored in our memory. What we have experienced becomes part of our life experience. The greater this wealth of experience, the more differentiated our emotional evaluation system becomes. This means that with every experience, we evolve our emotional development. Every feeling is always accompanied by a physical reaction. The more intense the emotion, the more clearly we react. We can smile or laugh. We can even laugh so hard that tears come to our eyes. We can tell how other people are doing by these physical reactions. We learn to be empathetic. Through people's body language, we can understand others. This interaction between our thoughts, emotions and body is inseparable. Scientists speak of somatic markers. They can be measured in laboratory experiments where sensors on the face record the muscle reactions. (Wengel, 2020)

Dr Rosa Maria Puca (2021) writes about how some scientists distinguish between emotions and feelings. Emotions are understood by some as the total response to external or internal stimuli. This includes various reactions of the body, such as sweating and increased heart rate, as well as the behaviour which is characterized by facial expressions, gestures and posture. These thoughts could give the evaluation and classify something as threatening. And finally, the reaction of the subjective experience of the emotions, so how you experience, for example, the feel-

ing of fear. This means that often the term feeling is used only for the subjective experience component. Accordingly, the term feeling is a part of the emotion.

To summarize the terms again simply, this means that emotions are felt, but they are more than just feelings. Emotions are composed of what is actually felt, the occasion of the feeling, the evaluation of the experience, the physical reaction and the expression of the emotion. For this reason, this paper does not distinguish between the terms emotions and feelings. It understands the terms as reactions to certain experiences, desires or interests. They affect the human body, mind and spirit but are difficult to measure. (Frech, 2008)

Emotions play an extremely important role in development because they impact our lives by motivating our actions, controlling our expression of emotions, regulating interactions, and influencing our thinking. It is important to keep in mind that emotional development is closely related to a child's cognitive, social, and language development. This leads us directly to the next important terms that need to be explained. (Frech, 2008)

2.2.2 Definition of Emotional Development

According to the StudySmarter website, emotional development is primarily described as understanding and processing one's own feelings. This includes learning to explain one's feelings to others and developing strategies to overcome negative emotions. They also write that emotional development is learning to empathize with others and correctly interpret their emotional state, in other words, developing empathy. Emotional development already begins in our childhood as infants. We learn early on how to deal constructively with our own and others' feelings. As a result, we gradually acquire what is known as emotional competence. This can be helpful in developing a healthy sense of self-confidence. (StudySmarter, no date)

The authors of the learning content on emotional development on the website StudySmarter also write that emotional competence is essentially based on four core skills.

1. The attention to one's own emotional state
2. The compassion for fellow human beings (empathy ability)
3. The ability to establish functioning interpersonal relationships
4. The constructive handling of stressful or social problems and feelings

Having many different strategies that support us in dealing with frustration and defeat help us form relationships and bonds. This means that there is a close connection between a child's emotional development or emotional competence and social development or social competence. Humans have needed emotions to communicate since birth. This is already evident in toddlers, who show negative and positive reactions at an early age. It is currently not clear whether small children can already distinguish between different negative emotions such as anger, fear or sadness. (StudySmarter, no date)

Additionally, it is difficult for children to regulate their own emotions. Self-regulation improves with age as children learn to use strategies and appropriate

means to control their emotions and behaviour. Both biological and environmental factors, such as the social or family environment, are thought to contribute to how people manage emotions and the resulting behaviour. Emotion regulation refers to the processes by which people can influence their emotions and related behaviour and experience. However, people are not able to regulate their emotions themselves from birth. Babies still need their caregivers to do so. So when caregivers regulate the baby's emotions through various techniques, such as distraction, this is called external regulation. Once babies are able to move their heads, they slowly begin to control their emotions themselves by turning away from distracting stimuli. Children make great progress regarding emotion regulation, mainly in kindergarten and elementary school age. During this time, they are confronted with many new emotional impressions, which allows them to try out and practice different strategies for regulation. In the process, emotion regulation becomes increasingly internal because children need less and less external help in regulating it. In addition, they become increasingly familiar with their own emotions and can eventually name and categorize them. In this way, emotion regulation continues to develop until late adolescence, when development finally comes to an end. (StudySmarter, no date)

As a final point in this section, we should look at how we can promote the emotional development of children. Parents, in particular, have various opportunities to promote emotional development in their children as they grow up. This includes, for example, the role model function. Children need a role model who allows positive as well as negative feelings. It is also extremely important to talk to children about emotions and feelings and to take them seriously. It can be detrimental to the child's development to play down their feelings. So show understanding for all emotions. Furthermore, it is important that children find and learn non-violent strategies for emotion regulation at home as well as in kindergarten. (StudySmarter, no date)

2.2.3 Children and their Emotions

During the desk research, several important aspects concerning the connection between children and their emotions have appeared. In summary, four main concepts are important in relation to children and learning about their emotions. These are based on the recognition of feelings, self-awareness, empathy and reflection. (Eurich, 2018) (Jako-o, no date)

2.2.3.1 Recognition of feelings

Infants can logically feel before they learn to speak. They express their feelings through facial expressions and gestures. If attachment figures such as parents, caregivers and teachers recognize feelings and emotions within children, they should name them. So that the children gradually adopt them into their own vocabulary. As a child learns to express itself with words, it becomes better at naming its own feelings and emotions over time. This is how it develops emotional competence. (Eurich, 2018) (Jako-o, no date)

2.2.3.2 Self-awareness

The author Tasha Eurich writes in an article published on the Harvard Business Review website that there is a glaring gap between the science and practice of self-awareness. She also writes that there are two different types of self-awareness.

On the one hand, there is internal self-awareness, which represents how clearly we see our own values, passions, aspirations, fit with our environment, reactions - including thoughts, feelings, behaviours, strengths, and weaknesses, and impact on others. On the other hand, there is external self-awareness which means understanding how other people view us in terms of those same factors listed above. Research shows that people who know how others see them are more skilled at showing empathy and taking others' perspectives. (Eurich, 2018)

In this thesis, the two self-awarenesses come together, and both should be promoted equally.

2.2.3.3 Empathy

As already mentioned, a very important point is the empathy of a human being which we develop towards other people, especially concerning their feelings and emotions. Eurich says that only those who know what joy, sadness or fear is, can recognize these feelings in other people. If a child can put himself in the place of others, it is easier for him or her to anticipate certain situations and possibly avoid them. This is especially true in situations where children play together and share toys, such as in day-care centres and kindergartens, but also in private situations. (Eurich, 2018) (Jako-o, no date)

2.2.3.4 Reflection

The last important point of the connection between children and their feelings is reflection.

When talking about feelings, children should start realizing how the feeling came up in the first place. Children can promote this enormously, especially through their role models and by reflecting together with their parents or caregivers. Through this, they learn about their triggers and know how to react in specific situations, as well as start realizing how to take the aerial perspective and judge neutrally about a situation. This helps them avoid unpleasant feelings and emotional outbursts and supports emotion recognition. (Jako-o, no date)

2.2.4 Intrinsic Motivation

A very relevant part of the process of this project is intrinsic motivation. Because ultimately, it is enormously important that children want to talk about their own feelings of their own accord. For this reason, it is important to understand the concept of intrinsic motivation and see that it has an important connection with Montessori education, which will be explained later.

Intrinsic motivation is the inner motivation of a person that arises from him- or herself. This means that certain activities are enjoyed because they are fun, meaningful, challenging, or simply interesting. They are done for their own sake, unlike extrinsic motivation. Within intrinsic motivation, it is not about gaining a reward or avoiding punishment. Intrinsic motivation is also the origin of intrinsic learning. So, one should learn the things that interest and motivate oneself. Thus, learners are more motivated and more engaged in learning more about specific topics and materials. (Lernpsychologie, no date)



Figure 3: Red Colourmonster

2.3 Children's Emotional Development

Various websites and articles have summarized the different stages of children's emotional development.

2.3.1 The first year

Primary emotions such as joy, fear and interest can already be shown by a child after birth. It expresses this by smiling or crying. Babies can even recognize and imitate these feelings in their caregivers. A baby can therefore be unconsciously influenced by the feelings of other people without feeling this way itself. This is also called global empathy. An infant's first emotion regulation behaviours are based on receiving comfort and encouragement from caregivers. This is also called external emotion regulation, as mentioned earlier. (StudySmarter, no date) (Fischer, 2016)

2.3.2 The second year

In the second year of life, a child increases the possibilities of his expression of emotions by expanding his vocabulary. A toddler can name primary emotions and also recognize them in other people. A toddler also makes first experiences with social rules through desired or undesired methods of emotion regulation. This can be learned, for example, in the following scenario: A toddler is taught not to hit or kick when angry. Here, it learns to empathize with the feelings of others. However, it may still mix its own feelings with those of others. (StudySmarter, no date) (Fischer, 2016)

2.3.3 The third year

From the age of three, children have the ability to recognize the difference between emotional experiences and emotional expression. A child at this age can now manipulate his or her own facial expressions to elicit certain reactions in others. In addition, vocabulary expands, allowing the child to better express and explain his or her feelings. However, it still needs a lot of assistance to be able to deal with its emotions. (StudySmarter, no date) (Fischer, 2016)

2.3.4 The fourth and fifth year

In the fourth and fifth year of life, i.e. in kindergarten, a child has many new experiences with its own and other people's feelings. However, they often still experience these as contradictory and confusing. Nevertheless, the child is now increasingly able to explain and reflect on his or her feelings. From the age of four, a child develops more and more of its own strategies for dealing with negative feelings. Nevertheless, he or she still needs help. One example is the ability to empathize: If a child sees another child crying, he or she comforts the other child because he or she feels compassion. This could be observed in the observations described later. (StudySmarter, no date) (Fischer, 2016)

2.3.5 The sixth and seventh year

A schoolchild can now better assess how and when to express emotions and develop more complex emotional expressions. With enough encouragement, a child learns to empathize with others, find compromises, accept and deal with negative emotions. In addition, a child can now flexibly adapt and control his emotional expressions. At this age, it thus has the most important skills that make up emotional competence. Here is an example of how a child can use these skills: In elementary school, a child overhears a classmate crying. The child can recognize this and empathize emotionally with her classmate. She then asks an adult for help or comforts the other child herself. (StudySmarter, no date) (Fischer, 2016)

2.4 Montessori Education

It is essential to understand what the main principles of Montessori education are along with how it differs from the alternative conventional education. This also serves to gain a better understanding of some of the choices and changes of the project made during my process.

Maria Montessori was involved in paediatrics while she was still a medical student. Even then, she saw each child as a unique individual with a personality of their own that needed to be respected. Her main goal was to educate children to be independent and to give them self-confidence. Both qualities, independence and self-confidence, will be very beneficial in later life. Here are the most important building blocks of Maria Montessori's concept. (schule & familie, no date)

2.4.1 Free Choice of Work

In Montessori education, children decide for themselves what they want to occupy themselves with and are not pushed into a task by the educators. This leads to fewer disturbances in the group, as each child pursues their own interests at their own pace. This already goes into the topic of intrinsic motivation. (schule & familie, no date)

2.4.2 Prepared Environment

In order for the children to freely decide what to do with, the materials must, of course, be freely accessible. This is what Maria Montessori calls the prepared environment. It differs in many ways from most overloaded children's rooms. An overabundance of materials prevents children from focusing on a single task. In addition, each object has a fixed place that the children can find and easily reach. (schule & familie, no date)

2.4.3 Help Me to do It Myself

There is a sentence which is probably quoted most often in Montessori education. It describes a central point. Children should be empowered to do tasks for themselves, according to their ability and knowledge, that adults would otherwise do for them. (schule & familie, no date)

One of the most famous quotes of Maria Montessori is the following. In my opinion, this describes the pedagogy enormously well.

“Help me to do it myself. Show me how to do it. Don't do it for me. I can and will do it on my own. Have the patience to understand my ways. They may be longer. I may need more time because I want to make several attempts. Allow myself to make mistakes, because I can learn from them.” (Montessori)

In Montessori education, adults should observe more in the background and only intervene when children are stuck on their own. Children often have amazing ways of solving problems that we would approach quite differently. Through independence, children experience themselves as effective and thus learn to trust themselves and their own abilities. (schule & familie, no date)

2.4.4 Practical Life Exercises

Children need enough time to romp, climb and play, but along the way, even younger children should be introduced to the exercises of practical life. For example, they should be given the opportunity to dress and undress themselves, make their own bread, or pour their own drinks. Depending on their age, other exercises are added, such as caring for the environment or maintaining social relationships, such as greeting, asking for help and resolving conflicts. (schule & familie, no date)

2.4.5 The Absorbent Mind

Maria Montessori assumed that children up to the age of six absorb their environment, and especially what people do, like a sponge. This means that they do not question and do not separate the important from the unimportant. The absorbent mind thus ensures that a child learns effortlessly along the way. To this point belongs an important insight that has shaped this project enormously. If a child sees an adult doing something that he or she is not supposed to do, the child is very likely to copy this action. Therefore, educators and adults should always behave in such a way that they are good role models for children. (schule & familie, no date)

2.4.6 Montessori Materials

In every Montessori institution, there are Montessori materials. They are designed so that children enjoy using them and intuitively understand what to do with them. In the field of design, one could also speak of the term affordance. So an object gives us action stimulation due to the information about functionally relevant properties of things and components of the environment, which make a certain behaviour possible. Important is that the Montessori materials have their own error control. Thus, the child notices when it has done something wrong and can correct itself. (Gibson, 1982)

2.4.7 Cosmic Education

This term often earns Montessori education the accusation of “cuddly education” or “detached esoteric education.” Maria Montessori meant that children should be taught at a young age to understand the laws of nature and global interrelationships. They should not be taught knowledge from different areas which they cannot bring together. Rather, they should be enabled to reflect on the consequences of their actions and act responsibly accordingly. In this way, children should find their own place in the world. (schule & familie, no date)

2.4.8 Differences of Educations

I would say that the biggest difference between the Montessori and the conventional school is that it also accepts children with learning disabilities. This means that it is an integrative form of school. In addition, the children are allowed to work freely, and there are no grades, only performance reports. The abilities and skills are assessed in tables. There you can see which topics have already been worked on, what level of knowledge the child has and how the personality development is. What I still see as problematic is that the transfer to a conventional school at a later point in time means an extreme settling-in period for the child. As well as the change when a young person enters the professional world. (schule & familie, no date)



Figure 4: Montessori Material

2.5 Learning Experience Design

To build an optimal prototype, it is important that the experience is as engaging as possible for the user. Since the end-users of the prototype are mainly children, the tool should be not only educational but also fun for kids. However, it is important to offer the children an optimal learning experience. For this purpose, we will take a closer look at the term Learning Experience Design, which is designated as the long version of the term LX Design. The term is logically composed of the three individual words learning, experience and design. (LXD, no date)

2.5.1 Learning

As the name implies, Learning Experience Design is about focusing on the learner and the process they go through while learning. It is about understanding why and how people learn in order to be effective. Experiential learning is an important component of LX design. At the same time, it is important that the learner, with the help of the designed learning experience, gains the desired learning outcome. This can be achieved through human-centred goal-oriented experiences. Human-centred means that a person is in the centre of the design process. Therefore you have to get to know and understand the people you design for. That is why getting in touch with the target audience through interviews, observations and co-creation is indispensable. (LXD, no date)

2.5.2 Experience

As we have already learned, we humans acquire most knowledge through experiences. An experience is a situation that takes a certain amount of time and leaves an impression. These experiences do not necessarily have to take place in an educational setting like a kindergarten or a school. They can also take place at home, outside or anywhere else. Of course, not all experiences are equally educational. The most important attribute of a good Learning Experience Designer is to design experiences that are educational as well as memorable. (LXD, no date)

2.5.3 Design

The last of the three terms is design, which is essentially an applied form of art. The design process basically includes researching, experimenting, finding ideas, as well as conceptualizing, prototyping, iterating and testing. Design is usually not a systematic step-by-step process but a creative process with an outcome that is uncertain at the beginning and crystal clear at the end. Learning Experience Designers, like many other designers, use a mix of creative, conceptual, intellectual, and analytical qualities to find elegant solutions that work. The main difference with other design disciplines is that your design serves a learning purpose. (LXD, no date)

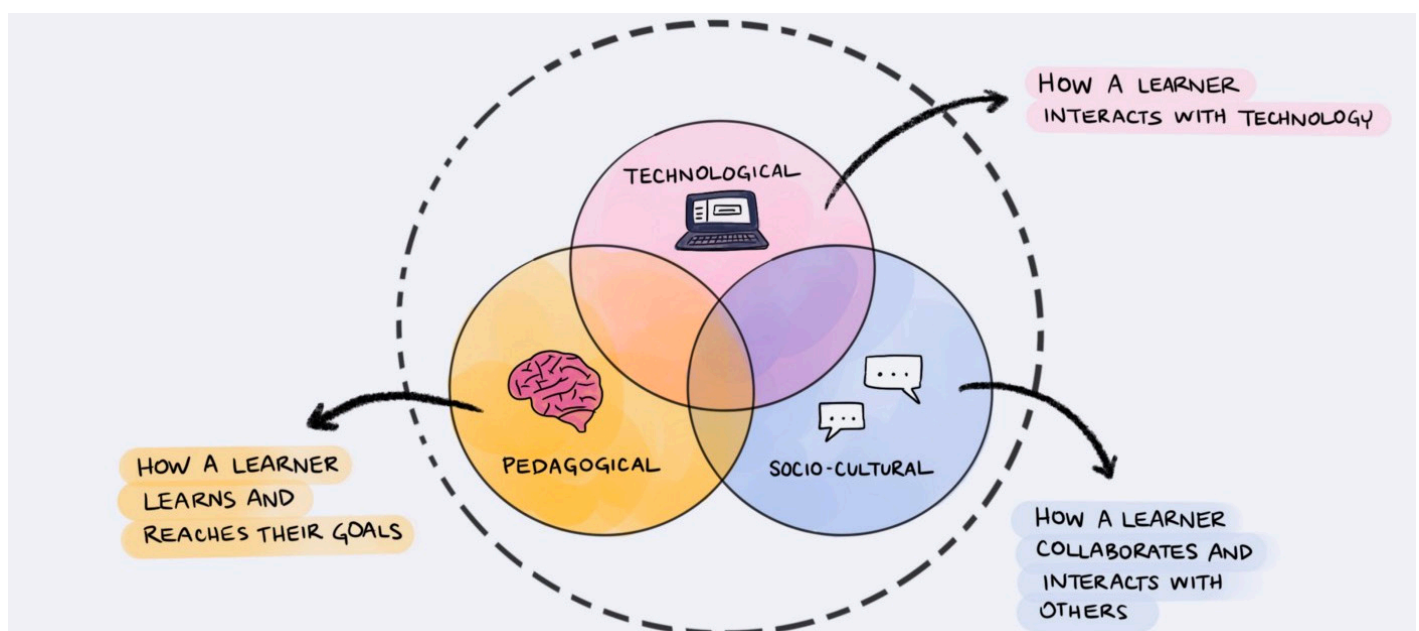


Figure 5: Learning Experience Design

3. Research Questions

There were many different important questions for me to answer during the process of this bachelor thesis. It started with the question if some mental illnesses can already develop in childhood. And how does Swiss society protect today's children? This was one of the reasons for the observations in the different school systems. There it was possible to observe how well children already recognize their feelings and how good their knowledge is on the subject of feelings and emotions. The goal there was to find out if they already knew any feelings and if they could name and reflect them. The two most important questions of this thesis are clearly:

Can we as adults support children, between the ages of three and six, in their emotional development? And how can we use Interaction Design to facilitate the cooperative emotional development of children?

3.1 Intended Contribution

Since the beginning of my studies, it has been my concern to confront society with important issues. Early on, it became clear that the Corona Pandemic had an enormous impact on the mental state of many people. The drastic changes in our lives and the associated stresses, especially the restrictions on our family and friends, have left their mark not only on us adults but also on the children. (Reicher, 2021)

I am convinced that already children and teenagers can suffer from mental illnesses such as depression and that some of the depression of today's adults had their origin in childhood. In general, we should look more into the subject of human mental health, but it is even more important to find the origin of the mental unwellness of humanity.

This is where I see the opportunity to tackle a problem at its roots. I want to show our society how important the topic of mental health, especially in chil-

dren, is. Along with research on how we can promote the emotional development and competence of children in order to stabilize their mental state as much as possible. In addition, I would like to experiment whether children can improve their emotional development themselves with the help of an interactive tool. It is important to me not only to create an optimal prototype for the children but also to create one with them. In doing so, awareness of the different needs, expectations and critical views that the users, as well as their caregivers, may have was important. The children should feel comfortable in their environment, and that's why the tool was created to be used at home or in a safe environment.

I firmly believe that my contribution is to help children deal more with themselves, to bring society closer to relevant topics such as children and their emotional development, as well as to create more understanding of signs of depression in children to tackle an enormously important issue. I am convinced that by addressing these issues, we are one step closer to working on a major and still insufficiently addressed issue in society and fighting a major problem together.

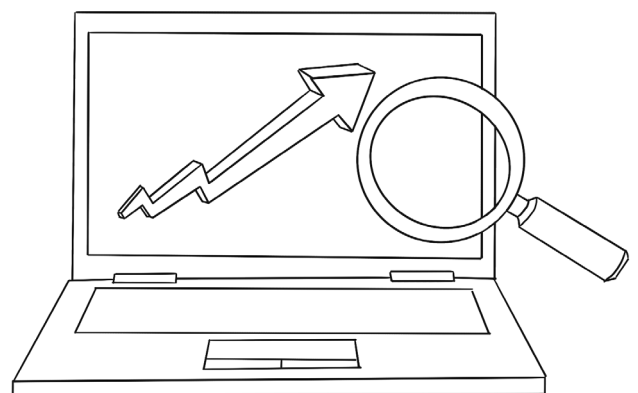


Figure 6: Research Illustration

3.2 Motivation

This work arose from different motivations and ideas of how it could be a contribution to society. The motivation was divided into two different parts. On the one hand, we have the personal motivation and, on the other hand, the motivation to make the Swiss society aware of something relevant and to make a contribution, even a small one, to support the children of the future.

3.2.1 Personal Motivation

One of the reasons I wanted to become an Interaction Designer was to focus on, help and support people. And especially to those who can not do so themselves. I am very convinced of the benefits of technology and want to bring these positive possibilities to society through simple and human-centred design.

My environment, like my family and friends, has always been extremely important to me. If I can support and help people in any way, it gives me drive and strengthens my personality. And I am convinced that this quality will bring me further as a designer.

As one of my best friends started having trouble with her mental health some time ago, it was extremely challenging for the whole group of friends and for me because we did not know how to help her. Because there is no technology that can cure depression or other mental illnesses. The treatment of a mental illness usually takes several years or does not end at all. Of course, there are psychology guidebooks on how we can support our loved ones who suffer from mental illness but all in all, we cannot do much as far as the treatment is concerned. Nevertheless, I started to read about different mental health issues and especially depression a lot. One method of design solutions we learned is to get to the root of the problem. Therefore, many questions emerged inside of me about whether some mental illnesses already develop in childhood and whether something could perhaps be done to stop or reduce the cause. And so, I made it my mission to explore my self-generated hypothesis and connect it to my bachelor's thesis in Interaction Design.

3.2.3 Working with Children

The last motivation which drove me additionally was the work with children. A question I was asked several times while having a conversation about my bachelor thesis topic was why I was focusing on working with children. The fact is that children are our future, and in my opinion, we should take good care of them, within conversations with various teachers and parents as well as within my own personal experiences. I could draw the conclusion that many children, regardless of social status or place of residence, do not have a distinctive emotional development.

I am a handball coach for little girls between the ages of five and eleven. In sports, you experience children in a special emotional state. There I have learned to interpret the emotions and feelings of children and to find different triggers for emotional outbursts. In addition, I learned how I might help them understand and develop empathy in case other children are hurt, sad or disappointed. By seeing and coaching the children on a regular basis, I was able to gain many new insights and have exciting conversations about the feelings of young girls. My personal connection to the children developed as a further motivation to deal intensively with my bachelor topic. Nevertheless, by limiting the target age group to children between three and six, I do not mean to imply that it is too late for older children or even adults to work on their own emotional development and emotional competence. On the contrary, it is never too late to take care of our mental health and develop personal growth, gratitude and mindfulness. In fact, I would like to encourage you to work more on your personality and emotions, have intense conversations with each other and read as many books as possible. Personal development is a process and has no end.

3.3 Methodology

Since I do not have any children myself and have never had any pedagogical education, with the exception of a Jugend+Sport course, I was looking for a solution that would give me the most intensive insight possible into the subject of children and their emotions.

As an Interaction Designer, it is important to design not only for the people but also with the people. Therefore, the prototype should be human-centred, explorative, as intuitive as possible and child-friendly.

3.3.1 Teaching Lesson

Already at the beginning, I knew that I had no idea at all what a day in a kindergarten looked like. For almost twenty years, I have not set foot in a kindergarten. For this reason, I started a conversation with the kindergarten teacher Romina Steiner from the kindergarten Postplatz in Andwil. Without further ado, she offered to prepare a lesson with me on the topic of feelings. Through this method, I could actively participate, look into the preparation process and talk to children about their feelings and experiences during the lesson.

3.3.2 Experiments

It is necessary as an Interaction Designer to conduct different experiments with potential users. Initially, some experiments with adults were conducted. The thought was that if an experiment works with adults, it would also be possible with children. However, it turned out relatively quickly after the first test in kindergarten that adults have a completely different way of thinking and, logically, a better understanding when it comes to their emotions. Through the access to the conventional kindergarten in Andwil, I was able to conduct various experiments with children, which gave me a better understanding of the thoughts and prior knowledge of the children.

3.3.3 Observations - Fly on the Wall (FotW)

Another method to get a better insight into the emotional development and behaviour of children came from the 'Fly on the Wall' short FotW methodology and the derivation from an observation essay we had to write in Prof. Björn Franke's theory lesson last year.

The intention was to dive into the world of kindergarten children and be the silent observer, just like a fly on the wall. Of course, I was aware that I would not go unnoticed. Nevertheless, I tried not to disturb the children with my presence. Especially in the Villa Monte School as well as in the Rietberg Montessori School, because an important approach in their pedagogical education is that the children should not be disturbed in their exploration and learning flow.

3.3.4 Interviews

To gain further understanding of the field of education, I spoke with a few experts from different schools. The first interview I already had at the beginning of my thesis. It was with the coordinator of the kindergartens of the Rudolf Steiner school. Most of the other interviews have taken place directly after the observations. This was a big advantage because questions about the observations and the children's behaviour were clarified directly.

At this point, I would like to thank all my interview partners again because, through these discussions, my project could develop in an exciting direction.

3.3.5 Conversations

A further method was the conversations with many interested people. Parents, teachers, daycare providers, my mentors, fellow students, or just friends and family always gave a change of perspective on the topic and new ideas. These conversations have shaped the process and influenced the project in an important way.

3.3.6 Prototypes

I intend to use quick and dirty prototypes to reflect and iterate upon my concept. This methodology helped me to better understand which approach was the best fit for my idea.

Although in the end, my work is not about a finished prototype or product but more about finding a fun way for children to learn and reflect on their own emotions. Still, the prototypes and experiments were a great way to communicate my ideas. Last but not least, it was great to see the children interact with the prototypes and develop an understanding of how children intuitively operate something.

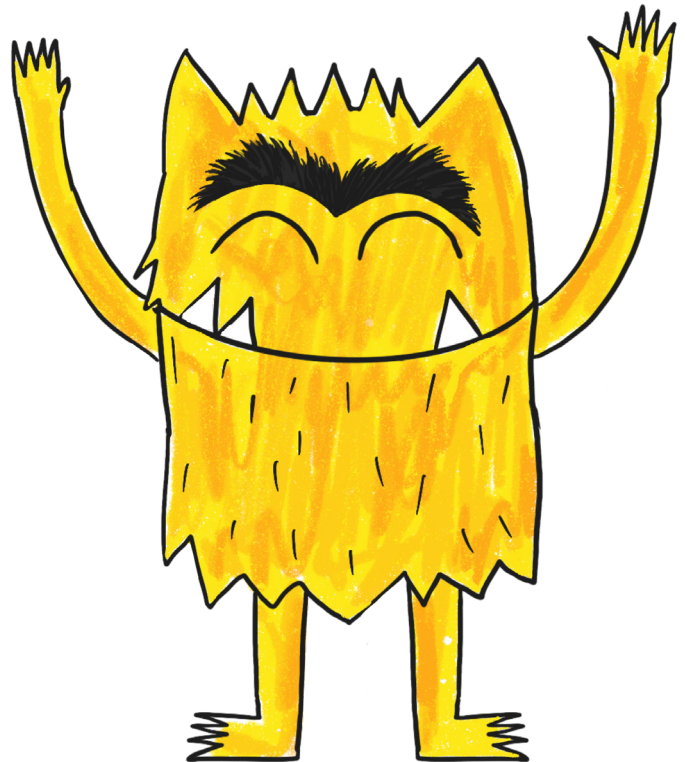


Figure 7: Yellow Colourmonster

3.4 Chapter Overview

From the desk research and related works, I was able to gain a more nuanced perspective on the field of mental health issues, the emotional competence of children, as well as different education styles in Switzerland. I began to understand the importance of emotional development. And my assumption that our society and probably even the school systems do not give enough importance to this has been confirmed. Further, I started realizing that intensive engagement with emotional competence is really important for one's mental health.

Another learning gained was that social challenges have to be addressed more by society and the best possible access to the target group is through school systems. I realized how difficult it is to find out what children are thinking and how we can help them because mostly, they are not yet aware of how to assign and define their emotions. I decided to focus my efforts on young children aged from three to six. One particular goal begins to emerge from the thesis. In fact, it was the understanding of how we as adults can promote and support the emotional competence of children. I will use these initial findings from my research to develop my concept and the final prototype. To contribute to the field of the health of children as well as to show Swiss society how important it is to develop personally.



Figure 8: Illustration Concept Video

4. Concept Development

In this section of the bachelor thesis, the concept, as well as the perspective of the project, gets clarified. In addition, different projects and books that served as inspiration are presented. Furthermore, the field research is explained in more detail and interviews, observations and user studies are reported. In the end, the most important findings and the next possible steps get presented.

4.1 Angle

Basically, I claim that I am a person who works better in a team than alone as I find it difficult to limit myself to a certain area on my own and prefer to remain open to all possible options. However, since no one shared my personal interests on the topic of emotions and mental development in relation to children, I decided to work alone for the first time, which concerns such a large project.

The topic of emotions has special importance for me because it accompanies us constantly in our lives, and I have already dealt intensively with this myself. Some time ago, I read a special passage in a book by the author Jennifer L. Taitz (2015, p. 35), which still sticks with me today.

“... Therefore, our behavior is often closely linked to emotions. An emotion is a brief signal that triggers behavior essential for survival. Our emotions drive our behavior, provide us with important information, and allow us to communicate with others.”

This passage already tells us how important it is for common communication to deal with our emotions and to understand why feelings come up in us. Since this recognition of emotions is already difficult for us adults, I could not imagine how difficult it must be for children. For me, it was relevant to deal with a topic that addresses a problem in Swiss society as well as covering my personal interests. I place a very high

value on investing my energy and work in the people who can use my help, and in this case, it is the children. One of my intrinsic motivations was to learn more about the psychology of people and of children, for that matter. Our mental health interests me enormously and is always an exciting learning process that accompanies you in your own life.

Therefore I want to give children the chance to learn about their emotional competence and prepare them as well as possible for the rather stressful and pressured future in Swiss society. As a young adult, I see in myself and also in my environment how important it is to deal with one's own emotions and personal development.

As a designer, I see the possibility of changing something in our society, might even improve something or at least draw attention to an important topic. Because as already mentioned, the topic of mental development, as well as talking about one's own emotions, is unfortunately still far too rarely addressed in Swiss society.

4.2 Related Projects

At the beginning of this work, I looked for many projects that addressed the topic of emotions as well as the topic of mental health in children. This turned out to be rather difficult. Often there were children's books that dealt with emotions or worksheets that dealt with the basic emotions. According to the American psychologist Paul Ekman, who is particularly known for his research on nonverbal communication, the following seven basic emotions refer to joy, anger, disgust, fear, contempt, sadness and surprise. (Wikipedia, 2021)

Ekman has empirically demonstrated these seven basic emotions are recognized in a culturally independent manner. That is, people can thus decode these emotions worldwide, regardless of where they were raised and socialized. For this reason, I have divided the inspiration projects into different categories. On the one hand, in children's books which I found particularly inspiring and on the other hand in physical projects which show similar or valuable approaches or good technologies.

4.2.1 Children's Books about Feelings

Some children's books that addressed the topic of emotions and feelings had an enormous influence on this thesis in the beginning, which will be reflected in the project development later. There are countless books on the subject of feelings for children, and after exploring them and having conversations with some teachers, I noticed that some teachers in the conventional school system like the same books.

4.2.1.1 Heute bin ich

The book "Heute bin ich" by the Dutch children's author Mies van Hout. However, in my opinion, this book should only be used with older children, as it illustrates a relatively large number of different emotions, and it is rather difficult for young children to recognize the emotions of fishes and empathize with them. (Van Hout, 2012)

4.2.1.2 Ein Dino zeigt Gefühle

A great book is "Ein Dino zeigt Gefühle" which was written and illustrated by Christa Manske and Heike Löffel. This book is not an ordinary picture book but also contains a pedagogical guide, various exercises, games and work suggestions, as well as copy and craft templates. (Manske & Löffel, 1996)

4.2.1.3 Ein Gutes Gefühl

"Ein Gutes Gefühl" was designed by the designer duo Jan Lenarz and Desirée Themsfeldt and caught my eye as well. It is a diary in which children playfully learn to recognize their feelings, express gratitude and reflect on what they have experienced. In addition, there are puzzles and craft pages, stickers and beautiful illustrations that provide a gentle introduction to the topic of self-reflection. (Lenarz, 2020)

Unfortunately, the authors declined an interview. I would have been very interested in the approach and background of their work.

4.2.1.4 Das Farbenmonster

The book that had the greatest impact on this bachelor thesis is "Das Farbenmonster" by the author Anna Llenas. The original language of this book is Spanish. What impressed me was how much you can sympathize with the main character, the colour monster. In addition, the emotions that are treated, in my opinion, are extremely understandable for children of kindergarten age. And in the end, the adorable monster learns to sort and define his mixed-up emotions. He gains self-awareness and peace as a result. (Llenas, 2018)

The kindergarten lesson was finally prepared on this book. And built at the beginning of this bachelor project.



Figure 9: Heute bin ich



Figure 10: Das Farben Monster



Figure 11: Ein Gutes Gefühl

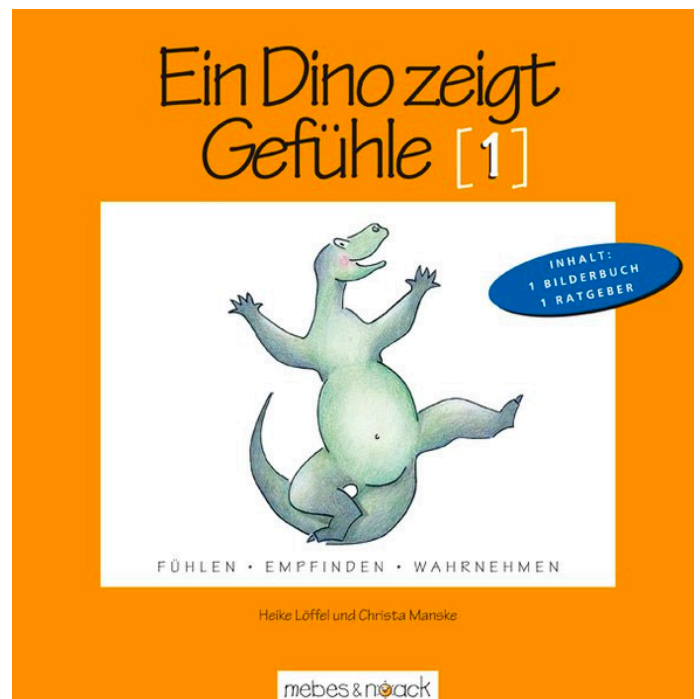


Figure 12: Ein Dino zeigt Gefühle

4.2.2 Interactive Projects

The interactive projects I have chosen are mainly based on the auditory appearance. I like the aspects of children learning purely by listening and developing their creativity and imagination since I attach great importance to the children handling interactive tools or toys that do not have a screen.

4.2.2.1 Hörbert

One of the interactive Projects is the music box Hörbert, which is made in Germany with sustainable handwork. Each Hörbert is unique and made of solid wood and contains various functions such as Bluetooth, recording function, microphone, sleep timer and the ability to play internet radio. In addition, the haptic operation challenges the children's understanding of technical devices without the product having a screen. The children learn to operate the music box via coloured buttons. (hörbert, no date)



Figure 13: Hörbert

4.2.2.2 Laugh & Learn Click & Learn Laptop

The second interactive toy that I have kept in mind is the Click and Learn Laptop from Mattel. As toddlers press, flip and slide the different activities on their pretend computer, they hear exciting songs, sounds and phrases that teach numbers, colours, shapes and more. (Mattel, no date)

At the beginning of my research phase, I came across this toy and found it immediately appealing since it only has a pretended display. I also found it amazing how many different interactions the toy offers. Plus, it stays true to my values and relates mainly to auditory and haptic learning.



Figure 14: Laugh & Learn Click & Learn Laptop

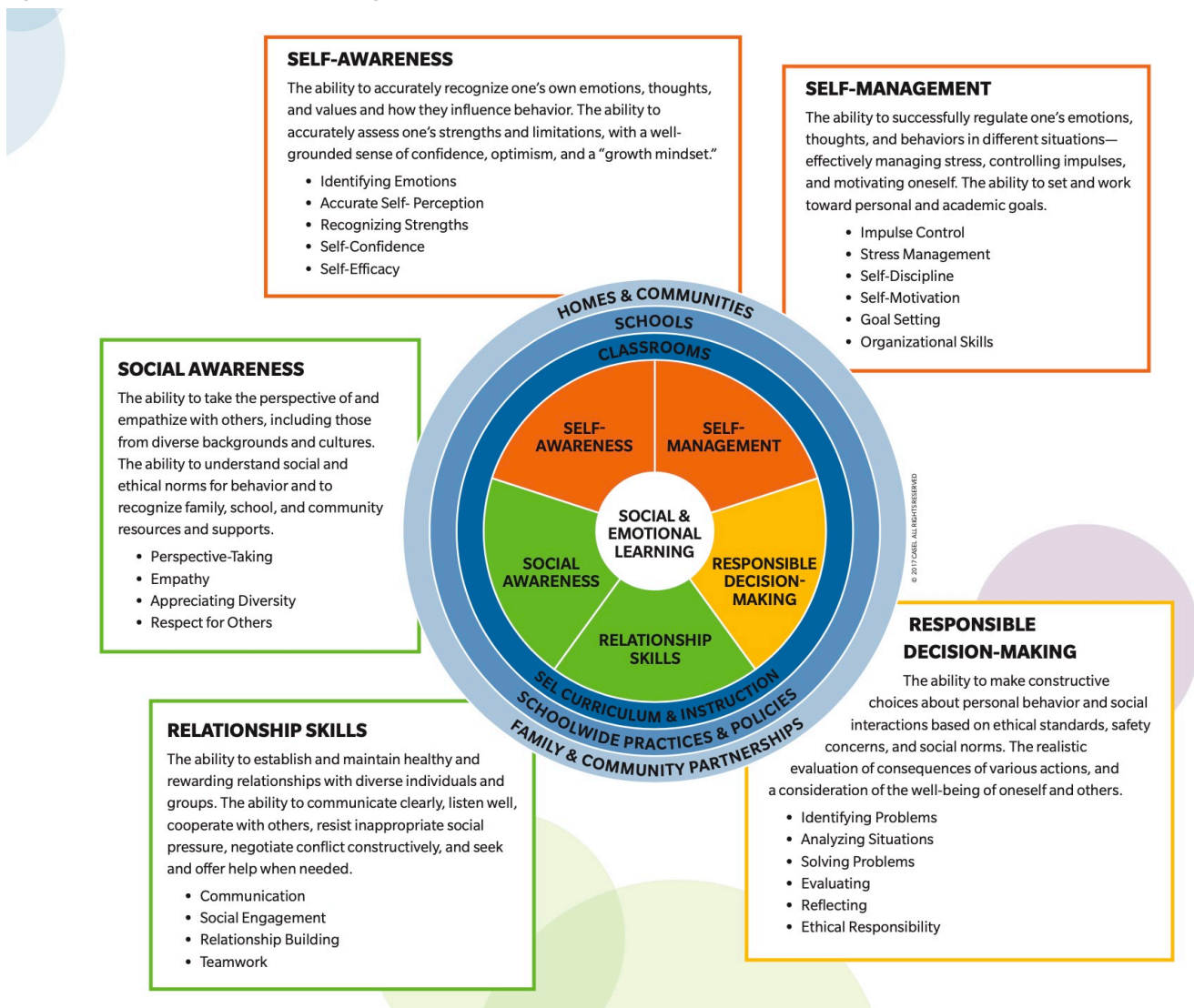
4.2.3 CASEL

Finally, I would like to address one last digital project. Through the keywords children and emotions, I came across a project named CASEL, which is the Collaborative for Academic, Social, and Emotional Learning. CASEL's mission is to make evidence-based social and emotional learning, or SEL, an integrated part of education from preschool through high school. They envision all children and adults as self-aware, caring, responsible, engaged, and lifelong learners who can work together to achieve their goals and create a more inclusive, just, and equitable world. This means that they define social and emotional learning (SEL) as an integral part of education and human development. CASEL explains that SEL is the process through which all young people and adults acquire and apply the knowledge, skills, and attitudes to develop healthy

identities, manage emotions and achieve personal and collective goals, feel and show empathy for others, establish and maintain supportive relationships, and make responsible and caring decisions. In one of the videos, the Founder and Board Chair Member of CASEL mentioned that SEL is the process by which children grow and develop their emotional lives and their relationships. (CASEL, no date)

Through the information and videos of CASEL, I could always learn a lot. They speak in a very similar way as I do about the importance of the topic of emotions. They have motivated and inspired me to dive deeper into the subject of emotions as well as keep going with working for and with children.

Figure 15: SEL - Social & Emotional Learning



4.3 Field Research and Findings

Within my field research, various interviews with teachers, caregivers and experts from different schools in Switzerland were conducted to gain a further understanding of the field of education and the behaviour of children. In the process, several insights and findings through the observations were made, and I came across exciting education approaches. I learned that the topic of emotions and feelings depends enormously on the parenting and the environment of the children, as well as the society in which the child grows up.

4.3.1 Interview Rudolf Steiner School

The full notes of the interview with Marianne Tschan can be found in the appendix under Interviews. The Interview took place in a digital environment.



Figure 16: Marianne Tschan

4.3.1.1 General Informations

On the 7th of March 2022, Marianne Tschan, the coordinator of all kindergartens of the Rudolf Steiner School in Switzerland, took the time for me to interview her about the education of the Rudolf Steiner school as well as the topic of emotions and feelings during a normal day of kindergarten.

Marianne not only coordinates the kindergartens of the Rudolf Steiner school but also teaches children from the age of three to seven in the forest kindergarten. Forest nurseries or forest kindergartens take place exclusively outdoors. This means being outside in every weather condition and not having a room where there are chairs and games. In Mrs Tschan's case, they have a shelter in the woods, which is a small hut with a hayloft in case the weather is bad.

4.3.1.2 Concept of the Rudolf Steiner School

Marianne Tschan explained to me the concept of the Rudolf Steiner school. She told me that it is based on Rudolf Steiner's pedagogy. The curriculum and methods are committed to a holistic view of the human being and take into account the natural developmental stages of the child and adolescent. And has the goal of educating its students to become independent, self-confident people who responsibly help shape the future. Through the interview, I learned that the Rudolf Steiner school developed their own curriculum, which is state-approved. Nevertheless, each lesson and its content must be justified as with the curriculum²¹. Which is the common curriculum for the elementary school in Switzerland. (Lehrplan 21, 2014)

4.3.1.3 What is Forest Kindergarten?

In the forest kindergarten with Marianne Tschan, the main theme during the year are the four seasons. She explained to me that there are no intellectual explanations, but everything works on the basis of experience. This means that the content is taught, not explained.

The Rudolf Steiner school focuses on movement and music. They sing songs and chants that involve body activities so children can remember them better. They repeat the same songs for about three to four weeks until all children can sing them by heart and independently. Afterwards, they learn new ones. Since there are no room divisions in the forest as well as almost no guidelines, the children have a lot of time to play by themselves.

4.3.1.4 Important Insights

An important insight I got from Marianne was that children are extremely imitative. Of course, I read about that fact in various articles, but it was interesting that she made a special point of telling me. Being imitative means that we humans but especially children pick up gestures, words and reactions from their environment and reproduce them exactly. This is very exciting to observe and was later confirmed when I visited the kindergarten Postplatz in Andwil.

The second interesting insight I could draw from the interview was the first contact with the term Nonviolent Communication of Marshall Rosenberg, short NVC. I found the approach to this communication concept very interesting and wanted to learn more about it.

Non-violent Communication is a concept of action developed by Marshall B. Rosenberg with the goal of developing human relationships in such a way that those involved spontaneously and willingly contribute to each other's well being. The basic prerequisite for this is voluntariness. This flow of communication should lead to more trust and joy in life. (Wikipedia, 2022)

In this sense, NVC can be helpful in everyday communication as well as in peaceful conflict resolution in the personal, professional or political spheres. The focus is not on persuading other people to act in a certain way but on developing an appreciative relationship that allows for more cooperation and shared creativity in living together. (Wikipedia, 2022)

The third important statement for me was that there are neither negative nor positive feelings. So if you talk about feelings like fear, sadness or anger, these are not fulfilled needs. Whereas on the other hand, joy and love are fulfilled needs. Furthermore, Marianne's statement that she finds it difficult to illustrate feelings was a very instructive lesson for me. It was the first time I started thinking about other ways to bring a subject closer to children, if not in an illustrative way.

4.3.1.5 Conclusion of the Interview

To conclude with the interview with Marianne Tschan, I would like to summarize the most important key insights.

Through the interview, I got in contact with another school system, with a different pedagogical approach, for the first time. Additionally, I found the statement that there are no negative or positive feelings a very exciting approach. However, I was not sure if I could share this point of view, although the thesis about fulfilled and unfulfilled needs makes a lot of sense. Moreover, I learned about a new concept of communication, the Nonviolent Communication of Marshall Rosenberg. And last but not least, I got the inspiration not to focus on the illustrative way but to pick up the children on another level, with the help of auditory perception.

4.3.2 Interview Kinderhaus Villa Monte

The interview with the Kinderhaus director Victoria Green took place on the 30th of March, 2022 and was also exceptionally exciting and felt more like a conversation. Once again, a big thank you to the entire team at the Villa Monte Kinderhaus in Canton Schwyz, and a special thank you to Vicky. I felt enormously comfortable with you during the short time of observation and interview.

This interview will also be found in the appendix under the heading interviews unformatted but with full notes. In the next section, I would like to summarize the most important findings of the interview exclusively. Keydata about the pedagogical approach will mainly be addressed during the observation section 5.2 Observations.

4.3.2.1 Differences to other School Systems

A big difference that Vicky Green made clear to me was that at Villa Monte, there are neither grades nor exams, which is different from the conventional school system. Nevertheless, the Villa Monte school system has been recognized in the Canton of Schwyz. What I found very nice was the fact that Vicky told me that all school systems in Switzerland are important and not every school is suitable for every child. In addition, she shared with me that other Montessori schools promote their children extremely in school education. And that statement could be confirmed in the observation which was made in the Rietberg Montessori school.



Figure 17: Villa Monte

4.3.2.2 The Value of Emotions and Feelings

Through various questions, Vicky shared her views on feelings and emotions with me, and I gained insight into her thoughts on emotional development in children. A nice statement of hers was that children have the opportunity to get to know themselves through their emotional development. And I must say that I completely share her opinion.

Moreover, she thinks that children recognize all the feelings which we as adults do, with the exception of romantic love. And she tries to validate all the children's feelings and show them that every feeling is allowed. She shared with me that children learn to regulate their feelings through experiences and role models.

4.3.2.3 Conclusion of the Interview

Finally, here are the most valuable impressions and statements from the interview with Vicky Green. Like Marianne, Vicky addressed the role model function of adults, but mainly of older children. This was about recognizing feelings of oneself as well as respecting the feelings of other children. For this purpose, they have the so-called stop rule at Villa Monte, which is used as soon as a situation becomes too much for a child. This rule could also be found in the conventional kindergarten.

In addition, she has no reservations about any feelings. In her opinion, all feelings have the same value. I think this is a beautiful thought because it makes it clear that it is okay to talk about any emotion that is on your mind at any time. When I left, I received the book "Villa Monte - School for Children". I read and summarized it with full interest. I was able to learn many interesting facts and have attached my summary of the book as an appendix in the section 8.3 Summaries.

4.3.3 Interview Rietberg Montessori

The last interview I conducted for my thesis was on the 4th of April, 2022. I got the opportunity to interview the head of the kindergarten of the Rietberg Montessori School in Zurich, Monika Schenkel. I would like to take this opportunity to thank the whole team of the Rietberg Montessori School and especially Monika Schenkel. My observation and interview with you were extremely informative and interesting. In advance, Monika explained to me how the system of Montessori education works. I learned that the education as a Montessori teacher takes about two years and that each institution needs a license that meets the Montessori standards.

4.3.3.1 Montessori Schools

Mrs Schenkel told me that every Montessori school has a quality label and as already mentioned, they all have the same standard and the same materials. The Rietberg Montessori School is a private school, but it is also recognized by the state.

I have learned that the change between schools with Montessori education is relatively easy. Children have the same opportunities everywhere. However, if a change to another school is desired, this turns out to be rather difficult because children are not on the same level of education. But Monika Schenkel is convinced that the children of the Montessori School are intellectually more advanced, and the difficulty is based on the scholastic challenge.

Furthermore, Monika believes that the individual attention the children receive in her kindergarten is important. A particularly valuable point she sees in the Montessori pedagogy is that they pick up the child where it is in its personal development. Children discover for themselves how the world works and work out the learning content themselves. True to Maria Montessori's motto, help me do it myself.



Figure 18: Rietberg Montessori Schule

4.3.3.2 Value of Emotions and Feelings

It was exciting for me to hear that they integrate emotional development into the school day through politeness exercises and adult role models. I, for one, am not sure that a child's emotional development is enhanced by politeness exercises. In addition, children learn to resolve conflicts on their own and seek contact only with words. They promote their impulse control by the fact that the school materials are only available once, and the children cannot always have what they want.

4.3.3.3 Conclusion of the Interview

I have learned that at kindergarten age, the topic of friendship becomes enormously present. And that children already make first contact with the realization of the feeling of disappointment by not being able to have the material they want.

Just like Vicky, Monika thinks that we should not distract from a child's feelings but respond to them as well as that we adults should show understanding for all feelings. She makes a point that children should learn to deal with negative feelings. The last conclusion is that Montessori education does not work with children's books that are unrealistic. That is, not animals or mythical creatures but people. Drawn people are fine, though. The reason is that the brain should not be filled with unreal things, and she is convinced that creativity comes from what is there.

4.4 Next Steps

With the countless exciting impressions and insights, my project can now develop even further. Although I was initially convinced to do illustrative work, I now want to focus on the auditory perception of children.

For me, this includes experimenting with how children express their feelings through instruments or their own voices. I have observed that children already have a very good auditory receptivity and would like to explore this further. In addition, I am curious about the haptic handling of children when they use a toy or a tool. Last but not least, I am excited to explore how I can promote children's emotional development and thus contribute my share to Swiss society.



Figure 19: Pink Colourmonster

5. Project Development

What became especially clear through my observations is how children teach each other things and promote their emotional competencies in a special way without active explanations with the help of school materials or books. As already suspected, children can learn best from other children of a similar age. I make the assumption that this is because children are on the same mental stage and have simple yet logical explanations for things.

In addition, I have learned that children tremendously enjoy listening to a story or songs over the radio. This way, they also gain new knowledge about different topics. With this realization and the attitude towards a prototype without display, it became clear to me in which direction my possible interactive learning experience should develop. Because it is still my wish to make a contribution to Swiss society and what is even more important to me is to invest in the mental health of the children.

However, one important insight that I still was missing at this point was whether children want to talk about their emotions at all. This raised the question of how I can make it clear to children and their parents that it is important for their emotional development to talk about feelings and emotions. Because I did not want to lose sight of the goal of getting to the root of the problem that it is important for mental health to further develop one's own personality.

5.1 Experiments

During the process of this work, experiments with interesting findings have emerged. And even the smallest experiments have shaped the concept of this bachelor project. They provided a solid basis for the intentions and finalization of the prototypes and the final concept idea.

5.1.1 Experiment Colour Board with Adults

Within my very first experiment, I tested the emotion recognition and reflection of five adults. For one thing, I did not have the opportunity to test it on my target group at the time. But nevertheless, I was convinced that if this experiment worked with adults, it would also work with children since I would consider them to be more creative.

5.1.1.1 The Assignment

The task was to place a figure on the black and white gradient. The placement should represent the current state of mind. So the test persons had to think about their feelings and open up and trust an almost strange person.

Afterwards, I asked the question of why the figure was placed exactly at that position and what the colour under the figure meant for them. Thus the test persons had not only to reflect on their feelings but also to convey them.

In the first part of the experiment, the test person only sees the black and white gradient. What was not to be expected, however, was that when I turned the board over, a gradient of colours could be seen on the back. So the short experiment started all over again.

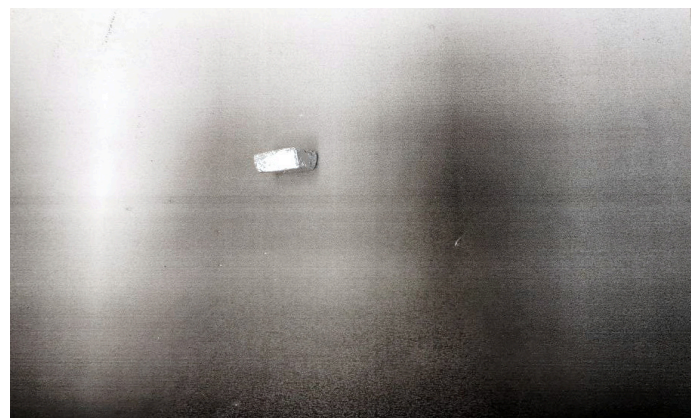


Figure 20: Experiment Black and White

5.1.1.2 Results of the Experiment

I was surprised by how diverse and beautiful the results and interpretations of the test subjects were. Actually, all test subjects described the selected shade in the first round as medium or light grey. They described their state of mind as “actually quite good”, “neutral”, “easy”, “relaxed”, or “so-so”. All of them assumed that the dark side of the gradient means negativity and the bright white side is positive. In the second part of the experiment, four of the five subjects chose a more faded colour because they recognized a saturation and assigned it to the intensity of the feelings. In the second round, I also asked if they could find a matching word to the colour they assigned to their state of mind. The following words came up: Okay, Calm, Optimistic, Brain Fog, Contentment.

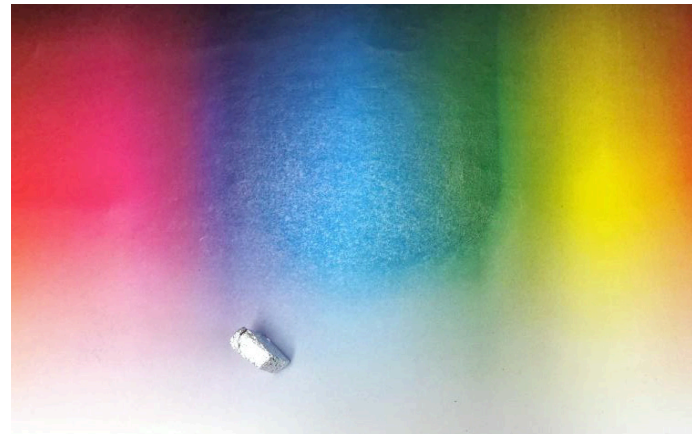


Figure 21: Experiment Colour

5.1.1.3 Learnings

The following lessons were learned from this simple yet exciting experiment. The test subjects did not find it easy to place the figure according to their state of mind. However, they found the second part of the experiment, in which they had all the colours to choose from, even more difficult. It was inspiring to see that through the conversations during the experiment, all the test subjects would assign the colours to roughly the same colours. Together we came up with the solution that this is pretty much the case since we grew up in the same society. Another hypothesis was that many assignments of colours and feelings were created by nature. The sun shines yellow. It is warm and beautiful, this speaks for joy. The experiment was really interesting, and I could get new inspiration to go on research again.

5.1.2 Experiment with Colour Picker

The experiment second experiment was modified by the colour gradient board. It was carried out with children in the kindergarten in Andwil. I wanted to find out if children are also able to assign their feelings to colours and, if so, if they also understood why this is so.

5.1.2.1 The Assignment

I modified the task a little bit because one of my initial intentions was to possibly create some kind of application that could promote emotional development.

I explained to the kids that they could use their fingers on my iPad to pick any colour that represented their emotional state. Using the Colour Picker app allowed me to write down the exact HEX code. The intention was so that I could acquire an eventual database of feelings and their colours.

5.1.2.2 Results of the Experiment

However, it turned out that the children did not really choose a colour that corresponded to their state of mind but rather just chose any colour they liked. The answers to the question “Why did they choose this colour?” were not very promising. Most answered with “Because it’s my favourite colour”, others with “Just because...” and still others with “I do not know”. Rarely came a more detailed answer like “Because it makes me happy to see this colour”.

That’s why I did the experiment again later in the morning with the same children. In other words, the experiment was done again after the lessons on feelings. The task remained the same, but the answers really changed. Now I got answers like “The colour makes me feel good” or “Because it makes me happy”.

5.1.2.3 Learnings

Although the evaluations and experiment were exciting, I am not sure if the children understood that they could really match their feelings to colours. This is because the same children chose different colours before and after the lessons on feelings and didn’t hesitate for a second when choosing the colours.

I have the feeling that they simply enjoyed choosing a colour on the iPad. For this reason, and findings at a later date, I decided I would rather not do an interactive learning experience where a child interacts with a screen.



Figure 22: Experiment Colour Picker

5.1.3 Instrument Experiment in Kindergarten

I was allowed to do the first experiment that had to do with sounds with the children of the kindergarten Postplatz in Andwil. This took place right after the kindergarten lesson. Within the experiment, I wanted to find out how children would express their feelings with the help of a musical instrument or the sound of their own bodies. In general, I was positive that this experiment worked because we addressed feelings and their expressions over two lessons.

5.1.3.1 The Assignment

The assignment required the children to come to a separate room but within the same school building. In case the children did not feel comfortable coming alone, they were allowed to visit me in pairs of two.

In this room, I laid out all the available instruments of the kindergarten on the floor. Since I was interacting with the children myself, a camera observed the situation from a wider angle. First, I asked the children if they could express their current feelings with one more of the instruments here or within their bodies.

It quickly turned out that it was difficult for the children to transmit their emotions in this way and then express them with an instrument or their body. So I asked the children if they could express the feeling of joy with an instrument or their body. So the experiment evolved, and I asked the same question for all the other feelings we learned earlier in the lesson. Although the children were all still a little shy, I could see some parallels between the feelings and the assigning to specific instruments.

5.1.3.2 Results of the Experiment

In order to show the parallels of the assignment of expressing feelings with an instrument, I summarized the results. The rather negative feelings, such as anger, were mostly expressed with a loud and annoying instrument, like the drum, the gong or the cymbal. Positive feelings such as love and joy were mostly expressed by beautiful light sound, which was produced by the xylophone or two pieces of wood striking one another. The feeling of sadness, which is also a rather negative feeling, was mostly a soft sound like the playing of a triangle. It was interesting to see that the same instruments were used over and over again to express the feelings, although there were quite a few different instruments available. To be honest, though, I have to admit that I am not sure if the children focused only on the instruments they like to play the most.

5.1.3.3 Learnings

All in all, this experiment was good to see if the children are even capable of being reflective enough about their feelings. However, it turned out that children can not express their emotions really well with an instrument or with their bodies. It was impressive that none of the children even tried to express their feelings with their bodies. Since the experiment has not worked out so well, I decided not to research further in this direction of expressing emotions.

Nevertheless, I had additional insight and a funny experience during the experiment. Some children asked me how to play a specific instrument, and I had no idea myself until another child taught me.



Figure 23: Experiment Instrument



Figure 24: Experiment Instrument 2

5.2 Observations

This section describes the various observations made during the development of this undergraduate project. Observations were transcribed, and the most important events were summarized.

During these observations, many interesting facts could be determined about the behaviour of children between the ages of four and six. Regardless of the teaching methods and the pedagogical aspects, the children develop enormously beautiful and important skills at this age.

Among other things, they learn to make their own friends, solve conflict situations, and deal with their own feelings and emotions. They also develop self-confidence and explore their strengths and weaknesses through the many various opportunities they have in the different school systems. Despite whether they are taught or have taught themselves, they learn how to deal with other children and already develop some kind of empathy that will be enormously important for later life. They discover their own feelings and emotions and try to express them with their facial expressions, gestures and words.

From the observer's point of view, in this case from my own, it is already a success when children recognize that they are hungry or that they do not want to do a specific activity.

In general, it can be said that these observations were one of the most important, if not the most important, components of this work.

5.2.1 Observation and Lessons in Kindergarten

On March 14th, 2022, the first observations could be made in a conventional kindergarten Postplatz in Andwil St. Gallen. During four lessons that were specially planned around the topic of six feelings, many exciting findings were made.

5.2.1.1 Preparation of the Lessons

After Romina Steiner offered to prepare a lesson with me on the topic of feelings, I went by her house to start with further preparations. I was more than happy that she saw the importance of the topic. Through this method, I could get a deeper insight into how the conventional school system works, actively participate in the lessons and talk to children about their feelings and experiences.

While discussing the schedule, I explained to Romina my intentions and ideas on how I would plan the lessons. She could tell me approximately whether the ideas and questions were feasible at all. In my opinion, the joint work resulted in a great program, which deals intensively with the topic of emotions and the reflection of one's own feelings.

Only two more things had to be done before the visit to the kindergarten. First, I had to prepare a document that had to be signed and returned by the children's parents. So I was allowed to make picture and sound recordings and to use them in my bachelor thesis. And as a second task, I wanted to paint the emotions dealt with, in line with the children's book "Das Farbenmonster" by the author Anna Llenas. (Llenas, 2018). It was important that my monster looked similar to the ones in the book, so the children had a recognition value. Therefore I used the drawing program ProCreate for the iPad. After that printed them and glued them on a piece of cardboard to have them as a support for the conversation I wanted to have with the children

5.2.1.2 Program of the Morning

When the children arrived and greeted their teacher as well as me, they sat down on their own chairs and started to sing a song together. Afterwards, Mrs Steiner told the children what I was doing there and started by telling the story. Meanwhile, they listened to her excitedly. It looked like they were storing every sentence of the story they were listening to in their memory, and they definitely were looking closely at every illustration in the book.

While Mrs Romina Steiner read to the children the story of the book, the first observations were made. It was exciting to see how the children imitated the monster's gestures and facial expressions after seeing the illustrations in the book. When the story was over, my cardboard monsters were spread on the floor in the middle of the children's chair circle. Each child got a so-called Muggle Stone. A Muggle stone is a little coloured but transparent stone out of glass. Then Romina asked the children the question, like which monster do they feel like at the moment?

Each child, in turn, was allowed to put a stone on one of the monsters and explain afterwards to the others why they felt that way. On the one hand, you could say that the results were very logical and plain, but on the other hand, the answers of the children were eye-opening and gave the feeling of understanding the children better, especially for the people who do not deal with children on a daily basis. Then the kindergarten teacher went through each mons-

ter to find out if children could match feelings to their everyday situations. And in what situations do the children feel happy, scared, sad, serene, angry, or in love.

After that, the children were allowed to get up and walk around the room. Romina asked the children if they could all behave like the happy monster for once. Immediately, all the children smiled and threw their hands in the air. Then she asked the same question to the sad monster. And immediately, all the children hung their heads and dangled their arms. It was not until about the third monster that I realized what was happening. The children were mimicking one-to-one the monsters that Anna and I drew.

Immediately Marianne Tschan's statement that children are enormously imitative came back to my mind. It was frightening and fascinating at the same time because they did that with all six monsters.

So the two planned lessons were over, and we were all allowed to take a break. First, we ate the snacks we had brought ourselves and were allowed to exchange food with each other. Most of the children played different games, and some talked to us and told us about their weekends. Later it was time for my experiment with the instruments, and as quickly as the children greeted me in the morning, they said goodbye to me. As a farewell, I had prepared a little something for each child as a thank you.



Figure 25: Kindergarten Postplatz Andwil



Figure 26: How do you feel?

5.2.1.3 General Observations

Here is a general summary of what everyday life is like in a conventional kindergarten. The children are obliged to speak in High German, which means not in their native language. They have to address the teacher in a formal way.

The teacher plans the exact schedule of a day in lessons. They also have scheduled lessons and lessons where the children are allowed to play freely. But they have scheduled breaks and strict start and end times. Each child greets and says goodbye to the teacher in turn.

It looks like the children like the prepared lessons because they acquire knowledge in a playful way. Nevertheless, they were very happy when they could do what they wanted after the break. Everybody in the play corner reported to Mrs Steiner in advance.

There is constant interaction with the kindergarten teacher, who teaches the children, for example, how to read the time or teaches them other important things in a playful way. The teacher has a fairly strict curriculum of what the children must be able to do at the time they are enrolled in school. The curriculum is Lehrplan 21 and can be found everywhere on the Internet. (Lehrplan21, 2014) Of course, the conventional kindergarten is recognized by the state and is mainly subsidized by the state.

5.2.1.4 Results and Insights

As an answer to the first question: Like which monster do you feel like at the moment? Most of the children put their stones on the yellow happy monster and said that they are happy because the sun is shining or because they just feel that way. It was interesting because they even had some detailed answers. But the exciting part was that quite a few children put their stones on the serene green monster.

To be honest, I had the assumption that children can not really assign the feeling of serenity, but it was a huge prejudice. Because not even they have decided to put their Muggle Stone on the serene monster, but also the justifications matched the actual de-

scription of that feeling. To give you an insight into what the answers were, here are two examples. "I feel serene because I am pleased." And another one was, "I feel serene because it is so calm at the moment."

The answers to the following questions were kind of as expected within three to six-year-old children. Nevertheless, it was a general surprise how many situations the children were able to assign these feelings. Here I summarized the most common answers for each feeling.

5.2.1.4.1 Fear - What scares you?

I am afraid of the dark.
I am afraid of ghosts.
I am afraid when I am alone in the dark.
I am afraid of war.
I am afraid when I have nightmares.

5.2.1.4.2 Sadness - What makes you feel sad?

I feel sad when I have to eat something I don't like.
I am sad when nobody reads me a good night story.
I am sad when I am forbidden to do something.
I am sad when my mom does not have any time for me.

5.2.1.4.3 Serenity - When do you feel serene?

I feel serene when I am allowed to go home alone.
I feel calm when I am alone.
I feel calm when I am allowed to relax by the pool.
I feel calm when I am allowed to be outside.
I feel calm when I am allowed to play alone in my room.

5.2.1.4.4 Anger - Why do you sometimes get angry?

I get angry when my mom is angry with me.
I get angry when my brothers and sisters break my things.
I get angry when my mom does not have any time for me.
I get angry when I am not allowed to watch tv.
I get angry when no one wants to play with me.

5.2.4.4.5 Love - *When are you in love?*

I am in love when I think of my family.

I am in love with my family.

I am in love when I like someone very, very much.

I am in love with Tyler and with Nadin.

I am in love when I get to play with Elin and Nadin.

5.2.4.4.6 Joy - *What brings you joy?*

I am happy when I can jump on a trampoline.

I am happy when I can watch tv.

I am happy when my mom has time for me.

I am happy when I can be outside.

I am happy when my mom reads me a book.

I am happy when I can be in the treehouse.

Finally, it can be said that, among other things, two very important findings could be pointed out from the visit to the Kindergarten Postplatz in Andwil.

The first realization is the point that children are enormously imitative. I already wrote it in section 5.2.1.2 Program of the morning. Children see something, be it in a movie, a book or in real life and imitate it in the exact same way. This is why it is so important that older children and we as adults should always be good role models for children. This applies not only to specific behavior but also to communicating feelings and emotions. A lot of emphases should be placed on ensuring that statements, facial expressions and gestures are always consistent and that it is made clear that everyone can perceive things differently.

The second finding was that children in traditional school systems are very dependent on their teachers and are not given much room for their own personal development. All children go through the same process, and there is rarely an opportunity for children to be considered as an individual.



Figure 27: Black Colourmonster

5.2.2 Observation Villa Monte

The observation at Villa Monte in the canton of Schwyz took place on March 30th, 2022. The first interesting finding was that not all children have to arrive at the same time. The young children are specially brought to school by a parent, and all have an individual loving farewell ritual. Villa Monte covers all ages from kindergarten to secondary school.

5.2.2.1 Findings and Schule für Kinder Book

Especially on this observation day, many new, exciting and sometimes frightening findings were made. One was that the children learn to read whenever they feel ready. This means that some children can read relatively fluently by the age of five, and others are still not able to do so by the age of eleven.

Are you wondering why this happens? Villa Monte has a very simple explanation. In their opinion, children should only learn when they want to, because they know what they need for their development. This is very reminiscent of a very exciting quote by Johannes Conrad from the book “Villa Monte - Schule für Kinder” by the founders Rosmarie Scheu and Harry Kool. (Scheu and Kool, 2014)

“If I am only allowed to do what I should, but never can when I want to, then I don’t like it when I have to. But if I may when I want to, then I also like when I should, and then I can also when I must. Because those who can, must want to be allowed.”

Villa Monte personnel are addressed by their names and have a very close relationship with the children. They recognize difficult conditions at home by the child’s behaviour, for example, if it withdraws, cries a lot or does not play peacefully. Moreover, they are not called teachers but the adults of the house.

What was very exciting to observe was that children talked about their state of mind for no reason and also comforted each other. You can see that children do whatever makes them happy at the moment. They are allowed to play indoors or outdoors in any weather at any time of day as long as they have told an adult. They are allowed to dress however they

want and are responsible for themselves. If they need help, they can ask the adults in the house for advice.

Mostly, however, the children learn from other children. About 40% of what they learn is from or with other students, not from adults. The book criticizes conventional education policies. On the one hand, the school reforms are impractical, and the curricula are too full. Teachers from the conventional school system would certainly agree with this. Furthermore, the lack of motivation to learn and the lack of discipline among the students are criticized, the classes are too large and dealing with parents is difficult. Today’s children suffer from an ever-increasing burden of learning, homework, exams and grading. (Scheu and Kool, 2014)

In exactly this last paragraph, from the point of view of a person without an educational background, I have to agree with the founders of Villa Monte.

The goal of Villa Monte in Schwyz is to create a school environment for the children in which they can grow up self-determined and happy. Another enormously important point that the book addresses is that at least 20% of all students have psychosomatic symptoms such as abdominal pain, headaches, sleep disorders and affective moods. Ritalin is prescribed more and more often, and the burn-out syndrome has already reached children. We live in a competitive society which increases the general pressure on people. (Scheu and Kool, 2014)

For this reason, I find it extremely beneficial when the autonomous developing child is at the centre, and children can gain their own insights.

In this school, children and adults have equal rights, and the adults do not disturb the children while they are playing but only serve as support. Of course, the adults are still authoritarian toward the children, but this is not because of their status, but because of a trusting relationship and their competencies, which are not experienced by the children as superiority but as help. In this way, the child learns to have a

good sense of how they feel about themselves as well as others and can always ask themselves the question, where is my place in this world? When the children leave school, they should have good self-esteem and self-efficacy.



Figure 28: Villa Monte Classroom

5.2.2.2 Critical Aspects of Villa Monte

Despite everything, the following points are still viewed critically by me as an observer. First of all, I find it very critical that some children start reading very late. For me, reading itself is something very important from a social point of view and not to be taken lightly.

Another point that I have drawn from all the observations and from reading the book is that the integration into another school system after a few years in Villa Monte gets very difficult. Especially in the first half of the year. In addition, it must be seen that the students who stay at Villa Monte up to secondary school tend to start doing an apprenticeship if they get an apprenticeship place. And it is rare that a young adult chooses to go for the Matura. For me, this is a very critical aspect, as our society is changing in that the educational paths are becoming longer and more intense.

From my point of view, it would be important to work out a middle way or another solution here. Of course, one must take into account that I have no educational background and am only expressing my thoughts here.

5.2.3 Observation Rietberg Montessori

The last observation was made on April 4th, 2022, at the Rietberg Montessori School in Zurich. The Rietberg Montessori School also has a very exciting educational method. And I was very happy to have the opportunity to visit the children's house. Here, too, the children are between three and six years old and are allowed to start their day between 8:00-8:30.

5.2.3.1 Insights

The first thing that struck me immediately and also impressed me enormously was that children are already bilingual in kindergarten. Since some children have an international family at home, the caregivers also speak English with the children in some cases. But even children who can both speak to each other in German speak together in English. In general, I would say that all languages are accepted and spoken.

In addition, it can be seen that, as in Villa Monte, there are more caregivers than in a conventional kindergarten. In this case, there are three caregivers plus one intern per thirty children. What is particularly noticeable is that the caregivers interact extremely intensively with the children. This means that the adults actively accompany the children in some tasks. Nevertheless, the children acquire their knowledge themselves. Just like in Villa Monte, the children are allowed to do whatever they feel like but are inspired by an adult to do activities if they are not doing anything at the moment.

If the children need help from a caregiver, they are allowed to put their hand on the caregiver's shoulder. This way, the adult knows that a child needs help without the children having to call across the classroom for help. This makes for a more comfortable atmosphere. Additionally, what I noticed about the interaction between the children and the adults was that the caregiver always sought eye contact with the child, whether it was because the child wanted to explain something or they were talking to the child. In addition, it was exciting that the children came up to me, asked me what I was doing here and told me things about their lives. This was completely different from Villa Monte. There, I was almost not approached, and the children did not let me disturb them. In the Rietberg Montessori School, the children have a similar relationship with the caregivers as in a state kindergarten.



Figure 29: Rietberg Montessori Classroom

5.2.3.2 Most important Findings

One observation that surprised me enormously was when I watched children working with the weaving frame. They were helping and checking on each other. Then one girl joined the table to work on her weaving frame. She prepared everything herself and started weaving. After about two or three minutes, she got up again and walked toward a box. From it she pulled out a pair of Pamirs and put them on. I was so amazed that she realized it was too loud for her and she couldn't concentrate. Because after that, she peacefully went on with her activity until she got inspired by something else. One caregiver told me that there is an additional quiet room in case a child gets too much or which is occasionally used for naps.

Additionally, something that was noticeable was that the children generally have an enormous amount of decency. The children are allowed to help with the preparation of the food and have to sit down at a table to eat. Only as many children are allowed to sit at one table as there are chairs. This means between two and four children per table.

They are allowed to fill a plate with fruits and vegetables with a maximum number of crackers or rice cakes. To grab the food, they have to line up diplomatically, one behind the other and wait for their turn. Once you put the plate on the table, you are allowed to bring a small pitcher as well as glasses to the table to drink. So the whole scene looked like a restaurant. After the meal, children have to clean up their own plates and glass and clean the table.

In order to play, the children have to sit at a table or put the working materials on a "working carpet". In this way, the materials can be easily moved around, and there is permanent order. After use, everything is put back in the right place before starting the next activity.

5.2.3.3 Determination of Observation

The determination from the last observation is that all children are accepted and supported just as they are and need help. I would say that the Rietberg Montessori School is still more likely to be a conventional school system in comparison to the Villa Montessori School.

Moreover, it definitely has just as many valuable and exciting approaches to pedagogy as the other school systems. A nice statement from the director Monika Schenkel was that children should also seize their own ideas and goals.

5.2.4 Conclusion of Observations

In the end, I can say that I learned more through the method of observation than I ever would have with desk research. I have gained an immense amount of knowledge from the observations, and they have greatly shaped my project process. Unfortunately, I do not have many photos of the observations because in Villa Monte, as well as in the Rietberg Montessori School, I was not allowed to take pictures where children could be seen.

Through the observations, I not only got a more detailed insight into different school systems in Switzerland but also learned a lot about the behaviour of children. It was clear to me that it is important to accept every child as he or she is, but what was new for me were the approaches on how we can support the children in promoting themselves in the best possible way.

The observations definitely brought me closer to the topic of children's emotional development. Moreover, they made me develop even greater empathy towards children than I already had. Now it is even more important to me to support them in their personal and especially emotional development.



Figure 30: Blue Colourmonster

5.3 Prototypes

In this chapter, the various prototypes are discussed, and the corresponding findings are addressed. The most important aspect should remain that the human being, and in this case a child, is in the centre of the prototypes.

5.3.1 Prototype Cardboard “Farbenmonster”

Although one could say that the cardboard pieces of the “Farbenmonster” are not really prototypes, however, this is not true in my opinion. Through the figures, the children could express their feelings more easily, which supports their emotional development and also gives them the opportunity to open up to a mythical creature instead of an adult.



Figure 53: Cardboard Clolourmonsters

5.3.1.1 Production

As already mentioned, I painted the six different monsters on my iPad in the ProCreate app. It was important that the monsters have a recognition value to those that the author Anna Llenas has designed. This makes it easier for children to remember the feelings and expressions of the monsters. Then I printed out all the monsters in the same size and glued them to large pieces of cardboard, and cut them out with pinking shears.

5.3.1.1 Learnings

It turned out that as soon as I used the “Farbenmonster” cardboards to explain an emotion, children responded more easily to a conversation. This led to the assumption that visual support for explaining diverse topics at this age should not be underestimated. This prototype gave me the learning that, in my case, I need to pay even more attention to creating a learning experience that is as simple and intuitive as possible.

5.3.2 Prototype Hörbert

During my project development, I stumbled across the music box Hörbert every now and then. As you may have noticed in the Related Projects section, I am a very big fan of this music box. In my opinion, Hörbert not only has the most important functions that a modern radio needs to have but also convinced me with the design and the hardware as well as software.

5.3.2.1 Hacking Hörbert

First the idea was to hack the Hörbert music box into an interactive tool where children can learn independently about their own and other children's emotions. This should encourage emotional development and independent learning in children.

5.3.2.1.1 Hörbert as an interactive Tool

Of course, there are many different ways to hack an existing music box. The Winzki GmbH & Co. KG offers the possibility to buy all their electronic parts to build a Hörbert separately. This is another point that made them even more appealing and sympathetic to me.

I was very convinced that hacking a hörbert was the easiest and most intuitive solution. As mentioned, the music box provides nice hardware as well as the right software. I believe that I could only make some small changes within the hardware to transform Hörbert into an interactive learning experience that supports and encourages children's emotional development. Moreover, it was also an optimal solution to offer simple access to other people who felt inspired by my bachelor thesis and thought about building such an interactive learning experience at home.

5.3.2.1.2 Findings by Hacking Hörbert

I ordered a Hörbert on the Internet. After that, I read the instructions and tried out various functions such as connecting Bluetooth devices and recording audio files. It turned out that these functions were only easily performed with the help of an explanatory video on Youtube. And if I need an explanatory video to understand these functions, how would the children find out how they worked if they probably could not even read the instructions? This realization was something I definitely had to keep in mind. For me, it would be important that the child could operate the tool independently.

5.3.2.2 Functions of the hacked Hörbert

First, the device should have an explanation button. This can be pressed in case the child wants to listen on how the tool can be operated. But basically the children should understand the device through experimentation.

Then there should be a record button, where the child can record itself talking about emotions and situations and be able to play it back immediately. Through this function, children can better reflect on themselves and this greatly promotes emotional development. This is why the device needs another button on which the audio files will be cached.

The device should have five to seven buttons for the different emotional experiences of the other children. On which I will try to assign the different emotional states to the respective button. This gives the device some structure and is like a small audio library that children can browse through.

I thought of arranging the buttons in a circle. This shows the user that it has neither a beginning nor an end, because I do not want to give value to emotions. As we have learned, all feelings and emotions should be accepted. The pre-stored stories of all the children helps the interacting child to achieve a more intensive empathy, develop its own emotional competence as well as to lower the inhibition threshold to speak about its own feelings and emotions. It should become clear that it is okay to allow all our feelings and that every person perceives feelings and situations differently.

The allocation of the new recordings would take place every half day. Until then, the recorded audio files remain on the record button. It is important to listen carefully to all recordings and to eliminate inappropriate or disturbing recordings. This can be done by the exhibitor, as they can access the recordings via a laptop.

5.3.2.3 Disassemble Hörbert

To rebuild the Hörbert and to have full access to the hardware, I had to disassemble the Hörbert. Since you can assemble the music box yourself at home, I had no worries about getting it back together in the end. The Hörbert has the following equipment:



Figure 31: Inside of Hörbert

5.3.2.4 Change of Plans

With my ideas of the functions and a rather unfinished sketch, I made an appointment with Luke Franzke to discuss my options since my technical skills are not exactly the best. He supported our studies in various technical subjects and is also a researcher from the Physical Computing Lab at the Zurich University of the Arts. I explained my idea and asked him if the possible changes to the hardware as well as software were possible.

However, I had a premonition that I imagined to be easier than it really was. Because when I looked at the software and hardware more closely, I found out that the recordings of the microphone of the hardware are saved in a special file format. To listen to the recording, you have to convert the file in the Hörbert software into an mp3 file first. That means this already prevents the direct playback of the child's recording. And, of course, I cannot make any changes to the Hörbert software itself. That means that I would have to write my own sketch for the hardware.

Furthermore, Luke told me that it is generally not so easy to change the hardware, and he is also not sure whether you can upload a self-programmed sketch on the hardware. During the discussion, more and more problems came up that were difficult or even impossible to solve.

5.3.2.5 Conclusion of hacking Hörbert

The general conclusion is that it is easier to write a program for a rough prototype. However, I have to say that the time is short, and I am afraid that my programming skills are not good enough. Nevertheless, Luke gave me the basics for a sketch and the idea to make a simple prototype myself.

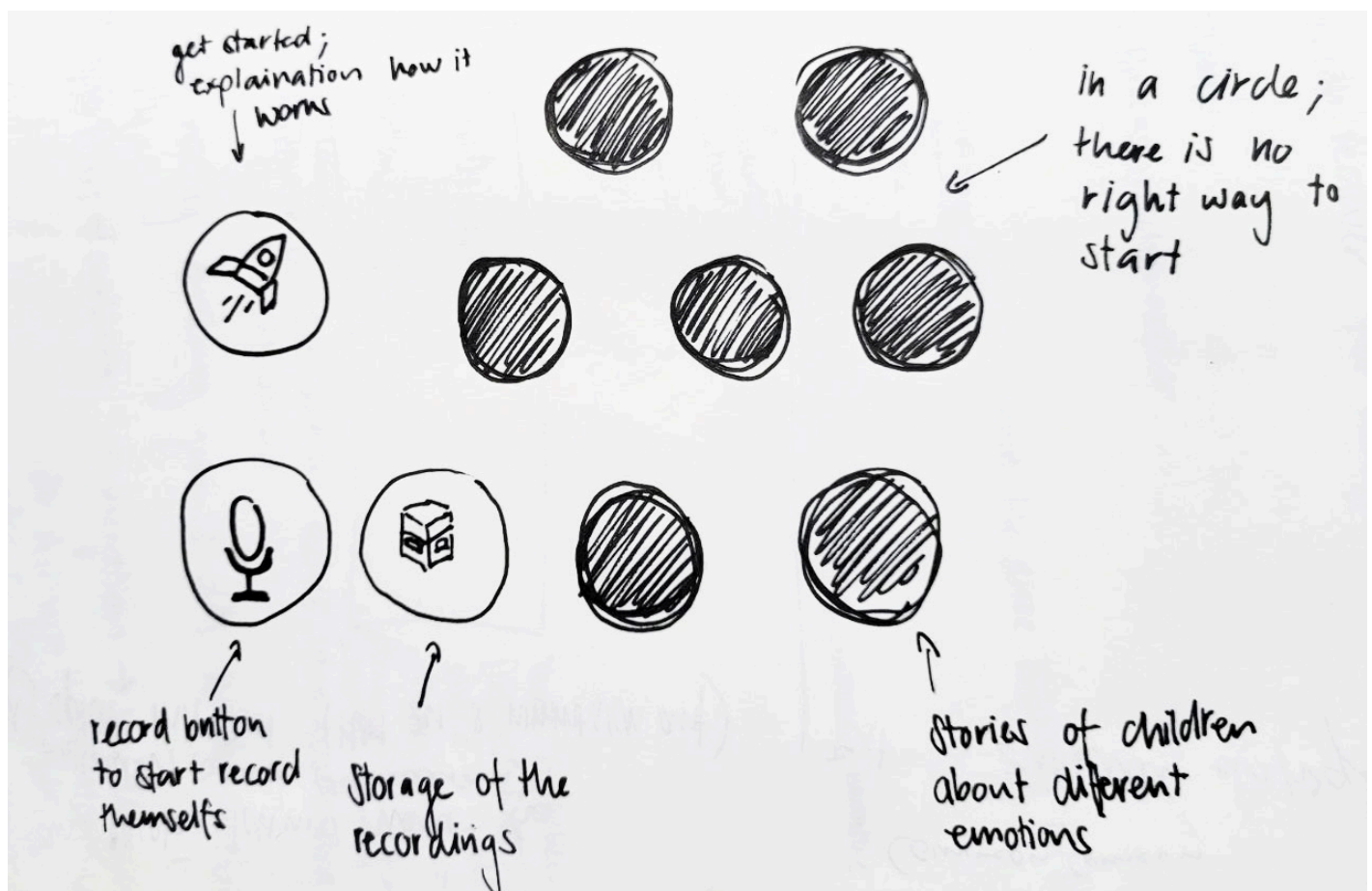


Figure 32: Sketch Functions

5.3.3 Wizard of Oz Prototype

As time was running out, I came up with the idea for a Wizard of Oz prototype. (WoZ) This kind of prototyping is called that because it is compared to a wizard pulling the strings behind the curtain. In this case, the designer fakes functions that normally the tool would do automatically. This method is especially useful when you want to do quick, simple user tests. It is a design method we learned during the Interaction Design study.

The sketch with the code that children can record themselves and playback the audio file with the help of a keyboard was ready. Now the issue was that they should not interact with a laptop but with something that does not have a screen. Children will be exposed to screens, smartphones and digital media early enough; therefore, the tool should be screenless. In addition, digital media holds children back in their emotional development instead of supporting it. There is a good chance that social media will make children feel even worse about themselves because they are being made to believe that others have a perfect life.

For this reason, I wanted to give an external keyboard with Bluetooth function a new look. So the child is able to interact with an object that has no screen but buttons. The first material I used was cardboard, which I still had at home. Unfortunately, I broke my wrist a week earlier, and therefore I am relatively limited in what the tinkering concerns.

5.3.3.1 Functions of the WoZ

The functions should basically not be different from the ones I wanted to have with Hörbert. (see section 5.3.2.2) To summarize, the device should have a button that explains the possibilities of how to operate the tool. Nevertheless, the children should understand the device through experimentation.

There should be a record button where the child can record himself talking about emotions and situations and be able to play it back immediately. Through this function, children can better reflect on themselves, and this greatly promotes emotional development. The tool needs another button on which the audio files will be cached. So that several children can make recordings in succession and they are not overwritten. It should have five to seven buttons for the different emotional experiences of the other children. On which I will try to assign the different emotional states to the respective button. This gives the device some structure and is like a small audio library that children can browse through.

Arranging the buttons in a circle shows the children that there is neither a beginning nor an end because I do not want to give value to emotions. As learned, all feelings and emotions should be accepted.

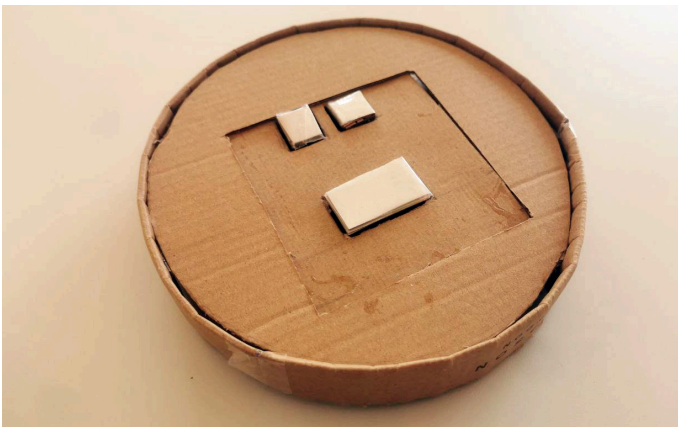


Figure 33: Cardboard Prototype

5.3.3.2 Results of User Tests

I had the opportunity to test the Wizard of Oz prototype on May 16th at the Kindergarten Postplatz in Andwil. It was a very exciting and educational experience. Something that struck me enormously is that children do not talk about feelings on their own. And although I held the lessons on the “Farbenmonster” with the same children, most of them did not remember many of the feelings we looked at. The prototype was not really used on its own, but more of a conversation developed between the kindergartners and me. What did work was that the children realized on their own that they had to put on the headphones that were next to the tool in order to hear something. As well as, the function of the buttons was intuitively used by the children. Something some of them told me was that the device looks like a face, which I found exciting and great feedback and definitely wanted to incorporate into the next prototype. Another important finding was that most children talk little to never about feelings and emotions at home, which showed me again that it is very important to make Swiss society aware of this topic in order to support the emotional competence of children.

5.3.3.3 Second WoZ Prototype

The second Wizard of Oz prototype was built with the help of Adobe Illustrator and the Trotec Laser of the Zurich University of the Arts. Made of medium-density fiberboard, short MDF, the prototype is more stable, and the idea that the buttons could represent a face was implemented.

The prototype could be tested with my nephew and niece. The children also intuitively pressed the buttons and could listen to the narrations of the other children on the different buttons representing the mouth. The eyes were used to make the recordings of themselves and play them back directly. Again, the headphones were put on without prompting. Two important findings could be made here. The first was that the child felt comfortable and listened sincerely to the stories of the other children. Now and then, he asked who this child was, but since he or she did not know them, they did not care relatively quickly. And the second thing was that they also liked to simply tell what they were looking forward to doing next, such as playing soccer later with friends.

Here the decision was made to definitely use the tool for private use. The child can talk on the device himself and does not have to be used urgently only by one child but can be used with siblings as well as the rest of the family. This means that the tool also needs the function to be usable with and without headphones.



Figure 34: Testing First Prototype



Figure 35: Mdf Prototype

5.3.4 Latest Prototype

The last prototype was again visually and conceptually revised. It should be even more experimental for the children, as well as rebuildable at home for everyone as an open-source project. This prototype is also made of MDF plates and was produced with the program Adobe Illustrator and the Trotec laser. It has two buttons, which are visually different from each other, one to record itself and one to play the recorded audio files. It also has volume control. Holes on the surface are the speaker function that the tool can also be used with the family. In this case, the headphones can simply be turned off, and the device's audio will switch to the speaker function.

The device still has a face, but more in an abstract way. And the most special part of the tool is that the rotating part can be changed. The different colours represent the different categories of audio files that parents can sort and control on the computer through open-source software. Auditory click feedback indicates that an audio file is being played. The own recordings are assigned to the colour which is currently at the drawn circle. This interchangeable part is very valuable. In the beginning, a circle divided into two can be used, and the child can distinguish between negative and positive feelings. The more the child is trained to distinguish between different emotions and feelings, the more bulges the insertable piece has. The holes are made so that the child can better rotate the centrepiece. Turning quickly backwards turns the device off, and turning it quickly forward turns it on. The device can be painted by the parents, caregivers or the child itself, and thus each is unique. Each part is replaceable and repairable, which is very similar to the concept of the Hörbert. The size can also be determined by the child, as long as there is room for all the technology.

5.3.4.1 Results of User Tests

This prototype could also be tested as a WoZ by my nephew and niece. Turning on the device did not have to be explained since the children turned the middle part very quickly, and it was set by chance if you want to put it that way. Switching it off, however, had to be explained and shown once. This shouldn't be a difficulty, though, since you can write that in the instructions. The headphones were provided exactly the same at the beginning. It was quickly recognized which of the two buttons was responsible for what and how the volume could be changed. It also quickly became clear that turning the middle one would cause a new track to be played. You could see that the children enjoyed using the tool, and they tested it not only alone but also in pairs and as a family. It led to an exciting conversation about not intentionally making other people angry.

All in all, we can say that the prototype was a complete success. Of course, it is still very difficult for young children to talk about and reflect on their own feelings alone. Nevertheless, it helps families and children to talk about their emotional state and simplifies talking about this important topic. In addition, it is fun for the children to use the tool, and they can learn with and from each other.



Figure 36: Sketch Final Prototype 1

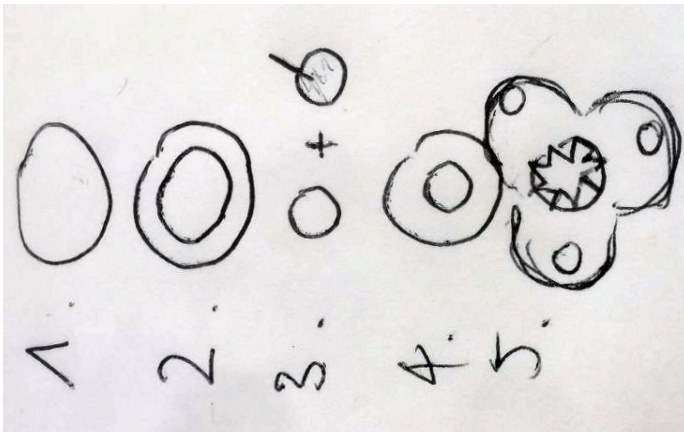


Figure 37: Sketch Final Prototype 2



Figure 38: Haptic for Buttons

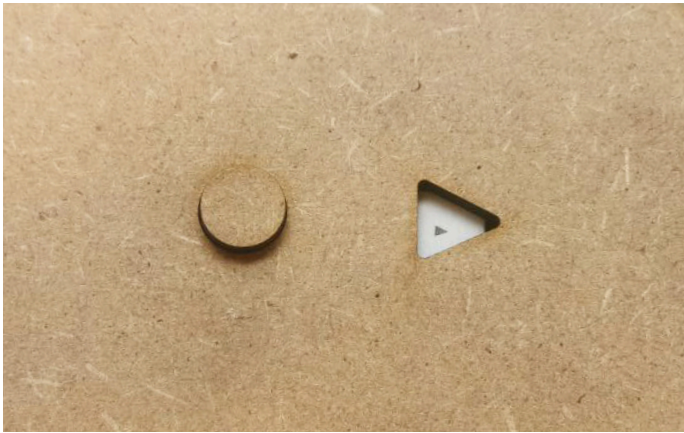


Figure 39: Buttons



Figure 40: Auditive Feedback



Figure 41: Final Prototype



Figure 42: Final Prototype Painted 1



Figure 43: Final Prototype Painted 2



Figure 44: Final Prototype Painted 3



Figure 45: Final Prototype Record



Figure 46: Final Prototype Elia



Figure 47: Final Prototype Top View



Figure 48: Final Prototype Elia Listening



Figure 49: Final Prototype in Hands



Figure 50: Final Prototype Siblings

6. Project Communication

In this section of the project, the focus is on the communication of the Bachelor Project. That means it explains the concept of the video and the concept of the exhibition.

6.1 Concept Video

The video should show a scenario in which the tool could be used. In addition, the most important statements should be clearly shown, why it is important to promote the emotional development and competence of the children. As well as show the functions which are possible with the prototype.

6.2 Exhibition

The exhibition should be divided into two parts. One part should be the most comfortable environment for children to relax and, if necessary, try out the latest Wizard of Oz prototype. Or simply listen to various stories and explanations of the emotions of adults. In doing so, children should feel comfortable and have a trustworthy environment.

The second part shows the process and the most exciting findings of the project. The idea would be to highlight the most important statements that influenced the work the most. In addition, the thesis will be exhibited in this part.

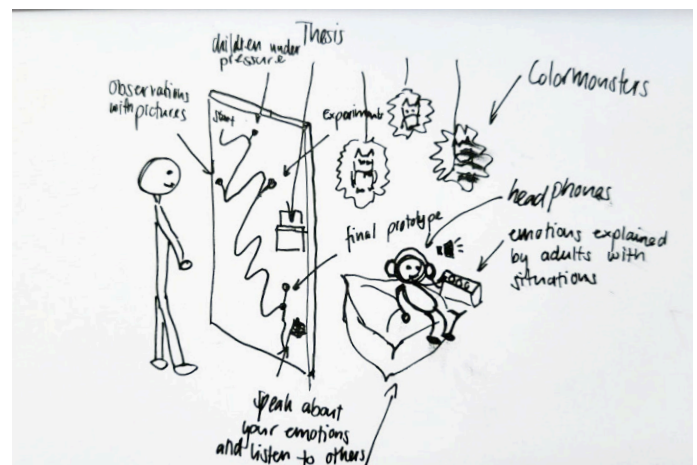


Figure 51: Exhibition Sketch

7. Conclusion

In conclusion, it should be clearly stated once again that it is important to deal with mental health. Through the Corona pandemic, we have learned that an enormous number of people already suffer from mental illnesses such as depression. This includes not only adults. According to an Austrian study by the Medical University of Vienna, 16.5% of adolescents between the ages of 10 and 18 suffer from depression. There are many different factors that can trigger depression. Among them are biological and genetic factors, gender-specific risk factors, family risk factors and educational influences as well as stress factors. (Reicher, 2021)

Depressed children and adolescents often struggle to meet the daily demands of family, school and leisure. In addition, there are depressive conditions in the performance behaviour, the social area and the emotional area. The depressive state in the emotional area can be characterized by self-esteem problems, helplessness and hopelessness, and perfectionist performance standards. (Reicher, 2021)

This last section answers the question of whether some mental illnesses already develop in childhood. To answer the question additionally, I refer to the brochure *Depressive Children and Adolescents - Recognizing Understanding Preventing*. In it, the author lists several points on how we can prevent de-

pressive development. These include promoting skills that help to deal with stressful emotions and setting a good example with regard to one's own emotional world. (Reicher, 2021)

Two important findings of this bachelor project were once again supported by these statements. We have learned from the observations that we should allow all of the children's feelings. We should support the children in talking about their feelings and set a good example for them on how to deal with stress and pressure. And this is not by suppressing the feelings but by accepting and talking about one's own emotions. This brings us to the next important point. How do we deal with our own feelings? Since children are tremendously imitative, we must place special emphasis on being a good role models for them. This is not only with our actions but also with conversations about our feelings and emotions. To teach them to deal with stressful situations and to make them understand that we love them whether or not they produce perfect performances at school and in their hobbies.

And with this transition, we come to the second important topic of this project through the interviews, observations and research. The question of how well children in kindergarten already know about their feelings and whether they are able to assign these



Figure 52: Lesson Kindergarten Postplatz 2

feelings to specific situations were investigated as well as how we can help the children develop their emotional competence and development. We have learned that children begin to deal with their emotions at a very early age. They express their emotions through gestures and facial expressions. If parents or caregivers start naming these emotions early and help the child to understand their own emotions, this promotes their self-confidence, their empathy and also the ability to reflect. All these things promote emotional development and competence. As we have already learned in the research phase, emotional development mainly describes the understanding and process of one's own feelings. The earlier we as adults talk to the children about emotions, the sooner they can identify and name their own feelings. Thus, the question of whether we as adults can promote the emotional development of children between the ages of three and six was answered. Of course, adults can make a big contribution to supporting children in their emotional development. We can encourage children to learn different things for themselves and to talk about their feelings. We can build trust with them so that they feel comfortable talking about their emotions in our environment. In addition, we should promote their intrinsic motivation.

This brings us to the second part of the research questions, which are answered in this way. We can use interaction design to stimulate children's intrinsic motivation to learn about their own emotions and feelings in a fun and explorative way, as well as to learn about the stories and feelings of other children or family members. This promotes emotional development through self-reflection and the development of empathy. In addition, people talk about their own feelings honestly and openly, which is good for the mental health of all people involved.

7.1 Contribution

I see the contribution in the fact that Swiss society is once again confronted with a relevant topic. It is important that we are aware that the mental health of people is enormously meaningful and that we must not forget that children are exposed to stressful situations and suffer from permanent pressure at an early age.

My bachelor project summarized how we could promote the emotional development and competence of children. Adults get an insight into different school systems through the observations made. It is important that we communicate openly with children and together identify the optimal school system for the individual child. Every child learns differently and prefers a different educational method.

In addition, I looked for a way to incorporate Interaction Design into the promotion of children's cooperative emotional development. This points out how important interaction design is to society. Interaction designers design not only for their users but with them. The solutions are always centred on humans, and this is also shown in this project.

A relevant topic is addressed and made accessible to children in a fun and playful way. It is already a contribution to Swiss society if talking about one's own feelings is made easier. And if this project becomes a topic once at the dinner table of a family, I am already happy. It is necessary to become aware of one's own emotional development and to deal with the mental health of oneself and one's children. Even if it is only a small step toward fixing the problem, it is still progress.

7.2 Difficulties during the Process

During this project, I encountered a bunch of difficult situations. However, I think the hardest challenge was working on this project by myself. Not only is there less exchange of ideas throughout the work, but you also need to make difficult decisions by yourself. During the Interaction Design program, a lot of emphases is placed on working together in a team. This makes it more difficult to master such a large project by yourself.

Moreover, it was not easy to always consider the children as individuals and not to forget that each and everyone learns differently, reflects in another way and has their own methods of interacting with the environment. During the Field Research and Project Development, it was sometimes hard to get access to children. Going to a playground and invading the privacy of children is not something anyone should do. For this reason, it was never done during this project. Therefore it was necessary to be in contact with one or better with several kindergarten teachers all the time. The privacy of the children is important to me, and I want the children to feel comfortable with me. This is what made capturing the children in photos and videos very difficult.

In addition, it was challenging for me and, in the end, even impossible to produce the prototype as a finished product. My goal would have been to create a final device which could have been used by children and families. This was not possible because I broke my wrist during the project and could not acquire enough technical skills in the short time of the bachelor thesis. This is why the final product is a Wizard of Oz prototype. Nevertheless, I am still of the opinion that this topic and also this work has a lot of potentials. I am basically ready to deal with it further.

7.3 Future Steps

This bachelor project could develop in many different directions. Since there currently only exists a Wizard of Oz prototype, the first step would be to create a working prototype with a small software. It is not only important to test the tool with children, but it would also be optimal to cooperate with a psychologist for children to talk about what other possibilities there are to promote emotional development and build further understanding. In addition, the exchange with parents and teachers should be increased to integrate their ideas and wishes into the prototype.

Furthermore, the project should become open source. A website or a blog would be a reasonable idea. Pictures and videos of the process and an operating manual can be placed on this website. As well as the Illustrator files for the laser or templates to cut out the wooden parts can be stored. The idea behind it can be summarized again clearly. Through the Internet, an enormous range would be possible. Thus, the topic would not only be addressed and thematized in Swiss society but would also be accessible in other countries.

Because my desire to contribute to society remains, this project is ultimately to draw attention to the topic of mental health, emotional development and competence of children. For my future, I wish to never lose sight of my goals and to stay true to my values as a designer. And of course, I wish inspiring work colleagues and exciting exchange partners like Mona Neubauer and Dr Roman Kirschner were for me during this bachelor project.

8. Appendix

In this section can be found the notes of the interviews, observations and summary of the book Villa Monte - Schule der Kinder. It should be said that they were inserted unformatted and unchanged and, therefore, may contain spelling mistakes and grammatical incorrectness. In addition, the declaration of originality can also be found here.

8.1 Interview Notes

8.1.1 Interview Notes Rudolf Steiner School

Marianne was not in a Rudolf Steiner school herself, but was convinced by the school system and its concept. At the moment she teaches children from three to seven years, in the forest kindergarten.

Do you teach kindergarten yourself? If so, how many lessons per week?

- forest kindergarten: always outside, with a shelter (small hut with a hayloft in her case)

Is the Rudolf Steiner School taught according to the curriculum 21?

concept:

- Children are imitating, that means children learn extremely much from adults through their behavior.
- The seasons is always the main theme
- There are no intellectual explanations --> everything is on an experiential basis --> content is taught
- Teaching according to a curriculum similar to the curriculum 21 (in order for the school to be recognized everything must be justified, which lessons cover which sectors) - curriculum is 70 pages long!
- Focus on movement and music: songs and chants with singing and working with the body, at least 1 lesson a day (3-4 weeks the same songs)
- Lots of free play time --> play independently, no room division and nothing is predetermined

Do you think the topic of feelings and emotions is important? If yes, why? If no, why not?

- Of course this topic is important, you can recognize a child's emotions by their attitude and behavior, actively address the child:
- child cries --> you have to cry really hard now? because your mother left? etc. until it gets to the core issue

Do you teach the children about the topic of feelings and emotions? If yes, how often is this topic integrated into the school day? (daily, weekly, monthly)

- Only Situationally, clarified or addressed in songs and sayings. She divides feelings into two different categories:
- Fulfilled feelings: known as positive feelings such as joy, serenity
- Unfulfilled feelings: known as negative feelings such as anger, sadness, fear--> by fulfilled one means whether they meet the needs or not
- Working according to the methodical Nonviolent Communication Marshall Rosenberg;
- 4 steps are necessary --> ; observe - inquire about feeling - find out need - concrete action questions

How do you explain the different feelings to the children? Do you use tools for this? If so, which ones?

- Nothing is explained in general, but to come to an insight or solution together
- Has made four dwarfs out of natural materials in the forest kindergarten
- Jupituk (happy dwarf) / Turituk (sad dwarf) / Solatuk (bored, moderately good-humored dwarf / Wuzotuk (angry dwarf)
- These dwarfs could be given a whisker by the children in the morning, depending on their mood. Older children could already justify why they chose the respective dwarf, the younger children acted more according to appearance (he looks like I feel).

What feelings would you say children between the ages of four and six already know and can also correctly recognize, name and assign?

- depends very much on the development of the child, some children can only express it with their body language. Others can already say that makes me angry because.... (mostly they can say exactly what their parents have already said to them).
- Most, however, express powerful feelings like: Joy, satisfaction, anger, fear, tiredness (this is mainly a strong physical expression).

How do you explain that there is no right or wrong as far as one's feelings are concerned?

- According to their concept, no feeling is negative, all feelings are always to be allowed
- If one child offends another, for example, she simply says; here we don't say that --> thus she creates different zones in the children's everyday life.

Do your children come of their own accord and talk about their feelings? If so, is this often the case?

- Of course, otherwise she looks at the body language of the children, can usually recognize early enough what is going on. It is important to have understanding towards the children's feelings and not to distract from the child's feelings:
- Child falls down --> in no case ask if you have caught the mouse! --> still ask if something hurts the child and respond to the feeling.

How often do children approach the teacher when they are not feeling well?

- Rather rarely.
- She always looks at the situation, intervenes before violence occurs, e.g. a child hits or has stones in his hand --> children should get support but first try to solve conflicts themselves. is like learning to walk --> one is allowed to fall down
- you are allowed to have conflicts --> conflicts are important for social competence

What are situations where you can identify specific feelings in children where you approach children to talk about the child's well-being?

- You can always detect feelings, as explained above she intervenes before anything can happen but otherwise she lets all feelings run free.

Have you ever heard that music can be used to express feelings? If yes, where from?

- This is a holistic approach of the Rudolf Steiner School, including the whole body to learn. As well as instruments and natural materials. Music connects emotionally and the rhythm supports the formation of feelings.

Is this done in your classes?

- At least one hour every day

Do you know the children's book "Das Farbenmonster"? If yes, what do you think about it?

- No she doesn't know it.
- I asked her what she thought about assigning feelings to colours --> she thought it was okay and socially acceptable.

What is your favorite book, about the subject of feelings and emotions?

- Does not have a favorite book, she prefers not to work with pictures but with natural objects and the dwarf Tatatuk.

Findings:

- Children are imitating
- there are no intellectual explanations!
- Curriculum is crazy!
- Focus on music and movement
- You can recognize children's emotions by their posture
- No emotions or feelings are more negative - only fulfilled and unfulfilled feelings
- Nonviolent Communication: Marshall Rosenberg
- Nature materials are often forgotten
- With movement sequences triggering memories
- Don't distract from emotions and feelings
- Picturing feelings illustratively is difficult

8.1.2 Interview Notes Villa Monte

Could you briefly introduce yourself?

- Vicky Green, went to a private girls' school in England
- did a geology degree and had a lot of knowledge at 25, but could not do anything
- came to Switzerland as aupair of 2 children who went to Montessori school
- worked 6 years as a nanny and did the Montessori training
- MA in Childhood and Youth
- been at Villa Monte for 22 years
- loves to work here, loves to go to work every day
- 2 sons, both went to Villa Monte school
- older son has apprenticeship as chemical lab technician, younger son is still in high school
- has already trained 7 apprentices (FaBe)

Why do you like it here? What is better/optimized about Villa Monte compared to the conventional school system?

- no grades
- no exams
- other school systems are also important, this school is not good for everyone
- other Montessori schools are also good

In what way is Villa Monte different from Montessori school?

- Montessori school has timetables
- less free play
- children are encouraged enormously --> everything is about learning (has changed)
- Villa Monte emphasizes social development

Do you have anything similar to curriculum 21 here?

No! She thought at first that the Lehrplan 21 is something good, but the teachers still have no freedom.

Does the Rudolf Steiner School mean anything to you? If so, what do you think of it?

- Yes, also like their system; they are open & nature oriented
- once made a short visit
- depends on the school management

What does the topic of emotional development tell them?

- Children have the opportunity to get to know themselves
- Children should see themselves as their own personality

Is emotional development integrated into the school day at Villa Monte?

- in an unconscious way --> children are supported to express feelings and adults validate children's feelings
- All feelings have value

How do you explain your own different feelings to the children? Do you use tools to do this? If yes, which ones?

- not with dolls
- Books are not used specifically either
- Feelings are not specifically explained
- Acknowledge feelings
- want children to know they are there

Which feelings would you say children between the ages of four and six already know and can correctly recognize, name and assign?

- she thinks that all feelings are recognized, which we adults have as well
- except romantic love
- and hate (Hate) they don't know hate - dislike & anger yes, but no hate

How do you explain that there is no right or wrong about one's feelings?

- they simply confirm all feelings of the children - every feeling may be allowed
- even if it is homesick, that is also okay

Do you call it positive and negative feelings? (love, joy, serenity is positive and hate, fear and sadness is more negative?) (fulfilled and unfulfilled needs?)

- it has no reservation
- all feelings have the same value
- there are no positive and negative feelings

- there are no unmet or unfulfilled needs - children are allowed to do everything they want with few exceptions

How do children learn to regulate their feelings and emotions?

- through experience while playing with other children
- through the age mix
- generally as soon as they have experienced something and see the reactions of the other children
- through role models

Was sind Situationen bei denen Sie spezifische Gefühle bei Kindern feststellen können, bei denen Sie auf die Kinder zugehen, um über das Wohlbefinden des Kindes zu sprechen?

- sobald sich Kinder zurückziehen
- sobald Kinder sich anders Verhalten
- sobald Kinder nicht mehr friedlich spielen

Sind Sie der Meinung dass man Gefühlen ein Gesicht, eine Gestalt und einer Farbe zuordnen kann? Wenn ja, wie würde das aussehen für die Emotionen Angst, Hass, Liebe, Trauer, Freude, Gelassenheit?

- Farbe zuordnen ist sicher möglich, aber jedes Kind macht das individuell
- Würde jedoch nie sagen, dass Blau zum Beispiel traurig ist
- Kinder sollten das selber entdecken

Wie lernen Kinder die Gefühle der anderen Kinder zu erkennen und respektieren?

- auch durch Erfahrungen
- durch Vorbildfunktionen der älteren Kindern und auch durch Erwachsene
- durch die Stopp-Regel

Gibt es ein Kinderbuch, dass Sie kennen, welches das Thema Gefühle und Emotionen behandelt und ihnen auch gefällt?

- es gibt eins, dass sie sehr berührt hat; Olga: Auch ein Schwein darf mal traurig sein
- Gefühle sind generell ein grosses Thema bei Kinderbüchern

Haben Sie Schulmaterial, dass die emotionale Entwicklung der Kinder fördert? Wenn ja, welches?

- ja auch für Eltern zum mitnehmen
- vor allem über die Entwicklung des Kindes
- sie bildet sich selber weiter mit Büchern, und nimmt sich hauptsächlich aus jedem Buch die Dinge die sie wichtig findet

Haben Sie noch irgendwelche Tipps für mich, für mein Weg zum Thema emotionale Entwicklung?

- verschiedene Autoren die gut sind: John Holt (The Idea of Education), Neal Postmen, Richard David Precht, Gerald Hüther, Remo H. Largo
- hat mir ein Buch über die Villa Monte mitgegeben

8.1.3 Interview Notes Rietberg Montessori

Could you briefly introduce yourself?

- Monika Schenkel, since more than 20 years at a Montessori school - 12 years head of 0-3 year olds 3-6 year olds, head of kindergarten, otherwise in the office and does organizational things, psychological background, has already worked with Professor Spitzer in the field of neuropsychology.
- Montessori training takes about 2 years, Asia is very interested in Montessori education, China has just trained 900 people.
- AMI Montessori training is called correctly - is divided into block lessons
- Each Montessori facility needs a license, meet the criteria. The facilities are checked for quality level, children should have 3h free work in the morning.

Why do you like it here? What is better/optimized about Rietberg Montessori compared to the conventional school system?

- 3h free work in the morning
- Child should deepen and not be disturbed
- take breaks when they want to
- not optimized simply different
- convinced that children's autonomy is promoted by learning environment
- Adult is only an observer, and serves only to help
- Individual attention
- Cross age - observing what other children are doing, children learning from children
- Child is picked up from where he/she is in terms of development.
- Development - situation at home - depending on what the parents do at home with the children.
- German is taught additionally for children who speak poor German
- have a remedial teacher (there is also a special training)
- School is state-approved (still private and must be paid)

- Bringing in understanding - material can be touched it is not only theoretical - abstract is converted into concrete material like e.g. arithmetic problems
- Children have fun while learning
- discover for themselves how the world works
- learning contents are to be worked out by oneself

How is your school different from other Montessori schools?

- Montessori schools have a quality label, all should have the same standard and the same material.
- Switching to other schools with Montessori pedagogy is easy on "conventional" school system rather difficult
- Maria Montessori has observed exactly - Windows of opportunity - phases in the brain development - and so then developed this pedagogy.

Do you have something similar to curriculum 21 here?

- have something similar
- But not exactly the same, but all areas are thought of in the same way
- Montessori school children can usually read, write and calculate at the age of 6 - children are further along in terms of education.

Does the Rudolf Steiner School mean anything to you? If yes, what do you think about it?

- different pedagogical approach
- equally justified as the Montessori approach
- depends on what the parents want for the child
- stages of development are different

What does the term emotional development mean to you?

- Is also important, must be considered
- Children has other interests? (which may not be normal?)
- Children show difficulties - are supported and worked on with Personal.

Is emotional development integrated into the school day in the Montessori school?

- Politeness exercises, Grace and Curtancy, through adult role models, with clear rules of the environment and on staff behavior, always respectful to the child, looking children in the face when explaining (At eye level)
- Always explain the context - treat child like an adult
- Rules: Do not be loud (do not disturb other children), sit while eating, push chairs back to the table, clean things up yourself
- Difficulties between children, Can they solve the conflict themselves? - What words do we use? Resolve conflicts verbally, not with physical activity, contact with words, pretending to apologize, adults should also apologize.
- You are a role model for the children, so you show behavior
- Explain feelings to children, what does being sad mean?

How do you explain to children their own different feelings? Do you use tools to do this? If so, which ones?

- At this age, the topic of friendship becomes present
- Explains that emotions go up and down
- feel what adults feel
- there are different emotional stages
- guide the children and explain the feelings and show understanding to their feelings
- Explain the feelings with words, sometimes with cards with facial expressions, or in front of the mirror.

What feelings would you say children between the ages of four and six already know and can correctly identify, name, and match?

- basically all feelings
- Jealousy cannot be named e.g.
- disappointment - when someone else already has the material
- Children automatically learn impulse control in Montessori through only one material - I can't have this now
- Children observe other children relatively often
- Child realizes that he does not need the adult urgently.
- Following the motto; help me to do it myself - is observed whether child really needs help - promotes independence
- do not tell the child that he/she should now apologize, but model it

How do you explain that there is no right or wrong when it comes to one's feelings?

- Do you call it positive and negative feelings? (love, joy, serenity is positive and hate, fear and sadness is more negative?) (needs met and not met?)
- there are good and bad emotions
- one should become aware of the needs - such as learning to wait
- impulse control - executive emotions
- negative and positive emotions, there are definitely, no distraction but get to the bottom of why it has these feelings - scale of emotions should be recognized
- Adults show understanding for all feelings
- In case of negative feelings show that you are there for the child, emotions should be let out.

How do children learn to regulate their feelings and emotions?

- everyday, when it happens
- through experiences
- Teacher is with another child - she has no time for me.
- children look for solutions themselves - this encourages creativity
- Materials have their own error control in them, child realizes it doesn't work that way
- Child should learn how to deal with negative feelings - in an environment of appreciation, child has own personality, and adult is on the same level

What are situations where you can identify specific feelings in children where you approach children to talk about the child's well-being?

- when playing
- another child already has the material that you would like to use
- someone is not my best friend anymore - one is sad and disappointed

Do you think that feelings can be assigned a face, a shape and a colour? If so, what would that look like for the emotions fear, hate, love, sadness, joy, serenity?

- absolutely, and children should be allowed to see this
- body language should be congruent with one's own feelings
- should not give wrong expression
- intuitive feeling of each person - warm colours and cold colours - do not convey assignment
- empathy is very pronounced - toddler starts crying when another toddler cries
- social sensation like a flock of birds
- Wondering who is sad why is he sad?

How do children learn to recognize and respect other children's feelings?

- Adult should not disturb the child just because he wants something from the child now
- Work of the child should not be disturbed - they have the same importance
- child should learn that the work they do is important - child should finish all the work they start themselves

- by playing with each other

Is there a children's book you know that deals with the topic of feelings and emotions and that you like?

- does not have a concrete example
- important in Montessori education - children's books should depict reality, not animals but people
- real and about people - drawn people are ok - but not animals
- Mickey Mouse does not exist - brain should not be filled with unreal things
- Creativity comes from what is there

Do you have school material that promotes emotional development of children? If yes, which ones?

- Write your own small reading books - as a part of the exam in Montessori education
- Theory folders with emotional development
- role plays for developmental stages 0-3 years and 3-6 years
- is extremely related to personality development
- A dinosaur shows feelings, I feel.... (suggestion from another teacher)
- there is a teaching box that addresses social feelings in a concrete way but it is out of print and too old
- That was not - bad conscience - picture book
- Bear and rabbit - CD - different habits (also with animals, therefore not so suitable)

Do you have any tips for me, for my way on the subject of emotional development?

- Idea seize - gives a book in addition
- Even we adults do not know everything - be honest - shows respect

8.1 Observation Notes

8.2.1 Observation Notes Villa Monte

- children can eat whenever they want --> so they have to recognize if they are hungry --> cut apples themselves with sharp knives
- play only with children they want to play with --> 1st person who enters the play area can decide who can play. The other children have to ask may I play? (often the answer was no, which was then always respected) --> everything is their own decision.
- Almost no rules, no violence, stop rule, no running in the house, if you go outside you have to tell an adult, in the house you have to take off your shoes.
- No teachers --> adults of the house (FaBe, teacher primary school, teacher secondary school)
- Duzis --> all are on a first name basis
- learn only when they want to some can read at 5 years old others only at 11 years old
- children are allowed to do everything themselves --> ask for help if they want to
- children often learn things through older children, together they learn what they want to learn --> it also happens that a younger child teaches an older child how to read
- Adults have an extremely close relationship with children --> they recognize difficult conditions at home by behavior --> child withdraws, cries a lot, does not play peacefully
- Adults ask children if they can touch or hug them
- Do not address sad children with: Why are you crying? It should be the child's decision whether or not to tell something
- Children are allowed to go outside whenever they want to
- Children talk about their state of mind: Are you happy that you can come to me this afternoon? --> Yes, I am happy that I can come to you. I have taken my Legos with me
- Children are also allowed to take their own toys to kindergarten
- Children are extremely independent (mostly clean up everything themselves or ask adults if they can help)
- Adults do not talk to children when they are playing.
- Children also comfort each other when another child has been mean
- Children look at children's books themselves
- Children can do anything that makes them happy.
- Children wear what they want even when they go outside.

8.2.2 Observation Notes Rietberg Montessori

- Children are taught bilingually (German & English)
- approx. 30 children and 3 caregivers with Montessori training plus 1 intern
- Meals are always served together at the table, if the children wish they can help with the preparation.
- Cost of care with lunch is about 2800.- per month
- Age of the children 3-6 years
- Children always ask: "May I?"
- Children put their hand on the shoulder of the caregiver if they need help with something.
- Children do what they want, but are spoken to by caregivers if they do not do something (not like at Villa Monte)
- Wash their own dishes and put everything away themselves
- Children address the caregivers with their first name
- Caregivers seek eye contact when explaining something to the child
- Children help each other first
- Children are generally less harmonious than at Villa Monte
- Children can put on ear muffs if it is too noisy for them
- Children approached me, children did not do that at Villa Monte
- Children arrive between 8:00-8:30 a.m.
- Children also speak a third language among themselves and are not interrupted
- There is a quiet room, for nap time or if one child gets too much
- Play either at the table or put everything on a "work rug" and also take care of it again
- Children always ask May I?
- Care seeks eye contact when explaining something to child
- Children help each other first
- Children approached me, children in Villa Monte did not do that
- Children's books and teaching materials should not be filled with unreal things - drawn people with real situations is desired
- Children have a lot of empathy-social feeling is comparable to a flock of birds
- Body language of the adult should be congruent with what he says and what he feels
- Children should not be disturbed while playing or learning, because what they do is as important as what the adult does.
- Children should also have their ideas and goals taken into account.

8.3 Summeries

8.3.1 Summary Villa Monte – Schule der Kinder

- ca. 38 years Villa Monte
- Criticism of our education policy:
- School reforms far removed from practice
- Curricula that are too full
- Excessive bureaucracy
- lack of motivation to learn
- lack of discipline among students
- Too large classes
- Difficulty in dealing with parents
- Children suffer from a constantly growing burden of learning material, homework, exams and grades
- At least 20% of all students show psychosomatic symptoms such as bacuh and headaches, sleep disorders and affective moods. Ritalin is prescribed much more often and burn-out has also reached children
- competitive society
- The goal of Villa Monte is to create a school environment in which children can grow up self-determined and happy.
- children are allowed to decide for themselves what they want to do at Villa Monte
- want the children to gain their own knowledge with the material that is available to them
- no reinforcement through praise - children should not be taught by praising certain behaviors what is right, wrong, beautiful, good or best and they should not have to conform to the ideas of adults - they should always be allowed to be honest with themselves
- children and adults are equal
- Children have a good sense of how others feel and realize in which situation they need to call in an adult
- Montessori education
- has a needs-based environment, children feel good about themselves and do not need to mis-behave
- big challenge arises in the digital realm - gaming is not a developmental need
- children are asked to put things away
- most important question: Where is my place in this world?
- Center: The autonomously developing child
- Other schools have conventional teaching
- Learning with and from each other - 40% of what is learned comes from students not adults
- Adults are still authoritative for children - not because of their status, but because of a trusting relationship and their competences, which are not experienced by children as superiority, but as help
- When children leave school they should have good self-esteem and self-efficacy

8.4 Affidavit

I hereby certify that I have prepared the present work independently without outside assistance. All passages that I have taken verbatim or in spirit from public or non-public writings have been marked as such.

St. Gallen, June 3, 2022

Ramona Elisabeth Rüttimann

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Figure 52: Lesson Kindergarten Postplatz 2 [Photograph]. (2022, May). Copyright 2022 by Ramona Rüttimann.

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