Summary

For the support of children and adolescent with visual disabilities a pedagogical framework is crucial for the interaction between low vision, development and upbringing. Such a framework is not available. A literature research has identified which approaches of low vision could give possibilities. These approaches and concepts, which express low vision, are ordered and integrated into a classification called a Visual Profile. This classification Visual Profile is an application for people with visual impairments of the International Classification of Impairments, Disabilities and Handicaps (ICIDH) and the revision to the International Classification of human Functioning (ICF) of the WHO.

From this a method has been developed for the use of these classifications to assist in defining an individual Visual Profile of a person with low vision. The presumption is that a detailed visual profile of children with visual disabilities can clarify the relationship between visual impairments, abilities and disabilities, participation and handicap, development and upbringing. In addition the insight of these relations can provide access to the assistance of children and adolescent with visual disabilities.

This research focuses on the question of whether the Visual Profile can provide a pedagogical framework. The main question is: Can the approach of low vision with the visual profile give insight into the relation between ocular low vision and development/upbringing, from which access for individual pedagogical assistance can be deduced? For this research the core concepts of the visual profile and pedagogical concepts are placed into a theoretical model. Besides the lower visual functions, the concepts in the visual profile are visual perception and visual-motor functions, visual abilities, self-sufficiency and participation. The pedagogical concepts are specific visual upbringing, problematical behaviour/competence and upbringing aggravations.

The main question of the possibilities of the visual profile as pedagogical framework has been drawn up in seven queries, which each relate to one of these concepts. For the response of the queries, information on these concepts was gathered from a group of children with only ocular diseases/disorders. From a group of 45 children and adolescent with visual disabilities of ocular kind and no other disabilities, in the age of 6 till 9 years old and normal gifted, information was gathered of ophthalmologic diagnose and lower visual functions. This part of the research shapes the ophthalmology, optometric approach of low vision.

This experimental group assessment of neuropsychological tests of visual perception and visual-motor functions takes place in the home situation. Furthermore the time factor in the visual observation is investigated with the experimental group and supplementary assessment of visual-motor tests took place, also in the home situation. These results are compared with the results of the same tests from an observation group, done at schools. This part of the investigation, the assessment of visual perception and visual-motor functions, shapes a neuropsychological approach of low vision.

By further investigation of 36 children and adolescents from this experimental group, the opinion of one of the parents was asked in a structured interview about the visual abilities and self-sufficiency of their child, the participation feelings of them as parents and the effect on the upbringing. Also 29 adolescent of the experimental group (as from the age of 11 years)
were asked to judge their own visual abilities, self-sufficiency and participation feelings. Therefore a new tool was developed, where the informer could give their opinion on the same behaviour compared to a normal visual age group. This new instrument is called “Visual Activities and Participation” (VAP). These informers gave their judgement on visual abilities, self-sufficiency and participation feelings of 40 different situations. These 40 judgements of those situations of daily life activities could be joined into 10 areas. Each informer group was checked if their judgements differ from to what they judge as normal and if their judgements differ per area. The differences of judgements between the informer groups was also checked. This part of the investigation shapes an ecological and pedagogical approach of low vision.

Also within this experimental group the judgements of 35 parents, 34 teachers and 28 adolescent from the age of 11 year old were collected on problematical behaviour and competition. The parents were also asked of any extra upbringing aggravations. These results were compared with the standards of the age group with no visual disabilities. This creates a different pedagogical approach of children with visual disabilities, but now low vision was not involved.

The first query was: Do children and adolescent with an ocular low vision perform the different vision tasks on a lower level than children with a normal vision?

The data confirms this question. Children and adolescent with an ocular low vision need more time with vision tasks. This applies to tasks with and without handling. By taking more time and shortening the viewing distance then the vision tasks without handling are achieved on the same level as normal visual children. Besides the factor “more time” the children with an ocular low vision achieve less on visual-motor tasks. When we block the time factor and with time pressure, then the recognition of faces by children with ocular low vision is worse than of children in the same age group with a normal vision.

The second query was: Do children with an ocular low vision have visual disabilities and is this disability different within the 10 areas of the Visual Profile?

The data confirms this question. The parents as well as the adolescents judged the total visual abilities of children and adolescents with an ocular low vision lower as normal. They also discovered that the visual abilities clearly differ between the areas. Judgements of the ability on different areas give a detailed image. The differences between judgements of adolescent and parents on group’s level were not meaningful.

The third query was: Is there a disability of self-sufficiency of children with an ocular low vision and is this disability different within the 10 areas of the Visual Profile?

The answer is different between the informant groups. The answer is no for the group of adolescents and the answer is yes for the total parent group. Adolescents with an ocular low vision judge their own total level of self-sufficiency as normal. The separate judgements of the abilities produce no clarifying differences. The judgement of the total parents group of the total self-sufficiency of their disabled child is considered lower than then normal perception. Within the parent group there are meaningful differences in judgements of self-sufficiency within the 10 areas.
The fourth query was: Are there handicap feelings with children and adolescents with ocular low vision and are those handicap feelings or judgments of participation different within the 10 areas of the Visual Profile?

The answer is yes, both the parents and the adolescents with ocular low vision judge participation as lower than normal and different between the areas. The separate judgements of participation give a distinguished image. On groups level the differences between the adolescents and their parents are not meaningful.

The fifth query was: Is there a specific visual upbringing for children and adolescents with ocular low vision and is the level of the upbringing specific focussed on the low vision different within the 10 areas of the Visual Profile?

The answer is yes, the parents of children and adolescents with ocular low vision judge the total upbringing as specific visual focussed and are taken into account that the low vision is different on the areas.

The sixth query was: Is there problematical behaviour and deviated competence with children and adolescents with ocular low vision compared to a Dutch normal sighted age group?

The answer is no for the problematical behaviour. The parents, teachers and the adolescents themselves judge the total behaviour of children and adolescents with ocular low vision as non-problematic when compared to a normal sighted age group. The view of the total behaviour can be separated in fundamental variables. Compared to the Dutch standard group a significantly bigger percentage parent of children and adolescents with ocular low vision experience on “internalization” and on “social problems” the behaviour of their child as problematic. Also by the teachers and the adolescents themselves “social problems” seem to score the highest on all variables, but the percentage drop-outs is not significantly higher, than expected based on the Dutch standard group.

The answer to the question of competence is different with the informant groups: No for the parents and teachers and yes for the informant group adolescents with ocular low vision. The parents and teachers judge the total competence of children and adolescents with ocular low vision as normal. By the adolescents themselves, in comparison with the Dutch standard group, a meaningful higher percentage judges their competence less than normal. The fundamental information distinguishes this perception. There is a bigger percentage of drop-outs in “activities” (parent group), “school” (parent group) and “social” (adolescents group) compared to the Dutch standard group. The teachers tend to an average positive judgement of arduous.

The seventh question was: Is the upbringing more demanding for the parents of children and adolescents with ocular low vision compared to Dutch parents of non visual disabled children?

This question can only be answered for the age group of children from nine till thirteen years old. And the answer is no. The parents of children with congenital ocular low vision experience the upbringing in this age group as no more demanding than other parents. The extra attention to visual behaviour in the upbringing of children and adolescents with ocular low vision does not go together in this specific age group with aggravations in the upbringing. For the higher age group a statement based on the standard information cannot be given.
Based on this research data the central question is positively confirmed. The approach of low vision with the method of Visual Profile creates the effect of ideas of the ICF for low vision. It gives a classification of concepts who express sight and low vision ordered in a logical way. This classification includes the whole visual system, a functional line of processing and implementation of visual information as well the results of low vision in the daily life can be mapped. The method of Visual Profile is an integration of the ophthalmologist, neurological, optometric, neuropsychological, ecological and pedagogical approaches to low vision.

The classification and method of the Visual Profile are related to a new definition of low vision. This definition combines the experienced visual disabilities in the daily life through the person himself as well as the judgements of professional based on measurements.

A standardised method for developing a visual profile of a client for practical implementation in the individual support has been draw up. In addition, the investigation method “assessment of visual perception” has been introduced and instruments like the VAP were designed. Besides the existing examination methods for measuring lower visual function different aspects of the Visual Profile concerning low vision can be gathered. When the information with the method of Visual Profile are ordered and integrated, the possibilities in different classification perspectives of the Visual Profile are visible. It will become clear on which area the participation must be optimized to the judgement of the person with low vision and which activities therefore useful are.