





## **Preface**

Denmark is renowned for its welfare system, and it is widely recognized that the country has some of the best special needs schools in the world.

Yet, when data and results are analyzed, the conclusions are far from impressive. Less than 1% of students at special needs schools improve to a level where they can re-enroll in a mainstream school. Half of all students will not be signed up for the final primary school leaving exams, and a mere 11% of them take the final exams in all subjects.<sup>1</sup>

The outcome is that very few neurodivergent students qualify for secondary education. In an ever-competitive workplace environment, they struggle to find meaningful jobs. We often leave them behind at huge personal and societal costs.

It is time to rethink and remodel our approach to special needs education. Equally important, it is time to give inclusion strategies in Danish primary schools a complete overhaul.

This booklet introduces a educational way of working with neurodivergent children. It is based on research and evidence by some of the world's leading scholars and practitioners – and has successfully been proven in practice at Drive's programs for neurodivergent children.

## New and innovative approach: COPE

In response to the above-mentioned challenges, The Drive Foundation, via its Practice Lab, has developed a new educational approach for working with children at special needs schools. An approach that we hope can also inspire mainstream primary schools in their work with inclusion and children with difficulties.

The approach is called COPE, and it helps children cope better with life. It does not start with diagnoses or disabilities. It starts with the development of children's essential core skills.

The approach includes work with the school, the family, and the community.

COPE's tools and methods are based on years of international research in the fields of psychology, pedagogy, and education as well as years of practical experience from special needs schools all around the world.

The pivotal focus area is the theory of motivation, and underpinning that is the theory and knowhow in the areas of playful learning, metacognition (learning-to-learn), and cocreation.

COPE is an educational approach that should optimally be delivered by a multi-disciplinary team of teachers, pedagogues, psychologists, nurses, and psychiatrists. We see the best results from a strategic plan tailored to the individual child.

It is also a method that provides professionals with a structured approach that includes observations, data, and tracking of progress. The combination of strong relationships and a data-driven approach helps professionals to better judge when they should lower the demands and expectations of the students, and when they should push and encourage the student forward. Done right and at the right time, we see bigger progress with the student.

We have worked with COPE in practice both in our own programs and with external partners, and the results show that students significantly improve academically, personally, and socially with less suffering and discomfort.

In summary, COPE is a new approach to special education that combines evidence-based theories and practices with a novel approach. The differences, which we will unfold in this booklet, are illustrated here:

### Traditional special needs approach The COPE educational approach

•		Focus on student's holistic and academic development Internal motivation  Personlized plans Involvement of parents
	Play as entertainment >	,
	Adult-led  Generic psychological treatment	Co-creation Tailored psychological treatment

At Drive, we strongly support the UN Sustainable Development Goals (SDGs), and especially number 4, which is about delivering quality education for all children. We wish to contribute to this by creating the right conditions for high-quality education for all neurodivergent children, irrespective of their socioeconomic backgrounds or their life history², and to share our knowledge about how we do this. This booklet is an example of just that.





We hope this will inspire you, and that you will join our community of professionals where we share ideas, methods, and practical experiences. Together we can improve education for the perfectly special children of this world.

# Contents

Introduction	6
Our field of work 6	
The shortcomings of schools 6	
Drive's educational approach 8	
Evidence-based 8	
Motivation is our driving force 9	
Our values 9	
How to read the booklet 11	
Our vision of the child	12
Giving children agency 12	
Holistic development 13	
Perfectly special children 14	
Not an island: The child and the supportive environment	16
Ecological view 16	
The family 16	
The school 17	
The community 17	
Rights and responsibilities 18	
Practical theories	20
Knowhow based on evidence 20	
Motivation in real life 20	
Competence, autonomy, and relatedness 21	
The three allies in boosting motivation 24	
All about the right educational approach 25	
A multi-disciplinary team 26	
How to COPE – the action strategy	28
Context 28	
Objectives 30	
Plan (and implementation) 30	
Evaluation 31	
Conclusions	32
Want to know more about Drive?	34
Background 34	
Programs 34	
Drive School of Motivation 34	
Forward Drive 34	
Consulting Services 34	
Drive Practice Lab	36
References	40

## Introduction

### Our field of work

Drive is a Danish not-for-profit organization with a vision of improving education for neuro-divergent children.

Special needs education varies substantially across countries.<sup>3</sup> In Denmark, the law considers children with special educational needs to be all those students who have mental and physical disabilities as well as learning difficulties. This makes up a school population of approx. 6.4%.<sup>4</sup>

In Denmark, children with special educational needs receive different support based on their needs. Students who require over nine individual hours/week of support are given a place in one of the 300 special education schools.<sup>5</sup>

These typically come in two forms: most special needs schools (in Danish, specialskoler) focus simply on extra academic support combined with a pedagogical approach that is based on an understanding of autism or ADHD. A smaller number of schools add psychological treatments to the program. These are called day treatment schools (in Danish, dagbehandlingsskoler).

### The shortcomings of schools

Let there be no doubt. Professionals in special education are typically very passionate about their job and skilled at building strong relationships.

But big hearts and relationship skills are not sufficient if we are to raise the standard of special needs education. We need a more structured approach based on evidence and with methods and techniques continually tested and tracked in practice. Our goal should always be to enable neurodivergent children to go back to ordinary schools or to have them pass all final exams with an acceptable grade point average. For that to happen, we need a new educational approach.

Before we move on to the solutions, let us briefly describe the problems with the lack of progress and inclusion in special needs schools. We see significant challenges in four critical areas:

Academic: When students start at a special needs school, they have often fallen behind in most schoolwork. This can be caused by multiple school changes, or because the education they previously received was not tailored to their challenges and strengths.

It is our experience that most special needs schools have reduced academic ambitions and curricula. This is unfortunate and is often done from a flawed perspective that it is better to lower demands and expectations of neurodivergent students. It is our experience, and evidence backs this up, that with the right learning tools and methods, these children can meet the same academic demands that other students do. We need to be ambitious regarding their academic development, otherwise they will find it difficult to pass the final school exams and qualify for further education.<sup>1</sup>

Development of personal strategies: Students need guidance to learn in an effective and autonomous way. It can be difficult to learn when you have never been taught how to cope with your personal challenges. Especially if you have a combination of psychiatric diagnoses.

Unfortunately, very few schools have child psychologists employed. Psychologists are critical in delivering appropriate and tailored psychoeducation and therapy to students, so they can develop personal strategies for how to live with autism, ADHD, etc.

Development of socio-emotional skills: School is the best and most obvious place for children to develop their socio-emotional skills and teachers will often encourage this in the classrooms. However, schools also have breaks, and these are rarely structured or adult-guided.

This will be a challenge if you have autism, as it can be difficult to decode the social norms and other students' intentions and emotions. Likewise, students with ADHD can be very impulsive and lack the ability to restrain themselves in certain situations, and that too can alienate them from others. Students need psychological and pedagogical support to learn how to master all the socio-emotional aspects of their lives.

Attention to somatics and medicine: Neurodivergent children have a higher frequency of physical challenges than other children. These include stomach ache, weight issues, motoric difficulties, or problems with sleeping; all somatic things that further hinder the students' learning abilities. It is important to screen students regularly and put interventions in place, closely monitored, and followed at school and at home.

Also, it is critical to have a psychiatric approach at the school to monitor the effects and side effects of students that are on medication.

Structured processes and detailed observations at school are necessary to determine the exact right medicine doses to gain the optimal effect for the students during the school day.



### Drive's educational approach

A fresh approach that consistently ensures the highest educational quality is called for to properly address the four before-mentioned critical areas. An approach that is easy to implement and that can be scaled and rolled out across the whole special needs area and adopted fully or partially by mainstream primary schools in their inclusion efforts.

Drive's educational approach is called "COPE with life".

In English, "cope" refers to the "ability to deal successfully with something". We all develop coping skills through daily interactions. Still, various situations can impede normal development, creating a need for extra support.

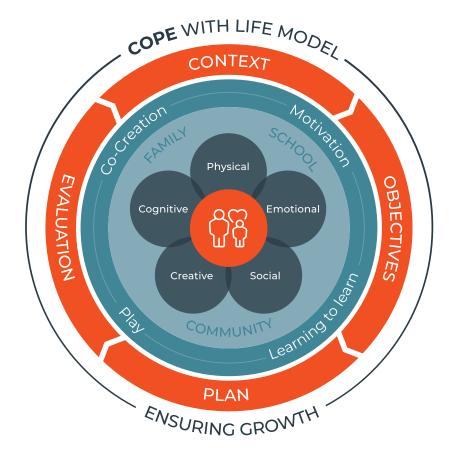
The children we work with at Drive have a wide range of challenges, and often more than one, such as neurological or emotional disorders, learning difficulties, or unsupportive life conditions that affect their development.

The COPE approach is built to ensure that students acquire a basic level of life skills that set the basis for personal growth, learning, and mental well-being.

#### Evidence-based

At Drive, we have done extensive research in the field of neurodivergence and special needs schools. We work with and get inspired by some of the leading scholars and practitioners in our field. As such, our COPE approach is developed from multiple evidence-based methods and programs. Innovative tools and techniques have inspired us to help children regain and sustain their motivation for school. And with that knowledge base, we have created an approach that is holistic in nature and can be readily applied in practice in Denmark and across the world. It is an approach that sets a framework and standards for an entire school, but it is also a tool that can be personalized to individual students with clear goals and targets.

Figure 1



As shown in Figure 1, COPE has multiple facets that we will unravel in this booklet. It begins with the child in the middle, surrounded by their closest relatives. The next ring describes the four main building blocks and theories we use to build motivation. The last ring shows our general process, where we begin with the child's context and agree on common objectives before executing the plan, which we continuously evaluate.

As mentioned above, the COPE educational approach has been created based on the strongest research in education and psychology. Furthermore, we wished to ensure that the approach could be used globally and as such, when we started developing COPE, we selected a group of Drive professionals who represented a wide variety of competencies and countries, including Italy, Mexico, England, Denmark and Kenya. This allowed us to develop a model that summarizes the best experience from different fields of expertise and cultural settings.

### Motivation is our driving force

At Drive, we believe in motivation and that all humans have a natural motivation for life – a driving force, so to speak. Children and adults are programmed to survive and seek fulfilling experiences daily. The desire to enjoy, grow and transcend is a quality we are born with.<sup>7-9</sup>

We all need people around us to facilitate the conditions that sustain our natural motivation,<sup>9</sup> especially when facing demanding activities. That implies postponing enjoyable activities to focus on less enjoyable activities that build our competencies and develop growth and self-realization.

School is meant to be a source of growth and self-realization. Nevertheless, for some children, school can be the opposite. They do not enjoy school or even feel distressed about going. This is even more common for children who have special educational needs. We firmly believe that children wish to learn and achieve goals, but if the conditions at school do not match their needs, motivation is quickly lost. As adults and professionals, we need to help our students find their motivation to gradually take responsibility for their own development.

### Our values

Our approach builds on The Drive Foundation's three core values which the Drive staff translate into action every day. These are:

- Perfectly special
- · Connecting dots
- Seriously playful

Perfectly special is fundamentally an optimistic view of life and humankind. We believe all people are special, and although we acknowledge that our students may have their unique challenges, we believe they are all wonderful and truly special in their own right. We believe it is good to be special. This means that we do not wish to change children or force-feed them knowledge; instead, we will adapt our teaching methods and styles to the students. Because we know students are different and should be taught differently.

Connecting dots refers to how we approach the educational process at Drive. Drive staff consider themselves as "dot connectors". As educators, we need to understand the child from a holistic perspective, using all the "dots" - the data we have. In the beginning, we may only have limited knowledge and data points on the student, but as we observe and interact with them, we get a better and more detailed picture. It is like a photograph. Initially, the photo may be blurred, but as we collect more dots or pixels, the photo becomes clearer and more detailed. With more data points and a clear picture, we, as professionals, can better connect the dots and see patterns. And from that, we can design the right intervention and treatment, as well as the most appropriate teaching and learning style for the student.

We also believe in the power of connecting the dots between different stakeholders around the child: school, family, friends, spare time activities, the case workers from the municipality, or the psychiatrist. Drive takes on the connecting role and acts as the common thread between the child and their surroundings. Most parents find this very helpful.

Seriously playful is our way to approach our own and children's learning. We know from research that learning must be meaningful but also joyful. Play is the natural tool to achieve this.<sup>10</sup>



We go about play seriously. We carefully plan what we want to achieve from each play session, whether free play or adult-led play. Play activities will have serious goals attached to them, whether it is to develop the student's social, emotional, cognitive, creative, or physical competencies.

We know that play can be a significant driver in discovering and building motivation. This is why we take it seriously.

### How to read the booklet

In the following pages, we will take you through the different layers of the COPE model.

The first part is all about the child. We describe the importance of children's agency and the idea that all children are valuable, holistic human beings.

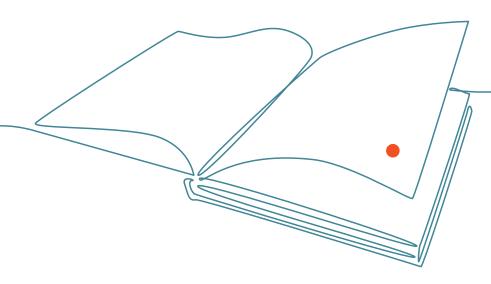
The second part of our model is the social environment in which the child lives. We see children not simply as islands but in connection to their outside world: family, school, and community.

The third part covers the daily practical methods and tools that the Drive staff use. As mentioned earlier, we build motivation using strong evidence-based theoretical principles and add three other important ingredients: playful learning, co-creation, and learning to learn (metacognition). We have used the most current research on these three and translated them into concrete practices at school. Indeed, we aim at filling the gap between theory and practice.

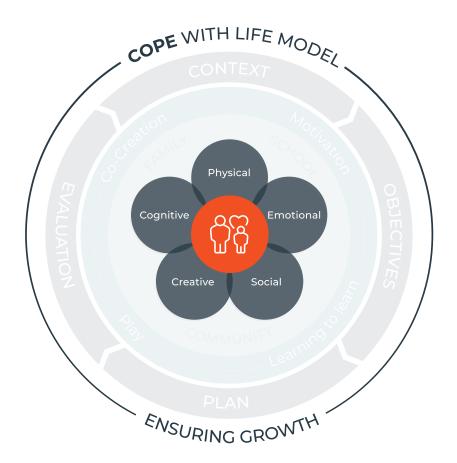
The fourth part shows the process of practicing the COPE approach. COPE stands for the four steps that make up the educational process: Context, Objectives, Plan, and Evaluation. Following this process rigorously but also pragmatically, we can ensure growth and development for each child.

The final parts of this booklet briefly summarize what the Drive Foundation is all about, and what we aim to do with our Practice Lab.

Finally, you will find boxes called "Values in Action" where we aim to tell the story of *how* we use our values in practice and transform them into reality.



# Our vision of the child



### Giving children agency

We see all the children that we work with as special human beings, each with their own characteristics that we must consider and respect.

Besides their rights, children learn to take on responsibilities and make decisions at school, which is critical in adulthood. Giving agency to the child warrants better growth, even in challenging situations.

Educators should support children in their autonomous growth, but be ready to guide and nudge them in beneficial directions. That said, neurodivergent children must also remain the real driver of their own life.

### Holistic development

Children are born into a world that is evolving at an astonishing pace and with little predictability. To cope in such a world, children need to learn a larger number of skills and competencies. Fundamentally, they need to learn how to learn. Fast and flexibly.<sup>13,14</sup>

The challenge for us as special needs educators is thus how we succeed in teaching and developing students into a world that demands flexibility and quick adaptation. At Drive, we believe it calls for a holistic approach.

The holistic perspective is still quite new in the educational space which has traditionally been characterized by a "sectorized" perspective, particularly in the special education field.<sup>15</sup>

Professionals tend to view and work with children from their sectorial area of expertise; teachers primarily focus on children's cognitive skills, psychologists see them as an emotional system, whilst soccer coaches see them through their physical abilities.

This sectorized perspective causes educators to miss the holistic and powerful perspective of how human beings grow in this century. And it is the reason we at Drive work in multi-disciplinary teams.

Building on the principles of holistic development, Drive has adopted The LEGO Foundation approach, <sup>16,17</sup> in which five key areas of skills are the basis for children's growth: 1) physical, 2) emotional, 3) social, 4) creative, and 5) cognitive.

Physical skills involve all those abilities in which a child negotiates space and movement while nurturing an active and healthy body.

Emotional skills are the child's ability to understand their own and others' emotions and manage them.<sup>18,19</sup>

Social skills refer to the ability to engage in social interactions and to understand other people's perspectives, form positive relationships and make responsible decisions.<sup>19,20</sup>

Creative skills enable a child to generate, evaluate, and improve ideas to transform the world around them.<sup>21,22</sup>

Finally, cognitive skills are those involved in performing the tasks associated with learning and the learning-to-learn process – cognition and metacognition.<sup>23-25</sup>

The challenge for us as special needs educators is how we succeed in teaching and developing students into a world that demands flexibility and quick adaptation.

### Perfectly special children

The children we work with are appreciated as perfectly special students. They are unique individuals with both strengths and challenges.

Children will experience different challenges during their life. Moving house, changes in parents' working conditions, or difficulties in learning to read or write are examples of such challenges. This is a natural part of life and not something that we should necessarily protect the child against. Handled well, it can build valuable resilience and strength.

As such, the focus should always be on the strengths that children naturally bring into their growing process. This is fundamental in sustaining holistic development.

Educators must know and build upon the child's strongest skills while supporting those skills in more need of development.<sup>26</sup>

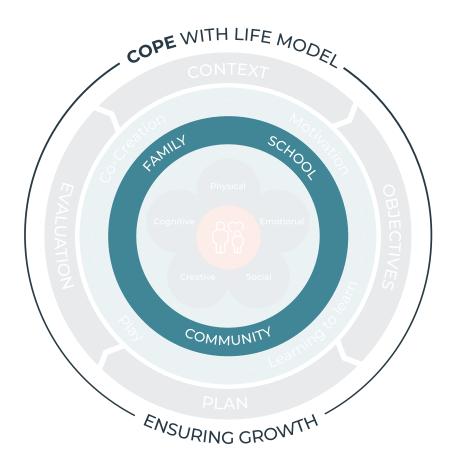
Some children have more pervasive challenges than others, which must be addressed more precisely and for a longer time. This is the reason behind the common names used to indicate the needs and challenges of these perfectly special children: students with Special Educational Needs (SEN) or neurodivergent children.

At Drive, we work with children that experience all kinds of mental challenges, such as ASD (Autism Spectrum Disorder) and ADHD (Attention-Deficit Hyperactivity Disorder), which are the most frequent. They are all classified as neuro-developmental disorders, some of which can be pervasive challenges throughout a person's life, while others can be treated and potentially eliminated.

Irrespective of the number or magnitude of these challenges, we know that these children can grow up to be responsible adults who live valuable and self-sufficient lives.



# Not an island: The child and the supportive environment



### **Ecological view**

At Drive, we see children as part of a larger ecosystem. The child is not an island by themself but has many connections with people and institutions around them.

Following socio-constructivist theories, children grow within a community, and it shapes their personality and learning approach. Children are educated not simply by the school environment but also by the people around them: family, friends, sports coaches etc.

Inspired by the ecological theory developed by Bronfenbrenner, Drive considers the child's growth to be shaped by three main systems: 1) family, 2) school, and 3) community.

### The family

The family is the primary social group that a child will engage with. It may consist of figures such as parents, step-parents, siblings, grand-parents, aunts, uncles and foster-families. This group has incredible power in supporting the learning process of children in their early years.<sup>30</sup>

At Drive, we acknowledge that families with special needs children tend to be under more pressure in daily life and that resiliency can be strained.<sup>27</sup> Thus, we also focus on building motivation in the family context. In fact, the motivation of families is directly connected to the child's participation in the educational process and their related achievements.<sup>28</sup>

#### The school

The school system is composed of all the people related to the child during the school day: teachers and educators, classmates, and children from other classes.

School is another important system in the child's life; it is where they build skills and knowledge. In addition, special needs schools can be a great ally of the family by enforcing and building more coherent perspectives and intents.<sup>29</sup>

When done well, special needs schools can work as an additional "family training center" to form, support and guide children's general behaviors.<sup>30</sup>

### The community

The community system refers to all those social groups the child has a relationship with, such as friends, sports coaches, and neighbors – to mention a few.

The community is an essential factor in the child's growth since it allows the child to learn social skills in different settings.

Unfortunately, neurodivergent children are often underexposed to the community precisely because of their challenges and frequent lack of social skills. Instead, the child's external exposure is limited to specific community groups characterized by the challenges/diagnoses they have in common instead of shared interests and passions.<sup>31</sup>

At Drive, we believe that *all* children have the right to, and would benefit from, joining local communities. It broadens their perspective and teaches them how to take an active part in society.



Values in Action

### Connecting the dots

The school-family relationship is important to create a common vision and a common thread for the child. What happens at school should be reinforced at home and vice versa.

For this reason, teachers at our school send weekly newsletters to parents where they describe what happened this week at school.

Families are also invited to many school gatherings like the Christmas school party, end of school year festivity, the children's painting exhibition and movie premieres – to mention a few.

We also host Drive-in evening talks where different topics around children's challenges are covered. It might be an evening on the topic of ADHD, for example.

Connecting the dots also means holding meetings with parents and representatives from the municipality at least twice a year in the Connecting the Dots talk.

Finally, our school Drive School of Motivation engages in different community activities during the COPE days as well as within the normal school curriculum.

### Rights and responsibilities

Neurodivergent children are usually seen, and unfortunately often consider themselves, as simply recipients of the before-mentioned systems.

Nevertheless, children must be aware that their actions also have an impact on the systems around them. It is important to make children aware of the rights/responsibilities duality and help them manage these responsibilities.

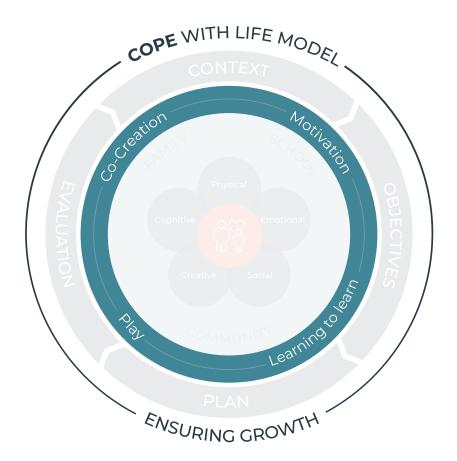
Simple actions contribute to making the child aware of their role in the family, school and community. For example, setting the family dinner table, cleaning the school table, taking the dog for a walk, or offering your seat on the bus to someone else are small achievable tasks.

Offering these opportunities gives children a feeling of agency in what they do. It generates a powerful mix in which we do not leave the child alone as an island but in connection with and codependent on others.





## Practical theories



### Knowhow based on evidence

At Drive, we work with a solid theoretical framework based on established international theories about motivation,<sup>7,9</sup> playful learning,<sup>16,17</sup> co-creation,<sup>32</sup> and metacognition as a tool for learning to learn.<sup>33</sup>

This provides us with the knowledge and tools to design academic experiences that satisfy children's needs, promote well-being, and build their motivation for school.

### Motivation in real life

All people have a force that makes them act. Motivation is not something permanent, and it varies according to three basic life needs and whether they are met. Motivation is not simply finding the "right carrot" as an external motivator but about enabling our internal natural drive toward action.<sup>34</sup>

All behaviors, either preparatory or avoidant, are motivated by need. As such, they are a channel for satisfying and expressing our basic needs. Depending on whether these needs are satisfied – or not – different conduct will follow.

### Values in Action

### Seriously playful

At Drive, we provide a playful learning environment. We have built our environment in a very serious way because play is more than having fun – it is a critical way for our students to learn.

We provide an environment for our students to learn while enjoying themselves. Playful activities during school hours are carefully planned, and they include specific development goals for each student in relation to the competencies we are building.

So, when we play boardgames like Monopoly, we focus on developing social skills for some students in the group. For others, we may concentrate on cognitive abilities or how to handle impulsive behaviors or outbursts.

Our students love to play boardgames, and as professionals the games give us wonderful opportunities to train and develop the children's competencies in a joyful and collaborative way.

### Competence, autonomy, and relatedness

Motivation is intrinsically connected to three key life needs: 1) competence, 2) autonomy, and 3) relatedness. Improving each of these will boost motivation and – at the same time – have a self-enforcing effect, so they get stronger themselves by increased motivation.<sup>9, 35</sup>

At school, we always work on developing children's competences. We do this in many ways, and often we use fun experiences to challenge – in the right dose – our students and make learning an achievable task and therefore, a source of success and joy. This nurtures their sense of competence.

To support children's sense of autonomy, we provide meaningful choices and support their initiatives. We work towards internalizing behaviors that might not be seen as fun but that create feelings of responsibility, such as persevering on a difficult task, or turning off the computer when asked.

Students thrive better when they feel accepted and secure. We call this relatedness. By relating closely and professionally to them with predictable, reliable and repetitive structure and clear guidelines, we decrease their feelings of uncertainty and give them a sense of being related to a supportive group.



Autonomy
Need to make choices in accordance with ones preferred values

Figure 2 – Motivational psychological needs<sup>9</sup>

### Simple hands-on suggestions on how to improve feelings of....

### Competence

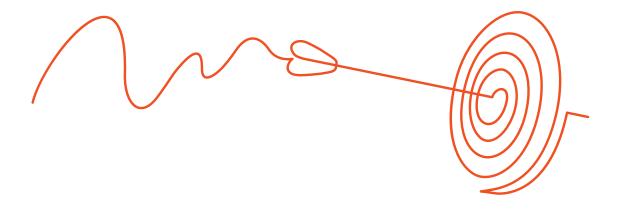
- Challenge in the right doses by personalizing tasks: Tasks that are too difficult create anxiety and task abandonment. Tasks that are too easy get boring.
- Provide success and mastery experiences by adjusting the difficulty of the task to the individual student's ability. Students have a need to both feel that they are competent, but also that they are becoming *more* competent.
- Handle frustration by offering support if the task gets too difficult.
- Help the child understand the instructions.
   Ensuring that the child feels capable is often more important than the task itself. Use prompts, help them to solve the task and acknowledge when it gets more difficult.
- Make progress visible and celebrate success, e.g. by visual overviews. When you see your own progress, the experience of mastery and competence increases.
- Give the students tasks in the classroom (e.g. sweeping the room, picking up things for lunch etc.) so that everyone has a task they succeed with and an important place in the group.
- Prompt the child to reflect on their performance in the task; what went well, and what needs to be done differently.

### Autonomy

- Acknowledge and support the students' own initiatives, suggestions and questions within a clear structure and framework.
- Speak less, listen more. If you talk too much as an adult, the experience of autonomy is reduced. Involve the students and let them contribute to the learning experience to the extent they are capable of.
- Provide meaningful choices, e.g.
   "Do you want to do additions or subtractions?" Not "You will only get a break if you do your additions."
- Use an open vocabulary that implies possibility and ownership instead of control, i.e., "maybe", "what if", "could you" instead of "you have to/must/should".
- Offer personalization and let the students make the work theirs.
   Ask for a solution plan and let them try it, or let them color and personalize their tasks and materials.
- Use the reward systems to visualize progress toward meaningful goals – and never in a controlling way. Once the new behavior has started to become habitual, boost internal motivation by acknowledging how good it is for the student and everyone else, and by giving some privileges based on how constructive their behavior has become.

### Relatedness

- Have students help each other with what they each are good at. This contributes to the sense of relatedness in the class community.
- Focus on good, close, and healthy relationships between students and adults.
   When we meet students with kindness, friendliness and attention, we support the need for relatedness.
- Make sure that the students feel good with and around each other, for example by doing social things that provide shared memories and create a sense of belonging.
- Smile and acknowledge students and make sure that the students know that you like them including (and maybe even more importantly) on the difficult days.
- Provide a safe, clear and predictable structure that makes them feel safe.
- Set demands according to the children's ability but do set them! Making no demands equals expecting nothing from the child.
- Celebrate the students' success and cheer up together when things have been hard.
- Do not shy away from conflicts. In the end, the child is the one who decides how they
  want to act. But as adults, we can say that something is not okay and be consistent in
  showing them that we care about them and that we as adults have the strength
  needed to provide structure and keep them safe.



### The three allies in boosting motivation

Motivation requires satisfaction of our basic psychological needs.

As seen in our COPE model, we have three allies to boost motivation: playful learning, co-creation, and metacognition (learning to learn).

### Playful learning

Playful learning is based on the premise that both learning and play are two activities that all humans do across settings and times. Play is how we interact with the world during childhood and also later in life. Through play, we learn to relate to others, and in diverse circumstances, we learn what is good and bad, and what makes us feel happy or hurts us. Through play, we develop skills and attitudes for life. 16, 17, 36 Playful learning can be used to various degrees, from free play to adult-led play, depending on the learning objective.

to work harder and self-regulate better.
At Drive, we work on our students' curiosity to spark their involvement and learning.
By co-creating learning experiences, our students develop a sense of autonomy, learn to negotiate with others, and become co-protagonists of their learning process.

### Metacognition

The third ally in boosting motivation is metacognition which, at Drive, we call "learning to learn." Metacognition refers to the superior awareness of our thought processes. It helps us to assess our understanding and performance, leading to increased insight and self-enhanced practice. It also lets us identify our strengths, weaknesses, and resources. Additionally, it helps us to comprehend not only how we learn, but how we act and which strategies we can put in place to achieve our goals. Finally, being self-conscious helps us to be conscious of others, how we affect them, and our role in a community.<sup>33, 37</sup>

# In our field, the development of academic skills and psychological treatment go hand in hand because they enable each other.

Playful learning at school boosts intrinsic motivation by providing iterative, joyful, and significant experiences where students actively involve and interact with others. 16,17 Playing also helps nurture our relationship with our students and increases their sense of competence by providing successful experiences.

#### Co-creation

Our second component, co-creation, is a practice where children and adults are seen as equal creators of a process, a school project, or a playful activity, among others. Therefore, they lean on each other and learn from each other. In the end, the result is more than just the sum of its parts. It is something that none of the participants could have done independently, which creates value for all involved.<sup>32</sup>

Co-creation fosters children's agency and ownership by paying to the sense of being autonomically motivated. When we do things that we have taken onboard as our own ideas, we are more prone to do them voluntarily,

Many neurodivergent children find it difficult to transfer learning from one setting or context to another. As an example, it may be difficult for them to take an analytical approach from a math lesson and transfer it to physics. Likewise, applying school learning at home or at the football club may be difficult.

Learning about how we think and develop skills directly targets our sense of competence. Nothing is more powerful for motivating behavior than believing you can solve a challenge. 8, 37, 38

Metacognition also strengthens one's selfconfidence and promotes a growth mindset, 38,39 i.e. believing that your abilities are not innate, but can be improved through effort, learning, and persistence.

By continuously encouraging our students to reflect on themselves and their daily lives, we enable them to 'learn how to learn' while supporting their self-regulation capacity, autonomy, and inner drive.

### Values in Action

### Connecting the dots

We do not believe in quick fixes or in one single tool. We believe that a combination of approaches and tools is necessary to help neurodivergent children. And in order to select the right ones, we need to understand the full picture. The pattern, and how the behavior of the child is a result of both psychiatric diagnoses and the social context. Combinations of diagnoses with the child is a complex challenge; some diagnoses call on opposite approaches. For instance, ADHD and ASD have similarities, but also traits that oppose each other. So, a standard autism approach or a standard ADHD approach will rarely work.

Each day requires a professional view on which diagnosis trait is dominating. Is it anxiety? Is it rigidity? Or is it actually just normal oppositional teenage behavior? We use specialists to connect the dots and see a pattern, and then apply the right approach each day. Some days we can push for development and progress because the child is receptive to it. But other days we need to lower the demands and expectations because the child is going through a difficult period or just had a difficult morning at home.

One step in ensuring the continued "dot collection" is through our regular student conferences where the different professionals around the child (teacher, pedagogue, psychologist, etc.) discuss and evaluate the progression of each student and decide if any changes are needed in the tailored COPE approach.

### All about the right educational approach

Motivation is not a magic trick. It must be developed and supported through a variety of actions and at different levels. This is especially important with neurodivergent children.<sup>40</sup> Too often we have seen a strong focus on finding the "right carrot" rather than building the right

academic conditions. Meeting and accommodating the child in a kind manner is not enough either. The focus must be on an in-depth understanding of special education pedagogy and how motivation is built. And finally, special needs schools must have insightful psychological interventions based on deep knowledge of the comorbidity of diagnoses.

### Values in Action

### Seriously playful

Play comes in various forms. It covers a spectrum from free play to adult-controlled play. Both ends have their merits. And we use the whole spectrum. Mostly, we use play in groups of students because feelings of playful learning are often activated and sustained by being part of a group.

Learning is enhanced when players exchange, build on, or disagree with each other's ideas. This means we set up the play activities in a way that students have opportunities to learn with and from each other. In this way, we use play to build relationships and knowledge.

In addition, we seek to develop students' ability to give and get feedback. This is valuable for the learning process, but it is also valuable because students can be effective teachers. Sometimes peer-to-peer teaching is more fun, and often students pay more attention when feedback and advice are given to them by their friends and classmates.

### A multi-disciplinary team

At Drive, teachers, pedagogues and psychologists work closely together to apply the COPE model's practical theories to a learning environment, in a way that is interesting, enjoyable, a source of personal development and growth.

At our school, each class has a team that comprises teachers, pedagogues, and psychologists. In addition, we regularly bring in psychiatrists and nurses to take care of medical and somatic challenges. Finally, other therapists attend to specific challenges, like dyslexia.

Our school, Drive School of Motivation is indeed a "development school", where both academic, social and personal development are on the agenda In our field, the development of academic skills and psychological treatment go hand in hand because they enable each other.



The psychological treatment focuses on identifying and practicing skills, strategies and constructive behavior that are necessary for the students to be in a classroom and take onboard learning. Likewise, learning strengthens the skills used in the treatment, it promotes brain development and increases motivation. This synergy improves the educational experience for students. It strengthens the skills and strategies our students need to cope with and balance the challenges they face in life now and in the future. Learning thus strengthens psychological treatment and progress, and vice versa.



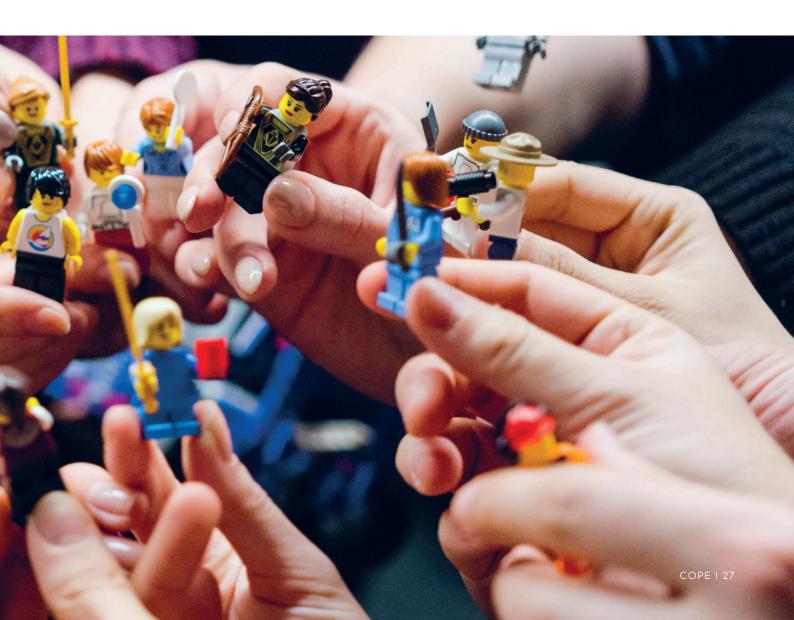
### Values in Action

### Perfectly special

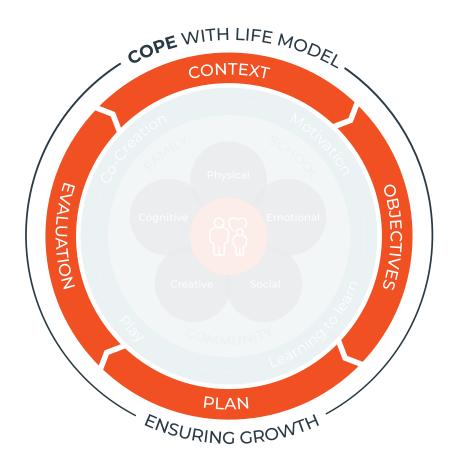
We see the value in the unconventional, the quirky, and the unusual. The value of us all being different and unique. It is a confrontation with the culture of perfection, the performance culture, and the belief that the only road to a good life is paved with A's/12's and academic excellence. It is – for some children and young people. But not for all.

We zoom in on the strengths and interests of each student. It may be playing the guitar, a specific computer game, or knowledge of geography. We meet the students right there building their self-esteem and motivation, and then we work to expand it to other areas including academic topics.

We do this by believing in role modelling. In apprenticeships. We encourage our employees to share their personal experiences when relevant and when it can be motivating for children. We are not just a teacher or pedagogue. We are also unique individuals who are perfectly special.



# How to COPE – the action strategy



COPE stands for Context, Objectives, Plan, and Evaluation. But COPE also refers to the action of successfully managing a challenging situation; something which is often harder for neuro-divergent children operating in a neurotypical world. When challenges are overwhelming and difficult to handle, motivation is lost.

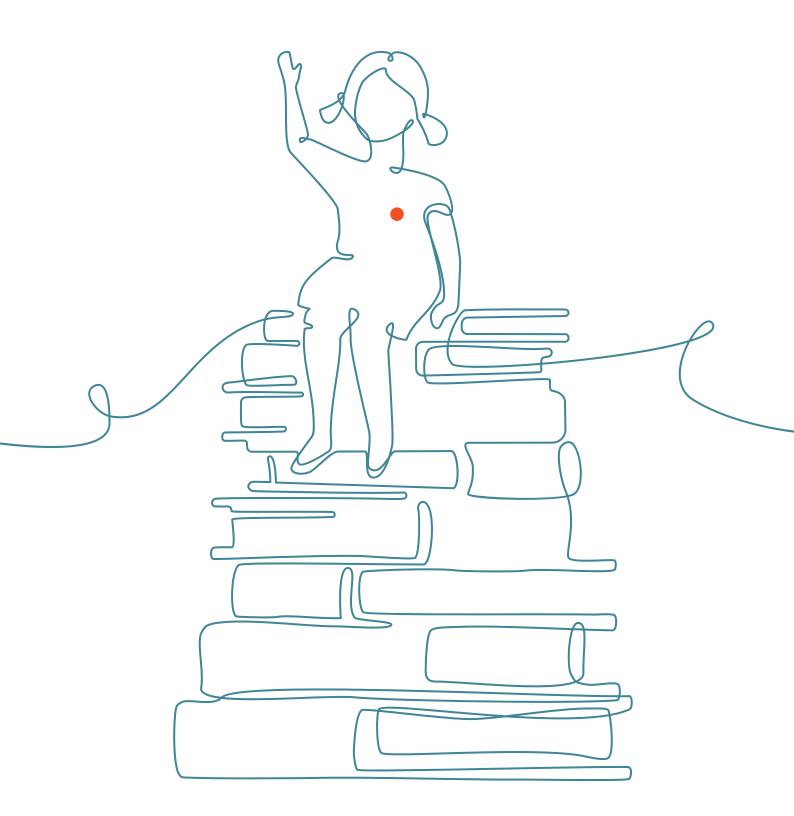
To help children regain their motivation for school and life, we have designed a 4-step research-action strategy<sup>41</sup> that allows us to understand their context, co-create smart objectives, and evaluate personalized plans.

### Context

The first step is characterized by curiosity and openness. It is important to understand the

child as well as possible before we make targeted interventions and decisions. In this phase, we work closely with parents and other relevant actors close to the child to explore the child's history, development, and key factors that have affected them. In addition, we explore the background and assess protective and risk factors in the proximal system. Earlier in this booklet, in sections 1, "The child" and 2, "Not an island", we explored this in more detail.

The outcome of this assessment helps us identify the child's strengths, interests, and resources, as well as the areas in which we need to provide extra help – whether academic or psychological, somatic or a different kind of treatment. In addition, we identify areas for further inquiry.



### **Objectives**

This next stage is composed of two sub-phases. In the first one, we work closely with parents and the municipality to set the overall student goals for the coming year.

Following the goal setting, our multi-disciplinary team breaks down each goal into more detailed SMART objectives. SMART objectives are Specific, Measurable, Achievable, Relevant, and Time-bound. Our attention to detail is nothing short of groundbreaking in our field of work. We break the objectives down into three levels: Individual, Group, and Overall. And we do this for the student's time at school, home, and in the community.

Specifically, this means that we set SMART objectives at school for the student, for the class, and the entire school. Likewise, we set

### Plan (and implementation)

In this phase, we engage and act. It is about day-to-day planning and execution.

At Drive, we integrate specific courses of treatments with an individualized didactic approach to each lesson in class. As mentioned earlier, this is imperative in the special needs field as academic success is highly dependent on the successful impact of psychological treatment and pedagogy, and vice versa.

In this sense, our daily plans and activities at school embody the principles of motivation, playful learning, learning to learn, and cocreation. Each student plan is also designed to connect dots between school, family, and community.

### Values in Action

### Perfectly special

We believe that all students should be given the opportunity to live a good and purposeful life. Each of our students has his/her own history and way of dealing with challenges. This means that we must also work with them as individuals and respect that a tailored approach is necessary.

We focus on our student's strengths and from that, we build motivation and self-esteem. We challenge them daily in order to make progress, but at a pace, that is appropriate for the individual student. Because we know that students are different, and they should be taught differently.

In practice, we start most lessons with all students gathered around the classroom common table. Here the teachers will outline the topic of the specific lesson and will teach at a level that all students can follow. Once this is done, the students will move to their own designated workstations where they will continue to work on the topic. The teacher and the pedagogue have prepared tasks and assignments that are tailored to each student at the level that is appropriate for them and that take into account things like concentration span, personal learning preferences, and possible reward systems.

goals at home for the child, the close family, and the extended family. And finally, where relevant, we may do it for e.g. the local football club, where we will also set objectives at the individual level, a sub-group level, and for the entire team, including the coach.

We know this is very extensive, but it is our firm belief that this is necessary to help holistically connect the dots in the child's life. plan is designed to connect dots between school, family, and community.

### **Evaluation**

Even though this fourth stage comes at the end, it also represents a new beginning, as one cycle ends with planning for the next. There are, in fact, two different types of evaluation conducted during the school year: formative and summative.

We perform the formative evaluation on a regular basis to assess progress and make adjustments whenever necessary. By closely monitoring and evaluating progress, we are better able to assess which strategies work, and we can switch between evidence-based strategies at a faster pace, and not only at the end of the year. On-going evaluations allow us to have more effective interventions and better results in less time.

Additionally, evaluating the process makes students aware of their progress without the stress of being assessed because the focus is on the strategies, not on their performance.

The formative evaluations give us a deeper understanding of how we work, our resources, and the areas of opportunity. Learning from evidence and research increases the quality of our work. That's why this is also a constant process.

The summative evaluation highlights whether we have achieved our objectives with the students – and to what extent. We assess both academic and holistic development through different quantitative and qualitative measurements that we analyze with statistical and academic parameters.

Table 1 – Planning for success: Description of implemented actions					
	School	<ul><li>Installations and design</li><li>General structure and guidelines</li></ul>			
	Class	All lessons	Adapted academic objectives     Learning facilitation through diverse accommodations     Reinforcement of skills		
		COPE lesson	- Building learning skills - Psychoeducation		
		COPE day	- Reinforcement of new skills in daily experiences - Psychomotor development		
School		Psychiatric	- Medication - Orientation		
	Individual	Psychological	<ul> <li>Specific skills training</li> <li>Psychoeducation</li> <li>Orientation regarding specific challenges</li> <li>Accompanying</li> </ul>		
		Somatic	- Health education - Habit development - Childhood growth monitoring		
		Other therapies	- Brick-by-Brick club - Speech and language - Dyslexia		
Family	Group	Drive-Parents' evenings	- Psychoeducation - Parent training		
Family	Individual	Family support	Accompanying     Orientation regarding specific challenges		
Community	General	- Orientation to others about how to support the student in a particular setting - Involvement in local activities and events			

# Conclusions

In this booklet, we have described the Drive educational approach and some of the tools and methods we use to build motivation for neurodivergent children to grow personally, socially, and academically.

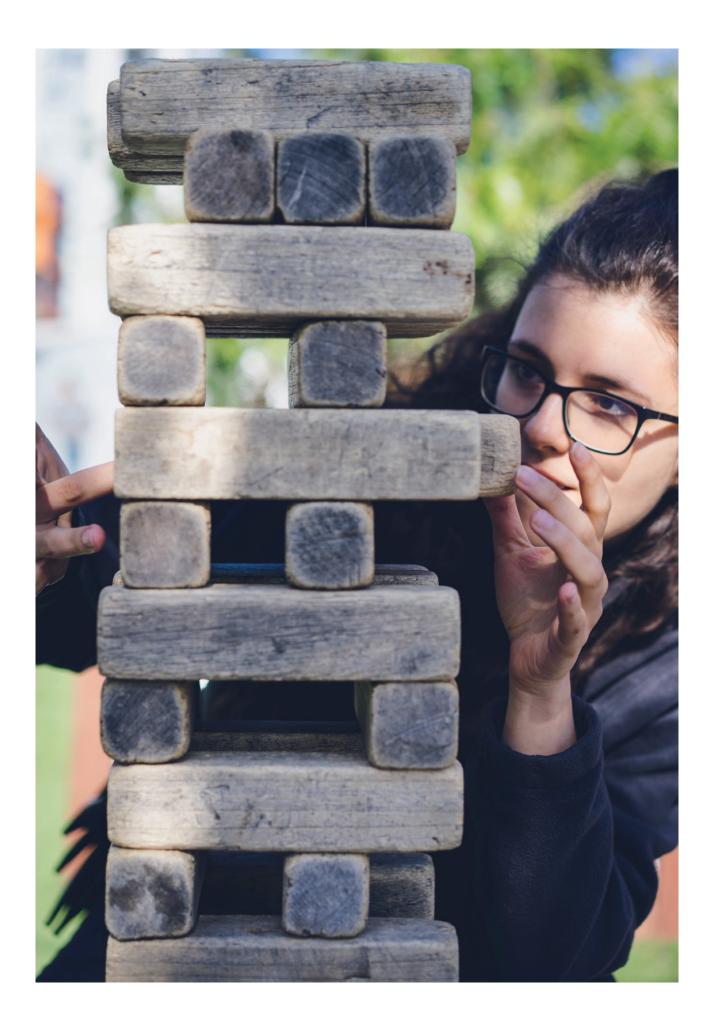
We have described how we do that by focusing on five areas of children's skills: emotional, social, creative, cognitive, and physical. We have also explained the importance of working across all settings: at school, at home, and in the local community.

We hope you have found inspiration from this booklet and our work at Drive. As a final point, we wish to leave you with ten important considerations you can bring into your own work with neurodivergent children.

Please give us your input and feedback so that together we can help improve the quality of education for these perfectly special children here and around the world.

### Ten considerations for working with neurodivergent children:

- 1. All children, including neurodivergent children, have an inner motivation for life.
- 2. Motivation grows when children feel supported, involved, and competent.
- 3. Motivation for school increases when the learning experiences provide feelings of competence, autonomy, and relatedness.
- 4. Motivation is enhanced by applying tools and methods from playful learning, co-creation through project learning, and learning to learn techniques.
- 5. Understanding psychiatric diagnoses is important, but the focus should be on developing children's emotional, social, creative, cognitive, and physical skills.
- 6. All children are different, especially neurodivergent children, so educational and developmental plans must be individually tailored.
- 7. Children's development improves when there is consistency and a common thread between school, family life, and activities in the community.
- 8. Goals and objectives should be SMART Specific, Measurable, Achievable, Relevant, and Time-bound.
- 9. Observations, data gathering, analysis, and frequent evaluation give evidence-based direction and quicker corrective actions that drive results.
- 10. Never give up. Keep connecting the dots, and eventually, the full picture of the child will appear, and you will know which key(s) to use to unlock their potential.



# Want to know more about Drive?

### **Background**

Drive is a not-for-profit foundation. A foundation dedicated to creating the best possible conditions for social, personal, and academic growth for neurodivergent children.

Drive started its journey in one of the most inspiring places in the world – Billund, Denmark. The Capital of Children and home of LEGO. A place where partnerships and co-creation are the natural way of working with children and a place where international research and hands-on practice coincide.

We are driven by the desire to share our knowledge and methods nationally and internationally so that all children can access the best possible education, regardless of where they live in the world and what their background is.

### **Programs**

At Drive, we offer a number of programs to support children and young people challenged by a lack of motivation, disengagement, school refusal, or mental health challenges that affect their well-being at school, in their spare time, or at home.

The goal of each program is to uncover what drives the child and to build motivation and competencies to be part of social and academic communities. Our programs include:

### Drive School of Motivation

Our special needs and treatment school – Drive School of Motivation – is for children and young people from 0-10th grade. The school is bilingual and located in Billund, Denmark.

The school aims to be a flagship school and an inspirational showcase where national and international professionals can experience how evidence-based methods, hands-on tools and techniques can be applied in practice.

### Forward Drive

Through our school refusal program, Forward Drive, we help students who struggle with school refusal. We engage students and their families from the early stages of school refusal to the most severe cases.

We work psychologically and pedagogically with the root causes of the students' school refusal, and we provide assistance to ensure that the students return as quickly as possible to their daily lives with stable school attendance.

### Consulting Services

We help neurodivergent students and their families through different tailored programs. Our bilingual consulting services include:

Psychological testing and assessment where we offer conclusions on studies, possible diagnoses, and recommendations for interventions and therapy.

Screening and assessment for dyslexia where we help identify the type of support the student needs in different contexts.

Counselling to public and private schools through consultation on e.g. inclusion challenges or through individual support to students.

## Drive School of Motivation

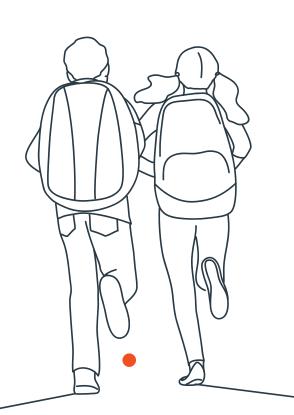
A special needs school with psychological treatment that fosters motivation, balance and life mastery

### Forward Drive

A school refusal program that works with students' welfare and brings them back to daily lives with stable school attendance

## Consulting services

Services aiming to help neurodivergent students and their families into better well-being



### Drive Practice Lab

At Drive, we have our own learning, knowledge and practice lab where we develop, gather, and test knowledge and methods within education, psychological intervention, and support for neurodivergent children. This unit is called Drive Practice Lab, and it is behind the "COPE with life" approach.

Drive Practice Lab collaborates with national and international partners, including companies, researchers, and specialists in pedagogy, learning, and psychology.

Through our work, we strengthen the research area and support an evidence-based approach to working with children facing challenges and their families.

Additionally, the practice lab improves our ability to create, organize, manage, and share

our knowledge internally. In other words, it is used for creating educational content and internal knowledge sharing, which – among other things – allow new starters to acquire the necessary knowledge easily and employees to continue to develop within the organization and beyond.

The overall goal of the Drive Practice Lab is to share knowledge and methods nationally and internationally and contribute to improving educational conditions and support for neuro-divergent children – regardless of where they live in the world, and what their background is.

Everything we do in the Drive Practice Lab is for the benefit of the individual child, family, and society. Like the COPE approach!

The goal is to improve educational conditions for neurodivergent children – regardless of where they live in the world, and what their background is.







### References

- 1. Udsatte børn. Udsatte børn Nøgletal (2020).
- 2. United Nations. Transforming our world: the 2030 Agenda for Sustainable Development (2015). doi:10.1163/15718093-12341375.
- 3. European Agency for Development in Special Needs Education. Special Needs Education in Europe (2003).
- 4. Statistics Denmark. Enrolled, basic school by time, sex, ancestry, type of school, class and special needs education. https://www.statbank.dk/20130 (2021).
- 5. Børne og Undervisningsminister. Executive Order on special education and other special pedagogical assistance under the Folkeskole Act in day care offers and placement (2014).
- 6. Cambridge University Press. Cope. https://dictionary.cambridge.org/dictionary/english/cope (2020).
- 7. Maslow, A. H. A theory of human motivation. Psychol Rev 50 (1943).
- 8. Kathryn R. Wentzel & David B. Miele. Handbooklet of motivation at school. vol. 704 (Routledge, 2009).
- 9. Ryan, R. M. & Deci, E. L. Self-determination theory: Basic psychological needs in motivation, development, and wellness (Guilford Publications, 2017).
- The LEGO Foundation. Learning through play at school. https://doi.org/10.1080/19388071.2017.1400
   (2019).
- 11. United Nations. Convention on the Rights of the Child. (1989). doi:10.1111/j.1467-9515.1989.tb00500.x.
- 12. Berridge, D., Bell, K., Sebba, J. & Luke, N. The Educational Progress of Looked After Children in England (2015).
- 13. European Union. Council recommendation EU. Interinstitutional file 53, 1689-1699 (2018).
- 14. OECD. Conceptual Learning Framework. Skills for 2030. https://www.oecd.org/education/2030-project/teaching-and-learning/learning/skills/Skills\_for\_2030.pdf (2019).
- 15. WHO. International Classification of Functioning, Disability and Health: ICF (2001).
- 16. The LEGO Foundation. What we mean by: Learning through Play. 1–28 (2017).
- 17. Zosh, J. M. et al. Learning Through Play: A Review of the Evidence (White Paper)(2017).
- 18. Mayer, J. D., Salovey, P. & Caruso, D. R. Emotional Intelligence Test: MSCEIT (Multi-Health Systems., 2002).
- 19. CASEL. CASELI's SEL Framework. https://casel.org/wp-content/uploads/2020/12/CASEL-SEL-Framework-11.2020.pdf (2020).
- 20. Jensen, B. Sociale kompetencer. Effektive programmer, der fremmer børns sociale kompetencer. http://dcum.dk/boernemiljoe/sociale-kompetencer (2013).

- 21. Lubart, T., Zenasni, F. & Barbot, B. Creative Potential and its Measurement. International Journal for Talent Development and Creativity 1, 41–50 (2013).
- 22. The LEGO Foundation. What we mean by creativity. https://www.legofoundation.com/media/2312/what-we-mean-by-creativity.pdf (2020).
- 23. American Psychological Association. Cognitive ability. APA dictionary of psychology https://dictionary.apa.org/cognitive-ability.
- 24. Gioia, G. A., Isquith, P. K., Guy, S. C. & Kenworthy, L. BRIEF. Behaviour Rating Inventory of Executive Functions (2003).
- 25. Weiss, L. G., Saklofske, D. H., Holdnack, J. A. & Prifitera, A. WISC-V Assessment and Interpretation Scientist–Practitioner Perspectives (Elsevier, 2016).
- 26. Mincu, M. Personalisation of Education in Contexts: Policy Critique and Theories of Persol Improvement (Sense Publisher, 2015).
- 27. Strnadová, I. Stress and resilience in families of children with specific learning disabilities. Rev. Complut. Educ. 17, 35–50 (2006).
- 28. Nock, M. K. & Photos, V. Parent motivation to participate in treatment: Assessment and prediction of subsequent participation. Journal of Child and Family Studies 15, 345–358 (2006).
- 29. Sears, J. A., Peters, B. L., Beidler, A. M. S. & Murawski, W. W. Using Relationships to Advocate With, For, and To Families. Teaching Exceptional Children 53, 194–204 (2020).
- 30. Furlong, M. et al. Behavioural and cognitive-behavioural group-based parenting programmes for early-onset conduct problems in children aged 3 to 12 years. Cochrane database of systematic reviews 2, (2012).
- 31. Bedell, G. et al. Community participation, supports, and barriers of school-age children with and without disabilities. Archives of Physical Medicine and Rehabilitation 94, 315–323 (2013).
- 32. Tanggaard, L. & Dilling, J. Co-creation Focusing on children . (CoC. playful minds).
- 33. Chick, N. Metacognition. Vanderbilt University Centre for Teaching https://cft.vanderbilt.edu/guides-sub-pages/metacognition/ (2013).
- 34. Morsink, S., van der Oord, S., Antrop, I., Danckaerts, M. & Scheres, A. Studying Motivation in ADHD: The Role of Internal Motives and the Relevance of Self Determination Theory. Journal of Attention Disorders 26, 1139–1158 (2021).
- 35. Deci, E. L. & Ryan, R. M. The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior (2000).
- 36. The LEGO Foundation. What we mean by: Playful parenting in the early years. (2019) doi:10.1207/s15326888chc1301\_9.
- 37. Livingston, J. A. Metacognition: an overview. Psychology 13, 259–266 (1997).

- 38. Zimmerman, J. & Moylan, A. R. Self-Regulation. Where Metacognition and Motivation Intersect. in Hand booklet of Metacognition in Education (eds. Hacker, J. D., Dunlosky, J. & Graesser, A. C.) 299–315 (Routledge, 2009). doi:10.4324/9780203876428.ch16.
- 39. Education Endowment Foundation. Metacognition and Self-regulated Learning: Guidance Report. The Sutton Trust-Education Endowment Foundation Teaching and Learning Toolkit https://educationendowmentfoundation.org.uk/public/files/Publications/Metacognition/EEF\_Metacognition\_and\_self-regulated\_learning.pdf (2018).
- 40. Cohen, L., Manion, L. & Morrison, K. Research methods in education. Professional Development in Education vol. 38 (2007).
- 41. Mitchell, D. & Sutherland, D. What Really Works in Special and Inclusive Education. Using Evidence-Based Teaching Strategies (Routledge, 2020).

