

Foreword

“If you want to mean something for a young person with ASD just be there for them.”

This pronouncement, by one of the project partners, stands for what the KAIRO project tries to do. Both education and treatment ‘were there’ for the young people. In a close collaboration, success was achieved with the objective of KAIRO: **‘To enable young people with an Autism Spectrum Disorder (ASD) to participate in a vocational education programme that allows them to fully exploit their capabilities’**. With a dropout rate of only 24.1% a group of young people with ASD completed the first year of a regular vocational study. National figures show that, among participants with some type of limitation, this dropout rate is around 60% with regard to obtaining the final qualification (regular dropout rate 30%). The result for the first year is one for the record! Achieved through a lot of effort on the part of the participants themselves, support from the parents and commitment from the teaching personnel and treatment providers. Achieved through ‘being there’.

For participants this Education/Treatment Programme is a wish come true. A wish to function as a full and valuable member of society – to be able to deal with their restrictions as ‘normally’ as possible. And that is not an easy wish, because there is a severe lack of understanding for the limitations imposed by ASD. In some cases the - sometimes special - qualities these young people have are even being denied. By making it possible for them to get an education we offer these young people a much better chance of finding a place in society; a chance to get a professional qualification and better prospects of a job and an independent income. By ‘being there’.

‘Being there’ is more than spending time together. It means that everyone gets the most out of this time. By listening, by solving problems or by setting an example. By reinforcing self-respect or by helping people to make contacts. In short, by providing building blocks for young people that provide a sounder foundation for completing the education. In this project education and treatment took pointers from each other. A lot was learned on both sides and the results directly benefit the young people with ASD. Especially because of the difficulties they have in ‘translating’ their own actions from one situation to another one, a combination of school and treatment environments that seamlessly merge into each other provides them with real benefits. Working together to ‘be there’.

Many people contributed to this project. The participants have experienced their first year of school; the professionals have the satisfaction of seeing the effects of their efforts. The organisations are still looking at embedding and additional costs. In actual fact it shouldn’t be about this. Really, it should be about the enormous opportunity we are offering young people to enter their productive life more independently. The observation that at the start of the second study year the participants in the KAIRO project appear to be vulnerable all over again emphasises the importance of the continuity of combined support from (health) care and education. It is necessary to continue being there. We have to count on the fact that ultimately, a young person with better opportunities will be able to look after him or herself better in future. The project has generated a lot of confidence in this growth. And that is what really counts.

E. Reijnen, M Sc

Chairman of the Management Board

Dr. Leo Kannerhuis

01 The Kairo project

Introduction

In our society, having the right education and obtaining a final qualification in a profession are important conditions for someone's future success in the employment market. A suitable workplace, that does justice to someone's capacities, means independence and self-sufficiency and increases the feeling of self-esteem and well-being. It gives someone an income, a social network and determines a person's identity. This also applies, and perhaps even more strongly, to young people with autism. They want to be part of society, have a place among everyone else. They prefer to be in regular education, suited to their level of intelligence, capacities *and* limitations, and proceed to work in a regular job. Many young people with ASD have at least partially the capacities to realise this future, but get stranded in the process of getting to the employment market. From a cognitive point of view they have the capabilities for higher education, but aspects from the autism spectrum disorder are often a disruptive factor. How do you accept, as a young person with autism – and as the parent of such a young person – that the ideals for the future have to be adjusted? What do young people with autism, their parents and the school need to make a success of the educational career, as an important foundation for a future job? How can the healthcare providers ensure that their treatment corresponds more closely to this specific requirement of these young people and their environment? What can the school improve in its own structure and approach to give students with autism optimum opportunities within the educational programme? By developing the Kairo project the partners have tried to develop a suitable answer. What preceded this effort, why this initiative?

1.1 Realisation

The earlier Equal project KIRA (2005) was aimed at the development of methods to allow young people with ASD to enter the employment market. For the participating treatment organisations, the Dr. Leo Kannerhuis and De Grote Rivieren, location De Steiger, the results of this project are a reason to focus on education for young people with autism, since one of the conclusions of this project is that young people with ASD often get off to a bad start in their education, even before they start looking for work. It has been shown that many young people with ASD, particularly in regular secondary education, do not manage to succeed. Many are unable to start in regular secondary education and others experience problems during their secondary education, either because of their condition or because of their environment, which means they are still at risk of falling between the wall and the ship. A wrongly chosen or unfinished education reduces a person's opportunities in the employment market. The project looks for a treatment module and approach that correspond as efficiently and effectively as possible to the concrete qualities of young people with ASD. The ideas of both treatment institutes are based on the development of a tailor-made peripatetic treatment programme, aimed specifically at the educational environment.

At Rijn IJssel, a regional educational centre in Arnhem, the same conclusion is reached almost parallel in time. Especially in the ICT study direction, a number of young people who had been diagnosed with or suspected of having ASD are threatening to drop out at that time. Within the changing educational structure and in the context of the 'dropout prevention' policy, Rijn IJssel wants to take active steps to offer these young people an adequate learning environment and optimum chances of success for qualification and employment. In order to get the autism-related expertise the centre is lacking, the Rijn IJssel contacts the Dr. Leo Kannerhuis, the centre for autism in its own region.

"... you come to the conclusion that we cannot help these participants (with autism) properly. You see them drop out more quickly. We are lacking knowledge ... That's when you look for someone else... If you don't have the knowledge you have to make sure you get it."

Jitze Ramaker, member of the Board of Management, Rijn IJssel

Based on this contact between the Dr. Leo Kannerhuis and the Rijn IJssel regional education centre, and the existing collaboration between *De Steiger* and the Dr. Leo Kannerhuis, a concrete project idea soon materialises. This lays the foundation for an integral approach between treatment and vocational education, the main innovative pillar of the project.

In June 2004, at the initiative of the Dr. Leo Kannerhuis, an initial application is submitted to the subsidy department of the Community initiative ESF-Equal for the Kairo project: Knowledge Development on the Treatment of Autism and Integration in Regular Education. This initial application is approved and in March 2005 the formal project application is submitted to ESF-Equal. In July 2005 the subsidy application receives final approval. At that time the KAIRO project partners are already in the starting blocks and raring to go.

1.2 Partners and project structure

In the composition of its participants the project looks for partners in both treatment and vocational education in a number of regions in the Netherlands. The underlying thought behind this is that, this way, a good basis is established for the integral coordination between education and treatment, as well as national distribution for the range of KAIRO facilities to be developed. Furthermore, in the context of its European nature as an Equal project, KAIRO looks for corresponding international partners.

National collaboration partners

The initiating partners: the Dr. Leo Kannerhuis, the Rijn IJssel education centre (Arnhem region) and *De Grote Rivieren*, location *De Steiger* (Dordrecht) approach an education partner in the Dordrecht region: the Da Vinci College. As a result a collaboration 'twosome', consisting of a treatment institute and a vocational education facility, is realised both in the East (Arnhem region) and in the West (Dordrecht region). Together they constitute a sound foundation for the integral development of the KAIRO approach and the realisation of two regional pilots.

KAIRO collaboration

Arnhem Region

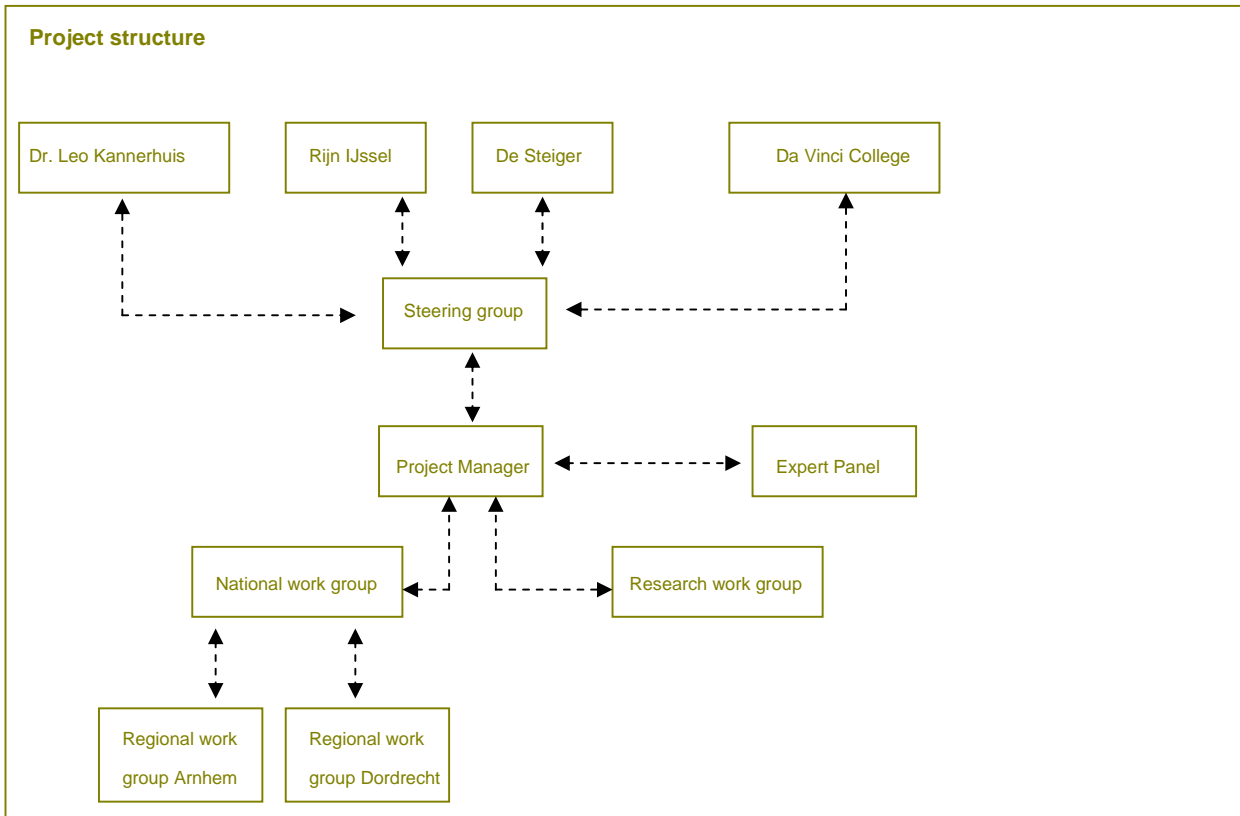
- Dr. Leo Kannerhuis, Knowledge Centre for Autism
- Rijn IJssel

Dordrecht Region

- De Grote Rivieren, department De Steiger
- Da Vinci College

Project structure

July 2005 sees the formal 'kick-off' of the Kairo project. The steering group is formulated and two work groups are put together.



The steering group largely guided the developments and evaluated intended and realisable objectives. In addition the steering group played an active role in the anchoring ('mainstreaming') of the developed concept within and outside the structural policy and the daily practice of the KAIRO partners. One work group, (the National work group) focused on the development of the Kairo concept and the preparation, realisation and evaluation of the two regional pilots. Part of this work group participated in the transnational collaboration. They also made a major contribution to the promotion of the Kairo project by making presentations at conferences.

Together with Praktikon, an agency for Research and Development in Youth Care, a second work group (the Research work group) worked on designing two tools: the life progress monitor and the funnel diagnostic. The Research work group acts as a sounding board for the Praktikon Research Agency. The input of concrete knowledge and experience from the daily practice is utilised in the structuring of the tools. In order to evaluate everything that is being developed within the two work groups against expertise outside the project partners, an expert panel was put together. This panel consists of 21 experts from the areas of treatment, education, financing (UWV (*Employed Persons' Insurance Administration Agency*), LGF (*Student-Specific Financing*)) and education and health care policy. In the development phase (August 2005 - March 2006) the expert panel was involved in the formulation of the Kairo concept by means of a number of workshops.

In the pilot phase a number of individual expert panel members were consulted whenever there were obstacles in the formulation of the Kairo programme. For instance, the expert panel member from the Regional Centre of Expertise proved to be an important contact in the use of the LGF for the Kairo Programme in the Arnhem region.

The 'lynchpin' functions between all the parties, both at the administrative and executive level, is performed by the Project Manager. The Project Manager works under the direct guidance of the Chairman of the Steering Group (also Project Leader). Both these persons work for the initiator of the project, the Dr. Leo Kannerhuis. Right from the start a distinctive style and recognisable identity were developed for the project. A proprietary logo and letterhead were used, a KAIRO brochure-cum-poster was designed and a KAIRO website was started up. A promotional DVD about the KAIRO programme was also produced. In the context of the realisation of a structural continuation to KAIRO, the proper positioning of the project was given a lot of attention right from the start. This was realised by means of articles in various media and presentations held throughout the country.

Transnational collaboration

In the context of the European ESF-Equal subsidy application a transnational collaboration was established in addition to the national KAIRO project. A transnational exchange based on the theme 'Social Inclusion in Education and Labour' took place with three European ESF-Equal projects from Poland, Belgium and Finland. For a period of 2 years knowledge and best practices were exchanged on themes that are relevant to the realisation of the social inclusion of people with ASD, dyslexia and learning disabilities. This collaboration was concluded with a transnational final conference in Warsaw, Poland, on 20-21 April 2007. On the first day of this conference the findings of the individual projects and the transnational collaboration were presented by means of a vision document.

The second day focused on the Polish efforts to bring the need for autism treatment and financing for young adults with ASD expressly to the attention of political policy makers.

Transnational collaboration

- KAIRO (the Netherlands)
- The Partnership for Rainman, Rainman for the Partnership (Poland)
- Learning Gateway (Belgium)
- Lukineuvola (Finland)

1.3 Project objective

The general objective of the KAIRO EQUAL-project is described as follows:

General objective of KAIRO

'By means of a combination of education and health care young people with an autism spectrum disorder (ASD) are given the opportunity to participate in vocational education that:

- makes the most of their capabilities,
- gives the young people and their family members an understanding and acceptance of realistic opportunities/limitations and
- effects an active increase in or retention of self-sufficiency'.

In addition to the general objective, aimed at the development of an integrated Education/Treatment Programme, the following sub-objectives were formulated at the start of the project:

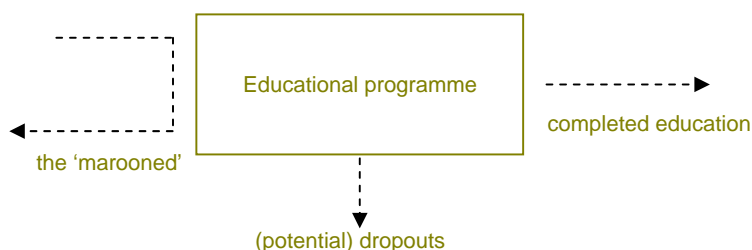
Sub-objectives of KAIRO

- Supporting the target group in choosing, participating in and completing a study in regular (vocational) education in order to enhance their job prospects.
- Motivating people with autism to participate in vocational education.
- Increasing access to vocational education for people with autism.
- Increasing the expertise of lecturers and support staff in vocational education;
- Increasing the number of people with autism in vocational education.
- Helping young people to increase or retain their self-sufficiency both at present and to prepare for a future in employment.
- Equipping the young person's immediate environment to act as a support system (community support).
- Allowing the early diagnosis and monitoring of ASD in young people in vocational education.
- Preventing participants with ASD dropping out of regular vocational education
- Creating support for an integrated Education/Treatment Programme for people with ASD, both in treatment and education organisations.
- Structural embedding of the KAIRO methodology in and possibly also outside the existing policy and regular practice of the collaboration partners.
- Publicising knowledge and experience for the benefit of national and international use.

1.4 Target group

Many young people with autism fail to do well in vocational education with the result that they do not complete their education (dropouts). The national average dropout percentage for the final qualifications in vocational education is around 30%. In the case of participants with a limitation this percentage is, on average, as high as 60%. In addition to these dropouts there is a group of young people who fail their secondary education and are therefore unable to even start regular vocational education (the so-called 'marooned' – those left stranded by the system).

Schematic overview of the target groups



The target group of the Kairo project consists of young people with ASD, with an average or higher-than-average intelligence level, who would like to undertake an intermediate-level vocational education and for whom it is estimated that an education combined with treatment is necessary and feasible. Within this target group a number of sub-groups can be distinguished:

- Young people with ASD who fail the preceding (secondary) education and do not move on to regular intermediate vocational education. These young people are mostly stuck at home without a useful way to spend their days.
- Young people who drop out of intermediate vocational education because they have chosen an educational direction that does not suit their capabilities and/or as a result of inadequate preparation and support.
- Young people with ASD who are in (mostly special) secondary education, pass their final exams and, combined with treatment/support, want to progress to regular intermediate vocational education.

The objective is to start with 24 participants in the Arnhem region and 12 in the Dordrecht region. Expectations at the start of the project are that, after completing the preparatory programme, 30 participants will actually move on to vocational education.

1.5 Intended results

In addition to the more general objective and sub-objectives, a number of concrete intended results were also formulated at the start of the project:

Integral Education/Treatment Programme for young people and the support system

A substantive Education/Treatment Programme for (prospective) regional education centre participants that has been evaluated for effectiveness. An Education/Treatment Programme that prepares the participants and supports them in starting and successfully completing the first year of their vocational education. In addition a supporting programme for parents and teachers provides an important support system for the participant.

Treatment/Education support structure

An integral support structure of education (study coach) and treatment (personal coach and treatment team), in which the participants themselves and their parents are also expressly involved. The aim of the support is to empower the participant in question to the point where he can regulate his own living, work and education environment. It is important that, with the help of his support team (from the treatment provider and educational institute), the participant learns to fulfil a directing role for the successful progress of the study.

“I did not finish my secondary education. I left in my fourth year of Havo (Higher General Secondary Education)... That was my own decision. It was not a good decision, but it was my decision.”

Stefan, participant in Dordrecht

Life progress monitor

The life progress monitor is a tool for periodically screening the participant in respect of his education career, documenting his progress and tracing potential new support questions. The monitoring tool provides continuity in the care and treatment. All the relevant information regarding the participant's support requirement is periodically mapped out and brought up to date

when necessary. The concept behind this life progress monitor is the experience that, on the one hand, young people with ASD wait too long before asking for help when things are going wrong, whereas, on the other hand, it is a given that there will be events that put pressure on the relationships in their personal life. In this respect the life progress monitor also acts as a tool to prevent a participant going backward or dropping out.

Funnel diagnostic

The funnel diagnostic could be used by lecturers as a screening method if a student is suspected of having ASD. The objective is to realise an early and accurate diagnosis in schools if ASD is suspected. Directly associated with this are streamlined follow-up actions toward the (specialist) GGZ (*Mental Health Care Association*) for any (medical-psychiatric) diagnosis and, where necessary, targeted referral to healthcare/treatment.

“... the particular objective is to allow young people with autism to function optimally in society. The gap that already exists is much too big. Although young people have very many qualities, they keep missing the boat ...”
Egbert Reijnen, Management Board, Dr. Leo Kannerhuis

E-community system

A digital system (e-community), whereby participants with ASD can stay in virtual contact (by means of the Internet, chat box, news group, etc.) and whereby contact is also possible with a treatment provider, lecturer and/or learning coach; a supporting system in respect of the physical programme and the - mostly face-to-face - support structure. At the same time it may be a facility that participants can use to look each other up as a peer group. This way, they can learn to share experiences and problems with each other, and possibly resolve them, in the context of their own empowerment.

Evaluation report

Ultimately the project will result in an evaluation report. On the one hand this report will provide the evaluation of the pilots and the developed KAIRO concept. On the other hand the process-based side of the project content and the project process are evaluated. This is done on the basis of a number of evaluation criteria and associated performance indicators. Crucial moments for this evaluation are: the intake, participation in and results of the preparatory programme, the participant's start in the course and the result measurements during the first year of the course. The sources for the evaluation are the participants themselves, their parents and the lecturers and treatment providers involved. The evaluation is outsourced to an external, expert and impartial institute. Where necessary the project partners involved will supply the desired input from their own Institute.

1.6 The operational process

The project was realised in line with a clear, pre-established timeline. In the operational process three consecutive phases were completed: the development phase, the realisation phase of the pilots (in preparation for and subsequently parallel to the education followed in a regional education centre) and finally the mainstream phase in which the structural progress of the project was effected.

Development phase: August 2005 - March 2006

The national workgroup has been developing the substantive concept since July 2005. By means of information exchange, discussion and coordination between professionals and practical experts from both the education and treatment fields, the

Education/Treatment Programme was realised. During this phase the influx criteria for the target group and the objectives of the programme and the training courses were concretised as well. The final selection of the most suitable course directions was made. In addition, the joint integral approach was worked out, among other means by the structuring of the intake procedure and the support infrastructure. In this period the training courses for both parents and teachers were developed, in support of the system surrounding the (prospective) regional education centre participant.

In October 2005 the practical preparations for the pilots were started. A comprehensive participant recruitment process was initiated with the aid of brochures and information material. Subsequently the joint intake procedure, for the purpose of selecting the KAIRO participants, was completed.

At the same time intense physical preparations were realised. For both treatment institutes the start of the Kairo project has meant an expansion of part-time chairs and the associated increase in personnel and accommodation. In the education institutes the new function of learning coach and the extra support tasks of the educational personnel resulted in shifts within the existing personnel structure and tasks. In this phase the research work group, together with the external research agency, worked on the development of the life progress monitor and the 'funnel diagnostic'.

Realisation phase of the pilots: March 2006 - July 2007

- *Education/Treatment Programme part 1: March - July 2006*

In March 2006 the new participants started on their programme. Until July 2006 the preparatory KAIRO Programme will be implemented in both Arnhem and Dordrecht. In both regions the newly developed support infrastructure will be given a concrete foundation by treatment providers and educational personnel. During this period the teachers in both regional education centres and the parents of the participants in question participated in the newly developed training course on the impact of autism in relation to education. As of March 2006 the life progress monitor was also deployed (until the end of the Kairo programme; July 2007).

- *Education/Treatment Programme part 2: August 2006 - July 2007*

In August 2006 the participants started on the second phase of the Education/Treatment Programme. They started their first year of training in the regional education centre and also followed the Kairo treatment programme.

Mainstream phase: August 2006 - December 2007

In order to realise the structural embedding of the Kairo programme within and outside the project organisations, early activities were undertaken. For instance, as early as August 2006 the preparations for the regional continuation were started, parallel with the second part of the pilot realisation. The possibilities for the structural continuation of the Kairo concept outside the existing project partners were also considered. In the autumn of 2007 the emphasis was placed even more strongly on the distribution of the acquired knowledge and experience. The project will be concluded in 2007 with a final conference at which the achieved results will be presented. During this conference this publication will be made available together with a CD-ROM containing the impressions of the future possibilities of an electronic learning environment for students with ASD.

"I really like the idea of the project. I am pleased there are people who want to help young people with autism. But it is very difficult, because at the same time they are also going through puberty and that makes things harder. Often they are not motivated; they are not open enough to what they are being told. In itself I like the idea, because those people who are open to it can learn a lot."

Danny, participant Dordrecht

02 The methodology

Introduction

Young people with an autism spectrum disorder who are starting in intermediate vocational education often need extra help and support; not so much because they don't understand the subject matter, but because they may have problems with processing information and may have specific social and communicative limitations. The 'New Learning' requires a high level of self-sufficiency and social skills, which may cause problems for autistic young people in particular. Although the government policy is aimed at offering tailor-made education within regular education where possible, students with ASD still often end up in special education or, in the worst-case scenario, drop out of the school system altogether. Many average or highly gifted young people with autism tend to prefer participating in regular education. They want to get a 'proper' diploma. Practice has taught us that, to realise this ambition, they require more support than regular education is able to give them at present.

What do participants in intermediate vocational education and their parents and teachers need to create a good learning environment? What role does the treatment provider play in these needs? How can a joint support network be created that provides the participants and their environment with optimal reinforcement and/or 'empowerment'? The newly developed KAIRO methodology is the result of the search for suitable answers to these questions.

2.1 The KAIRO Education/Treatment Programme: an integral approach

The parties involved

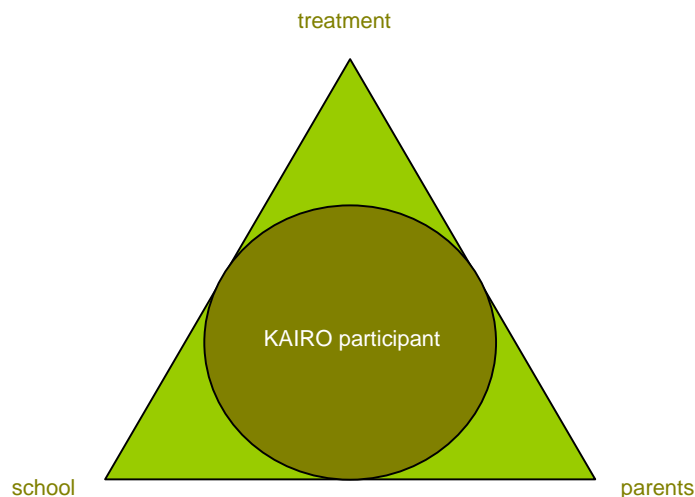
The central starting point of the Kairo concept is the integral approach of the participants. This means that education and health care (both care providers and parents) act together to give the participants joint support from both perspectives. The focus is both on the young person with ASD and on his environment. Autism is a disorder that affects the sufferer all his life. The starting point of the Kairo concept, however, is that people with ASD can still learn in an individual and customised manner through a combination of education and therapeutic support. By giving insight, learning and practising skills and providing aids, prospective regional education centre participants are expected to be able to grow sufficiently for them to start intermediate vocational education. At the same time the starting point is that for many young people with ASD their ability to learn will, in specific areas, reach a certain limit. The participants' immediate environment is therefore also an important factor for a successful completion of the education process (and the subsequent entry into the employment market). It is important that the environment is reinforced (empowered) in its supporting function toward the participants. The school and the family environment have an essential supporting function. The work placement environment also plays an important role in the education.

For the academic setting this means that the learning environment and the didactical and pedagogical approach must be coordinated as much as possible to the individual autistic participants. Those in the school who are involved with the individual participants (mentor, teachers, work placement supervisors) must, in the first place, obtain a good understanding of and insight into autism. "What does it mean if a student has autism?", "How can I understand his behaviour?", "What does it mean for my approach?" etc. etc. Based on this insight it is important that the actual academic learning environment is adapted where possible. The physical environment can be adapted, for instance, by creating screened-off workplaces in the 'study gardens' (open spaces where students can work on assignments either individually or in groups). Overwhelming, often

large and busy canteens can be divided into sub-areas where students (with *and* without ASD) can have their lunch in peace and quiet. This way, students who are highly sensitive to external stimuli can protect themselves somewhat from such stimuli.

It is also worth looking at limiting random roster or classroom changes. Where this is not possible, communications about such changes can become clearer and be published earlier. The digital school Intranet system can play a supporting factor, provided changes are entered consistently and early. In addition adjustments can also be made to the provision of lesson materials. For instance, project-based assignments can be offered in smaller sub-blocks and structured on paper. The introduction of interim moments at which the sub-assignments are evaluated and instructions for the next part of the assignments can be repeated, is also important. In this integrated approach the home environment also plays an essential role. Parents are the most important factor in creating a sound and peaceful (home) base. They have a supporting and stimulating role when it comes to the practical matters surrounding education, such as getting up on time, preparing breakfast/lunch, packing the school bag and doing homework. Furthermore, next to the young person himself the parents are *the* (experienced) experts when it comes to their own child. They have had many years of experience with their child's schooling. More than anyone else they are the ones who know what the obstacles are and what their child's strong points are. Often parents also have developed a range of practical and concrete solution strategies based on their experiences. In the integral approach the treatment setting will, in the first instance, play an intensive role that is gradually being reduced. The treatment will help the participant to develop the initial skills needed for the school environment. "How do I make contacts?", "How do I plan my homework activities?", "How do I function in a group of students?". Based on the treatment component all the parties involved (the participants, the actors in the school and the parents) will receive insight and practical skills for support purposes. The treatment will gradually be reduced, but will continue to play an essential role throughout the education process. The input from the school and the parents is very important in the treatment process. By responding to concrete daily practical examples, both at school and at home, the programme can be customised further.

Support system



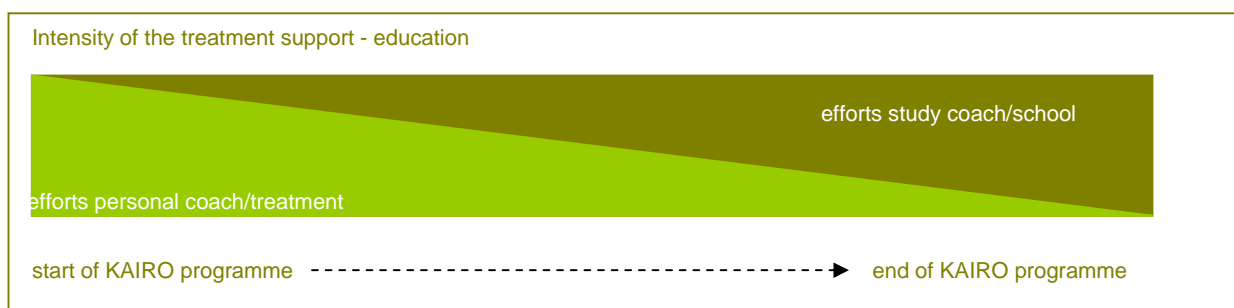
“... Until now there was collaboration with schools, but it always depended on the occasional mentor who empathised with such students. By truly working together you ensure that this attitude is supported throughout the school organisation... It becomes a structural part and not something that is an afterthought. And that is new.”
Ella Lobegt, treatment coordinator Dr. Leo Kannerhuis

Together, these three supporting parties constitute the joint personal network that surrounds the participant. The objective of this network is to create an initial safety net that helps the participants to establish themselves in the school. In the first instance the support has a strong underpinning and sometimes guiding character. Over time this will develop into a more coaching type of support.

The starting point remains the best possible (continued) stimulation of the independence and responsibility of the young person. They are and continue to be the ‘driver’ of their own education. The participants are reinforced in their own understanding, skills and capabilities. In addition, they learn better ways to ask those around them for help. By providing more knowledge, insight and actual ‘handles’, the environment can anticipate and respond to the required support more adequately.

The different roles

In this network the personal coach has a clear ‘axis’ function from the treatment side. Every week the personal coach coordinates the study objectives and progress with the participant. Any problems are discussed with the school and/or home, in consultation with the participant in question. The personal coach is also the central point of contact for the parents. This means there is regular (telephone) contact with the parent(s), during which matters relating to the home situation and other relevant personal issues concerning the participant are discussed. From the start of KAIRO every participant has his own study coach in the chosen study direction. This study coach is the direct point of contact for the KAIRO participant in the case of any problems at the school. The study coach is also the internal point of contact for all the teachers involved in the education. Once a week or once every two weeks the study coach and the personal coach discuss the individual participant. If a young person appears to be encountering problems in the school the two coaches discuss these issues. The study coach then gives the relevant teacher(s) feedback on possible solutions. The personal coach ensures that the observed problems are dealt with specifically in the training within the treatment setting. The personal coach also raises any signals of the participants in the training course that relate to the school with the study coach. If necessary, the study coach will talk to the school.



During the student's first year at the regional education centre intervention meetings are held with the study coaches and personal coaches, during which existing problem situations are discussed and the approach is jointly coordinated on the basis of casuistry. The evaluation and, where necessary, the adjustment of the collaboration between treatment and health care is also a subject matter during these group interventions.

Evaluation moments

In the context of the Education/Treatment Programme periodical treatment meetings are held between all the parties involved. During these meetings the progress of the participant to date is discussed and the study objectives for the next period are determined. The results of the life progress monitor are included in these meetings in order to assess how the participant is developing. These meetings are attended by the parents, the treatment coordinator, the personal coach and the study coach from the regional education centre.

Evaluation moments		
When	What	Objective
Before the start	Registration form	Registering for KAIRO
	Intake interview	Decision on participation in KAIRO
March	Treatment meeting I	Signing of treatment plan
June	Treatment meeting II	Interim evaluation/determination of study objectives
December	Treatment meeting III	Interim evaluation/determination of study objectives
June	Final meeting	Evaluation of treatment results + any follow-up programme Award of KAIRO certificate

2.2 Empowerment of the KAIRO participant

In addition to the integral approach, an important pillar of the Kairo concept is the empowerment of the individual participants. The following factors play a role in this empowerment: the selection of the participants, the programme, the underlying vision and the actual content of the programme.

The selection of the participants

The KAIRO target group consists of young people with ASD who would like to undertake an intermediate-level vocational education and for whom it is estimated that an education combined with treatment is necessary and feasible.

At the start of the programme young people with ASD are, in practice, faced with the following particular issues:

- Difficulty in selecting, enrolling and persisting in a study in regular (vocational) education.
- Inadequate social skills, problem-solving skills and academic skills
- A lack of knowledge of the impact of ASD on social and academic functioning.
- In most cases, low self-esteem.

The most important 'angle' of the Kairo project is that the young people in question are offered a realistic opportunity to successfully complete a study at a regional education centre. To this effect participants are screened before they are invited to participate. In some cases the preparatory programme can be a good evaluation and selection for the feasibility of the actual participation in the study. In other cases it is immediately clear, as a result of a number of contra-indications, that the chances of success are not realistic at that time. As part of the intake procedure both the education institute in question and the treatment provider conduct a separate intake interview. In this interview everybody evaluates – based on their own point of view, expertise and influx criteria – whether vocational education and the programme are a suitable response to the requirements of the young person with ASD and his parents.

A sound selection of participants and the structuring of an adequate treatment plan are important first steps in the context of the empowerment of the participant. During the intake and selection a joint first step is made on the start of a process that will require the necessary commitment from the participants. If an applicant is rejected for the Kairo project, or if a participant drops out of the programme, alternatives are carefully considered with the participants and his parents. The purpose is to find a suitable solution to the newly created support requirement of the young person and his parents.

KAIRO influx criteria

KAIRO is indicated for young people/young adults with ASD, aged 16 -24, who:

- Want to participate in one of the vocational education courses offered (ICT or administration and, in the Arnhem region, also electrotechnology or laboratory).
- Meet the pre-education requirements for the intermediate education or are able to demonstrate they are at a comparable level.
- Are prepared to take a good look at themselves and are willing to learn skills.
- Are motivated to participate in regular education, combined with treatment and support.
- Have the support of their parents and important other parties.

"I knew something was wrong, but I didn't know what. Then I finally ended up at De Grote Rivieren and this is where the diagnosis was made. We then looked at the future picture and came to this conclusion. It's not that I chose this very consciously, I kind of rolled into it. But looking back I'm very glad I did it. I chose a profession, but not because it was love at first sight. I chose it because I thought it was the best option. For me.

Danny, participant Dordrecht

KAIRO contra-indications

Applicants are advised against participating in KAIRO if it is the impression of the school and the treatment that an education combined with treatment is not necessary or feasible. Specific contra-indications for KAIRO are:

- Not meeting the age requirement of 16-24, because then the age compared to fellow students would differ too much.
- Wanting to participate in intermediate vocational education that does not collaborate with KAIRO.
- Inadequate pre-education level and cognitive possibilities.
- Not being able to function in a group.
- Lack of motivation for treatment and support.
- Serious acceptance problems as a result of which discussing the participant's ASD proves impossible.
- Serious problems with regard to numerous aspects of information processing (e.g. very low speed and one-on-one support needed), which seriously obstructs learning and as a result of which the acquisition of certain competencies within regular vocational education would not appear feasible.
- Not being able to sustain a daily routine.
- Other psychiatric problems.
- Serious family-related problems, so that support from the immediate environment is minimal.

The Kairo programme: the configuration

The starting situation of the participants in the Kairo programme is very diverse. Some participants previously dropped out of school and have been at home for a period of time, often without a structured daily routine. Others are in their final year of school (in most cases VMBO (*lower secondary vocational education*)), or are in secondary education and at risk of dropping out (for instance people in year 4 of HAVO (*Higher General Secondary Education*) for whom obtaining the final diploma does not appear feasible). This latter group of participants is still in an academic routine, but they often lack the specific skills needed for intermediate-level vocational education. For the group of young people with ASD who dropped out of their previous studies the comprehensive KAIRO programme was developed (Intensive Preparatory Programme).

These participants benefit from a longer training programme in preparation for intermediate vocational education. In addition, extra attention is needed for the choice of the appropriate study and profession and for catching up with educational deficiencies. For young people who pass their VMBO exam the shorter training programme was developed (Short Preparatory Programme). These participants are still in the academic routine and need less preparation time. This group starts on the preparatory programme immediately after they get their diploma. The subsequent structure of the Education/Treatment Programme, after the start at the regional education centre, is the same for both groups. The programme is offered within the treatment location.

KAIRO structure 2006 -2007

KAIRO	Objective	Period	Intensity
Phase 1	Intensive Preparatory Programme For young people who are failing their current studies or who have dropped out	March – July	3 half-days per week
	Short Preparatory Programme For young people in their final year (VMBO) or young people who are at risk of dropping out of secondary education	June – July	3 half-days per week
Phase 2	Education/Treatment Programme For participants during the first year at a regional education centre	Aug. – July	Initially 2 half-days per week, to 1 half-day per week. Finally 3 return days
Phase 3	Ambulatory Treatment programme (developed during pilot) For participants during the follow-up to their regional education centre course	Aug. – end of course	Customised

During the preparatory programme the participants attend a number of lessons in the context of professional orientation with regard to the relevant course of the regional education centre. This way participants have a chance to become familiar with the school (the location, the building, some of the teachers).

The preparatory programme consists of a broad range of group-based training sessions. In groups of six participants the students acquire important knowledge, insights and skills to prepare them for their studies at the regional education centre. Each training session is conducted by one or two permanent trainer(s). Wherever possible the preparatory programme uses the same education formats as the vocational courses. For instance, there is an academic-looking roster and during the training days several groups lunch together in a canteen-type space. The lessons themselves also correspond as closely as possible to the didactical approach of the regional education centre in question. In addition to this group-based training, each participant also gets individual support. After the start of the school year at the regional education centre the participants will join the regular courses. In addition they participate in the Kairo education/treatment programme two half-days per week, dropping to one half-day per week after the Christmas holidays. At the end of the school year a number of 'return days' are scheduled in the last semester. On these days the generalisation of skills and the sharing of experiences tend to be the focal point.

Highlights of the learning process

Insights into ASD and study skills	generalisation of skills	sharing experiences
start of KAIRO	start at regional education centre	end of 1 st school year

In January 2006 the Ministry of Education made the so-called 'backpack' (Student-Specific Financing) available to vocational education as well. In response to this new development the Arnhem region started using ambulatory support in the context of the Student-Specific Financing (LGF). The reason for using this new source of financing is found mainly in the opportunities for continuing the support through a regular financing source after the end of the first study year.

After all, the Kairo project will run until 31 December 2007 within the Equal Financing structure, whereas the participants in the project will have a further two or three years to go in their education.

The Kairo Programme: the underlying vision

The programme is offered on the basis of a jointly formulated vision regarding treatment in relation to education. This basic vision has three central treatment starting points: the competency-based model, aspects of the TEACCH methodology and the Socratic approach.

Competency model

The competency model is based on the assumption that treatment programmes that correspond with all the capabilities (competencies) a client has, are the most successful. This assumption is supported by the results of studies into the effects of the provision of support. Working on skills and/or increasing competencies also has a motivating effect. Efforts to increase competencies focus on reinforcing the (potential) strengths of participants, which is something that appeals to them. After all, it is much better to be recognised for what you *can* do than for your problems or limitations. Young people are 'competent' when they have sufficient skills to adequately perform the (development) tasks they are confronted with in daily life. It is characteristic of ASD that it is a pervasive development disorder, which means that development tasks at all levels are obstructed to a greater or lesser extent. The learning of skills, therefore, does not come naturally. Working with young people with ASD on the basis of the competency model therefore requires supplementary methods.

TEACCH

Among other methods the TEACCH model is used as a supplementary method. This model aims to make the environment as safe as possible for young people with ASD. Structure, predictability, lack of 'clutter' and clarity are environment factors that a young person with ASD needs. For instance, TEACCH uses visualisation of instructions (among other means by the use of pictograms, photographs, text). The TEACCH method creates a safe environment in which it becomes easier to develop skills.

Socratic approach

Finally, the programme works with participants on the basis of the Socratic approach. This means that in every training session the Socratic verbal interaction method is used. The key to this way of having a conversation is to ask the right questions. A Socratic approach - learning to think critically by asking the right questions - aids learning. In the Socratic interviews there is a lot of attention for reflections, careful analysis and the assessment of views and values. This can make

the 'why' behind the facts and views clearer. Orderliness in thinking, clarity and a lack of clutter are elements that are very important for young people with ASD. The Socratic approach stimulates these elements. By means of the Socratic method the young person with ASD can be helped to better understand information and therefore process it more easily. Being encouraged to find your own answers results in increased self-confidence.

The importance of generalisation

In order to promote the generalisation of the things that were learned during the training sessions, the KAIRO programme corresponds as closely as possible to the learning methods used in the school, such as project-based or problem-based working and competency-based learning. By using the learning methods that are used in the vocational education during the training sessions, the participants are practising the necessary skills prior to starting at the school. Furthermore, in the different training sessions the same learning objectives are practised from a different angle. This way, attempts are made to work as much as possible on 'translating' the things that were learned in the education/treatment programme into the daily practice in school.

“A golden rule, that I also pass on to teachers, is to be aware, in all forms of communication, that you have to make it clear to your students what they have to do, who they have to do it with, when they have to do it and when they have to have it finished. Where they have to do it and how they have to go about it.”

Ella Lobregt, treatment coordinator Dr. Leo Kannerhuis

An example

One of the study objectives of a participant is to learn to consult more, because he is often too dominating in the group. In the TCSV (*Social and Communicative Skills*) training session he learns what consulting is and what the associated questions are. In the Collaboration training he actively works on an assignment with fellow group members. In the feedback he will look at his learning objective of 'consulting'. In the PMT (Psycho-Dynamic Therapy) session the KAIRO participants play a ball game that requires consultation to get the ball into the basket. Here too, the participants will practise their learning objectives in a playful manner and in an entirely different context.

KAIRO treatment vision: in summary

Based on the competency model and the TEACCH principles the training that is offered focuses specifically on:

- o Getting the young people to understand and accept their capabilities and limitations.
- o Increasing the competencies of the participants by helping them to learn skills.

In the above objectives a Socratic approach is used: learning to think critically by asking the right questions. Wherever possible the teaching methods of the school are used in the Kairo programme in order to stimulate the generalisation of these skills into the academic practice.

The Kairo programme: the content

The content of the Kairo Education/Treatment Programme is coordinated as much as possible to the daily practice of the vocational education. Based on the general capabilities and limitations of young people with ASD the demands that the course (education didactics and educational context) imposes on participants was assessed. Based on this assessment the

Education/Treatment Programme was developed, which consists of a broad training package. Three areas of attention play a central role in the programme:

1) identity development, 2) cognitive and task-oriented skills and 3) social and communicative skills. The training sessions from the identity block focus specifically on insight and acceptance; the other two training blocks focus on increasing competencies.

Training components	
	KAIRO Training sessions
Identity development	Psycho-educational training Identity development Professional orientation Leisure time
Cognitive and task-oriented skills	Task-oriented skills 'Learning to think differently' Problem-solving capabilities
Social and communicative skills	Communicative and social skills part I Communicative and social skills part II Verbal interaction Creative therapy /music therapy/psycho-dynamic therapy

Identity development

Psycho-educational training

In order to be able to develop a good self image it is important for young people with autism to understand what the impact of their autism is on their functioning, both in a restrictive and reinforcing sense. As a result of this understanding the will and motivation to change and improve their behaviour and skills are increased. In these training sessions a theoretical framework ('What is autism?') is approached in a Socratic, questioning manner, whereby the emphasis is on teaching the participants to express what autism means in their lives. As a result the participants feel they are being heard, seen and made stronger (empowered), also as a result of the recognition in the stories of their fellow group members. In addition to understanding and insight, the training sessions work on acceptance of the autism diagnosis. The emphasis is especially on the strengths and growth opportunities of the participants.

Identity development

Young people who are going through puberty are in an important development phase with regard to identity formation. For young people with ASD this development can sometimes be more difficult as a result of a negative social identity (for instance as result of being bullied), a limited capacity for introspection and self-direction or deficiencies in the emotional development, for instance. This may result in an unrealistic feeling of their own value, such as a low self image or sometimes also a tendency to overestimate their abilities in certain areas. A young person with ASD is not defined solely by his autism. Quite rightly, young people with ASD often hate being identified by their disorder: "I am autistic." Furthermore, it is difficult for them to distinguish what elements are part of their personality and what elements are related to their autism. To be able to participate in the course with self-confidence, the development of a realistic, positive self image is very important. In these training sessions the participants get a better understanding of themselves in relation to others. The participants complete

assignments which, together, present an image of their own identity. These assignments are collected in the so-called 'portfolio'.

Things suddenly started to 'click'. I understood I had to change my attitude. I had a negative expression on my face. I changed this. I learned to show more initiative. To tell people things about myself. This gradually increased my understanding, also of my environment."
Danny, participant Dordrecht

Professional orientation

Choosing a professional direction is difficult. For young people with ASD it is often even more difficult to get a concrete picture of something that is still largely an unknown quantity. Professional orientation can help generate this picture. Having some sort of idea of the profession aids in making a motivated choice with regard to a vocational education.

Motivation is one of the most important pillars for successfully completing an education. Sometimes participants will use their selected intermediate vocational education mainly to get a starter qualification, which they will use to move up to a subsequent (follow-up) education. For these participants it is important, in addition to orienting themselves on the professions, to clarify their route to their ultimate chosen profession with the aid of the Client Competency Profile (KIRA, 2005). When choosing a profession the capabilities of a participant with ASD play a role as well as the motivation. The chances of successfully completing a study and practicing the chosen profession are highest when the profession corresponds with personal qualities of a participant. In these training sessions (during the preparatory phase) the participant will develop a more concrete picture of the study and the associated professions.

Leisure time

For young people with autism 'leisure time' is akin to 'empty time'. Often they have trouble making good use of their free time. To be able to function well at school (and also later, when they are employed), well-spent leisure time is essential. Relaxation, in contrast to the effort they need to make at school, is important for a good balance. However, young people with ASD can sometimes lose themselves in certain pastimes (for instance the computer) or have no idea how to spend their free time in an enjoyable manner. During the school hours there will also be 'empty' moments, for instance when a lesson is cancelled or during breaks. How do you give these moments the right meaning and form?

In these training sessions the participants are given an understanding of what 'leisure time' (hobbies, relaxation) means. They take an inventory of how they spend their free time and what their hobbies are. Study objectives are formulated on an individual basis to qualitatively improve the way the participants spend their leisure time. In addition they learn to deal with – often suddenly occurring – 'empty time'. Here again, academic work formats are used, such as completing an assignment or giving a presentation about a favourite hobby.

Cognitive and task-oriented skills

Task-oriented skills

Young people with autism have their own profile of strong and not-so-strong sides. A certain level of task-oriented skills, such as planning, organisation and collaboration, is essential to participating in the vocational education. The sessions on task-oriented skills help the participant to get an insight into their own functioning (learning style, work approach and task-oriented skills). Based on this understanding the participants will determine and formulate study objectives. The participants learn to

ask for help and to organise support in their own environment (at school and at home). An important fixed component of the sessions is learning to work together in the way required by this project/problem-driven type of education.

'Learning to think differently' Participants with ASD are more likely to see the pieces of the puzzle rather than the puzzle as a whole. They have trouble applying cohesion. When you pick up fragments of information but are unable to put that information in a context this will frequently result in the misreading of situations. Furthermore, it is easy to become overstimulated by information that, to you, is disjointed. Every person develops their own ways (diagrams) of dealing with information they don't understand or that overwhelms them. On the basis of experiences knowledge is stored in this diagram, which can then be used in the new situation. Young people with ASD have often developed insufficient diagrams to be able to handle certain situations. This means they can feel rudderless, particularly in complex social situations. Other young people, in contrast, develop overly strong, overly rigid diagrams about how the world works and about what is wrong and what is right. In the 'Learning to think differently' training sessions the participants learn to use the so-called G-diagram. The 'G' stands for the Dutch words *Gebeurtenis-Gedachte-Gevoel-Gedrag-Gevolg* (Event-Thought-Feeling-Behaviour-Consequence). It is a method for analysing events. The basic feelings and non-helpful thoughts are recognised, which leaves the young person open to other thoughts about an event. It also teaches the participants to make connections (cause & consequence thinking).

Problem-solving capabilities

For young people with autism it is often difficult to find their own effective solution strategies. They are not sufficiently able to overview the full extent of a problem and are more likely to get 'stuck' at the first sign of a problem. As a result of their generalisation problems it doesn't come naturally to them to build on previously successful experiences either. In addition, it is often difficult for them to assess what alternative strategies could be used. The Problem-solving capacities training helps the participants to systematically learn to analyse problems, inventory the various options, ask for help if necessary and subsequently select an adequate and effective solution strategy. This increases the participants' ability to act independently and adequately in problem situations.

Social and communicative skills

Social and communication skills (TCSV) parts I and II

Being deficient in the area of social interaction and communication is characteristic for young people with autism. Many of the participants previously attended school but it was a negative experience for them. In the education environment, and certainly within the 'New Learning', high demands are placed on communicative skills in particular. The social aspect is also very important at school and at this age. Being able to interact with fellow students and learning to make social contacts helps the participants to cope at school and in the group. The Social and communicative skills training is divided into two parts. The first part (during the preparatory phase) focuses on learning basic communicative skills, such as listening, asking questions, giving feedback and giving and receiving compliments. The second, more in-depth, part (during the course at the regional education centre) builds on TCSV part 1 and the Verbal interaction training. The social aspects of communication, like body language, facial expressions and non-verbal communication are looked at in more detail. Participants gain an insight into their own social skills and are given starting points on how to improve communications and contact with others.

Verbal interaction

In the competency-based learning within the vocational study, for instance in the formulation of a personal development plan, considerable demands are made on a person's ability to express himself. But even in the daily interaction with fellow students at school it is an important added value if you are able to have a 'normal' social chat; not the easiest thing to do for

young people with autism, however. In the Verbal interaction sessions discussion techniques are practised in a number of ways.

Creative therapy, Music therapy and Psycho-dynamic therapy

For young people with autism, generalising what they have learned in a certain situation to another situation does not come naturally. In practice it proves difficult for them to apply skills they have learned. Creative therapy, Music therapy and Psycho-dynamic therapy are used to repeat what the participants have learned in the Social and communicative skills (TCSV) sessions in an entirely different setting. For instance: learning to work together during sporting activities, or 'tuning in' to someone else through playing together during music therapy. In practical situations the participants are continually and actively re-directed when they revert to their 'old' behaviour and receive positive affirmation when they apply their new skills properly. An added aspect of the sessions is that, in addition to the mostly cognition-oriented training sessions, these therapies also offer a creative outlet. In these sessions, 'doing' is the main focal point.

The choice of vocational study directions

During the preparations the KAIRO work group engaged in a comprehensive discussion about the vocational study directions to be offered. Because of the pilot status of the project it was decided to initially only open up a limited number of study directions to the KAIRO participants. As a result a specific group of study coaches and lecturers in both regional education centres were intensively involved at the start of the integral collaboration between treatment provider and school. This made it possible for the promotion of expertise in the area of ASD to be given shape effectively. After this it was considered what studies would be most suitable for the young people with ASD. The competency requirements of the studies were evaluated for their meaning to participants with autism. After considering all the arguments for and against, ICT and (business) administration (both regional education centres) and laboratory and electrotechnology (Rijn IJssel) were selected as being the most suitable courses for the KAIRO participants.

As the study track the Vocational Education Track (BOL) was initially selected, with the variant 'course with a work placement component'. With regard to the Vocational Support Track (BBL) variant: 'employment contract with an education component' it is felt that the work placement component would initially be too demanding. There was also discussion about the course level that would be offered. In view of the expected (high) cognitive level of the participants, level 3 and possibly level 4 should be feasible. However, in view of the required task-oriented, social and communicative skills at these levels, and the functions that the young people with this education are likely to end up in, it is expected that these education levels would in most cases be too complex. At levels 3 and 4 high demands are made on the level of self-sufficiency (level 3) and self-managing capacity (level 4). The burden of the treatment programme in the first year of the study at the regional education centre, combined with the higher influx levels, could possibly also end up being too demanding. In the first instance it was therefore decided to use levels 1 and 2 for all the educational directions, with the exception of the laboratory study as this is only taught from level 3.

2.3 Empowerment of the learning environment (education)

In the existing vocational education the necessary knowledge and insights needed to optimally support participants with a limitation are often lacking. The teacher training pays hardly any attention to this aspect. Lecturers or work placement supervisors often have only ad hoc experience with occasional students with ASD and a very generalised picture of what autism is. This means that the support of students with ASD in schools depends strongly on the enthusiasm and commitment of individual lecturers or work placement supervisors. Research and practice show that students with ASD have a greater

requirement for support from the school. The educational field itself acknowledges that there is a shortage of knowledge and skills when it comes to the support of these young people. Within the integral approach of KAIRO the close collaboration and coordination with the educators plays an essential role.

“... for instance that time when there were problems about the roster, we raised the issue at the Dr. Leo Kannerhuis and we received feedback and saw a change right away. We would be told in advance ‘Okay boys, in six weeks you’ll be having a new roster’. So they are trying to create more clarity.”

Erik, participant Arnhem

During the Kairo programme and also in the follow-up to the education track the educators will increasingly give the support of participants with ASD content and substance. A training course for educators was developed in order to equip all those directly involved in the regional education centre courses for this task. At both of the regional education centres all the lecturers, work placement supervisors and study coaches involved will get four half-days of training, parallel with the preparatory programme of the participants. This training will consist partially of knowledge transfer, with the objective of gaining insight into and an understanding of the meaning of autism in students.

“When a participant goes home if a lesson is cancelled you, as a teacher, tend to see this as ‘playing truant’. Once you understand that for a participant with ASD the cancellation of a lesson creates a very unsafe, unstructured situation, you look at his behaviour differently. You understand that, at that point, going home is probably the only way the student can think of to create a kind of peace and safety for himself. This also gives you an understanding of how to support the participant in these types of situations, so that he doesn’t have to ‘run away home’. You will see, for instance, that notifying someone of roster changes personally and early has a very positive affect on the participant. At the same time your image of the participant as a truant changes to an image of someone who wants to be cooperative, provided he ‘understands’.”

A lecturer

A practical ‘translation’ of this knowledge to the everyday practice in the school will also be made. “How and to what extent can you adapt the academic environment so that students with autism are better able to absorb the lessons and competencies?”, “What does this mean for you as a teacher or work placement supervisor?”, “How can you make the lesson materials and the learning environment (more) autism-friendly?”. As a result of the knowledge and insights they have acquired, the teachers are able to better understand their autistic students, and more able to respond adequately in problem situations. A number of practical adjustments to the learning environment were implemented as a result of the understanding acquired in this training course.

2.4 Empowerment of the family system (parents)

The family is an important foundation for school-going young people. Often parents do have a basic knowledge of autism. However, in the case of some parents the autism diagnosis of their child is only recent. For parents it is useful and pleasant to be able to look at what autism means to their own child in particular, on the basis of the focus on vocational education and

what demands it imposes on their child. It is also especially useful to find out how they, as parents and/or family members, can provide good support for their child.

All the parents (or 'significant others') of the participants in the Kairo programme take part in parent training. The contact with fellow parents is experienced as being very helpful. An important aspect of this parent training is recognising the problems experienced by other parents, and sharing solutions. Often parents have travelled a difficult road before their child starts in vocational education. They may have experiences with a number of schools that have sometimes been disappointing and painful. For most it has been a long quest to get their child through the entire education process with reasonable success. In view of the cognitive level of their child the educational expectations are often higher than intermediate vocational education. However, parents must adjust the perspective for their child. For the student himself, but also for many parents, this means an acceptance and coping process. Parallel to the preparatory project of the participants the parents attend three meetings aimed at knowledge and insight with regard to autism. After the participants have started at the regional education centre, the parents will complete the second part of their training. In these last three meetings the emphasis is mainly on providing practical tips on how to deal with problems that the participants may encounter in education. The current situation in the school is discussed, so that parents know what is expected of their child and what problems this may cause.

... the feedback we give De Steiger is used in the therapies and is communicated to the students in concrete terms. This allows them to function better or get an understanding of 'so that is the problem when working together...' or 'when planning my work'.

Berna, study coach Da Vinci

These subjects are problems associated with, for instance, communication (with teachers or fellow students, or when making a presentation) or in the planning (the use of a diary or the real planning of an assignment).

There is a focus on the exchange of concrete experiences or problems by the participants in the school, and together it is evaluated how parents can respond to this (even better).

2.5 Empowerment of the treatment providers

The treatment plays an essential role in the empowerment of the participant, his parents and the teachers, especially in the initial period (preparatory sessions and first school year). The treatment providers transfer their knowledge and expertise, which results in an increase of the understanding about autism and education. It also gives all the parties involves concrete 'handles' (skills), so that everyone can fulfil their 'role' as optimally as possible: as a (perspective) regional education centre student, as a supporting parent or as a coaching teacher and/or work placement supervisor. At the same time the treatment providers themselves are reinforced by the input from the parents and school. They are important sources of information for treatment providers, which means the training can be customised. By being closely involved in the education treatment providers get a realistic and up-to-date insight into the requirements that the (always innovating) vocational education imposes on participants with ASD. Matters are discussed with parents on a regular basis, problems are spotted early and suitable solution strategies are devised, all aimed at developing the necessary skills for the student in the vocational education.

"During the treatment we were always asked to look for an assignment that matched the study objective. Going to school now provides a lot of practice material that is presented in a natural environment.

Within the treatment we also have a much better understanding of what is really needed by way of skills to be able to participate in a course at the regional education centre."

A treatment provider

03 results & recommendations

Introduction

Based on the KAIRO objective of enabling young people with an autism spectrum disorder to successfully complete vocational education by means of a combination of education and healthcare, a joint project initiative was generated. The four project partners have jointly given substance and shape to an integral Education/Treatment Programme.

What are the main results of this two-year-plus project collaboration and how will these results continue to be guaranteed in the future? What did we learn from the practical realisation in the pilots and what does this mean for the further development of the Kairo concept? And last but not least: how can we make sure that the recommendations resulting from our experiences are given 'hands and feet' in the future so that, together, we continue to develop and build on suitable (vocational) education and balanced life support for young people with autism throughout their education and in their transition to employment?

Johan

*Johan is satisfied with the treatment. He is now better able to do the things he wants to do, and is better able to deal with people and situations that used to cause him problems. However, he does not feel that the treatment has caused him to progress sufficiently in all areas. Johan indicates that he has progressed in his communicative and social skills and the way he spends his leisure time. It is easier for him to chat with fellow students at school. In his free time he also takes the initiative in maintaining contact. He is also able to look after himself better. However, when it comes to sticking to a schedule and not putting off things he finds unnecessary, not much has changed. According to his mother there has been an overall reduction in his problems. She can see progress in all areas, except the area of pro-social behaviour. Effect measurements show a reduction in the total number of problems, but this is not statistically significant. The mother acknowledges the results. She can see that Johan now takes the initiative in social contacts and has continued to do so after the training sessions. However, she does not see him making new contacts. According to the teacher, too, the total number of problems has been reduced (SDQ). The teacher indicates that it appears as if there is in fact an increase in certain problems as well. In actual fact this is not the case, but because of the increased insight these problems have come more to the fore.
(Liberal translation, source final report Praktikon 2007)*

3.1. Evaluation

Right from the start an independent evaluation study has been linked to the Kairo project, which focuses both on the evaluation of the process and on the product of the project. The study was conducted by Praktikon, an organisation for research and development associated with the Radboud University in Nijmegen. For a comprehensive report of the findings we refer to the final report of the evaluation study (Kroes & Pijnenburg, in print 2007).

Process evaluation

The evaluation of the process specifically concerns an analysis of contextual factors that influenced the course of the project. This analysis was conducted on the basis of three instruments:

- TOP scan
- Target group assessment
- Parameters questionnaire

TOP scan

In order to investigate the content and theoretical substantiation of the Kairo programme the programme description and associated documents on KAIRO were reviewed with the aid of the TOP scan (*Appraisal Research Perspective Project Plan*). The TOP scan is an evaluation system that is based on the Praktikon health care evaluation model (Veerman et al, 2000), empirical research by Bijl (1996), De Ruyter (2000), Berger and Menger (2002), and recent insights from the What Works approach (Van der Laan & Slotboom, 2002), which has become particularly popular in recent years in a judicial intervention context. The TOP scan focuses on a standardised estimate of the research opportunity a project plan offers for an innovative intervention (an education (care) module or programme). The TOP scan therefore provides an answer to the question: Is evaluation research possible if a project is conducted in the way it was worked out in the project plan? Are the key elements 'target group', 'intervention', 'intended results' and 'parameters', as well as the underlying vision on health care provision/theory, necessary for such a study, described sufficiently in the project plan?

The TOP scan evaluates the content, the theoretical substantiation and the context of the health care programme.

"We want as many people as possible to move up through the system, as many people as possible to get a job, as many people as possible to eventually be able to support themselves. After all, we are an institute that trains people for a profession. Quite simple. But complex in its simplicity, sometimes ..."

Titze Ramaker, College of Bestuur Rijn IJssel

Conclusion of the TOP scan: the project plan and the appendices, manuals and workbooks of the KAIRO project have been carefully structured and give a positive overall impression. KAIRO is an ambitious project that aims to support young people with ASD problems in a collaboration between vocational education and child and youth psychiatry. The results of the project may be directive for the further development of collaboration programmes between health care and education for the benefit of young people from the target group and their parents/educators. The project plan in its entirety has been described thoroughly. The amount of material is impressive; many subjects that are relevant to the assessment may be found in different appendices and manuals. The screening of the project plan and appendices, manuals and workbooks results in a score that is exceptional for the youth health care sector, namely 84%; in report terms: a generous 8 out of 10. The content (target group, intervention, result) has been described comprehensively.

The theoretical substantiation is based strongly on practical experiences, but is lacking empirical evidence. With regard to explicitly outlining the parameter-related aspects the project plan is adequate, with the exception of information regarding the personnel numbers. The latter is clearly a point for concern: the lack of clarity on this point can break up the project in the realisation phase. The further definition of personnel numbers *and* careful monitoring of the occurrence of any obstacles in this area are therefore highly recommended. For the ultimate evaluation of the project it is also advisable to resolve the gap in this theoretical substantiation.

Target group check

The target group check that was conducted in the course of the preparatory process with the aid of the 'Target Group Characteristics Questionnaire' shows that a total of 42 intake interviews took place. In the case of 38 of these (of which 3 girls) this resulted in a positive intake decision. Some young people in this group ultimately decided against participating because educational directions that were offered did not appeal to them or because of capacity problems. Reasons why potential candidates did not meet the intake criteria were, in order of importance: the presence of another disability (in other words, comorbidity), serious family problems, and motivational problems among the younger candidates.

Based on the intake criteria formulated in the Kairo project plan we have determined that the profile of the intended target group does, in the main, correspond with the characteristics of the young people who actually joined KAIRO. However, there are also question marks, particularly regarding the influx of participants who, at the time of the intake, had serious family problems and/or an unstable living situation, or participants for whom, at the time of the intake, there were question marks about their motivation for participating in the Kairo programme. The contra-indication criterion 'serious information processing disorder' also requires reconsideration, according to the respondents. After all, all young people in the target group for the Kairo project have problems in this area. It should therefore be further defined exactly when these information processing problems are so serious that they prevent the young person from successfully participating in the programme.

Parameters questionnaire

Based on the 'Parameters questionnaire' it was analysed, among the members of the steering group and the national work group, which factors facilitated or obstructed the realisation and progress of the project. The questionnaire was presented at two different times: after the young people's preparatory process and at the end of the first school year.

Themes dealt with in the 'Parameters questionnaire' are:

- national direction/project management
- regional direction/project management
- quality of the project consultations
- project involvement
- financial, personnel and material parameters
- information provision and coordination

The main conclusion from the questionnaire data is that the assessments with regard to the aforementioned themes are generally reasonable to very positive in both measurements. Over three quarters (82.5%) of the average scores are between 'adequate' to '(very) good'. Notably low is the National Work Group (LWG) assessment on the amount of work time available for project activities. The average score the members of the LWG give for this aspect is inadequate/average. The only other inadequate assessment from the preparatory phase became an 'adequate' in the project phase: in the opinion of the respondents the project gradually started to 'live' sufficiently within the organisations involved.

If we then compare the figures from the two groups of respondents and both phases we can see, on the one hand, a number of shifts between both groups of respondents and, on the other hand, -minor- shifts in the assessment of both groups over time. The LWG's assessment of the theme 'national direction and project management' is more critical during the project phase than during the preparatory phase. The concerns of the respondents lie mainly in the continuity of and guarantees for the project - certainly after the cessation of the supplementary project financing. In their opinion the tension between the required resources and financial means, which was also clearly present during the project, will increase as a result. If the Kairo programme wants to stay on track they feel that attention for structural financial guarantees is a requirement.

Product evaluation

The product evaluation relates to mapping out and evaluating the effects for the participants of the Introduction programme and the Education/Treatment programme. This study was also conducted by Praktikon. The results were outlined in two ways. Firstly, the Life progress monitor was developed for this study in close collaboration with the institutes involved. This tool has the objective of documenting the programmes among the participating young people in a number of areas of functioning, and traces possible new support requests. In addition the evaluation of the education and the treatment provision

by the clients – the participants and their parents - were mapped out at the end of the process with a regular recognised and nationally used instrument: the GGZ Thermometer.

Life progress monitor

The Life progress monitor consists of a number of - mostly standardised and normalised - questionnaires. The questionnaires were selected with a view to the formulated key tasks of the regional education centre courses and relates to the learning competencies of the young person, his personal functioning, social development and behaviour. As an important environmental variable the family functioning is also included.

Instruments Life progress monitor			
instrument	acronym	measuring domain	informant
Student Competency Profile (version adapted for Kairo)	LCP	Social-emotional and cognitive development	Trainer or study coach
Strengths and Difficulties Questionnaire (Teacher and Parent version)	SDQ-L SDQ-Q	Behaviour, emotions, hyperactivity and social adjustment	Trainer or study coach Parent(s)
Competency Perception Scale for Adolescents	CBSA	Self-esteem of the young person	The young person
Family Functioning questionnaire for Parents	VGFO	Basic health care, family contacts parenting skills, youth perception parents, safety, individual functioning of parents, partner relationship	Parent(s)

This paragraph presents a summary of the findings between the start and end of the Kairo process, measured with the Life progress monitor. The results of the Kairo programme were calculated on the basis of the information on 13 (of the 22) final participants, for whom both a start and end measurement was taken.

The results for the different life domains may be summarised as follows:

o Social-emotional and behavioural problems

At the start, the young people who participated in KAIRO had mostly emotional and social problems, according to the parents. They hardly referred to behavioural problems or hyperactivity. This picture complies with the criterion determined at the intake, that (serious) behavioural problems are a contra-indication for participation in KAIRO. At the end of the process there are still some social-emotional problems, but the social problems in particular have been reduced considerably. The effect sizes of the reduction in the social-emotional problems vary from 0.24 (a small effect) for emotional problems, to 0.76 (average-sized effect) for social problems. Overall, according to the parents, this means there has been a meaningful reduction in the social-emotional problems.

The social-emotional and behavioural problems were also assessed by the trainers and study coaches. The preliminary measurements by these informants were not taken right at the start of the treatment; after all, the treatment providers still had to get to know the participants. Overall the seriousness scores of the treatment providers are lower than those of the parents. However, the profile of the problems is the same as that of the parents: no or hardly any behavioural problems or hyperactivity, but social-emotional problems are observed. The study coaches observe some more emotional problems than the trainers, and it is also notable that the study coaches observe a considerable increase in pro-social problems (in other words, a reduction in pro-social behaviour) at the end of the process. In general there appears to be an increase in the problems over the course of the process, according to the trainers and study coaches. This may be explained by the fact that the treatment providers are getting to know the participants increasingly better throughout the process, which means that emotional problems become more noticeable. In addition, a real regression toward the end of the project is quite imaginable.

o Competency perception of the participants

The competency perception of the participants themselves in the areas of social acceptance, sporting skills, friendship and self-esteem was below average at the start. In the areas of behaviour, physical appearance and academic skills, however, their competency perception was average to above average compared to the norm scores of 'normal' young people. The self-perception of the participants therefore corresponds closely to the image that others – parents, trainers and study coaches – have of them: there are problems in the social-emotional area, but no behavioural problems.

Notable is the major shift in self-perception that has taken place over the course of the education/treatment programme. At the end the participants feel much more competent in the social area and their feelings of self-worth have also increased considerably. The effect sizes in these areas varied from 0.50 to 1.13, in other words, medium to large effects. Finally we can see that, both at the start and at the end of the programme, the participants do not feel more or less competent in the area of academic skills than their contemporaries from the normal population.

o Family functioning

At the start of KAIRO the average scores for family functioning are somewhat lower than the national average in most domains, but with the exception of basic care they do not differ too much. The parents of KAIRO participants therefore evaluate the functioning of their family a little more negatively than parents in the national norm group. In addition, progress can be seen across the board at the end of the treatment process, particularly with regard to the social contacts of the family, the parenting skills and the partner relationship. The effect sizes of the changes in these areas vary from 0.28 to 0.44. These are therefore small but meaningful effects.

o Learning competencies

The learning competencies, evaluated by the trainers and the study coaches, show a varying picture. There is no clear progress or regression in one or more of the learning competency areas. The Student Competency Profile is an experimental questionnaire that requires further analysis to determine whether this list is suitable as an instrument to measure changes in this area.

Evaluation

The evaluation of the care provider(s), measured with the GGZ Youth Thermometers for Young People and Parents, can be classed as good both among the participants and their parents. The average scores of the participants and their parents mostly correspond; however, the participants appear to evaluate the result of the treatment slightly lower than their parents. The participants award an average of 7.6 out of 10 for the treatment as a whole, the parents 7.9.

Differences between dropouts and stayers

Finally it was evaluated whether differences can be seen in characteristics between the students who dropped out of the programme (N = 11) and those who completed the programme (N = 22, upon commencement).

It is notable that the participants who did not finish the programme exhibited many more behavioural problems at the start than the participants who did reach the finish line (the effect size of the difference between both groups is 0.96). This dropout rate stresses the importance of the intake criterion of 'no serious behavioural problems at the start'. The dropouts also have more problems in the area of pro-social behaviour (effect size = 0.50). There are also considerable differences in competency perception between the dropouts and the stayers. The perception in the areas of behaviour, academic skills, sporting skills and feelings of self-worth, in particular, are considerably more negative among the dropouts than among the participants who continued with the Kairo programme. Finally, the family functioning among the dropouts was also more problematic, with most of the problems in the area of the partner relationship. Participants who dropped out of the programme therefore had more problems in a number of areas than the participants who completed the full programme.

Conclusion

In short, the Life progress monitor shows a differentiated picture of the functioning of the group of participants at the start and conclusion of the Kairo programme. The results show that the group of participants who completed the programme exhibit few behavioural problems, but do experience their share of social-emotional problems. According to both the parents and the participants themselves, these problems have been considerably reduced during the education/treatment programme. Their appreciation for the programme and the professionals involved in the programme was great.

"If we are able, in combination with education, to help them, we will see that these young people can achieve a lot and can function in society much easier, despite the fact that they have a lifelong disability."

Egbert Reijnen, Management Board Dr. Leo Kannerhuis

3.2. Costs/benefits analysis

In addition to the substantive evaluation (effect measurement) of the Kairo programme, a financial 'look back' at the project is also important. After all, a good balance between costs and benefits is essential for the structural continuation of the Kairo programme.

Immaterial contribution

In the first place the Kairo programme has clearly made a positive immaterial contribution for all involved. The participants (and their parents) and the education and treatment providers have all benefited from the programme. For the participants it means a greater chance of a positive outcome to their studies: obtaining the final qualification and, consequently, a better chance of a suitable job. To the participants employment means a higher level of self-sufficiency, which increases the feeling of wellbeing (happiness in life). For the parents their child's participation in the programme, and the support they received, has had the result of creating a realistic perspective for their child. At the same time they are better equipped for their own supporting role during the academic process. The positive impact of the KAIRO approach for the education provider lies specifically in: 1) a lower dropout percentage, which has a positive effect on the image of the school, 2) being able to admit participants with ASD, which constitutes a concrete and suitable interpretation of the required access to education for everyone (inclusive education) and 3) a reduction in stress and an increase in employment satisfaction as a result of the promotion of the expertise of the teachers. For the treatment providers the programme means, on the one hand, the

development of a more targeted treatment approach for the benefit of the specific life field of education. This benefits the efficiency and treatment effectiveness and results in shorter treatment periods. On the other hand the direct collaboration with the educational field will, ultimately, also mean a shift from health-care tasks to the regular care structure of the regional education centre. A good coordination structure enables an effective distribution of the support tasks. Specific (treatment) where necessary, regular (care structure education) where possible.

Costs/benefits

In addition to the establishment of these positive immaterial benefits of the programme we also looked at the material and/or financial costs/benefits consideration. An important conclusion is that the Kairo programme requires additional effort from both the educational and the treatment institutes, over and above the normal tasks. Within the treatment the intensive group training sessions (with two moderators), the individual support of the participants, the intensive coordination with and the promotion of the expertise of the education providers and the extra support of the home situation in particular, required more resources than in regular treatment processes. In principle the Student-Specific Financing (LGF) can be used as supplementary financing. Not every KAIRO participant will, by definition, be a candidate for LGF. In the educational institutes the extra deployment of study coaches for the KAIRO participants in particular, as well as the coordination with the treatment institute, take up extra time. The education personnel involved needs to free up hours for the promotion of their expertise and the implementation of adjustments in the school. LGF can be used as a source of financing. However, within the education LGF does not fully cover all the costs either.

Improving the costs/benefits ratio

We can conclude that during the project phase the costs for the realisation of the Kairo programme for the treatment organisations, but also for the educational institutes, are higher than the structural financing for the supplied efforts. It is therefore important for both the treatment institutes and the regional education centres to create a better balance between costs and benefits. This may be achieved by making adjustments to the realisation that increase the internal efficiency. Within the treatment context the treatment can take place at school, which will have positive substantial effects for the participants with a view to promoting the generalisation of their learned skills and limiting their travel time. At the same time savings are made in accommodation costs.

In the follow-up pilot with the AOC Doetinchem (see paragraph 4.3 mainstream results) experiments along these lines are being conducted. It is possible that new financing room may be created for family support within the new DBC system (Diagnosis/Treatment Combinations). The educational institutes can investigate whether there are European (ESF) funds available via personnel matters, for the purpose of promoting the expertise of the teaching personnel. Alternative financing flows may be researched, both within and outside the regular and structural financing frameworks of healthcare and education. For instance, in the context of through-flow into employment, the UWV (*Employed Persons' Insurance Administration Agency*) could offer additional financing. It is also useful to highlight the current discrepancy between costs and benefits to policymakers within healthcare and education.

3.3 Results, findings & conclusions

This paragraph describes the concrete results and findings of the Kairo project. Described are:

- the pilots in Arnhem and Dordrecht (development phase and realisation phase)
- developed KAIRO products
- mainstreaming: structural follow-up to KAIRO

Pilots in Arnhem and Dordrecht

In the development phase and the pilots phase a number of aspects of the Kairo project were defined, implemented and tested in practice. Below the results and findings of the development phase and realisation phase of the pilots are described in succession.

Results development phase pilots

Recruitment activities

In order to realise the influx of the intended 36 candidates for both pilots in Arnhem (24) and Dordrecht (12) a recruitment campaign for KAIRO was started in October 2005. A number of activities were undertaken in this context. Examples are messages in the treatment institutes themselves, press releases in relevant media and articles in local papers. The open information evenings in the Intermediate Vocational Education Institutes in both regions and a mailing with the KAIRO brochure to organisations associated with education and health care and interest groups were part of the recruitment activities.

In preparation for the recruitment the following products were created:

- a house style for written and digital information
- brochure per region in poster size, containing the key information about KAIRO
- registration form
- selection criteria for the intake
- website for the KAIRO project and websites of the involved project partners
- KAIRO DVD containing images of participants, parents, the school and the treatment institute. This DVD supports the information activities and presentations at conferences.

Findings and conclusions recruitment activities

Experiences in the pilots teach us that the start of the programme in March prior to the start of the course requires timely and intensive recruitment activities. In order to make a good selection the recruitment must be initiated no later than August, prior to the start of the preparatory programme. For many participants and their parents this is a very early stage to start thinking about follow-up courses. The regular information meetings of the courses often don't take place until around February. In the preliminary process to the follow-up course the prospective participants of the Kairo programme and their parents clearly needed support in making a suitable choice.

Selection of the participants

In the pilots a total of 42 intake interviews took place (38 boys and 4 girls) from the start of the recruitment in October 2005 through to February 2006. In the case of 38 interviews this resulted in a positive participation decision. The reasons for the four rejections for participation in the Kairo project lie, specifically, in the failure to meet the intake criteria; such as the presence of complex comorbidity, serious family problems and motivational problems of the young person (interim evaluation Praktikon, December 2006). A further 5 of the 38 potential participants did ultimately not start the Kairo programme. Three potential participants in the Arnhem region (all girls) for instance, withdrew from participation because the courses they were offered did not meet their requirements (healthcare and secretarial). After consultation between the treatment provider and the school it was decided not to add these courses to the possible KAIRO study directions for the pilots. The main reason was that for young people with ASD the courses in question, although desired, would make a relatively high demand on skills

that already tend to be difficult for these young people. As a result only one female participant joined the first pilots. In the Dordrecht region interest in the ICT course proves to be high; 9 potential participants register for this course. The admission of such a large number of ICT participants would conflict with the starting point of the Kairo programme, namely that participants join a regular class.

To be able to realise truly inclusive education the number of participants with ASD in the class must be in reasonable proportion to the group as a whole. As a solution it was decided to allow three candidates to participate in the BOL course and three in the BBL course. This meant that a relatively high number (6) of the candidates who registered for the Dordrecht ICT course were able to join the course. One of the other candidates chose the administrative direction after thorough consultation. The remaining two potential candidates were ultimately not selected for participation in the programme. The intensive publicity actions surrounding the project, with an extension of the planned intakes until the end of February 2006, has resulted in 33 participants (24 participants in the Arnhem region and 9 in the Dordrecht region) starting in the Kairo programme from the middle of March.

The table below provides an overview of selected KAIRO participants.

		Arnhem Region	Dordrecht Region	Total
Number		24	9	33
Age	Average	18,6	19,0	18,7
	Range	15,8 – 22,8	16,2 – 22	15,8 – 22,8
Gender	Male	23	9	32
	Female	1	0	1
Course direction	ICT	8	6	14
	Administration	8	3	11
	Electrotechnology	5	-	5
	Laboratory	3	-	3

Findings and conclusions participant selection

The target group analysis in the context of the evaluation study, conducted by Praktikon, shows that the pre-determined intake criteria were in fact used. On a number of points, among others relating to the (in)stability of the family situation and the motivation of participants for participating in the course and treatment process in question, these criteria were expanded somewhat. In spite of occasional doubts, in some cases it was decided to allow the candidates to participate in the project. In these cases the preparatory programme was used as a diagnostic moment to determine more specifically if the start of the vocational education was feasible. In addition it is an important conclusion that the ratio of male and female participants in the project is lower in the pilots than initially assumed.

In view of the ratio between boys and girls with ASD (4:1) the number of female candidates was estimated at seven. In the second (regular) follow-up part of the programme several educational directions were kept open for KAIRO participants with a view to a suitable influx in the desired course and encouraging the participation of female participants in both registration it

will be assessed whether the desired educational direction and the education level correspond with the capabilities of the prospective participant with ASD and if there is sufficient room within the course for the additional support the participant needs. This has the positive effect that in the structural follow-up groups in both regions, which started in the spring of 2007, nine female participants were selected for participation in KAIRO.

regions. After

“What do I expect KAIRO to do for Stefan? Give him the option to learn a profession. To learn to deal with his disability. To be able to move among people without the disorder. To gain a better understanding of himself, especially practice-based. How do I handle this? What do I encounter in practice and how do I deal with it?”
Mother of Stefan

Results realisation phase pilots

Of the 33 participants, 29 participants successfully complete the preparatory programme in the regional education centre after which they start at the regional education centre in August 2006. In the 2006-2007 academic year the participants follow the regular course with the additional KAIRO programme. In July 2007 the moment has finally arrived: 22 participants receive their certificates (15 in the Arnhem region, 7 in the Dordrecht region). They have completed their first year at the regional education centre.

For the 15 participants in the Arnhem region individual arrangements have been made for ambulatory support in the context of the Student-Specific Financing (LGF) for the benefit of continuing their education. Continuity in support from the school and the treatment appears essential. For a young person with ASD the vulnerability (the disability) remains present throughout the entire school phase. Among KAIRO participants the disruption to this support also proves to result in further dropouts in a subsequent study year.

Through-flow (KAIRO participants who continue into the programme) after completing the preparatory sessions

	March 2006 Start KAIRO	August 2006 Start regional education centre	Dropouts
Arnhem Region	24	20	4
Dordrecht Region	9	9	0
Total	33	29	4

Through-flow (KAIRO participants who continue into the programme) during 1st year at regional education centre with KAIRO programme

	August 2006 start regional education centre	January 2007 after Christmas	July 2007 end of KAIRO	Dropouts
Arnhem Region	20	18	15	5
Dordrecht Region	9	7	7	2
Total	29	25	22	7 = 24,1%

Average dropout rate % regional education centre participants with limitation (final qualification) 60%

Normally, around 60% of participants with a limitation drop out of the course at the regional education centre before they get their qualification. In the Kairo programme this percentage in the first school year is 24.1%. Among the participants who did drop out a combination of factors appear to play a role.

Overview of reasons why KAIRO participants drop out

Reason for dropping out	no. in preliminary process	no. after start at regional education centre
Seriousness of ASD and associated problems	2x	4x
Family situation	2x	3x
Motivation for KAIRO programme	4x	2x
Motivation for course	1x	5x
Too-high demands of the KAIRO programme	2x	-
Travel time	2x	1x

If a student is at risk of dropping out, which has been noted in the periodic treatment meeting, the best alternative will be considered in consultation with the participants, his parent(s) and the education and treatment providers. Students dropping out during the preliminary process has, certainly in view of the alternative solutions that were subsequently used, ultimately also had a positive effect on the participants. It provides an insight into capabilities and limitations and clarifies what range of assistance is appropriate. A large proportion of the dropouts subsequently started working on increasing their general self-sufficiency in a more intensive process, as an essential condition for success in possible future education.

“My image of my future: I see myself as a successful ICT employee in whatever company... making it possible to enjoy my hobby and earn money doing it. That is my dream.”

Erik, participant Arnhem

Follow-up process after dropping out

	number
Youth probation service (ITB)	1
Day treatment	4
Clinical admission	2
Orientation other vocational education	4
Total	11

Findings and conclusions realisation phase pilots

In line with the expectations in the original project plan the interest of young people for a supported programme in vocational education is great. After a relatively short recruitment period 33 young people started the Kairo programme. The intended objective of the project and programme is achieved and exceeded. Over 75% of the KAIRO participants successfully complete their first academic year at the regional education centre. The initial results of the pilots and the enormous demand from young people with ASD, their parents and others involved in the professional field, are an important impulse to give the Kairo project a structural follow-up as early as the project phase. Despite the fact that the concrete evaluation data and effect measurements have not yet been completed, in August 2006 the recruitment of the second group of KAIRO participants starts in both regions.

o Minimisation of the dropout percentage

Looking at the average dropout percentage before the final qualification in regional education centres for participants with a limitation (60%) the dropout percentage of less than 25% in the first academic year may be called a good result. Expectations are that, based on further development and adjustment of the intake, the programme and the integral collaboration, the dropout percentage after this initial pilot phase may end up even lower. Continuation in subsequent years appears indicated.

o Adjustment of selection criteria

As a result of the lessons learned from the participants who dropped out during the preliminary process or during the first academic year, the selection criteria were reviewed (Praktikon evaluation report). Based on the findings the selection criteria were sharpened, particularly with respect to the motivation for the course and the consideration of the existing family problems. In the future the established criteria will be used more strictly during the intakes. In the intake interview themes like motivation for both the treatment and the course, and family situation will be looked at more in-depth. Further to the demonstrated need for extra support by parents and family it will also be assessed whether additional support is possible within the treatment team and existing finance structures. On the one hand this support is aimed at reducing the family problems, on the other hand at improving the learning environment for the participant at home. In the Arnhem region parental support is now possible with a doctor's referral. In future the preliminary process will remain a selection gate for a proportion of the participants, during which existing problems are sometimes clarified to such an extent that a broader and sometimes more intensive preparation proves necessary. It provides the participant and his parents with a concrete understanding of the problems so that adequate future steps can be taken. In this sense the selection criteria for the participants who are actually able to move up to the regional education centre course can be formulated even more clearly; in the first place in the interest of the participants themselves, but also in the interest of the education and the treatment (increased return for efforts).

o Integral support infrastructure

During the realisation of the pilot the support infrastructure is tested in practice. Education and treatment each have their own structure and especially also their own culture. By maintaining a continuous, open and constructive debate, these differences are, on the one hand, clarified in the pilot phase and, on the other hand, also reduced.

In both regions a close collaboration was realised between education institutes and treatment providers that has now been given a structural character. In the total concept the structural and integral collaboration between treatment providers and education institutes proved to be an important success factor. The structural continuation of the used support structure is essential. There is a risk that attention will slacken after the project phase. The line management plays an important condition-creating role in this.

o Suitable work placements

It has been shown that in most of the selected courses there is no or only a very small work placement element. Experience with the three BBL participants teaches us that, although this learning track appears suitable for KAIRO participants, finding a suitable work placement in good time may be difficult. The support of BBL students with ASD also requires more effort on the part of the school and the treatment right from the start, especially on the part of the work placement supervisor and the employer. This is an indication that for the KAIRO participants (also the BOL variant) finding good work placements in their subsequent study years will require the necessary attention.

o Improving the efficiency of the KAIRO programme

In practice the developed KAIRO programme appears very labour-intensive for both parties, treatment providers and education institutes. For the purpose of the subsequent programme it was assessed in which way the programme efficiency can be improved, without sacrificing substantive quality (see also paragraph 4.2 costs/benefits analysis).

The developed KAIRO products

In addition to the concrete development and realisation of the pilots in Arnhem and Dordrecht a number of concrete 'products' were developed on a parallel track during the Kairo project. The results are clarified below.

o Education/Treatment Programme for the participants

Based on the pilots conducted in both regions and the evaluation of the programme by Praktikon the concept of the Education/Treatment Programme is further developed and adapted to a final format. All training sessions have been written up in line with a fixed pattern, both for the participants and for the trainers, and will be used for future Kairo programs in both regions. In future this training material can be used for the implementation of the Kairo concept to other treatment settings and/or vocational courses.

"His whole life he has dreamt of being a train driver. His first step, therefore, will be electrotechnology. We really hope things will work out OK. That way he would be able to realise his dream. He would be driving a train in a few years."

Mother of Eric

Findings and conclusions Education/Treatment Programme for the participants

In a very short period of time (September 2006 - February 2007) the Kairo programme was developed. During the realisation of both pilots the findings were exchanged continually. This resulted in interim adjustments even during the realisation of the programme. The developed basic concept will be polished, maintained and updated, on the basis of, among other things, the conclusions and recommendations from the final evaluation (autumn 2007).

o Training for teachers

For everyone from the educational field involved in the programme (teachers, mentors, work placement supervisors, etc.) specific teacher training was developed, implemented and evaluated. On the basis of this try-out the teacher training, consisting of a knowledge component ("What does ASD mean in relation to education and didactics?") and a practical component ("How do I concretely translate this knowledge into adjustments in my attitude, didactical work forms and learning environment?") have been documented in their final format. The training has resulted in concrete adjustments 'on the shop floor', such as changes to the use of the open learning centre (screens or alternative workplaces) and changes to the provided lesson materials. The most important lesson from the training is learning to continually look through 'autism spectacles', which creates an alertness for the specific support requirements of participants with ASD.

Findings and conclusions Training for teachers

The teacher training has proven a good instrument for the empowerment of the education. The training has also contributed to a positive introduction of the KAIRO programme within the regional education centre. This way, the teachers were actively involved in giving substance to an ASD-friendly school. The teachers experienced the training as an added value, on the one hand because of the concrete knowledge transfer and on the other hand because of the practical adjustments in the learning environment that were the result of the insights gained during the training.

o Parent training

A course was developed for the parents. On the basis of the try-outs the parent training was worked out into a final version. The content of this course is aimed at increasing the parents' understanding of autism in relation to the academic activities of their child, and their own supporting role in these activities. The evaluation of the parent training has shown that parents rate the training positively.

Findings and conclusions Parent training

Parents have a clear need for knowledge about ASD, support and contact with fellow parents of autistic children. In many cases the parents' need for support is greater than the group-based training can provide for. In the structural follow-up programme the parents' course was developed further and re-used. The possibilities for extra 'tailor-made' parent support were also investigated and partly realised.

o Life progress monitor

In conjunction with the research work group Praktikon (Research and Development in Youth Healthcare) a 'life progress monitor' was developed for KAIRO.

In addition this monitor provided data for the effect measuring and evaluation of the programme as a whole. The completed evaluation of the project and programme, including the findings of the life progress monitor, has been documented by

Praktikon in a separate evaluation report. Early in 2008 the life progress monitor will be re-evaluated and it will be assessed how it can be used in future.

“What do I expect from the regional education centre? A large school with a large numbers of students. With clearly a certain need for independence. As long as I can get a paid job later, eventually live independently. And be able to support myself.”

Erik, participant Arnhem

Findings and conclusions Life progress monitor

The life progress monitor clearly proved usable for the periodic treatment evaluations. The field of tension as it was experienced is, on the one hand, the need for practical and concrete guidance information during the treatment programme and, on the other hand, the need for scientifically supported effect measuring. Professionals in the field are mostly used to working on the basis of their own experience and expertise. The informants often considered completing questionnaires and the definition thereof as uncomfortable and (too much of) a burden. In addition it is about searching for validated instruments that actually measure what you want to know. Comparable evaluation instruments used in both health care institutes show that it is very important that the informants, and especially also the treatment providers who use the instrument, are convinced of the need and relevance of effect evaluation and of creating the right parameters.

o ‘Funnel diagnostic’

A so-called funnel diagnostic was developed for the regional education centre. The content was discussed within the research work group. An important point for attention was the risk that lecturers would be too quick in suspecting ‘possible ASD’ in students. Based on this risk it was ultimately decided not to develop a simple checklist, but to use the existing ASSQ list (translated into Dutch via Praktikon). Within the Rijn IJssel education centre a limited trial was conducted with the developed funnel diagnostic in the 2006 - 2007 academic year, resulting in an initial insight into the usability of the instrument and the effectiveness of the formulated guidelines. Early in 2008 both regional education centres will make a definite decision on the continued use of the funnel diagnostic.

Findings and conclusions Funnel diagnostic

The conclusion of this pilot is that the ASSQ list is, in principle, very usable for the so-called funnel diagnostic. Provided the participant, his parents and the teacher in question are supported by a GZ psychologist when completing this list, this funnel diagnostic appears to be a good instrument for effectively filtering the initial observation of a suspicion of ASD among lecturers. However, the next link in the chain to a formal diagnostic proves to be a bottleneck as the result of the long waiting lists. This means that the time gained by using the funnel diagnostic is insufficiently utilised. This delay can also have negative effects for the timely use of ambulatory support in the context of the LGF (Student-Specific Financing), as one of the conditions for the allocation of the LGF budget is a formal diagnosis.

o E-community

The intention was to realise a separate e-community in the Arnhem region within the existing electronic student system of the Rijn IJssel regional education centre, for the KAIRO participants on the one hand (up-to-date information about the course, the roster etc.) and for the support providers from the school and the treatment on the other hand (treatment progress data

and direct contact via their own forum). An initial outline of what such an environment should look like was prepared. However, this outline was not tried in practice as originally planned.

*“What do I expect from it? Firstly that you are prepared for the life ahead of you, so to speak. That you’re taught things you can apply in daily life.
... I also expect to meet new friends and I did.”*

Stefan, participant Dordrecht

Findings and conclusions E-community

A number of obstacles were noted during the development of the Kairo e-community system. The entry of the KAIRO e-community data in the existing electronic student system in particular was complicated by a number of factors. One of them being the early stage of the implementation of the system within the regional education centre, which meant the timely entry of changed roster information, for instance, did not prove feasible. Another complicating factor was that the security criteria for the regional education centre system proved inadequate for the entry of the treatment data in accordance with the protocols in the health care. At a later stage the Dr. Leo Kannerhuis and the Rijn IJssel regional education centre will decide whether the developed structure will still be implemented. During the realisation of the pilots it turns out that the contact with fellow participants is an important factor for the empowerment of the KAIRO participants. Many participants experienced support from a fellow KAIRO participant or other fellow students during the programme and at school. This is an important aspect in the decision-making about a potential follow-up to the e-community system. The experiences of the Da Vinci College with a regional education centre-wide ‘peer group’ project can be included in the decision-making process.

o Work placement protocol

In most cases the first year of the course did not include a work placement component. Where participants did have a work placement or BBL work placement it proved to be more difficult to find a suitable work placement for young people with ASD than for the regular participants at the regional education centre. Based on the experiences with, among others, the BBL participants and with the use of the KIRA employment preparation method a work placement protocol was formulated for the work placement support in the next school year. Unlike other European countries (Belgium, for instance) there is not yet an ‘autism-friendly’ employers’ network. An initial step in this direction was made during the Kairo project.

Findings and conclusions Work placement protocol

Experience, also in the KIRA employment preparation project (KIRA, 2005), shows us that work placements are an important factor in the success of the course, certainly for young people with ASD.

For the (former) KAIRO participants it is expected that extra efforts to find and retain work placements will also be needed. After the first school year through to the end of their course this will result in (additional) support requirements for the participants with ASD. All the participants who have successfully completed the first school year will start work placements with a number of different employers from the second school year onward. With the yearly arrival of the new structural KAIRO groups the demand for suitable places for young people with ASD will only increase. The ultimate transition from school to work is also likely to require additional support and specially adapted work placement for the KAIRO participants.

Results mainstreaming: structural follow-up KAIRO

In addition to the concrete pilot results and the developed products the Kairo project has also seen a number of results for the longer term. The main successes are highlighted below.

Structural follow-up Arnhem and Dordrecht regions

In the autumn of 2006 the project collaboration in both regions resulted in a structural follow-up. All project partners have expressed the intention to continue offering the Kairo programme in future. In August 2006 the regional work groups started the preparations for a second KAIRO round. After an intensive recruitment effort a second group of young people with ASD started on the Kairo programme in both regions in March 2007. In the Arnhem region there are 22 participants (including 4 girls) and 10 in the Dordrecht region (including 5 girls).

In the Arnhem region the ambulatory support in the context of LGF (Student-Specific Financing) will be continued in the follow-up groups. This means that the former pilot participants in Arnhem will receive customised ambulatory support at the end of their original KAIRO process (July 2007). This support will be given joint shape by the ambulatory support person of the Dr. Leo Kannerhuis and the study coach of the Rijn IJssel regional education centre. The emphasis in this phase of the support is particularly on the support of the participants, the work placement supervisor involved and possibly also the employer, during the work placement periods.

Findings and conclusions Structural follow-up Arnhem and Dordrecht

The structural collaboration between education and health care has borne fruit in both regions. All the parties wholeheartedly support the continuation of this collaboration. The collaboration of the four project partners in the development of the Kairo concept was also experienced as a major added value by all the parties. There is, therefore, a desire to continue to work together on the further development of the Kairo concept as a KAIRO work group.

Continuation of the KAIRO programme outside the current partners

In the spring of 2007 a pilot was started with the AOC (Agricultural Education Centre) in Doetinchem. This was done in the context of the objective of the Kairo project to realise the implementation of the concept outside the existing partners as well. The KAIRO concept fits in with the developments of the AOC to set up care teams for participants with a care requirement, including young people with ASD. After mutual coordination the Kairo programme was adapted to the specific requirements of the AOC and the AOC participants in question. Treatment training sessions will take place at the school location and, even more than in the original concept, are integrated in the education. From January 2008 both the tailor-made KAIRO programme and the teacher and parent training at the AOC will be realised by the Dr. Leo Kannerhuis. This is a pilot with 10 participants with ASD who are participating in one of the AOC courses.

Findings and conclusions continued KAIRO programme outside current partners

There is considerable interest in KAIRO among regional education centres and AOC's as a good practice example of inclusive vocational education. Possibilities for further implementation elsewhere in the country are now starting to emerge. The implementation of the Kairo concept at the AOC Doetinchem, as the first 'transfer' pilot to another setting outside the current partners, shows that the transfer of the Kairo programme requires a high level of resources in the form of people and funds. A sound rollout of the Kairo concept requires a multi-year implementation plan.

Continuation of transnational collaboration

With two transnational partners from the Equal project the collaboration will be continued bilaterally after the formal end of the transnational collaboration in April 2007. A friendly collaboration for the coming years was entered into with Synapsis (Poland). The spear point of this collaboration will lie particularly in supporting the Polish organisation in making their Equal project - a 'social enterprise' for young people with autism - economically viable.

Products of the Polish employees with autism will be brought to the attention of the Netherlands via the Dr. Leo Kannerhuis. Together with Learning Gateway (Belgium) a new European application has been submitted in the context of the Leonardo financing for the AVANTI project. This project focuses on the development of a life course model for young people with autism, in the life areas 'education' and 'work'. In this project existing developed instruments (such as KIRA and KAIRO and the Functional Assessment developed by Learning Gateway) are brought together in a support model. In addition to the Dutch and Belgian partners a Portuguese organisation also takes part in this project. The project will start in the autumn of 2007 and run until the autumn of 2009.

Findings and conclusions Continuation of the transnational collaboration

The transnational collaboration has had a positive input into the national project, especially in the form of the exchange of ideas and concepts. Useful cross connections with the aforementioned projects were shown to be generated, which may bear mutual fruit in the future.

3.4. Recommendations

The Kairo project has shown many concrete and positive results. The project paved the way for a structural KAIRO programme. This is a result we can all be satisfied with. And still ... there is always room for improvement. Continued support appears essential for young people with ASD. We therefore conclude this publication with a series of recommendations. On a number of the subjects we have already started ourselves. We invite all the parties involved in the professional field to contribute ideas and to work on picking up the observed points for improvement!

Substantive recommendations

Influx of participants: collaboration with supplying schools

The recruitment of KAIRO participants requires early interventions. Intensive collaboration with schools can accelerate and optimise the supply of potential KAIRO participants. Timely attention for the vocational and course selection within the supplying schools can increase the influx of participants with ASD to the intermediate vocational education.

Participation of female participants

Although significantly more female participants started in the second group of the Kairo programme the participation of girls in the programme remains a point for attention. Opening up more educational directions proved to have a positive effect.

Further integration between education and treatment

More integration between treatment and education is desirable, for instance by having the treatment take place at the school location itself. This enhances the motivation of the participants and the generalisation of what they have learned in the training sessions. The burden on the participants is also reduced as the travel distances between the school and the

treatment setting are reduced or disappear altogether. In addition, it makes the mutual coordination between education and treatment more simple and direct.

Continuing support

After the completion of the first study year there appears to be a renewed risk for further dropping out of students. Ongoing combined support variants, for instance on the basis of LGS, are needed.

Broadening of the range of courses offered: the need for structural promotion of expertise across all regional education centres

Broadening the range of courses available to the KAIRO participants stimulates the integration of participants with ASD in the regional education centre. However, this broadening means that within the regional education centres in question the promotion of the expertise of the educational personnel is an important point for attention. It is also important to provide a continuation, for instance by providing intervision or refresher courses. This way the support of all those involved for the participation of this - admittedly labour-intensive - group of participants remains guaranteed.

Focus on work placement and transition to employment

Expectations are that even after the first school year many of the former KAIRO participants will still require support, particularly with work placements. In addition, experiences with the Kairo project show that finding good work placements in the subsequent course years will require the necessary attention. Employers must be informed and rendered enthusiastic about accepting young people with ASD in work placements.

The eventual transition from school to employment will also require extra support in future, both for the participant and the work placement supervisor and employer.

The Arnhem pilot of ambulatory support in the context of LGF provides building blocks for the development of a coordinating approach from the start of the vocational education through to the eventual job. The international Leonardo project AVANTI will lay the foundation for a life course model in which this balanced approach is anchored. The structuring of a regional or national autism-friendly employers' network will be a good instrument to involve the employers (and also agencies like the UWV, for instance) at an early stage and make them co-responsible for the good social integration of young people with ASD.

Expansion of the support network: setting up a KAIRO Peer group

An important factor in the support network has been proven to be the contact between the participants themselves. The interaction between young people with ASD and their contemporaries without the disorder has been a positive experience for the participants. In future it will be assessed how this component can be developed further, for instance through setting up a so-called 'ASD peer group'. The Da Vinci College has experience with a peer group project.

Recommendations with regard to new products to be developed

Teacher training

It is advisable to realise the embedding of the teacher training within the regular teacher training programme, if necessary as additional expertise training. This way, completing the KAIRO teacher training by those involved in education can be the first step toward a broader insight in and changing approach to participants with ASD within the regional education centre. The schools can utilise the training as a first step to inclusive education for participants with ASD.

Parent training

Parents and the family functioning require additional support from the treatment. Within the changing financing structure of the health care it is important to look at opportunities for realising extra parent support. The need for parent support can also be brought to the attention of the authorities. This lobby effort can look to connect to the Dutch Association for Autism (NVA), the National Autism Network (LNA education network) and the Dutch Knowledge Centre for Autism (KAN).

Progress of the life progress monitor/effect measurement:

In order to be able to determine the effectiveness of the Kairo programme in the longer term it is important that the results of the pilot group and the subsequent KAIRO groups are monitored. In three years all the project participants will have finished their final year of school. How many participants will actually have obtained their final qualification? How high is the percentage of dropouts before the finishing line? And where do the qualified participants eventually end up? Do they find a job or do they move on to higher (vocational) education? These are questions that are essential to the further development of the Kairo concept. Continued research is desirable.

Progress funnel diagnostic

The funnel diagnostic can be used to spot potential ASD in participants. Used in this way it is an instrument to prevent the possible dropping out of students. At the same time it is an instrument for realising the timely routing to a formal diagnosis. An important point for attention is the waiting list of the GGZ institutes that make the formal diagnosis. The experiences with the funnel diagnostic can be used, for instance, in primary schools to stimulate the early diagnosis of children with ASD.

Recommendations with regard to mainstreaming

Improvement of the efficiency of the KAIRO programme

The developed KAIRO concept must be considered in the light of the costs/benefits ratio. On the one hand we must look at efficiency improvements in the approach in order to make the concept more cost effective where possible, both for education and treatment, without sacrificing quality. On the other hand the need for extra support for the realisation of inclusive vocational education for this target group must be brought to the attention of policymakers across the board. The Student-Specific Financing (LGF) is a step in the right direction in this context. It is important to highlight problems observed in practice, such as the (timely) allocation of the LGF budget and the limited size of the budget (in view of the required extra efforts). Investing now is saving later!

Continuation KAIRO collaboration network

The collaboration of the four parties involved has produced good results. For the continuous updating and adjustment of the Kairo programme it is desirable that the parties continue to exchange ideas and experience in the coming years, so that innovative progress can be made on the basis of an ever-evolving concept. The idea of linking this network - from an organisational point of view - to the Dutch Knowledge Centre for Autism is being considered. In future this network may be extended with new partners that are experimenting with the Kairo concept, such as the AOC Doetinchem.

Figures on Intermediate Vocational Education (MBO) and ASD

There appear to be few concrete figures on the participation of young people with ASD in vocational education. To be able to set up new initiatives and projects it is desirable to have the actual state of affairs mapped out more accurately. A large-scale study (both with regard to number of respondents and scope of the questions) into the wishes and requirements of young people with ASD in relation to vocational education and an inventory of existing initiatives can help give direction to the start of suitable, supplementary, new projects. The Dutch Association for Autism (NVA), the National Autism Network (LNA education network) and the Dutch Knowledge Centre for Autism (KAN) can play a role in initiating such a study.

Implementation of the KAIRO concept outside the project partners

The aim is to implement the Kairo concept in other centres for vocational education. In the Dordrecht region it is being assessed whether, in the regional collaboration between the Da Vinci College and a number of regional education centres, the Kairo programme could eventually be implemented at these partners as well. In the Arnhem region it is being assessed whether the Kairo programme can be included in the initiated rollout of the Leo Kanner house range of treatments across the country. After all, it is desirable for intermediate vocational education to become (more) available for all young people with autism who can and want to participate in such courses.

“ You mustn't think that after a year everything will be sorted. And if you are able to give the participants a diploma after four years ... and you talk to them and they tell you it has made a difference. This helped me. I am now in a place where I would not otherwise have been, without this whole project, without all the surrounding help and support. This means you have succeeded. And you have succeeded even more if they have a job or if they are able to move into higher vocational education.”

Jitze Ramaker, Board of Management Rijn IJssel

If the conclusion of the KIRA employment access project was that many young people miss (or run the risk of missing) the boat even before the educational process, the Kairo project also made the existing gaps visible; particularly in the preparatory process (leading up to vocational education) and the process from work placements in school to suitable employment. A number of different tools have now been developed that support young people in education and work. There is a need to bring all of them together in a life course model, in which a balanced chain approach for young people with ASD is given shape. The Leonardo project AVANTI will give a substantive impetus to the theoretical support of this model.

The main recommendations from the project are:

- Continue to support young people with ASD through health care/education, as the disability is permanent.
- Ensure a structural and permanent embedding of the Kairo programme and hold on to the benefits of the accumulated expertise.
- Distribute facilities throughout the country and look for financial sources for the implementation.
- Continue to build on a balanced approach within the chain from education to employment for young people with autism.

Summary

KAIRO (Knowledge Development on the Treatment of Autism and Integration in Regular Education) is an Equal project (2005 –2007) with the following objective: 'To enable young people with an Autism Spectrum Disorder (ASD) to participate in a vocational education programme that allows them to fully exploit their capabilities, provides them with insight into and acceptance of the realistic opportunities/limitations and increases their self-sufficiency'. It is a collaboration project between the Rijn IJssel regional education centre and the Dr. Leo Kannerhuis in the Arnhem region and the Da Vinci College and *De Steiger*, part of *De Grote Rivieren* in the Dordrecht region.

The project has provided the solution for young people with ASD who (without extra support) would not or hardly have been able to go into vocational education, which in many cases obstructs their path to employment. The project contributes to the objectives of EQUAL as it creates more equal opportunities in education for young people with psychiatric disabilities. It gives a practical definition to inclusive (vocational) education and therefore provides a positive impulse toward improved chances of (regular) work. Good practices originating from the project are found, among other things, in the integral collaboration between health care and education, the Education/Treatment Programme for young people with ASD in which academic skills are taught and the training modules for the young people's support system (school and parents). The innovative aspect lies in the joint collaboration between education and health care toward the students with ASD on the basis of a structural 'learning' collaboration. This gives the inclusive education concept 'hands and feet' in a very concrete manner. The fact that this integral approach works in practice is shown by the positive results from the project pilots. Of the 29 participants who started at the regional education centre in August 2006, 22 successfully completed the first academic year. This is a dropout percentage of 24.1%: a low percentage compared to the national dropout average of around 60% of young people with a limitation in vocational education before they obtain a final qualification. The evaluation shows that both the participants and their parents rate the offered programme as positive (7 - 9.5 out of 10). A structural continuation of the project has now been realised. In March 2007 another 30 young people with ASD in both regions started the Kairo programme.

In January 2008 10-12 young people from the AOC Doetinchem will start an adapted KAIRO programme: a start with a good practice example of the implementation of the Kairo concept to (all) other regional education centres and AOCs. As a pilot the project has a 'learning' character as is shown, for instance, by the improvement to the gender mainstreaming. After the start with only one female participant in the pilots, the number of female participants in the continuation group has increased to 7. For two out of the three partners the transnational collaboration has also resulted in a structural continuation after the Equal project. The Kairo project teaches us that an integral collaboration between health care and education is both possible and successful. It shows that young people with ASD, provided they get good support from treatment, parents and education, are able to successfully complete an MBO course. It also provides an insight into the importance of a future orientation with regard to education and profession in young people with ASD and their parents, and the role the supplying schools can play in this orientation.

The support of young people with ASD throughout their entire educational career is an important step. In addition the route to employment requires nearly as much attention, for support in the work placement and the transition to work.

In short: the integral and intensive support of young people with ASD is worth it! Both in education and in health care the deployed funds and personnel exceed the regular financial resources. The benefits even exceed our positive expectations. Investments 'in the now' provide benefits for their future perspective. This has an enormous positive impact for young people with ASD and their parents, but also for inclusive education, employment and society as a whole.