

VIDA-statusreport 1

VIDA

VIDA - Knowledge-based efforts
for socially disadvantaged
children in daycare
- Design and Methods

Bente Jensen (Ed.)

VIDA research series 2012:01

VIDA STATUS REPORT 1

VIDA - KNOWLEDGE-BASED EFFORTS FOR SOCIALLY DISADVANTAGED CHILDREN IN DAYCARE

Design and Methods

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VIDA - Knowledge-based efforts for socially disadvantaged children in daycare – an inclusive ECEC program.

VIDA Status Report 1. Design and Methods

VIDA research series 2012:01

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This report is cited as follows: Jensen, B.; Holm, A.; Wang, C.; Kousholt, D.; Ravn, I.; Søgaaard Larsen, M.; Steiner Rasmussen, O.; Berliner, P.; Yung Andersen, T.; Brandi, U. (2012). *Knowledge-based efforts for socially disadvantaged children in daycare – an inclusive ECEC program. VIDA Status Report 1. Design and Methods*, VIDA-Research Series 2012:01, DPU, Aarhus University.

Graphical design: Leif Glud Holm

Published: February 2012

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ISSN 2244-9116 (Web)

ISSN 2245-263X (Print)

Printed by: Dafolo, Frederikshavn

ISBN 978-87-7281-687-6

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PREFACE

This status report is the first presentation of the VIDA project *Knowledge-based efforts for socially disadvantaged children in daycare – a model program*. The aim of the project is to explore the question: How can early childhood education and care (ECEC) provide equal social and intellectual opportunities for socially disadvantaged children? The assumption is that being socially disadvantaged, also referred to as social vulnerability, is linked to low resource families, poverty, little or no education, ethnicity, etc.

From educational, social and socio-cultural research we know that socially disadvantaged children struggle with impaired life opportunities during their school years and further education and also experience challenges in their social life. For many socially disadvantaged children, these challenges lead to social and personal vulnerability. Effects of this vulnerability appear already in early childhood and daycare. The VIDA project develops and explores a method for enriching center-based ECEC through the education and training of daycare teachers with a view to upgrading their professional qualifications so that they are better equipped to deal with the challenges of social inequality related to quality enrichment in daycare.

The VIDA project (2010-2013) has been commissioned and is being funded by the Ministry of Children and Education (the former Ministry of Social Affairs), and it has been developed by researchers from Aarhus University. The project will develop; test and document which pedagogical efforts in daycare can ensure a better life for socially disadvantaged children. In the first group of daycare centers, emphasis will be on the well-being and learning of the children (VIDA Basis). In the second group, emphasis will also be on the well-being and learning (as in group one) and additionally incorporate parental involvement (VIDA+). In the third group regular practice will be maintained (the control group). A similar project, *Action Competences in Social Pedagogical Work with Socially Endangered*

Children and Youth (the ASP project) (Jensen et al. 2009, Jensen, 2011) established that this particular type of center-based early childhood intervention program generates positive effects in general on children's strengths and difficulties (Jensen et al., 2011).

The VIDA project was, as the ASP project, inspired by international intervention ECEC research and aims at contributing to further improvement of early childhood efforts towards socially disadvantaged children. As a unique feature, the VIDA project will incorporate and test a parent program based on the latest findings of the study *Research Review of Efficient Parent Programs* carried out under the VIDA project (Søgaard Larsen et al, 2011). This study has shown promising results regarding what can be achieved by combining daycare efforts with parental involvement.

This VIDA report introduces the aims, background, and development of the two VIDA model programs. It also offers an outline of the theoretical foundation of the specific intervention and design of the integrated effect study. The target group of the report covers stakeholders from policy to practice level, researchers and other parties who have an interest in improving society's efforts to reverse social inequality from an early childhood educational perspective beginning in daycare.

The steering committee, represented by Christina Barfoed-Høj from the Danish Ministry of Children and Education, and the VIDA peer review group have contributed with useful critical and constructive comments on the present report. The VIDA advisory group has contributed with constructive input to the overall idea and content of the project. Moreover, several other VIDA stakeholders have also contributed to the materials, design, and methodology used in the project as well as been involved in the selection of the daycare centers included in the study: Head Consultant Line Dybdal, Rambøll Management; IT Consultant Leif Glud Holm, Department of Education (DPU); Consultant Niels Glavind, Epinion. I wish to thank all of these people as well as Consultant and MA in rhetoric's Jacob Haahr-Pedersen, Research Assistant Mette Friis Hansen and Kirsten Kovacs for editing, advice, and proofreading, respectively.

This report was written with contributions from all the authors in the VIDA project group. The final writing and editing was made by Bente Jensen, PhD, project manager.

Department of Education (DPU), Aarhus University, Copenhagen, February 2012.
Bente Jensen, Associate professor, Ph.D., project manager.

ABSTRACT

Early Childhood Education and Care (ECEC) can enhance the life chances of all children, and especially socially disadvantaged children. In the Nordic daycare systems, however, it is not clear if ECEC provides equal social and intellectual opportunities for socially disadvantaged children. The VIDA intervention program *Knowledge-based efforts for socially disadvantaged children in daycare – a model program* presented in this report, aims at improving all children's well-being and cognitive functioning, and specifically improving the situation for socially disadvantaged children through inclusive efforts in daycare.

The objective is to improve our knowledge about effective means and methods when implementing a new innovative type of early childhood educational efforts aimed at socially disadvantaged children. This is done by a systematic approach on the basis of methods developed in the VIDA programs.

This VIDA Report 1 presents the design and methods used in the inclusive ECEC intervention program.

TWO MODEL PROGRAMS

Two model programs are introduced: the VIDA Basis program and the VIDA+ parental program. Both programs consist of education and training of VIDA staff by means of three elements: presentation of theoretical and empirical knowledge of children's learning and wellbeing; education, including giving staff the opportunity to reflect on their own experiences when working with socially disadvantaged children at their center; and, finally, training on how to renew practices at local level on the basis of VIDA program guidelines. The aim of the first program (VIDA Basis) is to support children's learning and well-being and particularly support socially disadvantaged children, i.e. these children's socio-emotional development and learning through inclusive efforts. The aim of the second program is the same kind of improvement of children's development but

in this program parents are involved in the activities too (VIDA+ program). Thus, the two model programs are similar in that they both direct attention to children in general and disadvantaged children's well-being and learning particular; however they differ in that VIDA+ particularly directs attention to finding new methods for involving parents.

INTERVENTION: EDUCATION AND IMPLEMENTATION

The aim of the VIDA programs is to enhance the innovative competences of managers and daycare teachers with regard to improving the learning and well-being of children. The objective of the VIDA educational programs is to improve the way in which staff works with renewing everyday practices in terms of early efforts for socially disadvantaged children. The two model programs are based on recent evidence-based knowledge and, specifically for the VIDA+ program, the Danish Clearinghouse of Education has made a research review of effective intervention programs that include parental involvement (see Appendix I). A range of materials and tools have thus been developed for the VIDA educational program, including guidelines for working with children's learning and well-being through social inclusion. The program builds on three perspectives: 1) a resource-oriented and asset perspective on socially disadvantaged children as children with potential (not deficit), 2) a learning perspective that views participants in the program (children, teachers and parents) as active, reflective learners, and 3) an organizational learning perspective (staff qualification in the entire daycare center).

The VIDA education and training sessions thus build on methods that improve professionals' ability to convert scientific knowledge into practice through knowledge sharing and innovative experiments. Thus the program combines professionals' personal knowledge and practice-based experiences, i.e. combines tacit knowledge with explicit scientific knowledge acquisition and sharing. The VIDA and VIDA+ education programs encourage participants to work with both explicit and implicit (tacit) knowledge in order to improve the efforts for children. The role of managers is important as they are central in facilitating this kind of knowledge sharing and these learning processes by involving all employees in the centers. Consequently, as part of the VIDA education program, managers are offered management education and training especially targeted at capacitating employees to implement the VIDA programs through collaboration and joint efforts.

EFFECT STUDY

VIDA has been implemented and studied in four municipalities; 120 daycare centers were selected, 40 were randomly allocated to one intervention group (VIDA Basis), and 40 were randomly allocated to the other intervention group (VIDA+). The final 40 were allocated to a control group. Staff at the daycare center assesses each child using the well-known Strengths and Difficulties Questionnaire (SDQ) and Early Learning Outcomes Questionnaire. The latter is inspired by the Effective Provision of Pre-school Education (EPPE) project (Sammons et al, 2004, Sylva et al., 2011). Data has been collected from 7000 children aged between 3 and 6 on three occasions: at the start of the project in March 2010, in March 2011 and at the end in March 2013. Data for case studies are collected through staff surveys (N=235), interviews and follow-up observation studies with a view to learning how the centers are progressing. Statistical methods used in the analyses of the effects of the ASP program will be used to analyze the VIDA data, firstly a non-parametric growth-curve model that takes into account the hierarchical nature of the data, and secondly a difference-in-difference method that is solely based on within-child differences between the two intervention groups (VIDA Basis and VIDA+) and the control group.

ORGANIZATION, DISSEMINATION AND AFFILIATION

The VIDA project is organized in groups that each has their own area of responsibility. There is a large degree of collaboration and coordination between the groups in order to ensure that every stage follows the overall aims of the programs, as well as the milestones and methods developed. An education group is responsible for implementing VIDA education and training programs. A research group is responsible for the overall design and methods used in the randomized controlled experiment, data collection and analysis. A project group (including representatives from the other groups) is responsible for coordinating design and method development as well as for coordinating all aspects of the program. Moreover, the project's results are disseminated on a regular basis through reports, at conferences, seminars and schools, and through networking in a manner that ensures that all parties interested in the field will continue to benefit from the project's results. A cross-disciplinary group has been established with representative directors and managers from the four municipalities involved in the project, as well as the project manager and partners from the Metropolitan University College involved in order to develop ideas of how to implement the VIDA program at a larger scale on the basis of experiences of the VIDA project and its results.

The project will run from 2010-2013.

CHAPTER 1

INTRODUCTION

1.1 THE AIM AND STRUCTURE OF THIS REPORT

The purpose of the VIDA project is to examine the effects of strengthening center-based early childhood efforts that aim to improve children's well-being and learning in general, as well as the well-being, learning and development of socially disadvantaged children through inclusive pedagogy in particular.

Socially disadvantaged children are defined as children who have a risk of being involved in the child service system due to their poor socio-economic conditions. From educational and social research, we know that disadvantaged children, here defined as children influenced by social inequality, who struggle with impaired life opportunities during their school years and further education, and experience challenges in their social life. Furthermore, we know that this vulnerability begins to have an effect already when the child is in daycare/kindergarten; i.e. an under-privileged childhood entails that disadvantaged children are particularly subject to the negative consequences of their life conditions, both personally and socially.

Thus, the VIDA project touches upon an important societal problem. In terms of research, the purpose of the project is to develop, test and assess two different models for early efforts (pedagogical methods and organization etc.) in daycare. These models are the VIDA Basis model program (VIDA Basis) and the VIDA+ program (VIDA+). The overall objective is to contribute to an increased opportunity for municipalities and daycare centers to upgrade their work with children in general and socially disadvantaged children in particular, on the basis of evidence-based knowledge and systematically targeted methods for developing new forms of practice. The question of converting evidence-based knowledge into practice is a focal point in the VIDA project. The intervention is thus organized as an education and training program, thereby offering a new approach to

implementation of new practices (Fixsen & Naoom, 2005; Fixsen et al., 2009) as a part of the program.

The children included in the VIDA project are aged between 3 and 6 and attend daycare. In other words, children aged between 0 and 3 attending nursery or daycare in private homes fall outside the scope of VIDA. This delimitation was decided upon in order to acquire knowledge of the effects of a targeted development of quality focusing on a certain target group. Nevertheless, the VIDA methodology and results may also be implemented in earlier efforts, e.g. for newborn to 3-year-old children, taking into account necessary adjustments based on knowledge of the needs of younger children and the fact that, for instance, daycare in private homes constitutes a very different pedagogical context compared to organized daycare for 3-6-year-old children in daycare centers. Public daycare centers are required by law to take care of and educate children aged between 3 and 6.

The aim of the VIDA project is to develop and study the effects of a method for strengthening early efforts in preschools. These efforts are based on earlier experiences and are currently being revised in order to be implemented uniformly in all Nordic daycare center contexts.

This report describes the intervention design as well as methods used to study the effects of intervention. The report covers four areas. Firstly, it covers the development of the two VIDA model programs that are based on the most recent research in the field, e.g. the Clearinghouse research review of programs with parental involvement. Secondly, it covers the design and completion of an educational and implementation course in the VIDA Basis and VIDA+ programs that aims at improving professional innovative competences. The term *innovative competences* refers to the ability of managers and teachers to work with real renewal of practices by using new and creative experimental methods based on scientific and theoretical knowledge of children's development and the impact of inclusion in order to deal with issues of social inequality, as these pose a risk for socially disadvantaged children's opportunities. Thirdly, it covers the design and methods of the integrated effect study. In this connection, the project takes stock of the preliminary phases of the effect study, which, more specifically, began with the selection of the 120 preschools in four municipalities in Denmark. Lastly, the report presents the project initiative to disseminate and maintain a new and improved practice based on one of the VIDA model programs.

1.2 RESEARCH AND POLICY IN A NORDIC CONTEXT

The underlying philosophy of the VIDA model programs is that real and lasting renewal (innovation) in daycare happens only through improving pedagogical work based on the learning and knowledge sharing of teachers. In terms of research, the task is thus to find new pedagogical work processes in daycare centers that involve employees in developing practices at local level, that in turn lead to innovation.

Based on a survey of 2777 employees in 1000 Danish daycare centers, the Danish research program *Social inheritance* (Ploug 2005, 2007) and the study *Can daycare make a difference?* (Jensen 2005) have shown that the rhetoric about, and the perception of, socially disadvantaged children have affected professional approaches to various efforts in daycare. One approach was to look for a child's deficiencies, and in this case the aim of the effort was to reduce the flaws and deficiencies of the child (a compensation approach). Another approach was to focus on the child's resources and potentials. In this latter approach, the professionals perceived vulnerability in a contextual perspective and Efforts was thus directed at improving the socially disadvantaged child's conditions and resources through enhancing an inclusive learning environment involving the surroundings (the innovation approach). The study also found a number of barriers that needed to be overcome (ibid.). The professionals mentioned three factors that could interfere with their efforts. Firstly, impaired structural factors and conditions resulted in a more narrow scope and fewer opportunities for development; put simply, the staff lacked time. Secondly, the professionals examined their own knowledge of the issue and their methods that they found inadequate. Thirdly, they stressed a wish for more and better support from their managers and local authorities. In all, these three types of barrier prevent improvement of the quality of the daycare center.

In a follow up study, Jespersen (2006) identifies similar findings and mentions how difficult it is to initiate resource-oriented efforts for disadvantaged children in a Danish context. This study also points to the fact that professional knowledge and systematic methodology in order to renew practice are lacking.

A more recent contribution is new data collected by the Danish National Centre for Social Research (SFI) (Nielsen & Christoffersen, 2009). Nielsen & Christoffersen' review supplements our knowledge about important factors for improving the quality of daycare for socially disadvantaged children. They suggest that through participation in high-quality daycare, socially disadvantaged children's

cognitive and non-cognitive development, including their school readiness, can be positively affected. Nielsen & Christoffersen conclude that the parameters for measuring quality include staff education, number of staff, stimulating activities for children and good communication between the staff and parents.

The authors underline that the significant and longitudinal impact of daycare/ kindergarten on children's educational results does not only stem from their increased intelligence, but also from the development of a more positive self-perception and a more positive perception of their future opportunities (ibid., 9). Stimulating children's competences in general, i.e. contributing to the child's formation of identity and self-esteem puts further demands on the content of professional qualification. Thus the authors stress that qualification of staff through education and in-service training is 'the way' to ensure high-quality daycare. Similar tendencies can be found in other reviews of Nordic research. Here too, findings indicate a risk that certain groups of children, i.e. socially disadvantaged children, risk being neglected by teaching staff, or staff who have no training in dealing with socially disadvantaged children (Nordenbo et al., 2008, 2009, 2010). These reviews point to a number of barriers that need to be overcome – in Denmark and other Scandinavian countries – to counteract marginalization and exclusion that appear to be a consequence of negative social inheritance and personal vulnerability.

The VIDA project operates in this context – also in a political sense. In recent years, Denmark has increased its focus on socially disadvantaged children and, in this connection, the impact of daycare. In 2006 the Danish government presented its strategy (*Equal Opportunities for all Children and Young People*) to fight negative social inheritance. This was followed by the Daycare Facilities Act (Ministry of Family and Consumers Affairs 2004, Ministry of Social Affairs 2011), which emphasizes that socially disadvantaged children must be given the same opportunities as other children. Education is mentioned as a central means to reduce existing inequalities that are passed on to the next generation. Moreover, education is generally seen as an effective means of creating better opportunities for all.

Thus, the research literature contributes to an increased insight into the actual efforts in Danish and Nordic daycare to improve disadvantaged children's cognitive and social development and it contributes to a better understanding of the barriers that are associated with an inclusion and exclusion perspective. Danish research programs (e.g. Ploug 2005, 2007 and Jensen 2005Jensen et al, 2009) document the need to improve current efforts for disadvantaged children in Dan-

ish daycare and focus on giving priority to upgrading preschool teachers' competences.

On the basis of this research literature, the ASP project (Action Competences in Social Pedagogical Work with Socially Disadvantaged Children – Effort and Effect), which is the forerunner of the current VIDA project, was developed and tested as a Danish experiment that generated positive effects (Jensen et al., 2011).

The ASP project tested a number of hypotheses that improvement of teachers' innovative competences is an important way to improve ECEC efforts for children in general, and for socially disadvantaged children in particular. Positive experiences from the ASP project have been carried over to VIDA. Moreover, the VIDA project is being developed further in a number of areas, such as drawing on more international knowledge, developing more precise guidelines for improving children's learning and well-being through emphasizing the impact of an inclusive learning environment and involving the surrounding community.

1.3 INTERNATIONAL EXPERIENCES

Social inequalities are a major determinant for children's life opportunities and healthy development (WHO, 2008). Interventions during early childhood are an essential route for reducing these inequalities (Irwin et al., 2007; Puma et al., 2010; Mielck et al. 2008). Such interventions might be directed at the living conditions of families, at parents themselves or at conditions outside of the family. The main model is the Early childhood and Educational and Care (ECEC) intervention, which has been demonstrated to improve children's intellectual competences and their socio-emotional development (Esping-Andersen, 2002; Heckmann, 2008; Heckman et al., 2010), which in turn improves their educational, economic and social life chances. Accordingly, ECEC has been offered to socially disadvantaged children in many Western countries since the mid-20th century. High quality studies of these kinds of intervention started in the 1960s in the US, e.g. studies of the Perry Preschool Program in Ypsilanti (Michigan) (Weikart, 1967). Long-term follow-up of the participating children until they turned 37 and 40 demonstrates substantial positive effects (Muennig et al., 2009; Schweinhart et al., 2005; Nores & Barnett, 2009; Barnett & Belfield, 2006).

A significant number of other studies and reviews of programs for disadvantaged children in the US have also demonstrated beneficial effects (Barnett, 2008; Barnett & Masse, 2007; Belfield et al., 2005, 2006; Currie & Neidell, 2007). Lasting

positive effects have thus been found for large-scale public programs as well as for intensive experimental studies (Pianta et al., 2009). Over the past 20 to thirty years, high-quality studies have been carried out in the UK that also demonstrate favorable effects of programs for disadvantaged children (Sylva et al., 2011; Sammons et al., 2004).

In both the US and UK, preschool interventions have mainly targeted socially disadvantaged children. This seems to make economic sense since preschools are relatively costly. Yet, the relationship between social disadvantage and health outcomes is continuous (Mielck et al., 2002). That is, at population level the total effects of social disadvantages will be larger than the aggregated effect of social disadvantages of the most needy children. In public health, this phenomenon is often termed “the prevention paradox” (Rose, 1998). These effects are assumed also to be seen in socio-emotional and intellectual outcomes. Therefore, it is favorable to offer large groups of children preschool. This has been the approach in the Nordic countries in recent decades, where more than 90 percent of all children above age two now attend preschools. It is possible that this almost universal preschool system contributes to the relatively low educational inequalities in the Nordic countries seen in an international perspective (Adamson, 2010), although it is difficult to distinguish between the contribution of preschools and other national characteristics that also effect children.

Yet, in the Nordic countries, in spite of almost universal preschools, there are still significant inequalities (Adamson, 2010). Thus, it is hypothesized that enrichment of ordinary preschools could decrease the consequences of social inequalities in children.

Over the past 45-50 years, American studies of various interventions addressing socially disadvantaged children have found that:

- An early effort (children aged between three and four) targeting children's learning and cognitive development generated a positive effect (see among others Garber 1988; Garber & Hodge 1989, Barnett et al, 2006).
- High-quality care for preschool children had a greater impact than interventions in school or parenting courses/house calls. High-quality care is daycare by well-educated staff, good staff-child ratio (1:3 for children aged between 0 and 2 and 1:6 for children aged between 3 and 6) and systematic curriculum-based efforts that direct attention to social, intellectual and emotional competences (Currie, 2001, 1999; Currie & Neidell, 2007; Karoly et al., 2005).

- The combination of a daycare program and parental involvement appeared to generate the greatest effect (Love et al., 2005; Kaminski et al., 2007; Sandy & Boardman, 2000).
- Parents may have difficulties utilizing offers from the daycare (Alderson, 2008; Sjøgaard Larsen et al., 2011).
- Offers aimed at parents that do not involve daycare may even have a direct negative effect (Roberts et al., 1989; Wasik et al. 1990).

Moreover, American studies show positive longitudinal effects from the majority of programs. The effect is measured on improved participation in school, longer educations, less crime and reduced use of substances etc. (Barnett, 2012; Barnett & Belfield, 2006; Campbell et al., 2008, 2002; Norens et al., 2005; Schweinhart et al., 2005). The effect has also been found to increase if efforts continue through to high-quality schools (Reynolds, 1994; Reynolds et al., 2001; Ramey et al., 2000). In connection with two of the most comprehensive American intervention programs (cf. Heckmann 2008; Heckmann & Masteroy, 2007; Norens & Barnett 2009), scholars also conducted cost-benefit analyses of the socio-economic effect of investing in high-quality daycare. These analyses showed that each dollar invested in the program came back sevenfold. Consequently, from an individual perspective as well as from a socio-economical perspective, it is worthwhile to invest in early efforts.

Accordingly, general enhancement of the pedagogical approach of preschools would also be expected to especially benefit disadvantaged children. Building on this premise, VIDA seeks to generally enrich daycare pedagogy with a special focus on the needs, intellectually and socially, of disadvantaged children.

The quality of the pedagogical approach of preschool seems to determine the effects, both short and long term (Sylva et al., 2011, Siraj-Blatchford, 2011). This quality could be improved in different ways. A common approach in Anglo-Saxon programs is to offer teachers a fixed set of well-defined modules. This kind of intervention can easily be replicated, which is a major advantage. The effects of a specific module could also be well documented. Yet, it is not given that all modules are appropriate for all settings and all teachers.

Therefore, it is advantageous to design quality-enhancing measures in ways that are appropriate for teachers at specific preschools. This approach, however, requires a substantial proportion of preschool teachers with academic training. In Nordic preschools, in contrast to preschools in the US, approximately half of all preschool teachers have at least three years of academic education. Moreover,

teachers in the Nordic countries are trained to work autonomously within a framework of general instructions rather than with a given set of procedures. Thus, the common approach of Anglo-Saxon programs is not optimal for Nordic preschools (see also Jensen, 2011).

A successful Nordic program must be able to both make use of results from international studies and to build on the autonomous work of teachers in Nordic preschools. A major constraint on most intervention in preschools and in other settings is, however, lack of implementation (Guldbrandsson, 2008). Two common explanations are that staff fails to see the need for intervention and believe that intervention is not relevant for their specific setting. These constraints are specifically addressed in VIDA. Thus, the core of VIDA is to train teachers to address needs they have observed themselves and to use pedagogical methods they have found relevant for their specific setting.

The intervention program presented here is the VIDA Project aimed at improving children's life opportunities through education of staff by offering them training in innovative teaching skills. The motivation behind the intervention is that ECEC systems in preschools often fail to provide equal social and intellectual opportunities for all children. Several Nordic studies have shown that implicit exclusion mechanisms in preschools often have a social gradient. Moreover, some of the mechanisms of social stratification were found in ECEC systems (Bennett, 2011; OECD, 2011). Based on these findings, the ASP intervention program focuses on both learning and social inclusion in preschools.

Thus, the design of the VIDA programs, inspired by well-known American intervention programs, is novel. Moreover, the design is inspired by the results from research in resilience coping, which calls for a program content that seeks to capture a twofold perspective: 1) stimulation of children's personal and social well-being and capabilities, action competences and learning, and 2) an inclusive pedagogical practice that provides children with a sense of attachment to, and security in, communities. The VIDA programs differs from well-known American programs by applying a broader focus than simply the individual, and directs attention to the individual in his/her context while placing emphasis on stimulating the child's cognitive and non-cognitive competences through inclusive pedagogy.

Previously described international programs provide us with valuable information and inspiration. Yet, they cannot be directly transferred to the situation and

conditions of parents and children today, nor to a modern welfare society such as the ones in which the VIDA project are implemented. This is because more than 90% of all children above age two in Denmark attend preschool. Consequently, the effort must involve all children, i.e. it must be able to include and to stimulate each individual child's learning and social development.

1.4 SUMMARY

The core of VIDA is to educate and train early education teachers to reflect on their daily practice in order to enable them to improve children's learning, with a focus on disadvantaged children. VIDA has developed guidelines for methods to improve children's well-being and learning in addition to ECEC efforts. These guidelines based on the National Curriculum and theories of children's early learning and social-emotional development, wellbeing and resilience (Dewey, 1933, Rutter & Rutter, 1993, Rutter, 2009) also contribute with methods for working with pedagogical observations of learning situations that encourage or prevent a child's progress. Teacher reflection on ordinary activities is a core concept. In a large number of controlled studies, this approach has been found to be highly effective in promoting children's development (Hattie, 2008).

The VIDA programs thus *differ* from well-known international programs especially in three ways:

- The efforts are implemented in general daycare. Thus, the VIDA program must consider the fact that all types of children, and not only specifically selected children, participate. This situation demands that considerations concerning exclusion and inclusion mechanisms in pedagogical practice will be an important aspect of the program.
- The daycare centers that participate in the VIDA project have been randomly selected. Therefore, the project may include employees that are not particularly motivated or ready for change.
- In any Danish daycare center, staff consists of both preschool teachers, i.e. employees that hold a professional bachelor's degree and teaching assistants who hold no degree. This aspect places a demand on the VIDA program that the head of the daycare center must be trained in how to contribute to knowledge-sharing processes in ways that involve the entire staff, even though these employees have very different bases for acquiring and implementing new knowledge and methods.

The overall idea for designing the VIDA program as a new innovative approach to early childhood educational effort for socially disadvantaged children is that there is a need for renewal of the ECEC system. This need has been identified over the past many years in both policy and practice in the area of early efforts. The overall argument is that an organizational learning and innovation approach represents a change in the mindset, development and research in the public sector in general, and more specifically in early efforts in ECEC targeting socially disadvantaged children.

This change that is needed in order to update our knowledge about what works in a modern society with new types of challenges, not least in relation to the issues of social inequality in a modern society.

CHAPTER 2

THE VIDA MODEL PROGRAMS

2.1 INTRODUCTION

Children are affected both by their environments at home and at preschool. The home environment of socially disadvantaged children is understood to be sub-optimal. The foundation for socially disadvantaged children's learning differs significantly from that of more privileged children's (Bernstein, 2003; Bourdieu & Passeron, 1977). Often the most-privileged children have obtained more developed competences at home, 'tools of the culture' (Bruner, 2007) than less-privileged children. Consequently, preschool might be expected to play a greater role in the development of disadvantaged children. Accordingly, general enhancement of the pedagogic approach of preschools would also be expected to especially benefit disadvantaged children. Building on this premise, the ASP seeks to generally enrich preschool pedagogic approaches by focusing on the needs, intellectually and socially, of disadvantaged children.

The quality of the pedagogic approach of preschools seems to be determining whether attending preschool has a positive effect, both in the short and long term (Sylva et al., 2011). This quality can be improved in different ways.

The VIDA-program aims to enhance children's cognitive and 'non-cognitive' social competences (Borghans et al, 2008). Among some of the important non-cognitive competences in this context, we can mention are openness, motivation to learn, ability to concentrate, temperament, (Goldberg, 1993 and Digman 1989) and resilience when faced with challenges.

A key feature of the VIDA programs is that the teachers who are in charge of implementing the programs need to be active participants in their 'own' effort of acquiring and implementing VIDA knowledge in daycare. This means working towards linking a top-down approach, a guided knowledge-based program, and

a bottom-up approach, i.e. participant involvement. Thereby, the project strives to integrate the preconditions and local conditions of the teachers, the composition of the children, as well as the parents' preconditions in the final design and implementation of the VIDA Basis and VIDA+ programs.

This type of intervention design has been tested previously in the ASP project (Jensen et al. 2009) mentioned above. More specifically, the ASP project tested the effect of this active involvement concept. It turned out that a number of positive effects emerged as a consequence of the integrated top-down and bottom-up perspectives, i.e. efforts that link an established knowledge base, tools and guidelines acquired at educational courses, as well as involvement of practical experiences from, and knowledge about, implementation of the program in the daycare center. Qualitative studies showed greater success in generating a sense of ownership, motivation, and readiness to participate when using this approach. In other words, these findings give reason to further test the VIDA hypotheses.

On the basis of ASP, or VIDA for that matter, it is not possible to say whether 'top-down' or 'bottom-up' is better, i.e. which approach achieves the greatest effects measured by development of competences. But we can further examine the effects of intervention that combines these two approaches. This method is inspired by research in learning and innovation, which emphasizes the significance of employee involvement in decision-making processes, interpretations of the intervention's value and knowledge foundation for an outcome in the form of renewal of current actions (Sundbo 2003; Döös & Wilhelmson 2010). Regarding implementation processes, the VIDA project is thus also a hypothesis-testing project (see also Fixsen et al., 2009).

The following chapter describes the VIDA model programs in further detail. First, emphasis is on contributions to educate managers and teaching staff in VIDA institutions so they work systematically with new knowledge and understandings based on the overall VIDA concepts and theories. An underlying assumption of this form of intervention is that practitioners qualify themselves to further develop their practices through the VIDA education program based on theory, evidence-based knowledge of the field and change processes in daycare centers. Secondly, follows a description of the knowledge base for developing the VIDA+ program, which is a new and unique parent program inspired by international parent programs. Thirdly, concrete recommendations that form the basis for the education in the VIDA+ program are presented. Finally, the chapter ends with a brief overview of the materials and reflection tools that have been developed for VIDA program implementation.

2.2 THE VIDA BASIS PROGRAM

As mentioned in the first chapter, the underlying idea of the VIDA model programs is to build the intervention on current theoretical knowledge of children's development and well-being through inclusion. This is based also on empirical experiences from earlier targeted efforts for socially disadvantaged children and supplemented with methods for professional learning and implementation. It is generally agreed that effective programs that truly improve learning and well-being of socially disadvantaged children in the short and long term are characterized by:

- Being an early effort – the earlier the better
- Being a high-quality (structure and process) effort
- Placing employees with specific training in charge of the effort
- Introducing children to stimulating learning environments
- Involving children as active co-creators
- Having an interplay between cognitive individual development and the social context
- Having guidelines that employees determinedly and systematically comply with.

At a more detailed level, the knowledge review mentioned above (Nielsen & Christoffersen, 2009) finds that high-quality daycare has a positive effect. Here, high quality is characterized by preschool teachers who have knowledge of children's development and sensitivity as well as receptiveness to children's utterances. Furthermore, it shows that structural factors, such as staffing, group size and level of staff training, are important. In a more indirect manner, researchers have found that better structural conditions contribute to generating improved process conditions and relations characterized by preschool teachers' receptiveness and sensitivity.

In previous programs, the seven aspects mentioned above have been regarded as effective means, and there is agreement that high-quality in daycare, defined as in the recent Danish knowledge review (*ibid*), generally improves children's possibilities in daycare and more specifically can improve the life opportunities of socially disadvantaged children through increased well-being and learning. Yet, researchers do not agree how strictly preschool teachers must comply with a given curriculum or manual that provides detailed descriptions of how employees should convert theory into practice. Earlier international programs have traditionally encouraged preschool teachers to closely follow the guidelines of a

handbook. Moreover, we have seen a tendency to offer short seminars, training courses and workshops offering teachers instruction in how to adopt the exact methodology of a given intervention. The ASP project developed a different type of intervention and implementation methodology. Here, professionals were encouraged to work independently, but on the basis of the knowledge foundation and tools of the program, at formulating concrete goals and actions that would match local conditions, i.e. the composition of children and staff competences etc. Thereby, through ASP, teachers have developed locally established methods to reach the goal of working determinedly and systematically with children's learning and well-being through social inclusion.

The VIDA Basis program builds on this perspective and draws on the experiences of the ASP program, but there is further emphasis on the fact that the training offered must focus on teaching teachers how to work systematically towards achieving specific goals by following predesigned guidelines, and how to document their efforts. By doing so, the efforts for socially disadvantaged children in daycare will be based on professional knowledge and understanding of these children as well as on knowledge of implementation of learning processes in the overall organization, i.e. the daycare center. As mentioned, the basic assumption of the VIDA project is that in order to support the crucial early development of disadvantaged children, teachers must be provided with new knowledge and understanding of processes that can lead to lasting renewal.

CHILDREN'S LEARNING AND WELL-BEING SEEN FROM AN ASSET PERSPECTIVE

Based on the five curriculum themes: language acquisition,, mathematics, the natural-sciences, body, and culture that are prescribed by law (National Curriculum, Ministry of Social Affairs, 2011), the overall VIDA concept of an asset approach to children's learning is that teachers work toward developing learning activities that improve the children's opportunities in the above mentioned domains: in ways that, according to Dewey, improve children's ability to investigate, think critically, and experiment in collaborative learning environments.

The VIDA Education program aims at enabling staff to implement new routines by working with theories and knowledge of activities that improve child learning:

- Adult-initiated learning activities with a range of selected themes based on the national curriculum.

- Child-initiated learning activities in inclusive learning environments.
- Stimulation of children's wellbeing and learning through active involvement. Supporting activities that train children's language and motor skills.
- Stimulation of children's curiosity and concentration through educational games.
- Recognition of child progress: Encouraging the child to explore new personal sides and to embark on new activities independently.

Using the above as the overall framework, VIDA works with learning in ways that incorporate an interactional socio-psychological view on children's learning as a social process in the interplay between the child and the adult (Mead, 1934). But learning is also seen as something that is consciously initiated in order to enhance the interplay between a child and other children. Lastly, this type of learning is seen as something that emerges in the reciprocal relation between a child and its surroundings, and in activities initiated by the child as well as by adults. Similar to activities that stimulate children's cognitive learning, VIDA also draws on an interactional socio-psychological view of a child's identity formation as being deeply rooted in social communities from which it is either included or excluded (*ibid.*).

Research has demonstrated that children in daycare learn through appreciative environments focusing on social skills. Children's social competences, self-esteem and identity are developed when they are part of social processes that are appreciative, inclusive and that integrate the communities that emerge. These competences are maintained and developed during daycare.

The social process contributes to the development of a child's identity formation and thus depends on the existence of, and interplay between, several 'selves'. One way of looking at this is to see the self as a prerequisite for the development of higher forms of complexity and social organization. According to interactionism, it is simultaneously the case that the outcome of a given social process becomes an important factor in the further course of the process. To give an example from everyday life, children's sense of feeling excluded from a community, feeling inadequate and not belonging, produces a negative self-image, and the child will gradually lose confidence in its own worth. A downward spiral has started which is difficult to change if it continues for too many years or prevails in too many of the child's social arenas. Turning around this development – which is the aim of VIDA – requires an improved effort for socially disadvantaged children, who often have a feeling of 'not belonging'. An improved effort is targeted daycare that stimulates the individual child's self and its ability to join and co-create con-

structive and reinforcing social relations. In daycare this aim may be achieved by working with the child and by ensuring access to inclusive communities. Consequently, the VIDA Basis program encourages teachers to work with children's social relations, their communities, and their self-esteem.

A leading principle in the VIDA Basis model program is to structure the effort as educational, where daycare centers learn to apply an asset approach and inclusive views on the children (Rutter & Rutter, 1993, Rutter, 2009). This is because research has shown that an early effort based on this view of children has a positive effect on the child's quality of life in his or her early years. Yet, it should be mentioned that research has also shown that children in Danish or Nordic daycare are rarely met with this approach, (see, for instance Palludan, 2005; Gulløv 2004).

The intent of the VIDA project is a shift from a deficit approach to an asset approach. This in itself can be the beginning of an effort to counteract the often tacit mechanisms of marginalization (Bourdieu & Passeron, 1977). Consequently, the leading idea in VIDA is that preschool teachers be introduced to methods for how to work with knowledge and understanding of pedagogical practices that are based on theories of inclusive pedagogical renewal.

AN ACTIVE AND COLLECTIVE ORGANIZATIONAL LEARNING PERSPECTIVE

Moreover, the VIDA Basis model program builds on the principle that the teachers' acquisition of new knowledge and understanding is crucial for their ability to create new shared forms of concrete action in daycare centers. In Danish and Nordic studies, precisely this notion of educating teachers to strengthen their knowledge and qualifications proved to be rare. The ASP project touched upon this issue and useful experiences from this qualification approach is further developed in the VIDA project. Our intention is thus to initiate learning processes in daycare centers in selected municipalities in order to enable teachers to independently develop, systematize, and document new behavior.

Organizational learning is thus a key concept in VIDA, and it is defined as the acquisition and exploitation of new knowledge in renewed practices that are systematically and collectively developed and followed in the entire institution. The learning-based ideology that runs through the VIDA program is thus that participants must actively integrate their practice-based knowledge and experiences with knowledge and reflections from their education to form the basis for new ways of acting. Thereby, the VIDA basis model program links knowledge from intervention research with knowledge about organizational learning, and

sees learning not only as something that occurs through passive reception of information, but as something that emerges from the learners' active involvement, reflections and thoughts.

2.3 THE VIDA+ PARENT PROGRAM

In terms of content, the VIDA+ program is basically the same as the VIDA Basis model program (see section 2.1) but with an additional parental focus. This focus implies that teaching staff are trained in how to involve parents through constructive and inclusive parent collaboration processes. The VIDA+ model program is based on results from a Clearinghouse research mapping review prepared for the VIDA project (see Søgaaard Larsen et al., 2011).

The following will present how the various elements from effective intervention targeted at 0-6-year-olds including parental involvement (see the Clearinghouse Research Mapping Review, Appendix I, Søgaaard Larsen et al, 2011) can be translated into the pedagogical ideas of the VIDA+ program.

When comparing the nature of parental involvement in the reviewed programs that generate positive effects for children's cognitive, emotional and social development, a number of common features clearly emerge. At an overall level, parents are taught about knowledge in the field and learn concrete methods for translating this knowledge into practice. As part of the program, parents are given a number of specific activities to perform together with their child at home. Furthermore, they can participate in shared reflection with other parents as well as participate in meetings with preschool teachers and in activities with their children in the daycare center. That parents play a very active role is common for all programs. In some specific areas, parents must learn to change their practice, i.e. behavior, and this change is facilitated through tasks and activities that are to be performed at home with the child.

The programs also often assist parents with handling problems or challenges that are not necessarily directly connected to the upbringing of the child or enhancing the child's opportunities in life. This is to enable parents to create a home environment that constitutes a more supportive and development-promoting context for the child. In some cases, a family is assisted in playing a more active role in the local community, for instance by accepting and actively participating in various local activities.

Briefly summarized, the effective parent programs cover the following aspects:

- Active parent involvement: Concrete activities at home that are related to learning and education in daycare.
- Education and shared reflection: Parents are taught activities they must perform with their child. Supervised by a preschool teacher, parents are given the opportunity to reflect on these activities and other aspects in groups together with other parents.
- Home visits: This is a particular relationship preschool teachers can take part in and supervise. Program-related activities can be explained.

Special support for underprivileged families to give parents the possibility to actively collaborate with the daycare center. This support entails explanations and concrete support via home visits, and assistance with practical issues.

The above activities comprise both explanations and concrete support through home visits and assistance with practical measures in connection with meetings and other activities. The process is continuously evaluated by assessing to which degree program activities are performed in the home. This allows teaching staff to offer specific support to families that find it difficult to perform the activities.

The objective is to generate increased parental competence in a tangible manner through guidance, collaboration, follow-up supervision and evaluation of the specific activities the parents are encouraged to do with their children at home, in the local community and in the daycare center. Through this, parents become capable of training specific skills (e.g. reading, mathematics,) with the child. This training also includes social skills such as non-aggressive conflict management and the ability to join social communities in a reciprocally supportive and contributory manner.

One specific element of the effective programs, which the VIDA+ program is inspired by, is that parents are involved as clear and active agents in the reinforcement of the child's development in close collaboration with the daycare center. What is of particular interest here is very concrete and active parental involvement. The aim of the support and training that the parents are offered is to enable them to actively perform program activities; this is a concrete strengthening of parental competence. During meetings with other parents and preschool teachers, a reflective learning process emerges with new ideas for coping. These programs are generally characterized by a high degree of concrete activities that enhance certain forms of development-promoting behavior.

Based on the analysis above, three main headings are formulated for the guidelines in the VIDA+ program: 1) The role and tasks of the teaching staff, 2) the content and form of the parent program, and 3) parental involvement based on knowledge of what is perceived as meaningful and relevant by parents. These three aspects are described in more detail in the VIDA folder and supplementary materials.

THE ROLE AND TASK OF TEACHING STAFF

We recommend that managers at daycare centers facilitate the qualification of individual preschool teachers so they can function as a facilitator and role model for the parents. Thus, the task of managers is to facilitate that individual preschool teachers becomes capable of adopting their required role, and that teaching staff as a group develop shared understandings and approaches to new forms of parent collaboration. At organizational level, staff should be trained in how to acquire and develop a high level of receptiveness to, and insight into, parents' real needs in order to develop activities that are meaningful for parents. As a shared activity in preschools, staff should be trained in how to acquire knowledge of children's learning from the view of VIDA perspectives, so they can confidently collaborate with parents.

THE CONTENT AND FORM OF THE PARENT PROGRAM

The Clearinghouse review recommends different types of content in various parent-program initiatives depending on the objectives the individual daycare center. If the aim is to promote children's individual cognitive development, different types of approaches are required. However, if the aim is individual social development, another approach must be used. Furthermore, if the aim is to enhance both the child's and parents' general resources, a broader curriculum is recommended. The relationship between the various aims and consequences is described in the Clearinghouse review mentioned above.

FORMS OF PARENT INVOLVEMENT

Based on the results of selected Danish quantitative studies (see the VIDA material on parent involvement, appendix I), it is recommended that managers and pedagogical staff work with forms of parental involvement that help parents reach new understandings of their child's development and how they can affect this progress. This is to be achieved through acquisition of relevant knowledge, meetings and dialogue with other parents, which helps parents perceive themselves and teaching staff as reciprocal resources. Thus, it is recommended that parent programs are inclusive and engaging and thereby educational for the par-

ents. These aspects are in harmony with the VIDA principles of applying: 1) an asset approach, 2) active learning, and 3) organizational learning.

Two aspects relating to the transfer of knowledge about parent programs to the VIDA+ model program should be mentioned here. Firstly, the programs included in the research review are so varied that it is not possible to point to one particular method to ensure the desired results. Secondly, the VIDA+ program must fit the present Danish context in which parents from all social groups are represented. Consequently, an important task of the VIDA+ program is to ensure that parents are really involved in activities they find meaningful (Søgaard Larsen et al, 2011).

Based on this research review (*ibid.*), we expect that combining VIDA with a VIDA+ parental program will have a greater effect. Yet, it is not possible to conclude which type of effect the parent programs will not generate nor which type of intervention achieves the greatest effect. Thus, on the basis of the studies of literature, it was not possible to produce exact instructions for the content of parent involvement in the VIDA project. Consequently, inspired by the results of the mapping and reflections of the intervention seen from a Nordic perspective, a number of recommendations to guide the VIDA+ program have been formulated and incorporated into the VIDA+ education program materials. The overall implementation of the VIDA+ model program follows the same guidelines that were produced for, and followed in the implementation of, the VIDA basis model program.

2.4 VIDA MATERIALS AND TOOLS

The aim of the VIDA intervention is to qualify professionals and managers to work with innovative methods in order to improve children's learning and well-being through inclusion. The idea is achieve this through training teachers and managers how to use evidence-based knowledge of children's development and methods for implementing this new knowledge in practice throughout the day-care center. This means that simply training individual teachers manager by traditional one-way communication and dissemination is not enough. Instead VIDA builds on an interactive and innovative approach to education where dialogue, communication, knowledge sharing and reflections are important elements in the training sessions and methods for knowledge-sharing throughout the preschool.

The following material and tools for VIDA training have been developed:

VIDA QUALIFICATION FOLDER

This is a further development of a qualification folder developed for the former ASP program, and tested with positive effects (2006-2009).

The material has been adjusted to the VIDA program in the following ways:

- Specification of knowledge relating to the three fundamental principles of the VIDA project: 1) socially disadvantaged children's opportunities and challenges related to the issue of social inequality, 2) through an active perspective on learning and learners (children and adults are perceived as active participants in interactive training, i.e. not objects for teaching), potentials are stimulated through learning environments that imply opportunities for critical thinking, reflection, investigation, and action, and 3) a collective and organizational learning perspective on change in throughout the preschool
- Knowledge about the concepts of resilience and reinforcing collaboration as protective external resources, emotional ties that encourage trust, autonomy, and initiative in the child.
- Specification of the socio-psychological theoretical basis of the VIDA program for understanding and actually incorporating the 'interactional perspective' of the child's learning and personal development (i.e. the interplay between the individual and his or her surroundings) in the effort.
- Knowledge about processes of change through organizational learning and innovation throughout the preschool, through teacher qualification and collective practice-based learning.
- Knowledge about the role of management. An underlying literature review is based on research in the relationship between innovation and learning in modern enterprises. These findings are from studies in learning and innovation in the private sector (cf. Drucker, 1985, 1987; Blazevic & Lievens, 2004); however, we assume they can be transferred to learning and innovation in the public sector, in specific in a preschool setting.

(The qualification folder functions as teaching material, and is made available to preschool teachers and managers participating in the training sessions. It is also made available to other teaching staff in the participating day care centers, as well as to municipal administrators of education and the project. The material constitutes the starting point for implementing VIDA model programs.

VIDA QUALIFICATION FOLDER FOR VIDA+ PARENTAL PROGRAM

This folder has been developed for the VIDA+ program and is based on knowledge

from the Clearinghouse research review of parent programs (Søgaard Larsen et al., 2011).

Based on the materials, a VIDA guideline has been developed as a tool for converting ideas, perspectives and knowledge into practice (only available in Danish).

Two more tools and a set of guidelines support the implementation of these programs. These are 1) the VIDA reflection tool, and 2) the VIDA SharePoint site.

The actual implementation of VIDA will thus be based on the use of the knowledge folder, the VIDA guidelines, and will be adapted to the local situation, i.e. the actual group of children. The local situation is monitored by teachers and managers through analysis of local situations in the participating daycare centers. This is done by means of the reflection tool that serves as a starting point for identification of the child's competence profile and variation in the particular group of children. This is measured using single indicators of social and learning skills for five dimensions: knowledge, skills, control behavior, identity and ability to act in different situations. This tool will also facilitate the identification of the preschool teachers' competences to enhance children's learning and social skills. The collective outcome is local identification of the preconditions for child composition and the professionals' innovative competences in the individual daycare centers. Together with the participants' newly acquired research-based knowledge (from the VIDA materials, the qualification folder and the supplementary folder on parent involvement), the identified preconditions will form the basis for the actual work with knowledge development, knowledge sharing and action towards implementation of VIDA by using VIDA-guidelines.

The VIDA SharePoint site is a virtual place for knowledge sharing that all participants can use in order to work systematically with knowledge sharing between attending training courses.

2.5 THE GENERAL VIDA CONCEPTS

The VIDA project is both rooted in national and international research, and involves an innovative approach in order to develop new evidence-based knowledge of quality-enhancing early childhood educational strategies at several levels, from policy to practice. Through the VIDA training processes, the participants learn how to work with, translate, transfer and implement new theoretical knowledge, goals and methods as described in the VIDA materials, tools and

guidelines, in their efforts towards renewal of their specific early efforts in day-care practices.

The teachers' ability to reflect on their own practices is enhanced by learning about the components of successful ECEC programs that have been carried out internationally. Thus, a part of VIDA is to provide teachers with knowledge about these programs. VIDA, however, does not develop pre-fixed materials, which often are used in international studies of preschool interventions. Instead, VIDA provides guidelines based on the international programs and theoretical knowledge about children's learning and socio-emotional wellbeing from early ages, which teachers are encouraged to consider using in their own practice. Studies of preschool programs that aim at disadvantaged children have often been carried out in settings where there are extra resources. This aspect increases the possibility of detecting effects that are statistically significant. Such programs, however, are difficult to implement on a large scale. Therefore, the VIDA program has been designed to be compatible with ordinary resources at regular preschools. In short, VIDA incorporates the findings of international studies of preschool intervention into the Nordic setting with near-universal preschools and well-educated staff.

The overall criteria for working within the shared framework of the VIDA model programs, i.e. that participants work in accordance with the intentions of the VIDA model programs, is determined by certain methods. The nature of the efforts is knowledge-based and:

- Determined
- Systematic
- Documentable

This shared framework applies to work with the VIDA Basis model program and the VIDA+ model program. It thus constitutes a fundamental element of the overall VIDA training program and the subsequent local implementation process.

Regarding the parent program, implementation focused on improving methods that make it possible to truly involve parents of disadvantaged children. Nevertheless, participating preschool centers will differ in intensity and weighting because the effort is structured around the local objectives defined according to the situation and context of the individual preschool.

CHAPTER 3

INTERVENTION: EDUCATION AND IMPLEMENTATION OF VIDA

3.1. INTRODUCTION

The overall objective of the VIDA program is that teaching staff renew and change their pedagogical practices in ways that generate new value for children in general and for socially disadvantaged children and their parents in particular. This renewal must be initiated on the basis of preschool teachers' work with knowledge, knowledge sharing as tools of reflection and actions aimed at implementing the VIDA programs.

In the VIDA programs, the concept of organizational learning takes its point of departure in the crossover between a psychological and sociological organizational learning perception (Elkjaer, 2004). When comparing organizational learning from a cognitive and individual perspective (as in Argyris, 1991 and Argyris & Schön, 1996) to learning from a social perspective, we can understand learning as something that happens *through* participation. Learning in the VIDA program is understood as a social process. Thus, this approach is an attempt to transcend the dualistic view of the individual and the organization as separate entities.

When methods and knowledge acquired through the VIDA training courses are brought into practice, this leads to a dynamic or almost symbiotic relationship between the individual and its surroundings (i.e. the organization). Moreover, learning is understood as something that contributes to the formation of individuals cognitively and emotionally. This also involves motivation, sense making, and social relations. Central to this concept is an understanding of learning as something that occurs through participation (Elkjaer, 2004) and through knowledge sharing in organizations as a communal resource (Von Krogh, 2011).

A core issue in this social and community-based view on learning is that organizational learning processes occur as an interaction between the actors of the

organization (i.e. the employees) and the framework conditions (i.e. the context) when organizational habits or practices are no longer perceived to be expedient. Habits or practices are, so to speak, disturbed in the everyday work. Thereby, the learning process is set in motion by the VIDA training program. Furthermore as the aim of the VIDA training program is to capacitate managers and teachers to reflect on possible solutions, and as this reflection process begins when habits or existing practices are no longer perceived as expedient, an imbalance between the organization and its members' actions emerges.

The outcome of the learning process may be the creation of new understandings in perceptions, which may in turn lead to more expedient habits and practices for dealing with the concrete problems in the entire organization, here the participating preschools in VIDA. The assumption is that if organizational learning is initiated or occurs, innovation is a possibility; i.e. a true renewal sets in.

As the VIDA training program builds on these conceptualizations of innovation and organizational learning, this implies that participants work with evidence-based knowledge of children's learning, well-being, issues of social inequality, in- and exclusion mechanisms and that they use the guidelines for implementing new knowledge and methods. On the one hand, this VIDA knowledge gives rise to an array of behavioral patterns, decisions and task solutions observable in competent behavior. On the other hand, this knowledge integrates individuals and collective levels of analysis; what used to be a construct reserved for individual levels of analysis is now used by many scholars to explain and predict how individuals and groups influence their thinking and actions.

VIDA: EDUCATION AND TRAINING OF TEACHERS AND MANAGERS

The qualification strategy for staff in VIDA consists of education and training in three elements: knowledge, reflection and implementation.

The knowledge element is based on the VIDA qualification folder (see section 2.4), which presents evidence-based knowledge about 1) socially disadvantaged children, background variables and the concept of competence in a broad sense and theories of child development related to improve children's ability to act as active subjects; 2) effects of intervention based on international research; and 3) knowledge about national legislation in the field (national curricula in preschools) (Danish Ministry of Social Affairs, 2004, 2011). Knowledge of these three areas is merged with a fourth field of knowledge, practitioners' experience-based knowledge, which comprises both explicit and implicit experiences from practice, theory and common knowledge from institutions.

In the reflection and critical analysis element, the gap between daily practices at individual daycare centers and scientific knowledge from the VIDA qualification folder and courses is reviewed. Any divergence between participating staff's understanding of their own skills and competences and the children's competence profiles and needs is also discussed. This reflection serves as a tool for staff to suggest improved practices at preschools. The structure for reflection and critical analysis is quite open. The starting point is observations that have surprised staff. All staff at a given daycare center meet regularly in a group to discuss these issues. Weekly meetings are recommended.

The implementation and action element invites individual daycare centers to develop their own procedures for implementation of the new routines presented in VIDA guidelines and to develop experiments in order to renew the methodology in practice. VIDA training that teaches daycare center staff innovative approaches to changing practices is based on sessions that train the teachers' experimental and creative ways of thinking and acting. The managers of the individual daycare center, together with the entire staff, organize the course of the process. The implemented changes are then documented and evaluated. Therefore, in-service training and supervision in documentation and evaluation is offered to the staff. Training processes are based on Dewey's theory of learning as investigation, critical thinking and analysis (Dewey, 1933). This type of organizational model for learning and innovation has been demonstrated to be effective, since it facilitates an organizational learning process (Easterby-Smith, 1997,; Jensen et al, 2007; Lundvall & Nielsen, 2007, Von Krogh, 2011).

Organizational learning as defined by Elkjaer & Wahlgren (2006, 21) is an integral part of the practice of everyday organizational life and work. From this perspective, learning is not restricted to taking place inside individual minds, but instead is something that comes out of participation in organizational practices. As a result, preschool staff constructs their understanding of children, learning, social disadvantage and health based on their participation in the practices of the preschool. In the VIDA program, staff actively integrates new knowledge and reflections from education and training courses that are offered in their current practice-based knowledge and experience. The VIDA program thus understands learning as something that emerges from learners' active involvement in practices at preschool (ibid.).

Thus, a starting point could be new perceptions of socially endangered children and their backgrounds. These new perceptions might result in creation of new habits and routines in pedagogical practices. An important tool for these orga-

nizational learning processes is critical-reflection groups. One focal point in the intervention is to ensure a connection between the individual employee's acquisition of new knowledge and integration of this knowledge in the entire daycare center, e.g. by introducing new activities. Organizational learning is when employees acquire new knowledge and use this knowledge to change work-related practices that are then systematically adopted and practiced by all the employees in the daycare center.

At the theoretical methodological level, the assumption is that upgrading employees' qualifications is best achieved through training that promotes organizational learning, empowerment, and active co-creating employees. This assumption partly stems from the former ASP project and partly from extensive research studies in professional development, learning and innovation in the public sector (see for instance Sundbo 2003, Jensen et al., 2007). Inspiration also comes from research in practice-based innovation seen in a learning perspective (Ellström, 2010).

Based on analyses, new objectives and action plans are formulated and actual actions serving the implementation of new work areas are initiated. The third phase of the training is more practice-oriented. Here, participants acquire knowledge of strategic tools to facilitate the implementation of action plans, evaluations and new conduct, which will enable them to involve and encourage all employees in the given daycare to take part in the organizational learning processes. The VIDA training program reflects the fundamental theoretical hypothesis of the VIDA project that development should be based on a combination of top-down development initiatives (the established formal VIDA education) and bottom-up processes, where new knowledge serves as inspiration and should be activated in relation to local development processes within a specific daycare facility.

The top-down approach is central because it is important to document and manage *de facto* actions toward learning from new conduct and practice in the daycare center. As part of the top-down approach in the VIDA program, managers and teaching staff are taught how to assess efforts aimed at disadvantaged children. Moreover, they are given clear and specific knowledge of general VIDA development objectives as well as strategic methods to support organizational learning processes in respective daycare centers.

The bottom-up approach is also central because it supports the participants' involvement and commitment to practice and comply with the core elements of the VIDA programs. The bottom-up approach reinforces the foundation for

potentially new conduct and practices challenging and rooting research-based knowledge in local knowledge and experiences, in ways that leave managers and employees motivated to work with the intervention.

3.2 THE VIDA BASIS PROGRAM - TRAINING AND IMPLEMENTATION

The VIDA training program (modus 1) begins with an introduction to the knowledge element of the intervention program, the materials and tools described above (see section 2.4). The purpose of this introduction (the first phase of the training program) is to contribute towards participants' shared research-based and theoretical knowledge of socially disadvantaged children. Participants in the VIDA training program will bring this new knowledge with them to their daycare centers. Here they will begin to work with this knowledge in an analytical and reflective manner as part of local development processes and concrete actions. In the second phase of the training program, participants continue working reflectively. However, for managers, focus shifts to training facilitation of learning processes for the entire staff, as the entire staff works towards the implementation of the VIDA concept. The training program revolves around three key elements, namely knowledge, reflection and implementation, in an interrelated manner as mentioned above.

The argument for designing the VIDA programs based on an innovation perspective and through the notion of organizational learning is based on data from and the ASP project. This project studies an innovation-oriented intervention approach in public daycare (Jensen et al, 2009, Jensen et al., 2011). However, previous experiences with implementation in the ASP project strongly suggest that VIDA participants will face great challenges regarding management forms and relations between the managers and the remaining staff, regardless of the strategy they decide to apply in the actual implementation of the intervention. The VIDA project has taken account of this management aspect by incorporating seminars for managers only, where they become familiar with strategic development and tools for change (see section 3.3).

Reflections on, and analysis of, existing practices are interspersed with formal teaching, and participants are encouraged to work determinedly and systematically with processes inspired by the training program in a manner that allows full documentation. Following the training program, participants are engaged in an implementation process that lasts four months. Local processes are accompanied and supported by reflection and knowledge-sharing tools. Training and im-

plementation are, on the one hand, locally rooted and, on the other hand, guided by educators and tools that have been developed to facilitate the implementation process as a shared activity in daycare centers.

3.3 THE VIDA+ PROGRAM - TRAINING AND IMPLEMENTATION

The VIDA+ parent program applies the same intervention strategy as the VIDA basis program with regard to education, implementation of the program content, knowledge foundation, methods and materials.

Furthermore, in the parent program, training also integrates the Clearinghouse review of parent programs (and additional material developed for the VIDA qualification folder). Studies have shown that the examined parent programs have the greatest effect when they comprise a parent component together with a special type of pedagogical support for the children (Dillon Goodson, 2005). This aspect has been incorporated into the training element of the VIDA+ program. Participants in the VIDA+ program acquire the fundamental elements of the VIDA training program and work with these in the way defined above. Moreover, they are introduced to a special VIDA+ training element that deals with recommendations presented in the research review (ibid.).

In connection with training and implementation of the program content concerning increased and improved parent involvement, the training element trains teachers to develop their knowledge of parental involvement. Moreover, inspired by programs that, according to the research review, generated positive effects (see section 2.2), teachers are taught how to carry out tangible initiatives with a view to collaborating with parents to enhance their child's competence development. Specific strategies and principles may prove necessary if daycare facilities are to keep underprivileged families interested in continuing collaboration.

3.4 SEMINARS FOR MANAGERS – FACILITATION OF VIDA IMPLEMENTATION

The two intensive facilitation seminars (modus 2) for daycare managers are offered as a supplement to the overall VIDA training program. They entail specific activities and exercises for working with management strategies in change processes. The following offers an outline of the objective, methodology and time frames of these seminars.

OBJECTIVE

The facilitation seminars aim at improving managers' ability to apply their newly acquired knowledge to daily practices in their daycare center. A typical approach in many workplaces is to arrange a staff meeting and eagerly talk about the new and existing input for about 40 minutes. Then the employees have approx. 20 minutes for questions, some of which are critical, as this is the approach they have been trained to take throughout their education. An hour has passed and everyone moves on to the next item on the agenda. Will this change practice in the institutions? Probably not. The employees may think: "Interesting seminar, good for you, but what does it have to do with me!" In other words, the manager was unable to inspire the rest of the staff, unable to convey a sense of empowerment, and the managers' attempts to change existing practices are very likely to be met with surprise, indifference or resistance.

METHODOLOGY

Facilitation seminars also aim at improving managers' ability to facilitate and guide knowledge-sharing processes, process innovation, and organizational learning in their daycare center. *To facilitate* means to firmly, but friendly, guide and support employee communication and conduct at meetings as well as in daily work routines. Facilitation of employees is a method used to ensure a certain outcome from the time spent on reciprocal inspiration, collective learning, and project initiation. By means of inclusive processes, facilitators plan and chair meetings in ways that involve and show appreciation of all the participants' constructive actions. Participants are thus more motivated to continue their work and fully utilize their competences.

TIME FRAME AND FORMAT

The act of facilitation is best taught at intensive workshops. Thus, managers participate in a two-day workshop (from 10:00 am to 4:00 pm) and a one-day workshop five weeks later. At the second workshop all of the managers from both the VIDA Basis and the VIDA+ institutions meet and work together. Workshops consist of practice-oriented exercises, such as meetings and knowledge-sharing sessions in which participants are asked to facilitate under guidance from VIDA instructors. The content of these meetings consists of VIDA-relevant data, and for the managers from VIDA+ institutions the meetings will also deal with parents' meetings as an option for mutual learning and inspiration. Managers work with typical challenges such as asking employees to reflect on their practices and innovation processes. They train basic management skills such as how to open meetings with authority, how to chair meetings appropriately, and how to keep

discussions focused and cut off digressions in order to ensure the desired outcome of the meeting within the planned time frame.

Years of shared management must be discarded, yet without returning to the old management paradigm of the authoritarian manager. Here, the role of the facilitator is particularly well-suited to achieve an effective and goal-oriented yet inclusive management style, which most modern workplaces strive for in their pursuit of institutional development and organizational learning.

3.5 INTEGRATION OF EDUCATION AND IMPLEMENTATION

The VIDA training program and implementation of the VIDA concepts are interrelated during the intervention period as the participants receive training in how to work with the VIDA knowledge as reflecting and acting participants. The training sessions are designed in a way that shifts between teaching aimed at knowledge acquisition (individuals) and training aimed at training the participants in how to use methods of knowledge sharing and reflection in order to achieve interaction between evidence-based knowledge and practice-based knowledge which is more tacit.

The interplay between the training and the three-phased development (i.e. the implementation) throughout the two-year intervention period is described below. To continuously adjust and improve progress, participants attend a networking seminar to summarize experiences from the various agents, municipalities, researchers, and educators in the project, within each of the three phases. Training courses are organized and conducted by Danish university colleges, while local implementation and development processes are designed, planned and carried out by employees at individual daycare centers.

Every fortnight, participants attend formal courses as part of the VIDA training program. These courses consist of presentations, individual and shared reflection, practice-relevant narratives, and discussions based on the mentioned VIDA material and tools. During these training courses, daycare centers are expected to communicate and reflect via the SharePoint site. This initiative is to ensure that participants continue to discuss, reflect upon and implement the VIDA project. In time, the ideology of VIDA will hopefully trigger an on-going process of reflection.

Phase 1 (2011)

Milestones for the first training course (3-4 months, takes place outside of the daycare center) are:

- Participants acquire knowledge and abilities to apply a knowledge-based approach in the analysis of own practice (the knowledge basis of this course is presented in the VIDA qualification folder)
- Participants are able to work systematically with establishing targets and assessing own action competences in relation to the established objectives for children's competence development (by means of the VIDA Reflection Tool and competence profile analyses).

The first course focusing on development (3 months) takes place at the daycare center. The objective is to implement new knowledge and reflection in the daycare's daily practices. Participants are encouraged to reflect on their own practices by means of new knowledge and concepts in order to establish a new, shared language use enabling the development of new creative ideas.

This process is supplemented by 1) a management course (workshops 1 x 2 days and 1 follow-up day) focusing on facilitation of learning processes and formation of networks, and 2) a new center-based course of development emphasis on working at an organizational level.

At the end of Phase 1 a networking seminar is held (seminar 1) for municipal contact persons, managers, pedagogical staff and representatives from UCC and Department of Education (DPU). The aim is to exchange experiences from Phase 1.

Phase 2 (2012)

Milestones for the second training course (3-4 months) (takes place outside of the daycare center) include:

- Participants acquire knowledge of how to develop action strategies; they learn how to make systematic plans for testing experiments (i.e. continuing the work with the VIDA qualification folder part III) and use tools to identify the child composition (by means of the VIDA reflection tool, possibly supplemented with the Danish project *Faglige Kvalitetsoplysninger* ("Professional Criteria of Quality", Ministry of Finance 2010, only available in Danish).
- Participants develop innovative competences; they become able to translate action strategies and systematic plans into experiments (1-3 experiments) and analyze what works in practice by evaluating own processes of renewal.

The second institutional course focusing on development (3 months) takes place the daycare center. The objective is to test local experiments (the ideas for 1-3 experiments) and evaluate locally own renewal.

At the end of Phase 2, a networking seminar (seminar 2) is held which aims at providing an opportunity to exchange experiences from this phase.

Phase 3 (2012-2013)

The objective of the third training course (1-2 months) (takes place outside of the daycare center) is to develop practices (based on local evaluation of experiments), and the milestone is for participants to form networks in which they describe and clarify the renewal that has taken place.

The third institutional course focusing on development (2 months) takes place at the daycare center. The objective is to implement the renewal as a local professional standard of preventive work with all children, but particularly socially disadvantaged children, in universal daycare (in relation to the two dimensions: competence development of the individual child and inclusive pedagogy).

This process is supplemented by a second management course where special attention is given to processes of institutional development of practices (where participants assess the process).

At the end of Phase 3, a networking seminar (seminar 3) is held, which aims at providing an opportunity to exchange experiences from this phase.

The overall time frame of the VIDA intervention is a two-year qualification and training process arranged in as close proximity as possible to the participating municipalities. In total, we offer three training courses for all participating daycare centers (Modus 1). Moreover, all the managers involved can participate in seminars focusing on working with facilitated learning processes (Modus 2). Central to both Modus 1 and 2 is the involvement of managers who become qualified to undertake the task of creating opportunities for working with change processes in the entire organization (i.e. the daycare center and the possible interdisciplinary collaboration initiated by the VIDA+ program).

The education and implementation processes that are completed in 2011 will be carried on in 2012, yet with increased focus on the innovative approach to application and dissemination of knowledge of processes that improve socially

disadvantaged children's learning and social development (VIDA) and parental involvement (VIDA+).

3.6 SUMMARY

The VIDA programs build on two hypotheses. The first hypothesis is that participating teachers and managers themselves create renewal of practices by working with the materials, methods and tools for taking a knowledge-based approach when implementing the programs in practice (Wenger, 1998). The process from acquisition of knowledge to use of this knowledge in successful renewals of practices requires materials, methods and tools for analyzing and reflecting on existing. In this context, the training offered in the VIDA program contributes with both teaching and methods for reflecting. It is assumed that the participants in the VIDA training program convert knowledge and ways of knowledge sharing into new practices. The second hypothesis is that the style of management is crucial for successful implementation of the programs and this is why the main courses are supplemented with seminars for managers as described above.

Overall progress is documented in various ways. Firstly, participating managers and employees document their efforts from their early work with reflection sessions following formal teaching, and they report these efforts in SharePoint log books. Secondly, VIDA educators write short reports about process flow and regularly evaluate the education process. Thirdly, researchers regularly collect quantitative and qualitative data as part of the integrated-effect study.

The effect study is described in Chapter 4, and emphasis is on how the project meets the criteria of a randomized effect trial. Case studies contribute with useful information about elements in the practice development processes that may contribute with important knowledge about the impact of VIDA programs on renewal of 'best practices'.

CHAPTER 4

THE EFFECT STUDY – A RANDOMIZED TRIAL

4.1 INTRODUCTION

In order to determine the effect of VIDA, a randomized controlled experimental study was carried out in four representative Danish municipalities. The 120 participating daycare centers were first stratified into three groups, high, medium and low socioeconomic status, based on data from Statistics Denmark on the parents of the children, more specifically their level of education, use of social welfare and unemployment.

Within each of the three strata, preschools were randomly selected to participate in either the basic intervention, VIDA Basis (40), the basis intervention supplemented with a parental effort, VIDA+ (40) or the control (40) group. At the start of the study, a total of 7000 children and about 1000 members of the staff, both trained daycare teachers and assistant teachers with no training were enrolled in the experimental and reference daycare centers. A total of 235 members of the staff, one manager, a number of assistant managers (from large centers) and teachers with a bachelor's degree, all of whom are from the intervention group, are to participate in the training courses.

Data has been collected from children on three occasions, at the beginning of the project in March 2011, in March 2012 and at the end of the project in March 2013. The outcome for each child is scored by the daycare center staff based on the Strengths and Difficulties Questionnaire (SDQ) for assessing the psycho-social adjustment of children and adolescents (Goodman 1997). The SDQ scale consists of five sub-scales that measure different aspects of a child's personal and social behavior. These sub-scales are a) emotional symptoms, b) conduct problems, c) hyperactivity/inattention, d) peer-relational problems and e) pro-social behavior. In the analysis, all five scales are kept separate outcome measures.

During the sample period, some children will leave the study, for example if their parents move the child to another daycare facility or because the child has become eligible for primary schooling. This subsequent child drop-out may be non-random across the intervention and control-groups. Indeed, some daycare centers may not have any children that are measured at all three data-collection points, and some children will not be followed throughout all three data-collection periods even though they attend a daycare center that provides measurements on some children at all three data-collection points. This is mainly because these children start primary school and subsequently leave the preschool. For clarity of the entire drop-out process, we illustrate the data collection process in figure one below.

Measurement of the effects of the VIDA project serves the purpose of clarifying the posed research question, though with emphasis on the effect of model programs measured by a child's progress.

In studying the correlations between intervention and effect in the two model programs, intervention factors that seem to play a crucial role are examined (e.g. the educational material, the consultancy support etc.). To do so, interventions in the two model programs (VIDA Basis and VIDA+) and the practice in the control group are compared.

Moreover, it is necessary to study the correlation between costs and effects. The integrated effect study will comprise the following components: 1) selecting daycare centers (based on a RCT design) and collecting data; 2) quantitative effect studies; 3) qualitative effect studies, case studies of renewal of practice from an organizational learning perspective; 4) qualitative effect studies, case studies of parent involvement; 5) integrated effect study analysis by combining the quantitative and qualitative results; and 6) follow-up studies. The sub-components are interrelated, which allows an assessment of the effects on the complex contexts of the two intervention programs and comparison with the control group.

Each component is described more detailed in the following sections and in Appendix II.

4.2 SELECTING MUNICIPALITIES AND INSTITUTIONS

Collecting data primarily concerns selecting daycare centers for the two model programs and the control group. The actual data comes from three rounds of sur-

vey measurements of participating daycare centers: a baseline, a midway and a final measurement.

To ensure the highest possible statistical strength, the selection of the intervention and control group institutions is based on *screening*. Based on the assumption that social vulnerability is linked to family conditions, educational level and ethnicity etc., as in the ASP project, the VIDA project uses data on children and their parents obtained from public records. The four participating municipalities have been selected to yield a geographical representative distribution of municipalities.

The selection of sample daycare centers within the four municipalities is based on a model of classic effect studies (RCT), and intervention daycare centers receive various forms of support, i.e. training and assistance in implementing renewed work practices. The children's development is monitored for two years, after which it is assessed whether the intervention has had an effect on children's competence development, as well as how various types of intervention work and how effective they are.

To be able to make this assessment, children's competence development is compared with the corresponding competence development in children in control group institutions – where intervention is not implemented. Participating daycare centers are thus divided into three almost equal groups: intervention group 1 (VIDA Basis), intervention group 2 (VIDA+), and the control group.

A central element in the previous ASP project was to conduct thorough analyses of this challenge. As the challenges of matching criteria for randomized selection with the need for comparable institutions also apply to the VIDA project, it has been decided to let the well-documented guidelines of the ASP project guide this phase of VIDA. Segmentation in VIDA has thus been divided into two phases; first a division of the children according to a statistical probability of 'vulnerability', estimated based on the analysis model mentioned above. Then, children are divided into four groups according to their 'statistical risk' of coming into a contact with social authorities, estimated on the basis of their characteristics with four variables.

4.3 ANALYSIS OF EFFECTS

The RCT design ensures that the estimated effect of the intervention is independent from other possible reasons for differences between daycare centers that participate in either intervention and the control-group centers. Here, the key point is that the RCT design is necessary if the aim is to establish causality between the intervention and the analyzed outcome.

In addition to the RCT design, a successful effect assessment requires that a) the effect is measured by relevant outcomes, b) the demonstrated effect is based on a sample that is statistically valid, and c) it is possible to maintain randomization throughout the experiment, i.e. no systematic discontinuation across the two model programs and controls can be related to whether the intervention is a success in certain daycare centers or whether the daycare centers generally perform well or poorly relative to the defined outcomes.

RELEVANT OUTCOMES

VIDA uses the same screening tools as in the ASP project for the analyses of the first (baseline) measurement (see Jensen et al., 2009, 2011), i.e. the so-called “Strength and Difficulties Questionnaire”, elements from the “Child Social Behavioral Questionnaire”, the “Qualifications and Curriculum Authority” and other selected test items. These tools have previously been used together to measure the effect of ASP intervention. The project showed among other things, the positive effects of treatment. Moreover, the applied screening tools constitute recognized measuring tools of children’s broad competence development. They measure children’s cognitive, emotional, and social competences, and this makes them suitable for determining whether children experience more progress as a consequence of intervention.

Regarding measurement of cognitive competences, a previous project (Ministry of Finance, 2010) found that the applied measuring tools can assess either cognitive or non-cognitive competences. In VIDA it is recognized that staff assessment of the children’s cognitive competences should be supplemented with specialized performance measurements. However at the time of writing, this step has not been included in the research funding, but if additional funding can be achieved, performance measurements will be employed to supplement staff’s assessment.

Since Danish lawmakers have decided that linguistic development should now be an area daycare centers must focus on, it may be necessary to supplement or include this aspect in the screening tools applied in VIDA Basis and VIDA+ to

map the composition of children in various daycare centers. Apart from this, the VIDA project will employ the same screening tools that were applied in the ASP project; in VIDA screening at the following time points will also be conducted:

- Baseline screening in March 2011
- Midway screening in March 2012
- Final screening in March 2013

From each screening, daycare centers have 3-4 weeks to fill in and return the screening forms of children's competences. For centers that do not return the material within the agreed time frame, the project will apply follow-up procedures.

Thus, there are three rounds of screenings: one before intervention begins, and two during the intervention process. The latter two will make it possible to detect potential effects of the intervention, while the baseline screening makes it possible to verify the randomization process and to make adjustments in case of imbalances regarding discontinuation in the three groups of daycare children. At the time of writing, the baseline measurement in March 2011 had collected assessments of children from 90 daycare centers from the three evenly sized groups, the two model program groups and the control group. The collected baseline data will be analyzed in order to validate the applied measuring tools and to assess the success of the randomization.

STATISTICAL STRENGTH

The statistical strength, i.e. the ability to demonstrate an effect, partly depends on the extent of the effect and the heterogeneity of the analyzed data. That is the extent to which an effect can be verified depending on a number of unknown conditions and features of intervention itself and its implemented form. The heterogeneity of the data can be reduced by the stratification process and selection of intervention centers and control group centers (Raudenbush et al., 2007). Comparable daycare centers across model program groups and the control group means less heterogeneity in the data, which improves the chances of demonstrating a statistically valid effect.

It should also be mentioned that as the data is organized in three levels (i.e. the three measurements of the same child in the same daycare center over time), statistical analyses must be based on multi-level models (Raudenbush et al., 2007) or difference-in-difference estimates (Angrist and Pischke 2009).

DISCONTINUATION

If data collection reveals systematic drop-outs (children or daycare centers) that are related to either the success of intervention or to how children and institutions perform measured by the chosen outcome goals, the possibility of using data from the sample to demonstrate a causal effect of the intervention is partially or fully impaired. It is possible to use data from a broken randomization to establish causality from the intervention causality (Angrist & Pischke 2009), but the ideal situation is to reduce discontinuation as much as possible.

DESIGN OF THE LONGITUDINAL STUDY

The design includes studies of indicators such as:

- Schooling
- Crime
- Alcohol or/and drug abuse
- Further education
- Labor- market affiliation

4.4 STUDIES OF IMPLEMENTATION OF THE VIDA PROGRAMS IN AN ORGANIZATIONAL LEARNING PERSPECTIVE

The aim of the VIDA, Basis and VIDA+program is to educate managers and daycare teachers through taking a knowledge-based and innovative approach in efforts toward improving the learning and well-being of children. The objective of the program is to improve children's active learning and socio-emotional development through inclusive activities for children in general, and for socially disadvantaged children in particular.

In the case study presented here, we want to improve our knowledge about effective means and methods when implementing an early educational effort for socially disadvantaged children by working systematically with knowledge sharing and organizational learning based on methods of the VIDA programs.

RESEARCH QUESTIONS

The overall research question of this case study is: How can daycare centers enhance the cognitive and social development of children through working systematically and evidence-based with knowledge about children's learning and well-being as well as with tools for reflection and experimentation?

Furthermore, we want to study how the program activities contribute to a constructive change in the way teachers share and convert knowledge into practice with regard to renewing (innovating) practices, i.e. that children are supported even more in their cognitive and social development through the experimental methods developed.

Sub-questions of the study include: a) what are the specific consequences of intervention, in terms of new pedagogical practices in individual daycare centers? b) How do managers facilitate the active involvement of staff in the entire daycare center in order to implement the programs? And in this connection: Does intervention translate into new, shared actions and practices, i.e. does it lead to a potentially innovative organizational learning process? And how do managers at various levels of management work with intervention programs?; and finally, c) Which factors do managers and teachers see as crucial for active involvement in implementing program activities and overall methods for knowledge sharing and learning?

DATA

The design follows the overall line of the efficiency analysis (section 4.2). The general survey of existing practices includes questions regarding existing practices and perceptions of how to work with learning and well-being as well as child involvement activities in general and for socially disadvantaged children in particular. Three groups VIDA participants were selected for the case study: a) Managers of daycare centers who have the task of implementing the intervention in the entire daycare center, b) employees who are upgrading their qualifications through participation in the VIDA training program, and c) employees who are not involved in the VIDA training program, but who are expected to participate in knowledge-sharing processes and renewal of practices based on VIDA programs.

Following the design of the general study, the case study of learning and change of teacher involvement will also be based on three sequential measurements. At the baseline measurement, teachers were asked in a survey about the principles for, and practical organization of, existing pedagogical practices and knowledge-based approach in relation to the issue of improving conditions for socially disadvantaged children.

The survey is carried out in all three categories of daycare centers, i.e. VIDA basis, VIDA+, and the control-group centers and it includes four general themes: 1) Perceptions of socially disadvantaged children, the existing practices using evidence-based knowledge about how to work with activities for improving learning and

wellbeing for all children, and for socially disadvantaged children in particular; 2) Existing management style, knowledge-based practices and knowledge sharing, capacities to improve organizational learning in the entire daycare center. In terms of learning capacity, the VIDA project adopts a thoroughly tested tool for measuring learning capacity in organizations (Alegre & Chiva, 2008); 3) The third theme of the survey is manager and teacher interest; they were asked what their motivation was for taking part in the VIDA programs; and finally, 4) Teachers were asked what their expectations were to the VIDA programs in terms of capacitating managers and teachers through methods of involving all parties in implementing knowledge obtained through the VIDA programs into renewal of everyday practices.

In addition to the survey, qualitative interviews were conducted with managers about how they view of the existing approach to children's learning and wellbeing as a means of improving socially disadvantaged children's life opportunities. Managers were also asked about which methods they perceive as decisive for teacher involvement, and how teacher involvement in the knowledge-sharing and learning processes in the entire center can be promoted. The aim of the qualitative interviews is to collect data on existing methods of teacher involvement in knowledge-sharing and learning processes in order to improve practices aimed at children.

In the following measurement, the interviews with managers and staff participating in the VIDA training program provide knowledge about what activities have been implemented as a part of the VIDA+ program. These interviews are expected to produce more knowledge about the approach to renewing practices and collaboration in the entire center, e.g. the various forms of behavior and actions that emerge and unfold between managers and teachers, and between teachers and children working with VIDA+. Additional data in this measurement will entail documentation of activities, observations and photos of everyday practice. Staff in the daycare centers will provide documentation in the form of photos and video recordings.

The study also comprises group interviews with teachers and one-to-one interviews with individuals, managers and teachers (teachers participating in the VIDA training program and small group teachers who are not participating in the program). At the final measurement, the survey is identical to the baseline survey supplemented with interviews with managers and staff about new VIDA activities concerning processes to enhance child learning and wellbeing through

inclusion. The aim of these interviews is to obtain in-depth understanding of the changes in practices and renewal that have been implemented as part of the program.

ANALYSIS

The primary objective of this part of the study is to improve our knowledge about the means and methods in teacher involvement in early childhood intervention as a consequence of VIDA. This case study will provide knowledge about which activities teachers find helpful and supportive in their active involvement and work with implementation of the intervention program.

This will be examined through the following questions: Are there differences in the identified consequences of intervention, in terms of how much and how daycare centers involve, and take a knowledge-based approach to, new pedagogical practices based on VIDA? Do managers initiate and continue intervention in their daycare center so individual knowledge acquisition and learning processes (of managers and selected employees) in the VIDA training program become shared knowledge and organizational learning? And in this connection: Do teachers point to certain needs for support from their managers in order to be able to translate new knowledge into new shared actions and practices, i.e. does it lead to a potentially innovative organizational learning process? Which risk factors or barriers to teacher involvement and implementation of the program can be identified? Which supportive factors to enhancing the teacher involvement can be identified? Lastly we will examine how the conditions (large or smaller units of centers) for managers impact the way they work with intervention.

The primary focus of the case study will thus be to shed light on concrete change processes with special attention to teachers' renewed behavior and pedagogical practices in daycare centers. And here we are particularly interested in understanding the role of interaction between the manager of a daycare center and the employees.

Technically, analysis of data from the baseline, midway, and final measurements will be carried out partly by interconnecting the various sets of data, and partly through thematic meaning condensation using qualitative analysis software.

4.5 STUDIES OF THE IMPLEMENTATION OF VIDA+ PARENT PROGRAM

The aim of the VIDA+ program is to train managers and daycare teachers in methods of how to involve parents in the efforts to improve the learning and well-being of children. The objective of the program is to improve parents' active collaboration in activities at the daycare center for families in general, and for socially disadvantaged families in particular.

RESEARCH QUESTIONS

The overall research questions of this case study are: How can daycare centers enhance the cognitive and social development of the children through involving parents in new activities? Furthermore, we want to study how program activities can contribute to a constructive change in the parent-child relationship in socially disadvantaged families, i.e. that these children are given even more support in their learning and social development. Sub-questions of the study include: a) which factors facilitate or impede parent involvement; 2) how do managers facilitate the active involvement of parents of socially disadvantaged children?; and 3) which factors do parents see as crucial for active involvement in program activities?

DATA

The design follows the overall line of the efficiency analysis (section 4.2), and of studies of change processes in pedagogical practices (section 4.3). The general survey of existing practices includes questions on existing methods of parental involvement in general, and for families of socially disadvantaged children in particular. Following the design of the general study, the case study of parental involvement will also be based on three sequential measurements.

At the baseline measurement, teachers were asked in a survey about the principles and practical organization of the existing parent activities. In addition to the survey, qualitative interviews were conducted with managers about how they view parental involvement as a means of improving socially disadvantaged children's life opportunities. Managers were also asked about which methods they perceive as decisive for parental involvement and how parental involvement can be promoted. The aim of these qualitative interviews is to collect data on existing methods of parental involvement in the daycare centers.

In the following measurement, the interviews with managers and staff provide knowledge about activities that have been implemented as part of the VIDA+

program. These interviews are expected to produce more knowledge about interaction, e.g. the various forms of behavior and actions that emerge and unfold between parents and children, and between daycare and parents working with VIDA+. Additional data in this measurement will entail documentation of activities, observations and photos of everyday practice. Staff in the daycare centers will provide documentation in the form of photos and video recordings.

At the final measurement, the survey will be identical to the baseline survey supplemented with interviews with managers and staff on new VIDA activities of parental involvement. The aim of these interviews is to obtain in-depth understanding of the changes in parental involvement that have been implemented as part of the program.

ANALYSIS

The primary objective of this part of the study is to improve our knowledge about the means and methods in parental involvement in early childhood intervention that are a consequence of VIDA. The case study will provide knowledge on which activities parents find helpful and supportive to their active involvement in the intervention.

This will be examined through the following questions: Are there differences between mothers and fathers and how much they involve themselves in activities for parents offered by the daycare center? Do parents point to certain needs for support from the early intervention program? To which degree do parents benefit from cooperation with other parents? What is the role of parents' mutual relationships? Which risk factors or barriers to parent involvement in the VIDA+ program can be identified? Which supportive factors for enhancing parental involvement in the VIDA+ program can be identified?

4.6 SUMMARY

Since the preschools involved are expected to independently define the content and form of intervention – based on the VIDA training program and its guidelines – collective implementation is likely to take on a very diverse form that may be a challenge to the project when assessing the intervention. We seek to minimize this challenge by means of both quantitative and qualitative studies that monitor the effects of the interventions.

Here it should be stressed that in order to interpret the effect, exactly how the participating daycare centers implement intervention must be documented. This is achieved by means of the logbooks on the VIDA SharePoint site and by other qualitative methods of documentation that researchers use to register differences.

CHAPTER 5

ORGANIZATION AND DISSEMINATION OF THE VIDA PROJECT

The work of the VIDA project has been organized in groups who have individual areas of responsibility; however there is a large degree of collaboration and coordination between these groups in order to ensure that every phase follows the overall aims of the programs, as well as the milestones and methods developed. A training group is responsible for implementing the VIDA training programs. A research group is responsible for the overall design and methods used in the randomized controlled experiment, data collections and analysis. A project group is responsible for coordinating the design and development of methods and is also responsible for coordinating all other aspects of the program.

Moreover, the dissemination and affiliation of the project follows an overall and continuous strategy (see the web-site: www.dpu.dk/vida). Results will be disseminated through reports, at conferences, seminars and schools, and through networking in a manner that ensures that everyone interested in the field will continue to benefit from the project results. A cross-disciplinary group has been established with representative directors and managers from the four municipalities, the project manager and partners from University Colleges in order to develop ideas of implementation of the VIDA program at a larger scale based on the results of the VIDA project.

These levels of organization are described in more detail in the following. One of the objectives of the VIDA project is to inform society about the training courses, the model programs and the implementation, as well as the preliminary and final results of the project, so this knowledge can benefit other interested parties than merely the participating parties during and after the project period.

The following three main elements are considered a means to continuously communicating about and embedding the project in the participating municipalities as well as to further disseminating information about the project to other municipalities and interested parties.

- Regular dissemination in the form of reports, conferences, website presentations and communication with interested parties.
- Development of new forms of training in learning and innovation in the work with socially disadvantaged children.
- Model partnerships between educational institutions, universities and municipalities focusing on identifying strategies for permanent implementation of new pedagogical practices in continuation of the VIDA project.

REGULAR DISSEMINATION

Planned activities to disseminate information about the various stages of the project are a combination of documentation, publications of process and results and communication with various interested parties.

TRAINING

The aim is to incorporate experiences from VIDA into educational offers at Danish university colleges. A VIDA-based diploma program may be organized following the project. Moreover, it may be possible to organize in-service training with the aim of offering master's programs in this topic: Innovation in the Public Sector.

A CROSS-SECTIONAL GROUP TO DEVELOP MODELS OF PARTNERSHIPS FOR DISSEMINATION AND EMBEDDING OF VIDA

The purpose of this cross-sectional working group is to collect experiences and generate knowledge about, how municipal administrations can support innovation, defined as permanent renewal based on the knowledge and competences daycare center managers and employees have gained from VIDA. Finally, this working group will complete a list of ideas and recommendations that will enable municipal administrations to support a lasting VIDA implementation process. The aim of this paper is to assist the implementation efforts of the participating municipalities, as well as municipalities that have not yet been part of the VIDA project but who would like to work with its content.

Models of dissemination must be easy to use and possible to embed in pedagogical practices and municipal everyday work. The working group will thus contribute with suggestions for such model developments.

The tools and materials that were developed as part of the project (see also section 2.4) will be made available for all interested parties. As such, they may be used to implement one of the VIDA model programs in other municipalities in

Denmark, or act as contributions to the development of other programs of early childhood interventions, nationally as well as internationally.

CHAPTER 6

SUMMARY

In 2011, the project focused on starting up the VIDA training courses for pre-school teachers and managers, developing materials, tools and guidelines based on theoretical concepts as well as methods to improve quality in everyday efforts for socially disadvantaged children. Moreover, the initial phases of the training courses have been organized in ways that enable participants to implement the programs through organizational learning and renewal of practices (innovation) in the entire preschool. In other words, the training processes encourage participants to investigate, reflect on and analyze their current practices and plan new targeted and systematic efforts for socially disadvantaged children. Regarding implementation of VIDA Basis and VIDA +, training in how to renew the entire organization, i.e. the daycare facility, is offered through e.g. the management courses. Regarding implementation of VIDA +, in particular, the project has developed guidelines for teachers on the basis of the Clearinghouse research mapping review of parental programs. The most important finding from this research mapping review is that the combination of preschool efforts and efforts that support parental initiatives with a view to strengthening the child's competence development and learning has the greatest effect. Thus, VIDA Basis+ seeks to implement this combination of efforts.

As shown in the review of Pianta et al. (2009) in-service training is a very popular approach to improving quality. A meta-analysis (Fukkink, 2007) showed that this kind of approach is most effective when there is a fixed curriculum content and it is delivered in a single or a small number of settings. The VIDA programs have not been delivered in a small number of settings. On the contrary, the programs have been offered to many preschools throughout the country. For this reason, VIDA has been designed as a combination of VIDA training sessions carried out by teachers from University Colleges, and local in-service training based on the VIDA – guidelines and other tools supported by consultants from the local authority. This combination implies opportunities to change between knowledge

acquisition, sharing and critical analysis, as well as to reflect on practices and make changes, i.e. renewal. Initially we wanted to provide training to entire preschools instead of merely offering training to selected teachers. However, due to funding and practical reasons, only one teacher and the manager participated in the training sessions. To compensate for this, and so as to implement the intervention as organizational change, specific courses for managers focusing on specific managerial skills were offered.

From 2011 to 2012, the training processes of the programs have been intensified in order to teach preschool teachers how to work with planned, targeted, and systematic activities as those suggested in the VIDA programs. The programs aim to qualify the participants to continue and further develop new programs, taking the implementation of VIDA a step further, and intensive seminars for managers focusing on how to innovate in practice will be completed in 2012. Participants are requested to work systematically with evaluation and documentation of the renewal in their practices.

This first Report 1 has presented the design and methods of the VIDA programs as well as the intervention and effect studies. A number of status reports will follow that each present specific aspects of the project course and analyses of the effect study. Status Report 2 will document results from the baseline study of children's competences as well as the preconditions of teachers and managers for working with organizational change. In status Report 3, we will present the training programs in more detail, and, based on both quantitative and qualitative data analyses, provide more thorough and sophisticated statistical analyses of the baseline. The next status reports, 4 and 5, will present the first research results concerning the development from baseline to midway measurements based on analyses of both the quantitative and qualitative data, as well as the content of the educational courses. Finally, the effect studies and summary case studies of the programs will be presented in Status Report 6. Further contributions, such as papers for national and international conferences, folders, illustrations, etc., with a view to further dissemination of the project are planned.

The VIDA project is expected to contribute with new decisive knowledge at three levels; a theoretical, a methodological and a practical level. Moreover, it is expected that training of staff based on VIDA programs will result in the development of high quality in early childhood education, to the benefit of all children in their development and learning. Thus, learning and the well-being of particularly socially disadvantaged children is expected to be enhanced.

APPENDIX I

RESEARCH MAPPING OF PARENT PROGRAM – SELECTED RESULTS

The VIDA+ model program draws on results from a Clearinghouse research review produced for the VIDA project (see Søgaaard Larsen et al., 2011, 2012).

The review covers a wide range of American studies that validly examine intervention programs with parent involvement. The reviewed intervention programs generally brought three types of collaboration into focus. These are collaborations to 1) stimulate children's cognitive learning; 2) stimulate children's social competences such as conflict management and reduction of behavioral problems; and 3) increase parents' competences through systematic efforts.

COMMON CHARACTERISTICS OF PARENT INTERVENTIONS

The following common features characterize the interventions that have proven to have a positive effect. Firstly, they are all established programs based on a scientific approach to the efforts that are applied to the involved parties, i.e. children, parents and staff. Secondly, both preschool teachers and parents are typically offered training and support in completing the specific development activities either in the home or in the daycare center. Thirdly, the interventions typically involved many concrete activities that strengthen certain forms of development-promoting behavior for everyone in the institutions and within the families themselves. Some programs supplement these concrete activities with a broad intervention approach that involves more and other relationships than the parent-child relationship.

A common goal in the interventions is to enhance parents' *own* preconditions, since parent competence is an important precondition for the child's learning ability. Another common feature of the thirteen effective intervention programs is to involve parents as distinct agents in the enhancement of their children's

development, in close collaboration with the daycare center. Parents receive support and training, and they must actively perform program activities that aim at increasing their parental competence.

The research review shows that the studied interventions that have a positive effect on children's learning and competence development also contribute to forming a sustainable basis that enables the individual to perform better in the educational system and as a citizen, i.e. they steer free of drug abuse and crime. Studies indicate that this outcome is best reached through well-organized collaboration between teachers and parents. Another important element is that interventions involve efforts for children, teachers, and parents.

From the studies included in the research review, it appears that effective interventions typically apply a positive psychological asset approach where focus is on generating a positive resource-oriented learning culture in the daycare center as well as at home. This is a culture that treasures the individual's resources and the individual's successes instead of focusing on various flaws and deficits of children and parents. As mentioned above, collaboration between parents and teaching staff is a very important element in these successful interventions. From a systematic point of view, this collaboration points to theories of organizational learning and inclusion of all children through processes at organizational level rather than organizing isolated events for each particular child.

The studies that show the best efforts take a holistic approach in which the organizational framework makes room for parents, staff, and other agents, thereby ensuring that everyone enjoys equal opportunities in spite of having uneven preconditions. Applying an asset approach rather than a deficit approach, and initiating shared organizational learning, is, as mentioned, the two most important principles of the VIDA project. The VIDA intervention program invites and encourages teachers, parents, and children to actively participate in intervention in order to give socially disadvantaged children an opportunity to be part of daycare on a par with other children. Moreover, parents are invited into a positive resource-oriented learning environment.

HOW THE RESEARCH REVIEW CONTRIBUTES TO THE DEVELOPMENT OF THE VIDA+ PROGRAM

The pedagogical and training content of the interventions studied in the research review calls for some consideration when compared to Danish pedagogy traditions.

Some interventions encourage the preschool teacher to function as a facilitator and role model, who should be able to train and contribute to a more appropriate and desirable change in the child's and its parents' behavior. Other interventions invite preschool teacher to encourage, appreciate, and contribute to improving the child's and its parents' opportunities through development and exploitation of their own resources. Lastly, in some interventions, preschool teachers function as, or work in close collaboration with, family therapists, social workers and parent educators.

In spite of these differences, all of these interventions share the use of a carefully prepared and fixed curriculum. This curriculum often takes the form of a manual that in relative detail defines the content of the tasks of teaching staff and other interventionists as well as their efforts to achieve the desired goal. To be able to follow directions as closely as possible, teaching staff and other intervention participants are trained in different ways, such as in short seminars, workshops or by receiving supervision. In the Perry Preschool intervention, the teaching staff is trained to follow the program content and to complete the program fully in line with the directions.

On the basis of the research review, we can conclude that the studied interventions with parental involvement do have an effect. Yet, we cannot conclude which type of effect the parent programs generate, or which type of intervention achieves the greatest effect. Thus, on the basis of the research review, we cannot produce exact instructions for the content of parent involvement in the VIDA project. Consequently, inspired by the results of the research review, a number of recommendations to guide the VIDA+ program have been formulated, and these will be incorporated into the VIDA+ training program (cf. the VIDA material on parental involvement).

APPENDIX II

DOCUMENTING THE SEGMENTATION OF DAYCARE CENTERS REGARDING PROPORTION OF SOCIALLY DISADVANTAGED CHILDREN IN THE VIDA PROJECT

This appendix describes the segmentation used by Department of Education (DPU) in connection with the VIDA project. The VIDA project studies daycare centers from four municipalities across Denmark: Brøndby, Gentofte, Horsens and Randers.

The daycare centers are divided into three groups: one group of daycare centers where focus is on children's learning and well-being; another group where focus is on children's learning and well-being (as in group 1) as well as parental involvement; and a third group of daycare centers (the control group), which are left to continue with their ordinary practice.

To assess the effect of the various efforts of the intervention, VIDA compares competence development in the three groups of daycare centers.

A precondition for this assessment is that the three groups of daycare centers are comparable with regard to representation of children. By this we mean an even distribution in representation of socially disadvantaged children, family background, etc., and it is therefore necessary to perform a segmentation of the daycare centers according to representation of socially disadvantaged children. The segmentation model used in the VIDA project is based on past experiences from the ASP project.

One condition in the VIDA project is that as in the ASP-project – exact data on the number of socially disadvantaged children in each daycare center is not available prior to the selection of daycare centers. This is because an exact assessment of the representation requires a screening of the children's competences. Yet, this screening cannot be carried out before the intervention and reference centers have been selected.

It is thus necessary to apply an indirect approach to the selection of intervention and reference centers. To do so, the VIDA project used data about the children and their parents from public records based on the assumption that being socially disadvantaged, also referred to as social vulnerability, is linked to family conditions, educational background, ethnicity, etc.

The basis for the segmentation and how it was performed is described in the following.

THE PURPOSE OF THE SEGEMENTATION

The VIDA project builds on a comparison between groups of daycare centers that implement various types of intervention programs and a group of daycare centers where no program is implemented. To measure the effect of the intervention programs, VIDA compares the development of action competences in children in the intervention centers with that of children in the daycare centers with no intervention.

The segmentation model that is applied to ensure a relatively comparable social composition in the three groups of centers draws on data from public records. A number of previous surveys have shown that data from public records can be used to indicate social vulnerability, such as risk of a case recording in the child service system.

Yet, the representation of socially disadvantaged children can differ greatly across daycare centers, as indicated in Table 1. The figures in Table 1 are from a previous analysis conducted by the Danish Economic Council of the Labour Movement. Table 1 illustrates the distribution of children who are characterized as children with a “weak family background” in the Economic Council report.¹

1 Niels Glavind: Daginstitutioner – ulige vilkår for indsats mod ”negativ social arv”. AE raadet 2004

Table 1. Percentage of children with “weak family background” in daycare centers in selected municipalities and Denmark total. 2002.

Municipality	Share (%) with weak "family background" in daycare										Total per-centage with weak family background
	0-5	5-10	10-15	15-20	20-25	25-30	30-40	40-50	above 50	In total	
	Percentage of all children in the municipality										
Copenhagen	11.5	17.6	21.2	9.8	10.9	7.9	13	5.6	2.5	100	18.8
Frederiksberg	34.3	34.4	18.3	8.2	3.9	0.3	0.7			100	8.4
Ballerup	36.1	22.1	14.3	13	10.1	3.9	0.6			100	10.1
Gentofte	63.4	29.2	4.3	1.4	1.7					100	4.4
Gladsaxe	44.8	25.8	12.5	8.5	2.4	3.1	1.6	1.2	0.1	100	8.6
Høje-Tåstrup	27.6	22.2	10.9	14.7	9.1	14.2		1.4		100	12.8
Århus	32.4	24.5	14.1	8.2	4.1	4.6	4.4	3.7	4	100	13.4
Denmark total	31.8	27.6	17	9.3	5.2	3.3	3.6	1.4	0.8	100	10.8

The table shows for instance that in 2002, 16.7 per cent (i.e. total percentage of children in the four top groups of children with weak family background) of the children in Århus attended daycare and at least one in four child had a “weak family background”. This appendix will not explore further the concept “weak family background”, but the survey from the Economic Council stresses that the proportion of socially disadvantaged children can vary greatly within each municipality. This variation leads to different conditions for the educational work with disadvantaged children, and it is thus crucial for a project like VIDA to ensure that the participating daycare centers are as similar as possible with respect to the share of socially disadvantaged children.

The purpose of a segmentation based on relevant criteria is thus to ensure that the three groups of centers are comparable regarding proportion of socially disadvantaged children and other relevant conditions.

As mentioned, segmentation must take place before the first screening of the children. It can therefore not be based on direct observations, but must make use of data from public records. The first step in the process is thus to seek to clarify which data are suitable to employ as an approximate indicator of whether children are socially disadvantaged. This clarification is achieved by means of a statistical analysis.

An approximate indicator is used because neither the term “socially disadvantaged” nor the term “weak cultural capital” are unequivocally delimited or defined. Neither of these terms can be found directly in public record data, for in-

stance. For the segmentation, researchers may decide on approximate demarcations, but this does not prevent a more accurate demarcation of socially disadvantaged children when data from observations of the individual children are available at a later point in the analysis.

An analysis based on data from public records must inevitably be simplified. It cannot hold/accommodate the particular individuality of each child, but must be about probabilities and risks and must be restricted to the parameter available in the data.

As an indication of the *risk* of being “socially disadvantaged”, VIDA has – as in the ASP project – decided to use, as a rough parameter, the outline in section 40 of the Social Service Act on the possibilities municipal councils have to take measures in order to provide support for children and youths with special needs.² As a further parameter, which to some extent reflects the cultural capital of the child’s home, VIDA also includes the grades the children obtain in primary and lower secondary school.

The following section therefore offers a presentation of an independent analysis of conditions that indicate increased risk of being involved in the child service system and subsequently an outline of the actual segmentation model and how it was applied in the selection of daycare centers from the four participating municipalities.

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- 2 Section 40 reads: The municipality makes decisions about measures in accordance with subsection 3 if it is deemed crucial for a child or young person with special needs to receive support. The decision is made with the custodial parent’s consent pursuant to section 41. A decision under subsection 3, no. 8, also requires consent from the young person, if the person has turned 15. Subsection 2. Unless special circumstances apply, support can only be initiated after the completion of an investigation pursuant to section 38 or section 39. The municipality must always choose the least radical of the suitable measures that can solve the problems identified in a prior investigation.
- Subsection 3. Local authorities can initiate support within the following type of offers:
- 1) Consultancy regarding the child or youth’s relations. In this connection the municipality may decide that the child or youth must attend daycare, youth club, education or the like.
 - 2) Practical, pedagogical or other support in the home.
 - 3) Family care or treatment of the child or youth’s problems.
 - 4) In accordance with section 40b, the child resides at a 24-hour care center, in foster care, other approved residence and municipal 24-hour facility or residential accommodation approved by county authorities in accordance with the rules of section 94a.
 - 5) Relief or respite care cf. section 40 b in network foster family, foster care, through municipal 24-hour facility, at a 24-hour care center or other approved residential accommodation.
 - 6) Appointment of a personal adviser to the child or the youth.
 - 7) Appointment of a permanent contact person for the child, the youth or the entire family.
 - 8) Placement of the child or the youth outside the home in a network foster family, foster care, own bedsitter, municipal 24-hour facility, 24-hour care center or other approved residential accommodation suitable to meet the special needs of the child or young person, cf. section 40b, 49a and 51.
 - 9) Secure internship with a public or private employer for the youth and in that connection pay allowance.
 - 10) Other support with the purpose of offering guidance, treatment and practical pedagogical support.

CONDITIONS THAT INCREASE THE PROBABILITY OF BEING INVOLVED IN THE CHILD SERVICE SYSTEM

Cases under section 40 comprise children whose conditions at home are assessed to be so challenging by the local authorities that support or intervention is required. This support/intervention can take three forms:

- Placement of the child/youth outside the parents' home
- Preventive measures directed at the individual child (e.g. appointment of personal advisor, visits to an educator's home, or compulsory daycare)
- Preventive measures directed at the entire family, e.g. family counseling.

The two first types of measures (placement and preventive measures directed at the child) are reported to Statistics Denmark under the individual's personal civil registration number. This means that it is possible to examine which social groups receive these types of provision by correlating registered data. Preventive measures directed at the entire family are, however, not reported or registered at individual level.

Registration of the number of municipal cases involving the child service system is suitable for statistical analysis because it is a clearly defined parameter based on reliable statistical data, but it does not constitute an ideal parameter. The primary objection is that the group of children who are involved in the child service system is a rather restricted group compared to the broader term "socially disadvantaged children". This group is further restricted when the object of interest is children in daycare and current placement/preventive measures. At the turn of 2004/2005, there were 200,679 children aged between three and five who fell into this category. Of these children only 842 were in placement outside the home, while 1084 were subject to preventive measures (0.4% and 0.5% respectively). This is a very small group compared to the overall group of children referred to as socially disadvantaged. These small numbers can be explained by the fact that authorities typically do not intervene until later in a child's life.

The analysis takes instead a broader look at what characterizes families in which a child *experiences placement/preventive measures during his or her childhood*. Table 2 illustrates the application of this concept.

Table 2. Probability that a child is or has been in placement/subject to preventive measures listed according to the child's current age. Calculated January 2004

Child's age	Share (in %.) of children who are or have been...		
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures
0 year	0.2	0.3	0.4
1 year	0.4	0.4	0.7
2 years	0.6	0.5	1
3 years	0.9	0.6	1.3
4 years	1.1	0.7	1.7
5 years	1.4	0.9	2
6 years	1.7	1	2.4
7 years	2.1	1.2	2.8
8 years	2.4	1.3	3.2
9 years	2.5	1.5	3.4
10 years	2.9	1.7	3.9
11 years	3.3	2	4.4
12 years	3.4	2.3	4.7
13 years	4.5	2.9	6.2
14 years	5.8	3.6	7.8
15 years	7.1	4.5	9.4
16 years	8	5.5	10.7
17 years	8	5.8	10.7
Total	3	2	4.1

Note: The proportion of children that have been involved in the child service system is smaller than the sum of the two preceding columns, because a child may both be subject to preventive measures and in placement.

The table shows that at the age of 17, approximately one in ten child is or has been involved in the child service system. By applying this concept, the calculation captures a relatively broad group of children who either currently or at some point during their childhood have had problems which the family – according to the local authorities' assessment – found difficult to solve on its own. The analysis takes a closer look at what characterizes these families.

The regression analysis following this calculation will include the entire age group 14-17 to ensure a fairly broad basis of data. A total of 9.6% of the youths in this age group are or have been involved in the child service system. The question asked in the analysis is thus: What characterizes families with children aged be-

tween 14 and 17 who are currently or have previously been involved in the child service system?

It should be noted that the background conditions included in the analysis are assessed on the basis of current data even though registered involvement in the child service system may have occurred several years earlier. However, most of these cases are not initiated until the child has reached adolescence and will therefore still be current today.³

In the following we will investigate the risk of a 14-17-year-old who is or has been involved in the child service system. Our first step is to look at a number of factors one by one, and secondly to look at these factors in a collective analysis.

Table 3 illustrates that a slightly larger proportion of boys compared to girls have a case recording in the child service system.

Table 3. Probability that a 14-17-year-old is or has been involved in the child service system correlated with gender

Gender	Share (in %) of children who are or have been...		
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures
	Per cent of 14-17 year olds		
Boys	8	5.2	10.5
Girls	6.4	4.4	8.6
Total	7.2	4.8	9.6

Table 4 indicates that there is a correlation between the mother's age at the birth of her child and the probability that that child will be involved in the child service system later in life. The figures show that the younger the mother, the greater the child's risk of being involved in the child service system later in life.

³ Moreover, the applied method entails that the assessment is not a "placement prediction" of children, since a prediction would relate to future circumstances and ask: Which factors increase the risk of future involvement in the child service system? The advantage of applying a retrospective perspective is that it is based on contemporary background data, just as the segmentation model uses contemporary background data.

Table 4. Probability that a 14-17-year-old is or has been involved in the child service system correlated with maternal age

Mother's age at child's birth	Share (in %) of children who are or have been...			Number of children
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
	Per cent of 14-17-year-olds			
Below 20	17.1	14.8	24.6	6,077
20-22	12.8	9.1	17.2	24,492
23-24	9.1	5.6	11.8	30,312
25 or more	5.6	3.4	7.3	180,042
I alt	7	4.6	9.3	240.923

Note: The table does not include children with no data on mother's age. This information may have been omitted if for instance the mother has died. Consequently, the overall share of children with a case recording in the child service system is 9.3% against 9.6% in Table 1.

Table 5 shows the correlation between parents' cohabitation and risk of involvement in the child service system. The figures show that the risk of a child being involved in the child service system is strongly increased if the parents do not live together.

Table 5. Probability that a 14-17-year-old is or has been involved in the child service system correlated with parents' cohabitation

Parent's cohabitation	Share (in %) of children who are or have been...		
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures
	Per cent of 14-17 year olds		
Parents do not live together	14.5	10.2	19.4
Parents live together	3	1.5	3.8
Total	7	4.6	9.3

Table 6 shows the correlation between a family's receipt of welfare benefits and probability of involvement in the child service system. The figures clearly show a higher representation of children with a case recording in the child service system from families that have received disability benefits or social security.

Table 6. Probability that a 14-17-year-old is or has been involved in the child service system correlated with family's receipt of welfare benefits

	Share (in %) of children who are or have been...			Number of children
Receipt of welfare benefits	... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
	Per cent of 14-17-year-olds			
One of the parents receives a disability pension	17	7.6	19.9	16,210
More than 50% of the family income is from social security	22.6	18.1	30.8	12,283
25-50% of the family income is from social security	17.1	8.7	21	5,715
The family has received social security, but equivalent to less than 25% of the income	17.4	7.3	20.2	16,413
The family has never received social security	4.3	3.5	6.2	195,535
Total	7.2	4.8	9.6	246,156

Table 7 shows the correlation between ethnic background and probability that the child experiences involvement in the child service system. Since the pattern for boys and girls varies, we have gender-segregated the figures in this table. With respect to boys, we see a greater proportion of boys with a case recording in the child service system from ethnic minorities compared to boys with a Danish ethnic background. Girls from ethnic minorities, however, are less inclined to have involved in the child service system than their Danish ethnic peers. The overall effect of ethnicity is thus minor.

Table 7. Probability that a 14-17-year-old is or has been involved in the child service system according to gender and ethnic background

		Share (in %) of children who are or have been...			Number of children
Ethnic background		... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
		Per cent of 14-17-year-olds			
Denmark	Boys	7.7	5.2	10.2	113,797
	Girls	6.5	4.4	8.7	107,630
	Total	7.1	4.8	9.5	221,427
Europe/USA etc.	Boys	8.2	4.8	10.5	3,080
	Girls	6.3	4.5	8.9	2,850
	Total	7.3	4.6	9.7	5,930
3 rd world	Boys	11.5	6.5	14.8	8,980
	Girls	5	4.4	7.8	8,245
	Total	8.4	5.5	11.4	17,225
Total	Boys	8	5.2	10.5	125,857
	Girls	6.4	4.4	8.6	118,725
	Total	7.2	4.8	9.6	244,582

Tabel 8 illustrates the correlation between housing conditions and probability that a child has been involved the child service system. It is seen that children who live in apartment buildings (not condominiums) are more likely than other children to experience involvement in the child service system.

Table 8. Probability that a 14-17-year-old is or has been involved in the child service system according to housing condition

		Share (in %) of children who are or have been...			Number of children
Housing conditions		... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
		Per cent of 14-17 year olds			
Family house		5.7	3.5	7.5	194,284
Condominium		7.8	4.6	9.8	4,550
Apartment buildings		12.8	7.5	16.1	39,966
Other		15.1	24.8	28.6	7,654
Total		7.2	4.8	9.6	246,454

Note: The category “other” includes children who reside permanently, for instance, at a 24-hour care facility, residence hall or summer house/cottage.

Table 9 shows the correlation between parents' education and the probability that the child has been involved in the child service system. From the table we see that, all else being equal, a low educational level of the father or mother increases the probability that a child has been involved in the child service system. The risk is greatest if neither of the parents have a vocational education.

Table 9. Probability that a 14-17-year-old is or has been involved in the child service system according to the mother and father's vocational education, respectively, and highest level of education completed by mother and father

Education	Share (in %) of children who are or have been...			Number of children
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
	Per cent of 14-17-year-olds			
Mother's education				
No mother registered	12.4	15.3	21.1	6,057
No vocational education	1.3	9.3	17.4	73,454
Upper secondary education	4.6	3.1	6.3	11,533
Vocational education	5.8	3.1	7.4	84,979
Further education	2.8	1.6	3.6	70,431
Total	7.2	4.8	9.6	246,454
Father's education				
No father registered	14.7	12.3	20.9	16,749
No vocational education	12.2	8.4	16.2	64,136
Upper secondary education	4	2.9	5.7	9,729
Vocational education	5.6	3.3	7.3	99,742
Further education	2.6	1.6	3.5	56,098
Total	7.2	4.8	9.6	246,454
Parents' highest level of education				
Neither mother nor father registered	7.3	13.4	15.8	2,206
No vocational education	17.5	13.4	23.8	38,234
Upper secondary education	7.3	5.3	10.2	6,815
Vocational education	7	4.1	9.1	107,275
Further education	3.1	1.9	4.1	91,924
Total	7.2	4.8	9.6	246,454

Note: The category "no parents listed" comprises children where both parents were dead or based abroad at the time of the recording of education.

Lastly, Table 10 indicates the correlation between the probability that a child has been involved in the child service system and the household equivalent income. The figures demonstrate a very clear correlation between income level and probability that the child has been involved in the child service system. The household equivalent income is calculated on the basis of Statistics Denmark's income statistics for 2003 and the C-family concept. Person equivalents are calculated as follows: First person = 1 person equivalent. The following persons = 0.7 person equivalents. Children = 0.5 person equivalent.

Equivalent income comprises the following: salary + unemployment benefits + sickness benefits/maternity pay + state-subsidized pensions + estimated rent subsidies + disability benefits + capital yield + surplus from own business + retirement pensions from pension fund or insurance + benefits in connection with leave of absence etc. + social security + honorarium etc. + training subsidies + study grants + child support maintenance. To this amount is added a calculated standard rate alimony.

Determination of deciles and quartiles is based on the number of 14-17-year-olds. The lowest income decile thus includes a tenth of the 14-17-year-olds who live in households with the lowest equivalent income.

Table 10. Probability that a 14-17-year-old is or has been involved in the child service system according to household equivalent income

Equivalent income	Share (in %) of children who are or have been...			Number of children
	... involved in preventive measures	... in placement	... in placement or involved in preventive measures	
	Per cent of 14-17-year-olds			
Lowest decile	17.9	22.9	30	24,533
Above lowest decile, but below 1 st quartile	14.6	6.6	17.3	36,801
Above lowest quartile, but below the median	7	2.7	8.3	61,329
Above the median, but below upper quartile	3.5	1.3	4.1	61,333
Above upper quartile, but below upper decile	2.1	0.9	2.6	36,795
Upper decile	1.4	0.8	1.8	24,532
Total	7.1	4.5	9.3	245,323

Note: Households with no adults are not included in the table.

The various factors that increase the probability of being involved in the child service system are clearly interrelated. For example, low level of education entails increased probability of low income. It is therefore necessary to conduct a multivariate analysis (logistic regression) to assess which factors have the greatest effect.

This has been achieved by conducting an overall regression analysis, in which the question of whether the 14-17-year-old had been involved in the child service system constitutes the dependent variable, while the following independent (explanatory) variables (here listed according to greatest statistical explanation for difference regarding involvement in the child service system if applied individually) are:

- Whether the household is in the lower income decile
- Whether the parents live together
- Whether one of the parents has a qualifying vocational education/further education
- Whether the family primarily manages on social security/disability pension
- Whether the mother has a qualifying vocational education
- Whether one of the parents has a further education
- Whether the father has a qualifying vocational education
- Whether the child was born before the mother turned 23
- Whether the family lives in rented accommodation in a block of flats
- Whether the child is a boy or a girl
- Whether child's ethnic origin is from a third world country

It turns out that information concerning housing conditions is unnecessary. This means that if the other ten background factors are known, knowledge of housing conditions does not add further to the assessment of probability that the 14-17-year-old has been involved in the child service system. The ten other variables can, however, separately increase accuracy of the explanatory model, though some variables only contribute marginally to explaining the overall variation.

The statistical model is very accurate if all of the ten background variables are known. This can be illustrated as follows: Imagine two children aged between 14 and 17 are fully randomly selected. One child has a case recording in the child service system. The other does not. Statistical calculations show that in 82% of the cases (i.e. 82% of the times a child who has been involved in the child service system is compared to one that has not), a child who does have a case recording in the child service system will also have been ascribed a higher probability of a case recording compared to the other child in our statistical calculation.

The ten background variables vary in importance. When we examine which four variables are the least dispensable in the overall model, we find that these variables are identical to the top four variables in the list ranking the individual strength of the independent variables. VIDA has therefore decided on a statistical model that includes the following four variables:

- Whether the household is within the lower income decile
- Whether the parents live together
- Whether one of the parents has a qualifying vocational education/further education.
- Whether the family primarily manages on social security/disability pension.

This model is almost as accurate as a model that includes all ten background variables.⁴

Table 11 shows the odds ratio of the four background variables in this model.

Table 11. Odds ratio in the model for involvement in the child service system (odds that there has been no involvement)

Variable	Odds ratio	Uncertainty interval
Do the parents live together?	5.056	4.897-5.220
Is the household in the lowest income decile?	0.275	0.266-0.285
What is the parents' level of education?	1.925	1.884-1.967
Does the family primarily manage on social security/disability pension?	0.493	0.476-0.551

Note: All variables have two values except from educational level, which has the following values: 1 = neither parent has a vocational education. 2 = At least one parent has a vocational education, but no further education. 3 = One parent has a further education. For all variables $\text{qui}^2 < 0.0001$.

4 Imagine again that two children, aged between 14 and 17 are fully randomly selected, and the one child has been involved in the child service system while the other has not. With a model using four background variables, the statistical calculations show that in 78% of the cases (i.e. 78% of the times a child who has been involved in the child service system is compared to one who has not), the child who has a case recording in the child service system has also been ascribed a higher probability of a case recording compared to the other child. In a further 7% of the cases, the two children will have the same probability. Thus, the remaining six variables only have little effect on the accuracy of the model.

Table 12 indicates the probability of a case recording in the child service system calculated on the basis of different types of background variables.

Table 12. Calculated probability that a 14-17-year-old is or has been involved in the child service system according to various combinations of income, cohabitation, education, and receipt of social security.

		Not poorest decile			Poorest decile			Total		
		Non-cohabiting	Cohabitation	Total	Non-cohabiting	Cohabitation	Total	Non-cohabiting	Cohabitation	Total
Education	Social security?	% of 14-17-year-olds with a case recording in the child service system								
No vocational education	NO	21.5	6.4	13.7	66.7	18.8	50.8	32.4	8	20.6
	YES	41.7	16.1	31.1	52.1	15.6	32.9	45.3	15.9	31.8
	TOTAL	26.9	8.3	17.7	61.2	17	42.6	36.2	10.2	23.8
Vocational education	NO	12.3	2.7	6	40.4	13.8	30.1	15.8	3.2	7.7
	YES	33.2	9.5	20.2	40.9	12.6	26.9	35.8	10.4	22.3
	TOTAL	14.5	3.2	7.1	40.6	13.3	29	18.5	3.9	9.3
Further education	NO	6.3	1.5	2.8	33.2	8.8	19.8	7.8	1.7	3.4
	YES	23.9	6.7	13	33.8	12.5	19.5	26.8	8.6	15.1
	TOTAL	7.2	1.6	3.2	33.4	10.3	19.7	9.1	2	4.1
Total	NO	11.6	2.5	5.5	48.7	13.8	34.6	16.2	3	7.6
	YES	35.5	10.7	22.7	45.1	13.9	28.2	38.7	11.8	24.6
	TOTAL	14.5	3	7	47.6	13.8	32.2	19.6	3.8	9.6

In Table 13, the 24 possible ways of combining the four background variables have been listed according to highest probability for a case recording in the child service system. The table also indicates the probability that a child from the given group has been involved in the child service system, as well as the number of 14-17-year-olds in that group, and the cumulative proportion of all 14-17-year-olds, which includes both the given group and the groups with an increased probability of a case recording.

On the basis of this table, we formed an approximate indicator of “socially disadvantaged children” by deciding on a certain level of probability of a case recording, and we made it the basis for social vulnerability. For instance, the first ten groups in the table comprise 13.7% of the children who have at least twice as high probability of having been involved in the child service system, compared to the average.

Table 13. Probability of a case recording in the child service system by combinations of background factors

Combination of background conditions	% involved in the child service system	Number of 14-17-year-olds	Cumulated share of children
Poor, non-cohabiting, no social security, non-educated	66.7	3,386	1.4
Poor, non-cohabiting, social security, non-educated	52.1	2,024	2.2
Not poor, non-cohabiting, social security, non-educated	41.7	3,931	3.8
Poor, non-cohabiting, social security, vocational education	40.9	1,913	4.6
Poor, non-cohabiting, no social security, vocational education	40.4	4,686	6.5
Poor, non-cohabiting, social security, further education	33.8	547	6.7
Poor, non-cohabiting, no social security, further education	33.2	1,430	7.3
Not poor, non-cohabiting, social security, vocational education	33.2	3,842	8.8
Not poor, non-cohabiting, social security, further education	23.9	1,318	9.4
Not poor, non-cohabiting, no social security, non-educated	21.5	10,647	13.7
Poor, cohabitation, no social security, non-educated	18.8	1,689	14.4
Not poor, cohabitation, social security, non-educated	16.1	2,794	15.5
Poor, cohabitation, social security non-educated	15.6	2,262	16.4
Poor, cohabitation, no social security, vocational education	13.8	2,984	17.6
Poor, cohabitation, social security, vocational education	12.6	1,872	18.4
Poor, cohabitation, social security, further education	12.5	1,128	18.8
Not poor, non-cohabiting, no social security, vocational education	12.3	32,693	32.1
Not poor, cohabitation, social security, vocational education	9.5	4,626	34.0
Poor, cohabitation, no social security, further education	8.8	1,743	34.7
Not poor, cohabitation, social security, further education	6.7	2,279	35.6
Not poor, cohabitation, no social security, non-educated	6.4	11,501	40.3
Not poor, non-cohabiting, no social security, further education	6.3	23,756	49.9
Not poor, cohabitation, no social security, vocational education	2.7	63,680	75.8
Not poor, cohabitation, no social security, further education	1.5	59,723	100.0

SEGMENTATION OF DAYCARE CENTERS PARTICIPATING IN THE VIDA PROJECT

Like the ASP project, VIDA assumes that the background conditions pointing toward an increased probability of a case recording in the child service system can be used as a valid indicator to identify the group of socially disadvantaged children. It is thus important that the selection of daycare centers is based on knowledge about the representation of children with background conditions suggesting social vulnerability in each daycare center.

The actual segmentation is performed in two stages:

- Firstly, we segregate the children according to statistical probability of being “socially disadvantaged”, based on the analysis mentioned above.
- Secondly, we list the proportion of children with a certain degree of vulnerability (measured on the basis of the described approximate indicator of a case recording in the child service system) in each of the daycare centers from the four participating municipalities.

The children are divided into four groups:

Group 1: This group comprises children whose parents have a vocational education, live together, do not have a low income, and do not live on social security. The group constitutes 64% of the children in the four municipalities. The probability that a child in this group will experience being involved in the child service system is approximately 2%.

Group 2: This group comprises children from families with, according to the statistical analysis, background conditions that entail a 3-10% probability of a case recording in the child service system later in life. The proportion of children in this group is 16% in the four municipalities.

Group 3: This group comprises children from families with, according to the statistical analysis, background conditions that entail a 10-20% probability of a case recording in the child service system later in life. 10% of the children constitute this group.

Group 4: This group comprises children from families with, according to the statistical analysis, background conditions that entail more than a 20% probability of a case recording in the child service system later in life. This group also constitutes 10% of the children.

Table 14 illustrates how the children in the four groups are distributed in the participating municipalities. In the table the children are also separated according to Western vs. non-Western origin (i.e. the ethnic dimension).

The segmentation is performed on the basis of the daycare centers’ share of children belonging to groups 3 and 4. According to the statistical analysis, these children are from families with background conditions that entail more than a 10% probability of a case recording in the child service system. These children constitute 20% of all children in the four municipalities, and from the figures we see a strong overrepresentation of ethnic minorities.

For that reason, we included the proportion of children from ethnic minorities as an independent dimension in the segmentation, since working conditions regarding efforts addressing socially disadvantaged children are likely to vary – not simply in relation to the proportion of socially disadvantaged children but also in relation to the proportion of children from ethnic minorities. Yet, it turned out that distribution by ethnicity is fully covered by distribution according to vulnerability. It was therefore not necessary to explicitly include the ethnic dimension when performing the segmentation.

Table 14. Children in the four municipalities according to group affiliation and ethnicity.

		Risk group					
		1: [0-2%]	2:]2-10%]	3:]10-20%]	4:]20+ %]	Total	N
Brøndby	Western	59.8	15.6	11.5	13.2	100	828
	Non-western	34.1	24.7	20.7	20.4	100	372
	Total	51.8	18.4	14.3	15.4	100	1,200
Gentofte	Western	70.8	19.7	4.3	5.2	100	2,524
	Non-western	23.2	20	27.4	29.5	100	95
	Total	69.1	19.7	5.2	6.1	100	2,619
Horsens	Western	65.3	14	10.8	9.8	100	2,987
	Non-western	29.1	26.7	18	26.2	100	172
	Total	63.4	14.7	11.2	10.7	100	3,159
Randers	Western	66	13.3	11	9.8	100	3,177
	Non-western	29.9	22	17.5	30.5	100	177
	Total	64.1	13.7	11.3	10.9	100	3,354
Total	Western	66.5	15.4	9.2	8.9	100	9,516
	Non-western	30.9	24	20.2	24.9	100	816
	Total	63.7	16.1	10.1	10.1	100	10,332

On the basis of this calculation, the daycare centers were stratified according to their total share of children in risk group 3 and 4. The segmentation comprises the following six strata:

[0-10%[[10-20% [[20-30% [[30-40% [[40-50% [[50-60%[
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This constructed variable determined which daycare centers were invited to participate in the VIDA project. Lastly, daycare centers within each stratum (i.e. a cell in the above stratification matrix), and from the four municipalities, were randomly selected for either of the two intervention groups (VIDA and VIDA+parent) or the reference group, respectively.

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LINKS

THE VIDA PROJECT:

<http://edu.au.dk/en/research/research-projects/vida/>

THE ASP-PROJECT:

<http://www.dpu.dk/en/research/researchprogrammes/organisationandlearning/hpaproject/>

RESEARCH PROGRAM ORGANISATION AND LEARNING/SOCIAL INNOVATION:

<http://www.dpu.dk/en/research/researchprogrammes/organisationandlearning/>

CLEARINGHOUSE

<http://www.dpu.dk/en/aboutdpu/danishclearinghouseforeducationalresearch/>

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VIDA

Knowledge-based efforts for socially disadvantaged children in daycare – a model program. Status report 1. Design and method.

This status report is the first presentation of the VIDA project *Knowledge-based efforts for socially disadvantaged children in daycare – a model program*. Design and method. The aim of the project is to explore the following question: How do we best care for socially disadvantaged children in daycare centers?

The comprehensive project has been commissioned and funded by the Ministry of Children and Education, and it is developed by researchers from Department of Education, Aarhus University. The project will develop, test and document which teaching efforts in daycare can ensure a better life for socially disadvantaged children.

This status report introduces the aims, background, and development of the two model programs in the VIDA project. It also offers an outline of the design of the integrated effect study as well as the specific interventions used in the study. The target group of the report covers all interested parties, ranging from politicians and practitioners to researchers and other parties who have an interest in improving society's efforts to reverse negative social inheritance seen from an early education perspective, beginning in daycare.

